



Prologue: Overview of Management Accounting

Learning Objectives

- What is Management Accounting?
- What are the differences b/w Management Accounting and Financial Accounting?
- Who is responsible for designing the management accounting systems?
- What are the fundamental management accounting concepts and classifications?
- Business trends affecting management accounting

A Definition of Management Accounting

The Institute of Management Accountants (IMA) defines management accounting as:

“a value-adding continuous improvement process of planning, designing, measuring and operating **financial and non-financial information systems** that guides management action, motivates behavior, and supports and creates the cultural values necessary to achieve an organization’s strategic, tactical and operating objectives.”

- **Key points:**

1. Information system for internal management purposes (i.e., guide management activities)
2. Process that cuts across the entire organization
3. Includes many types of information (e.g., financial and non-financial information)

Basic Management Activities

Planning

Controlling

**Decision
Making**



Planning

- Setting goals and objectives and how to achieve them
- Examples of planning:
 - Generate more sales via opening new stores
 - Reduce labor costs by reducing store hours
- Budgets



Controlling

The control function gathers feedback to ensure that plans are being followed.

**Feedback is collected in the form of
performance reports
that compare actual results with the budget.**



Therefore, performance evaluation & contracting design (i.e., executive compensation) are important topics in Management Accounting

Decision Making

Decision making involves making a selection among competing alternatives.



What should we be selling?

Who should we be serving?

How should we execute?

External financial reporting: annual reports for investors

Year ended 31 December 2022
截至二零二二年十二月三十一日止年度
RMB'000
人民幣千元



Note V
附註五

2022
二零二二年

Footnote #46 - 50

I. Operating revenue	一、營業收入	46	424,060,635
Less: Operating costs	減：營業成本	46	351,815,680
Tax and surcharge	稅金及附加	47	7,267,110
Selling expenses	銷售費用	48	15,060,676
Administrative expenses	管理費用	49	10,007,370
Research and development expenses	研發費用	50	18,654,453
Finance expenses	財務費用	51	(1,617,957)
Including: Interest expenses	其中：利息費用		1,316,350
Interest income	利息收入		1,829,617
Add: Other income	加：其他收益	52	1,721,136
Investment loss	投資損失	53	(791,903)
Including: Investment losses in associates and joint ventures	其中：對聯營企業和合營企業的投資損失		(685,885)
Loss on derecognition of financial assets measured at amortised cost	以攤餘成本計量的金融資產終止確認損失		(22,719)
Gains from changes in fair value	公允價值變動收益	54	126,098
Impairment losses on credit	信用減值損失	55	(989,521)
Impairment losses on asset	資產減值損失	56	(1,386,458)
(Losses)/gains from disposal of assets	資產處置(損失)/收益	57	(10,836)
II. Operating profit	二、營業利潤		21,541,819
Add: Non-operating income	加：營業外收入	58	526,974
Less: Non-operating expenses	減：營業外支出	59	989,064
III. Total profit	三、利潤總額		21,079,729
Less: Income tax expenses	減：所得稅費用	61	3,366,625
IV. Net profit	四、淨利潤		17,713,104

- BYD 2022 Income Statement
- Financial reporting system
- What are the cost items?
- Two items: “operating cost” and “selling expenses”
- No separate “depreciation and amortization” item on the statement.

Footnotes #46, 48, 49,50

46. Operating revenue and cost

46. 營業收入及成本

		2022 二零二二年	
		Revenue 收入	Cost 成本
Revenue from principal operations	主營業務收入	414,781,240	344,840,310
Other operating revenue	其他業務收入	9,279,395	6,975,370
		424,060,635	351,815,680

Major costs:

- Operating costs (largely costs of goods sold)
- Depreciation and amortization
- Research costs
- Salaries and employee benefits

48. Selling expenses

48. 銷售費用

		2022 二零二二年
Employee benefits	職工薪酬	3,361,416
Advertising and exhibition expenses	廣告展覽費	2,201,985
After-sales service fees	售後服務費	6,513,832
Material consumption	物料消耗	443,214
Depreciation and amortization	折舊及攤銷	749,012
Travelling expenses	差旅費	190,085
Administrative and office expenses	行政及辦公費	168,179
Share-based payment	股份支付	59,266
Others	其他	1,373,687
		15,060,676

- “depreciation” for *fixed assets*;
- “amortization” for *intangible assets*.
- (折舊/折旧)

Question: Given the detailed cost items, do you think managers can make decisions by using the information as shown in annual reports?

49. Administrative expenses

49. 管理費用

		2022 二零二二年
Employee benefits	職工薪酬	6,923,900
Depreciation and amortization	折舊與攤銷	1,748,949
Office expenses	辦公費用	180,025
Material consumption	物料消耗	639,087
Audit and consulting expenses	審計及諮詢費	86,406
Including: Audit expenses#	其中：審計費#	6,350
Share-based payment	股份支付	183,752
Others	其他	245,251
		10,007,370

50. Research and development expenses

50. 研發費用

		2022 二零二二年
Employee benefits	職工薪酬	10,416,829
Material consumption	物料消耗	5,197,592
Depreciation and amortization	折舊與攤銷	833,845
Inspection expenses	檢測費	267,934
Share-based payment	股份支付	223,269
Others	其他	1,714,984
		18,654,453

Who is responsible for designing management accounting systems?

- Management accounting does not play a role in managers' *external* reporting.
- Management accounting information is developed *by managers* for internal and not for external uses. Much information is prepared exclusively for managers.
- **Unlike financial accounting**, management accounting information is not regulated, and thus, SEC rules/regulations and Generally Accepted Accounting Principles (GAAP) do not apply.
 - an overlap b/w FA and MA: product costs must be reported on financial statements using the *full absorption costing method* which is one of the costing methods that we will learn in management accounting.



Major Differences Between Financial & Managerial Accounting

	Managerial Accounting	Financial Accounting
1. Purpose	Managers' Decision making	Communicate financial position to outsiders (investors' decision-making)
2. Primary Users	Internal managers	External users
3. Time Focus	Future-oriented	Past-oriented
4. Verification vs Relevance	Emphasis on relevance for planning & control	Emphasis on information verification (objectivity)
5. Precision vs. Timeliness	Emphasis on timeliness	Emphasis on information precision

Major Differences Between Financial & Managerial Accounting

	Managerial Accounting	Financial Accounting
6. Subject	Segments of the business	Company as a whole
7. Rules	Do not have to follow GAAP or any prescribed format ; cost vs. benefit	GAAP compliance & prescribed format; CPA audited
8. Reporting issues	No mandatory reports (only Internal audit)	Mandatory reports (external audit for annual reports)
9. Behavioral issues	To influence/guide employees' behavior	Might have indirect impacts on employees' behavior

One specific difference: Opportunity Cost

Opportunity costs - the sacrifice you make when you use a resource for one purpose instead of another.

Let's work on one example:

- **What is the opportunity cost for the use of this classroom?**
- Is this cost a “**relevant**” factor for managers’ decision of using this classroom?
- What will we see on the financial report about the use of classroom? Do we see such an opportunity cost? Why?
- Does it has anything to do with the “**verification/objectivity**” of this cost?
- How about the “**precision**” of the opportunity cost information?

Expanded discussion:

- Does financial accounting include the concept of opportunity cost in the financial statements?
 - Is there any “verifiable” opportunity cost incorporated in financial reports?

Another specific difference: Sunk Cost

Sunk costs – those costs necessary for an activity that cannot be reversed or recovered if the activity ceases.

Let's work on one example :

- Is the historical cost of this classroom a sunk cost for managers' decision?
 - Yes, for decision whether to sell it or use it for future teaching (“**irrelevant**”);
 - the sunk cost is **not “future-oriented”**.
- To what extent does financial accounting (FA) incorporate the historical cost in the financial reports? Why?
 - FA information is to reflect the current status of this company;
 - Past decisions (including the decision to construct this building) have continuous impacts on the status of the company;
 - FA recognizes depreciations (a typical sunk cost); It seems “**Past-oriented**”.
 - Historical cost matters for financial accounting (FA)

Management Accounting Decision Making Concepts

Relevant costs - those costs that differ across alternative courses of action.

Opportunity costs - the sacrifice you make when you use a resource for one purpose instead of another.

Sunk costs – those costs necessary for an activity that cannot be reversed or recovered if the activity ceases.

Controllable cost is one that is primarily subject to the influence of a manager.

Concept of **Relevance**

- **Relevant** information has two characteristics:
 - It occurs in the **future**;
 - It **differs** among the alternative courses of action
- **Irrelevant costs**: do not affect decisions.
- Avoidable costs are relevant costs. Unavoidable costs are irrelevant costs.

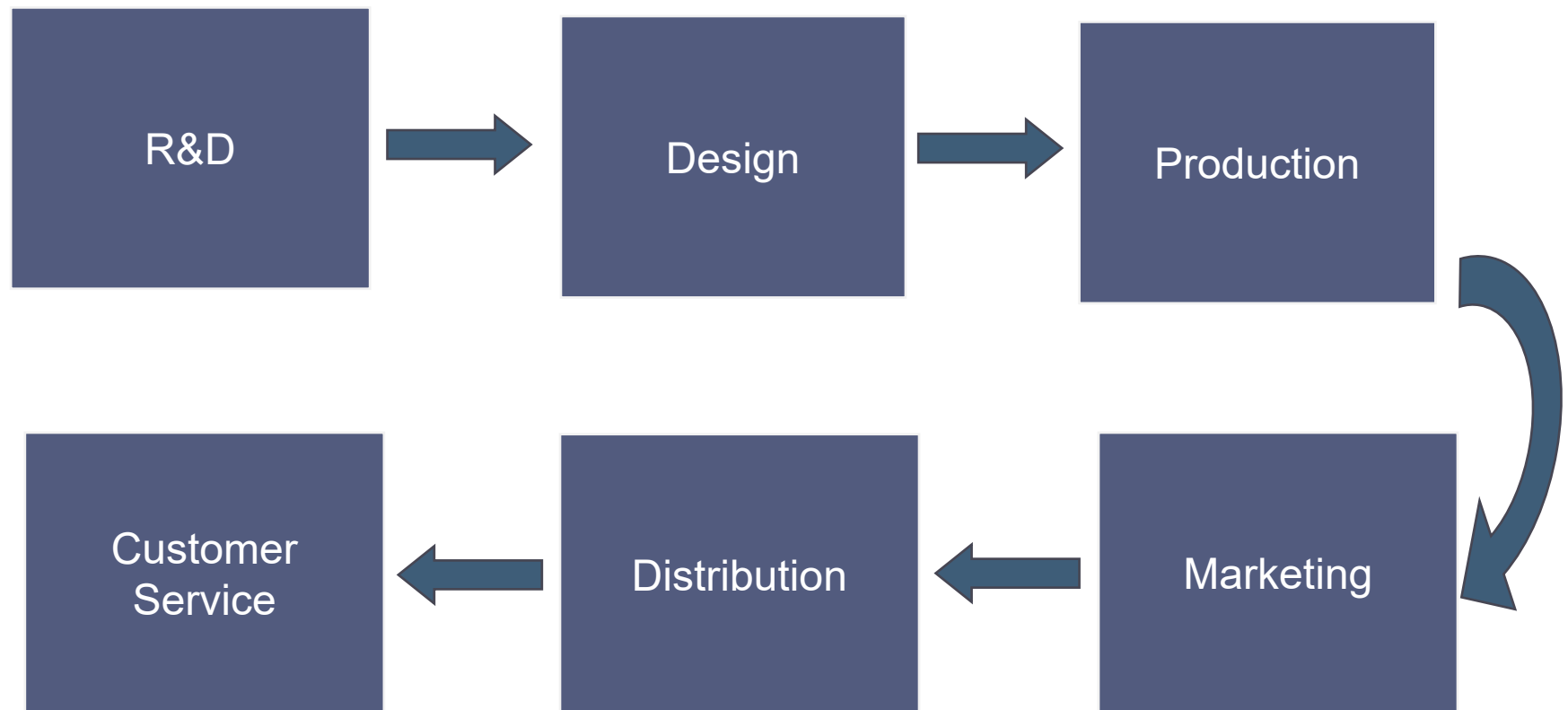
Two broad categories of **irrelevant costs**:

- ① Sunk costs.
- ② Future costs that **do not differ** between the alternatives.

Value Chain:

Activities that add value to products/services.

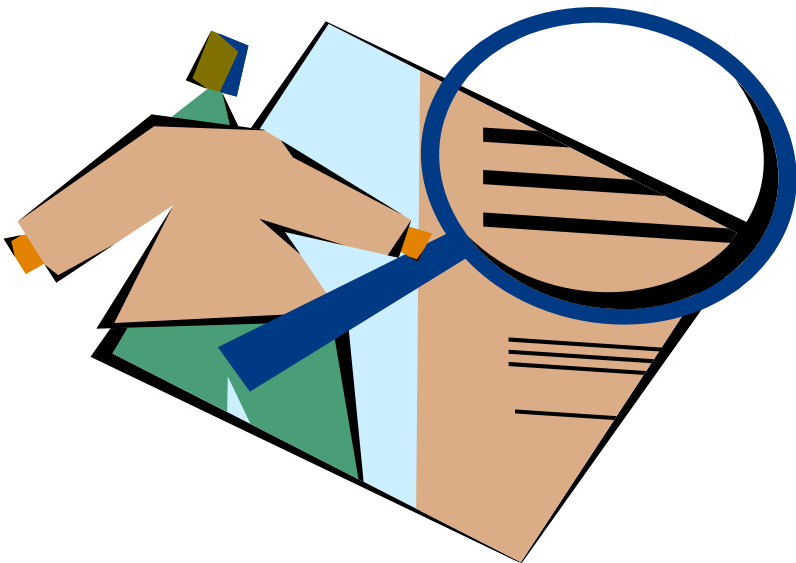
Decision-making must consider all costs incurred along the value chain, not just the costs in manufacturing !!



Value Chain:

- Value Chain is actually “Cost Chain”
- All activities on value chain are important, yet costly to the company.
- Managers must understand how decisions made in one area of the value chain will affect the costs incurred in other areas of the value chain.
 - ❖ e.g., Higher cost in improving manufacturing quality will help reduce the cost of customer service.

Different Costs for Different Purposes

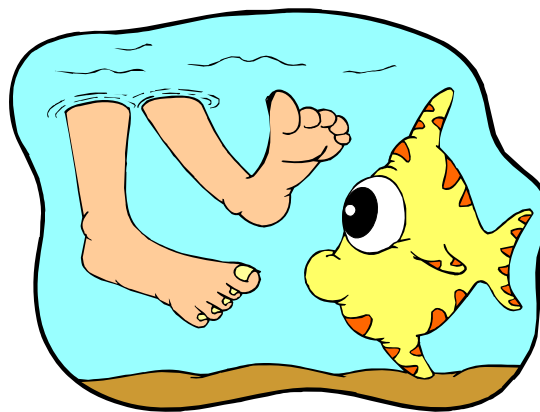


Costs that are relevant in one decision situation may not be relevant in another context. Thus, in each decision situation, the manager must examine the data at hand and isolate the relevant costs.

Relevant Cost Analysis: A Two-Step Process

Step 1 Eliminate costs and benefits that do not differ between alternatives.

Step 2 Use the remaining costs and benefits that differ between alternatives in making the decision. The costs that remain are the differential, or avoidable, costs.



Managerial Decisions- check relevance

You are a student studying in Hong Kong, and is considering to visit your friend in Guangzhou. You can drive or take the high-speed train. You are trying to decide which alternative is more appropriate.

Indicate if the following items are relevant or irrelevant to your decision:

1. Annual straight-line depreciation on the car
2. Cost of gasoline
3. Annual cost of auto insurance and license
4. Maintenance and repair cost per mile
5. Parking fees in Guangzhou
6. Monthly parking fees at HKU in Hong Kong
7. Round-trip high-speed ticket prices
8. Reduction in the resale value of car per mile wear
9. Benefit of relaxing on the high-speed train.

Let's assume we only consider three costs:

- (a) Every year car insurance \$100;
- (b) Cost of gasoline \$30 per trip;
- (c) High-speed train ticket \$50 per trip;

Q: does it matter
how often you go to
GZ every year?
Why?

Scenario 1: I plan to go to GZ only twice this year

My calculation:

Cost per trip = $(\$100/2) + \$30 = \$80 > \50 train ticket;
So, I will take the high-speed train.

Scenario 2: I plan to go to GZ ten times this year

My calculation:

Cost per trip = $(\$100/10) + \$30 = \$40 < \50 train ticket;
So, I will drive to GZ instead of take the high-speed train.

Do you agree with the above calculation? What is your suggestion?

Problems with the previous calculation:

Don't undertake cost allocation of fixed costs which are irrelevant to the decision-making.

Q: does it matter how often you go to GZ every year?
Why?

Scenario 1: I plan to go to GZ only twice this year

Appropriate calculation:

Incremental cost for driving to GZ per year = $\$30 \times 2$;

Incremental cost for driving to GZ per trip = $\$30$;

Incremental cost for taking train per year = $\$50 \times 2$;

Incremental cost for taking train per trip = $\$50$;

Since $\$30 < \50 , I will drive to GZ.

Scenario 2: I plan to go to GZ ten times this year

Appropriate calculation:

Incremental cost for driving to GZ per year = $\$30 \times 10$;

Incremental cost for driving to GZ per trip = $\$30$;

Incremental cost for taking train per year = $\$50 \times 10$;

Incremental cost for taking train per trip = $\$50$;

Since $\$30 < \50 , I will drive to GZ.

The same decision for both scenarios.

Discussion- check the relevance of the costs

Entering or exiting a market

Augusta Retail Company is thinking of closing one of its product lines based on the July financial results for the company's three products (in thousands):

	Product A	Product B	Product C	Total
Sales revenue	\$250,000	\$90,000	\$60,000	\$400,000
Cost of goods sold	170,000	40,000	30,000	240,000
Gross margin	\$ 80,000	\$50,000	\$30,000	\$160,000
Operating expenses	55,000	30,000	35,000	120,000
Net income (or loss)	\$ 25,000	\$20,000	\$ (5,000)	\$ 40,000

- ▶ Q1: What is the decision if there are no common costs (which are shared across the company and not directly related to any specific product).

Discussion- check relevance

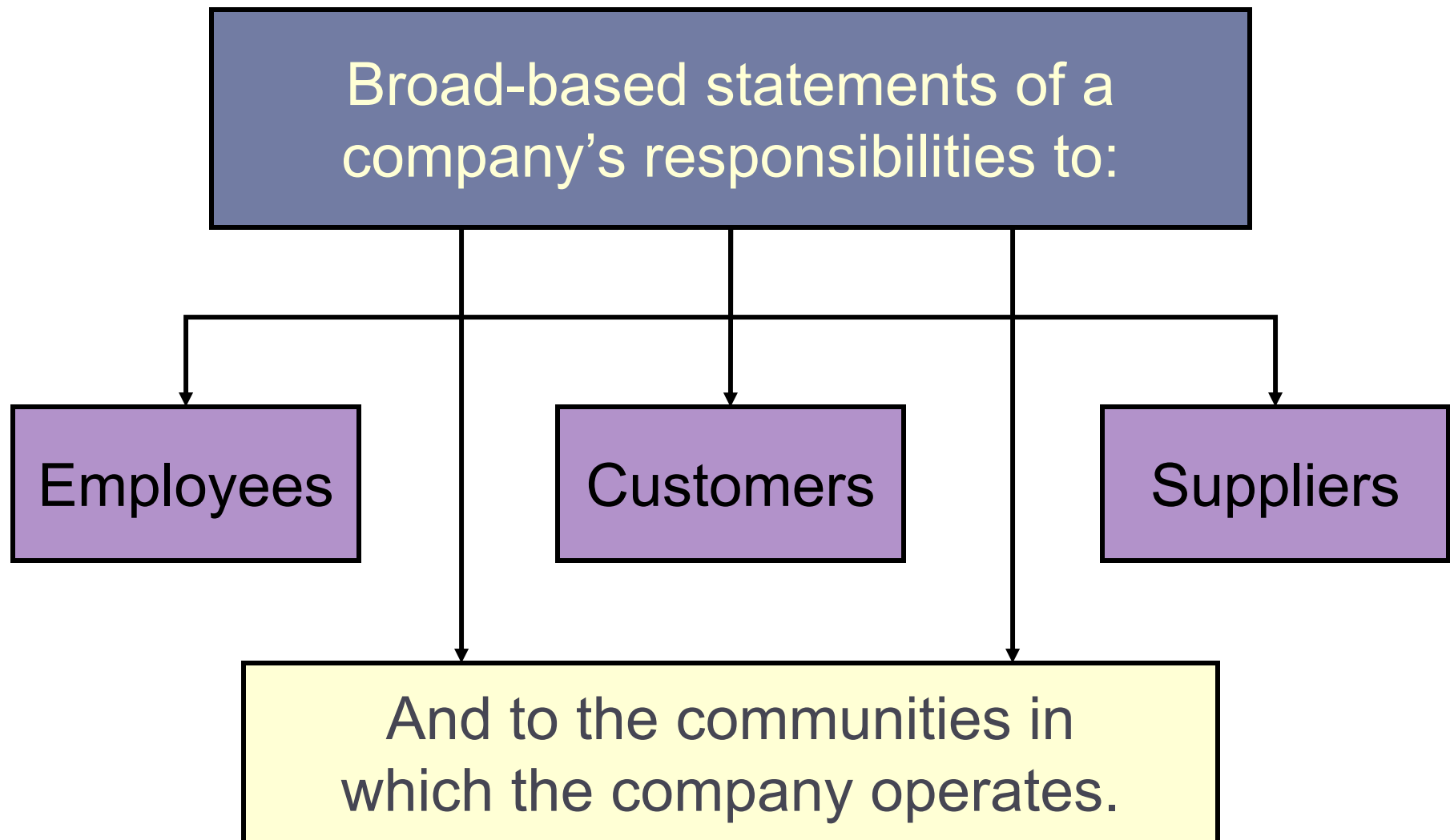
Entering or exiting a market

Augusta Retail Company is thinking of closing one of its product lines based on the July financial results for the company's three products (in thousands):

- ▶ Q2: What is the decision if there is a common fixed cost of \$27,000 before allocation (and was allocated equally among three products)?
- ▶ Q3: What if the sales of Product C are correlated with Product B (positively or negatively correlated)? Consider the Kodak example.
- ▶ Q4: Any other possible factors relevant to your decision?
 - ▶ How about this situation: Product C is an internet product, which helps the company to qualify for lower tax rate or government subsidy?

Business trends affecting management accounting

Company Codes of Conduct



Business trends affecting management accounting

Social Responsibility

- ▶ Growing movement toward sustainability and social responsibility by both consumers and corporates
 - ▶ **Sustainability:**
 - ▶ The ability to meet the needs of the present generation without compromising the ability of future generations to meet their own needs
 - ▶ **Corporate Social Responsibility (CSR):**
 - ▶ Companies' responsibility to carefully consider how their business affects employees, consumers, and local citizens.

Management accounting is suitable for the calculation of social responsibility cost.

- Non-financial data;
- No GAAP for the recognition of responsibility cost yet.

End of Prologue Overview





Cost Concepts

Chapter 1 (Part I)

Learning Objectives

- Fundamental Management Accounting Cost Concepts;
- Three Views of Management Accounting Cost Classifications;
- Manufacturing cost flows and the calculation of COGS in the income statement.

Three Types of Companies

- Differences in inventory cost
 - “inventory” concept in financial accounting

Type of Company	Inventory Accounts
Service Company	None
Merchandiser	Merchandise Inventory
Manufacturer	Raw materials, work in process, and finished goods inventory

An education company:



- A service company
- Compare it with BYD's income statement

	NOTES	Year ended 31 August	
		2022 RMB million	2021 RMB million
Revenue	5	4,756	3,682
Cost of revenue		(2,002)	(1,507)
Gross profit		2,754	2,175
Investment income	6(a)	61	43
Other income	6(b)	254	193
Other expense, other gains and losses	7	(197)	(240)
Fair value change on convertible bonds	31(b)	299	145
Selling expenses		(170)	(168)
Administrative expenses		(724)	(475)
Finance costs	8	(308)	(162)
Profit before taxation		1,969	1,511
Taxation	9	(33)	(39)
Profit for the year	10	1,936	1,472

An education company:



- A service company
- Is there “*Research Cost*”?
- How about cost of goods sold?

10. PROFIT FOR THE YEAR

	Year ended 31 March 2022 RMB million
Profit for the year has been arrived at after charging (crediting):	
Staff costs, including directors' remuneration (note 11)	
— salaries and other allowances	1,190
— retirement benefit scheme contributions	201
— share-based payments	20
Total staff costs	1,411
Depreciation of property, plant and equipment	550
Depreciation of right-of-use assets	69
Amortisation of intangible assets (included in cost of revenue)	9
Auditor's remuneration	6

Current assets of these two companies



			31 December 2022 二零二二年 十二月 三十一日
Assets	資產	Note V 附註五	
Current assets	流動資產		
Monetary funds	貨幣資金	1	51,471,263
Financial assets held for trading	交易性金融資產	2	20,626,930
Trade receivables	應收賬款	3	38,828,494
Receivables financing	應收款項融資	4	12,894,284
Prepayments	預付款項	6	8,223,567
Other receivables	其他應收款	5	1,910,009
Inventories	存貨	7	79,107,199
Contract assets	合同資產	8	13,552,998
Long-term receivables due within one year	一年內到期的長期應收款	10	1,052,562
Other current assets	其他流動資產	9	13,136,201

“Inventory” is a **cost object** for the accumulation of costs incurred by manufacturing companies.



		41,791
CURRENT ASSETS		
Trade receivables, deposits, prepayments and other receivables	21	1,058
Financial assets at fair value through profit or loss	22	215
Contract costs	20	68
Restricted bank deposits	23	41
Bank balances and cash	23	4,793
		6,175

Cost object

- Anything for which managers want a separate measurement of cost. (e.g., a car, a factory, a customer)
- Serve the purpose of “cost assignment”
- For manufacturing firms, it typically refers to the product unit
- For service firms, it could be measured at different levels.

Costs are classified as direct or indirect with respect to the cost object.

- **Direct Cost:**

costs that can be conveniently traced to the cost object

- **Indirect Cost:**

costs that cannot be conveniently traced to the cost object.

Example

Which of the following are classified as direct costs with respect to a local hospital when:

- ▶ Cost object = **the individual patient**
 - ▶ Assume this patient is treated by pediatrics department but not by the head of the department.
-
- a. The salary of the head of pediatrics department.
 - b. The cost of operating the payroll department.
 - c. Lab tests by outside contractor.

Example (continued)

Classify the following as direct or indirect costs with respect to a local hospital for a patient.

- ▶ Cost object = **the pediatrics department**
- a. The salary of the head of pediatrics.
- b. The cost of operating the payroll dept.
- c. Lab tests by outside contractor for patients (treated by the pediatrics dept.).

Management Accounting Classifications – Four Different Views (View 1)

View 1 - Over the Product or Service Life Cycle:

Research and development costs – those costs incurred to design, develop and bring new products and services to market.

Manufacturing (processing) costs – those costs incurred to manufacture a product, or produce a service (e.g. direct labor).

Marketing costs – those costs required to sell products and services and to secure customer orders (e.g. advertising).

General and administrative costs - those costs required to manage an organization (e.g., legal counsel, the CEO's salary).

Distribution costs – those costs incurred to deliver finished products to customers (e.g. transportation).

After-sales costs – those costs incurred after completion of a sale (e.g. warranties).

Recycling or disposal costs - those costs required for the safe disposition of the product at the end of its life (e.g. environmental cleanup).

Let's focus on Manufacturing Costs: Product Costs

The cost of a unit of product is the sum of the amount of:

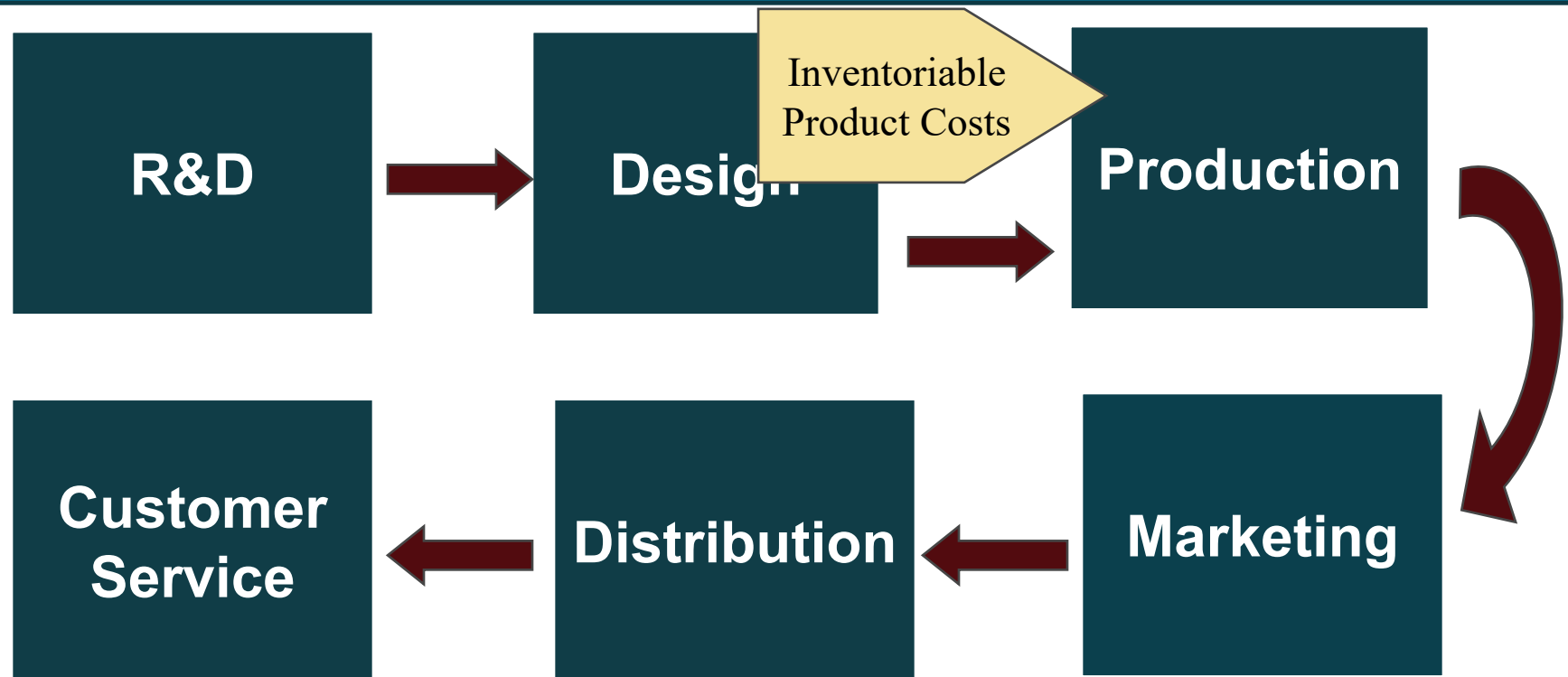
1. **Direct Materials.** This is a **traceable** cost.
2. **Direct Labor.** This is a **traceable** cost.
3. **Manufacturing Overhead.** This is an **allocated** cost. So, how do we allocate overhead?

Overhead allocation:

- The total overhead is divided by what was once called an allocation base. It is now called the activity driver expressed in some unit measure.
- The activity cost driver chosen should have a causal relationship to the way in which overhead resources are being consumed.

Product Costs

- Occurs only in the “production” stage of the value chain
- used for external reporting
- Reported as “inventory” (asset) on balance sheet before sold
- Reported as “Costs of Goods/inventory Sold” on income statement after being sold



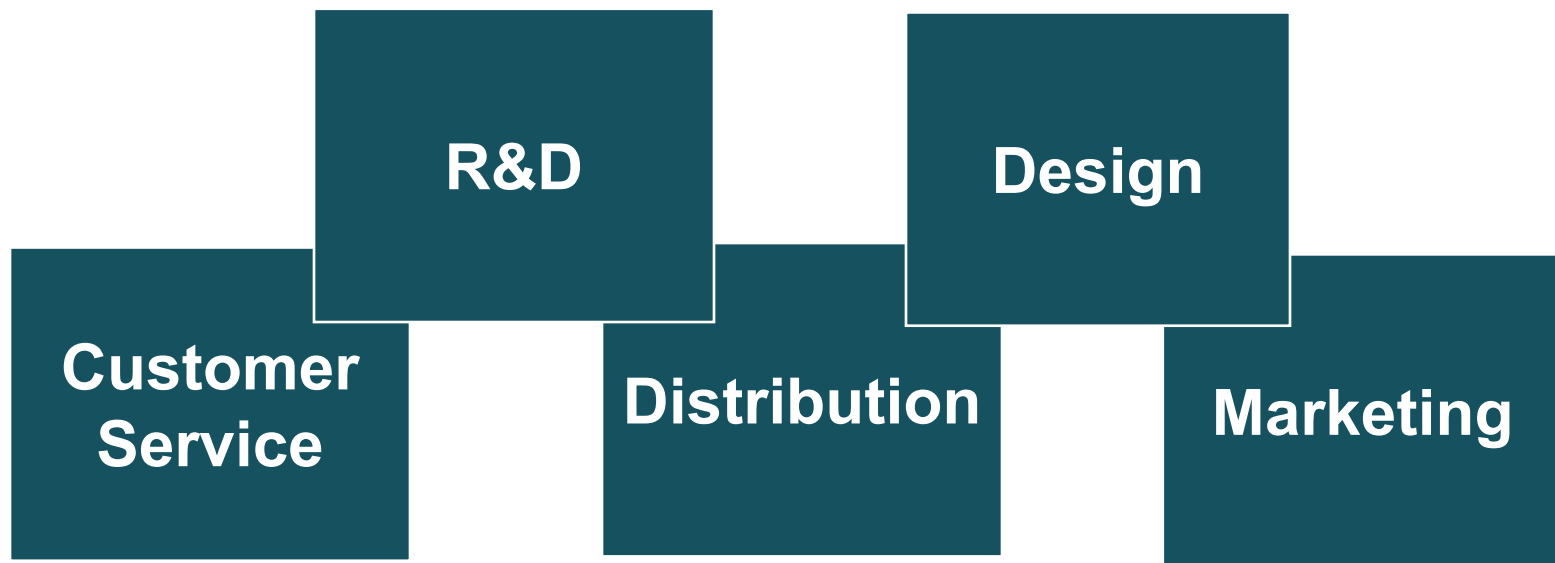
A company spends \$1000 on purchasing a computer; (asset or expense?)

A company spends \$1000 on an advertisement; (asset or expense?)

A company sold the product (the total cost is \$1000 to manufacture this product) (any expense?).

Period Costs: All Costs Incurred in the Other Stages of the Value Chain

- Must be expensed in the period they are incurred (financial accounting)
- Reduce a company's net income immediately for that year
- Reported as operating expenses or selling & admin. expenses on income statement



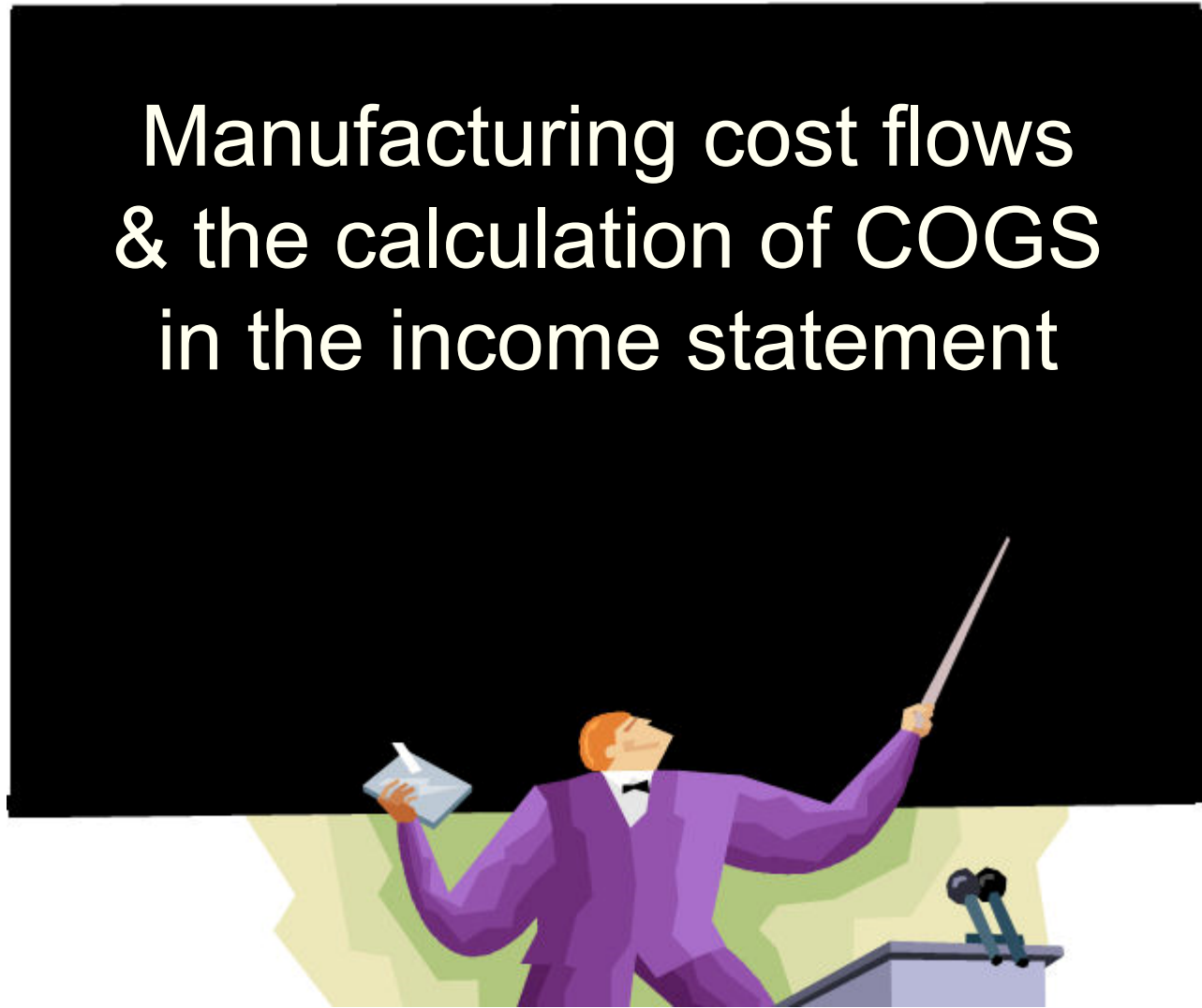
Period Costs = Non-manufacturing costs

In-class exercise

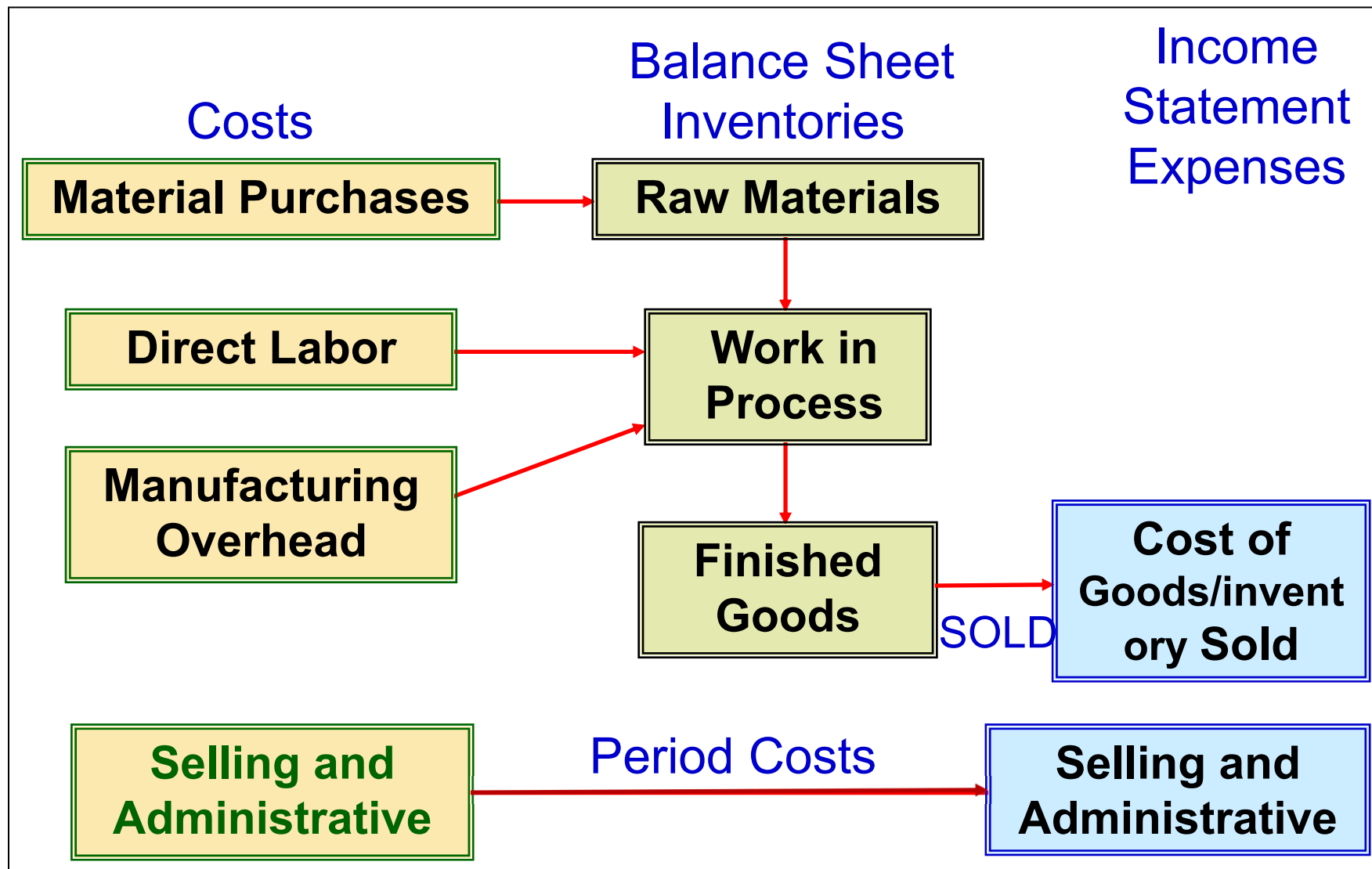
- Cost classification for running a production facility.
 - Write down your name on the exercise worksheet.
-
- Submit your work through the Moodle system.
 - Click on the submission link to upload your file
 - **E-file or the photo of your work**

Learning Objective 3

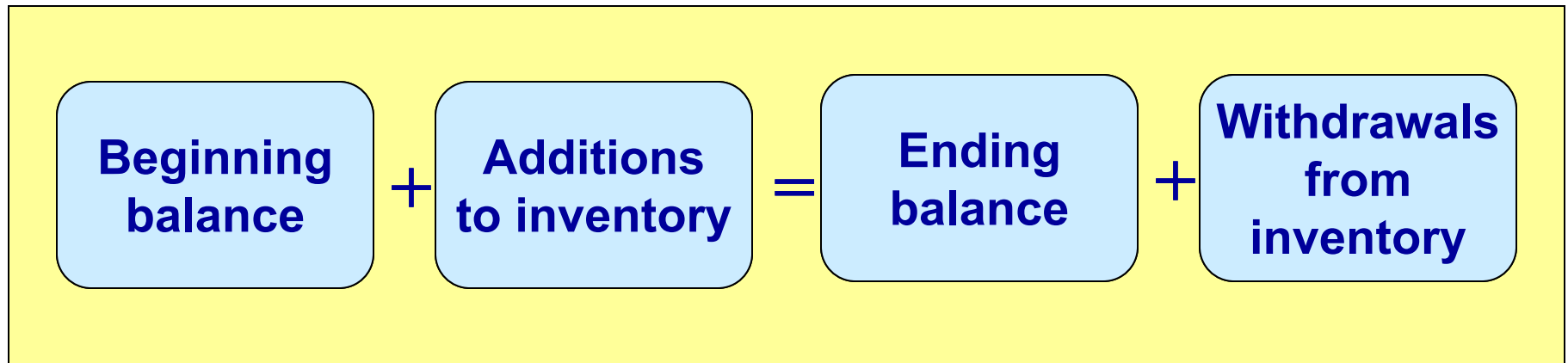
**Manufacturing cost flows
& the calculation of COGS
in the income statement**



Manufacturing Cost Flows



Basic Equation for Inventory Accounts



Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory		
+ Raw materials purchased		
= Raw materials available for use in production		
– Ending raw materials inventory		
= Raw materials used in production	Direct materials	

As items are removed from raw materials inventory and placed into the production process, they are called direct materials.

Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory	Direct materials	
+ Raw materials purchased	+ Direct labor	
	+ Mfg. overhead	
= Raw materials available for use in production	= Total manufacturing costs	
- Ending raw materials inventory		
= Raw materials used in production		

Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory	Direct materials	Beginning work in process inventory
+ Raw materials purchased	+ Direct labor	
	+ Mfg. overhead	+ Total manufacturing costs
= Raw materials available for use in production	= Total manufacturing costs	= Total work-in-process for the period
- Ending raw materials inventory		
= Raw materials used in production		

Product Cost Flows

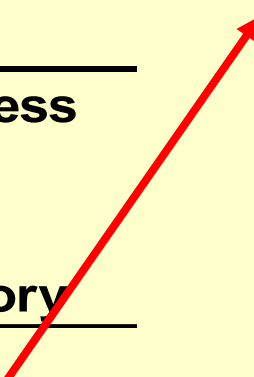
<u>Raw Materials</u>	<u>Manufacturing Costs</u>	<u>Work In Process</u>
Beginning raw materials inventory	Direct materials	Beginning work in process inventory
+ Raw materials purchased	+ Direct labor	+ Total manufacturing costs
= Raw materials available for use in production	+ <u>Mfg. overhead</u>	= Total work-in-process
- Ending raw materials inventory	= <u>Total manufacturing costs</u>	- Ending work in process inventory
= <u>Raw materials used in production</u>		= Cost of goods manufactured

Costs associated with the goods that are completed during the period are transferred to finished goods inventory.



Product Cost Flows

Work In Process	Finished Goods
Beginning work in process inventory	Beginning finished goods inventory
+ Manufacturing costs for the period	+ Cost of goods manufactured
= Total work in process for the period	= Cost of goods available for sale
– Ending work in process inventory	- Ending finished goods inventory
= Cost of goods manufactured	Cost of goods sold



Quick Check ✓

Beginning work in process was \$125,000. Manufacturing costs incurred for the month were \$835,000. There were \$200,000 of partially finished goods remaining in work in process inventory at the end of the month. What was the cost of goods manufactured during the month?

- A. \$1,160,000
- B. \$ 910,000
- C. \$ 760,000
- D. Cannot be determined.

Quick Check ✓

Beginning work in process was \$125,000. Manufacturing costs incurred for the month were \$835,000. There were \$200,000 of partially finished goods remaining in work in process inventory at the end of the month. What was the cost of goods manufactured during the month?

- A. \$1,160,000
- B. \$ 910,000
- C. \$ 760,000**
- D. Cannot be determined

Beginning work in process inventory	\$ 125,000
+ Mfg. costs incurred for the period	835,000
= Total work in process during the period	\$ 960,000
– Ending work in process inventory	200,000
= Cost of goods manufactured	<u>\$ 760,000</u>

Cost Classifications – Four Different Views (View 2)

View 2 – The financial statement view (i.e., external reporting):

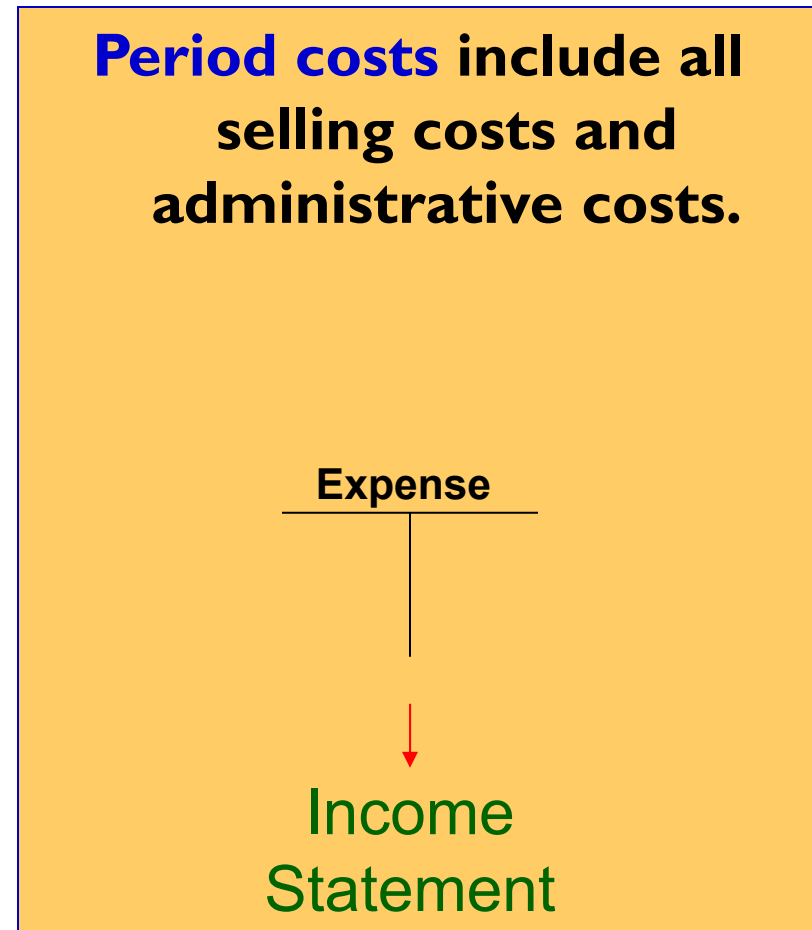
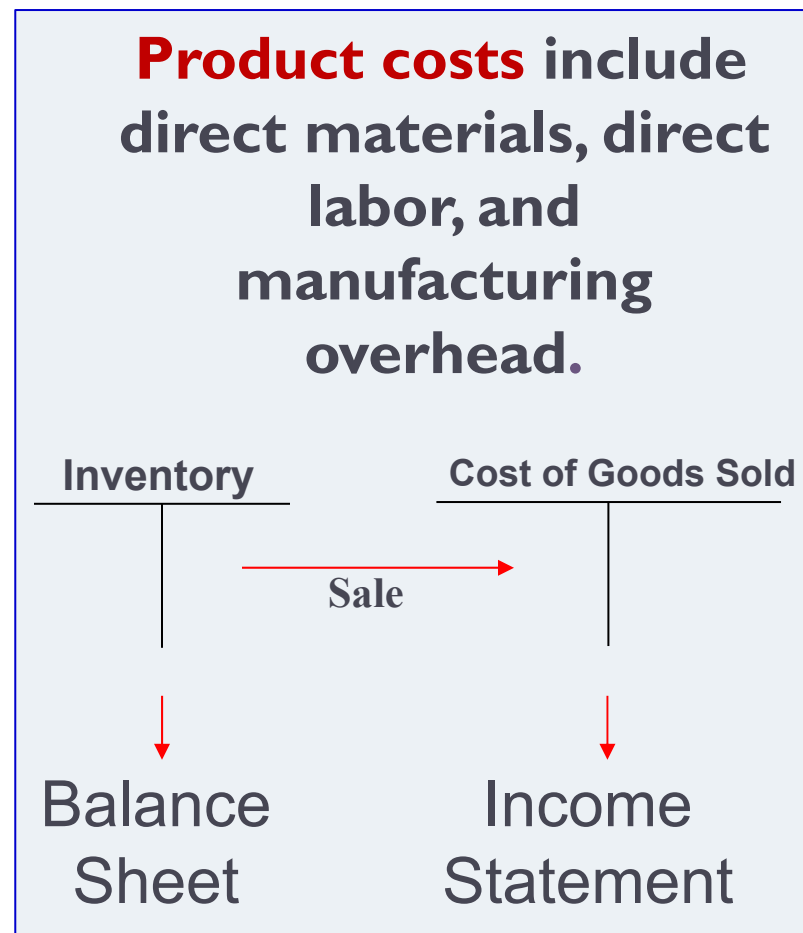
Product costs – all manufacturing costs incurred to produce the volume and mix of products made during a period. These costs are sometimes called “**inventoriable costs**.” (in “inventory” item of balance sheet before the products are sold; recorded as “cost of inventory/goods sold” in income statement when sold)

Period costs - all non-manufacturing costs [(selling, general and administrative costs (SG&A))] incurred in a period whose benefits cannot be easily matched with the products sold in that period.

Product Costs Vs. Period Costs

They have different implications for financial statements.

- **Product costs:** Balance sheet in year 1 but Income statement in year 1 or year 2
- **Period costs:** in the current year's Income statement when the costs occur.



Quick Check ✓

Which of the following costs would be considered a period cost rather than a product cost in a manufacturing company?

- A. The depreciation of Manufacturing equipment.
- B. Property taxes on corporate headquarters.
- C. Direct materials costs.
- D. Electrical costs to light the production facility.
- E. Sales commissions.

Cost Classifications - Four Different Views (View 3)

View 3 - By Cost Behavior:

Variable (flexible) costs - those that vary with production or sales volumes (e.g. direct labor)

Fixed (committed) costs - those that do not vary with production or sales volumes (e.g. a new server to support data storage; a plant)

Semi-variable or mixed costs – those that contain both fixed and variable costs [e.g. the cost of supplying phone includes fixed costs for equipment (phones), labor (support, engineering, and monitoring staff), maintenance, and depreciation (of PBX hardware and voice circuits) as well as more variable costs for items such as voice usage].

Cost Structure the relative proportions of fixed (committed) and variable (flexible) costs that make up the total costs of an organizational unit.

Cost Classifications - Four Different Views (View 4)

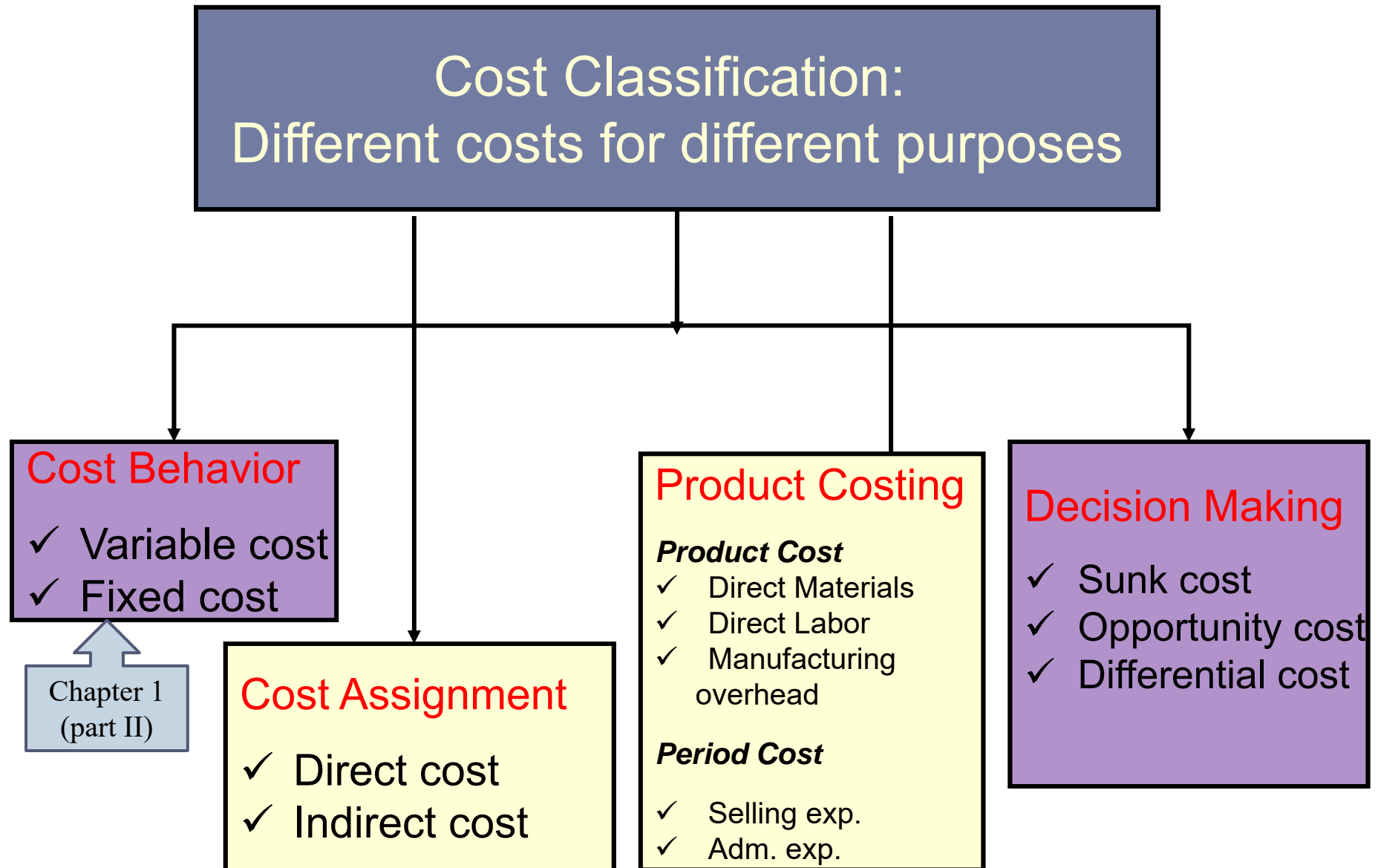
View 4 - By the Role in Decision Making:

Differential cost – A difference in costs between any two alternatives. It is sometimes called “**incremental cost**”.

Opportunity cost - the sacrifice you make when you use a resource for one purpose instead of another.

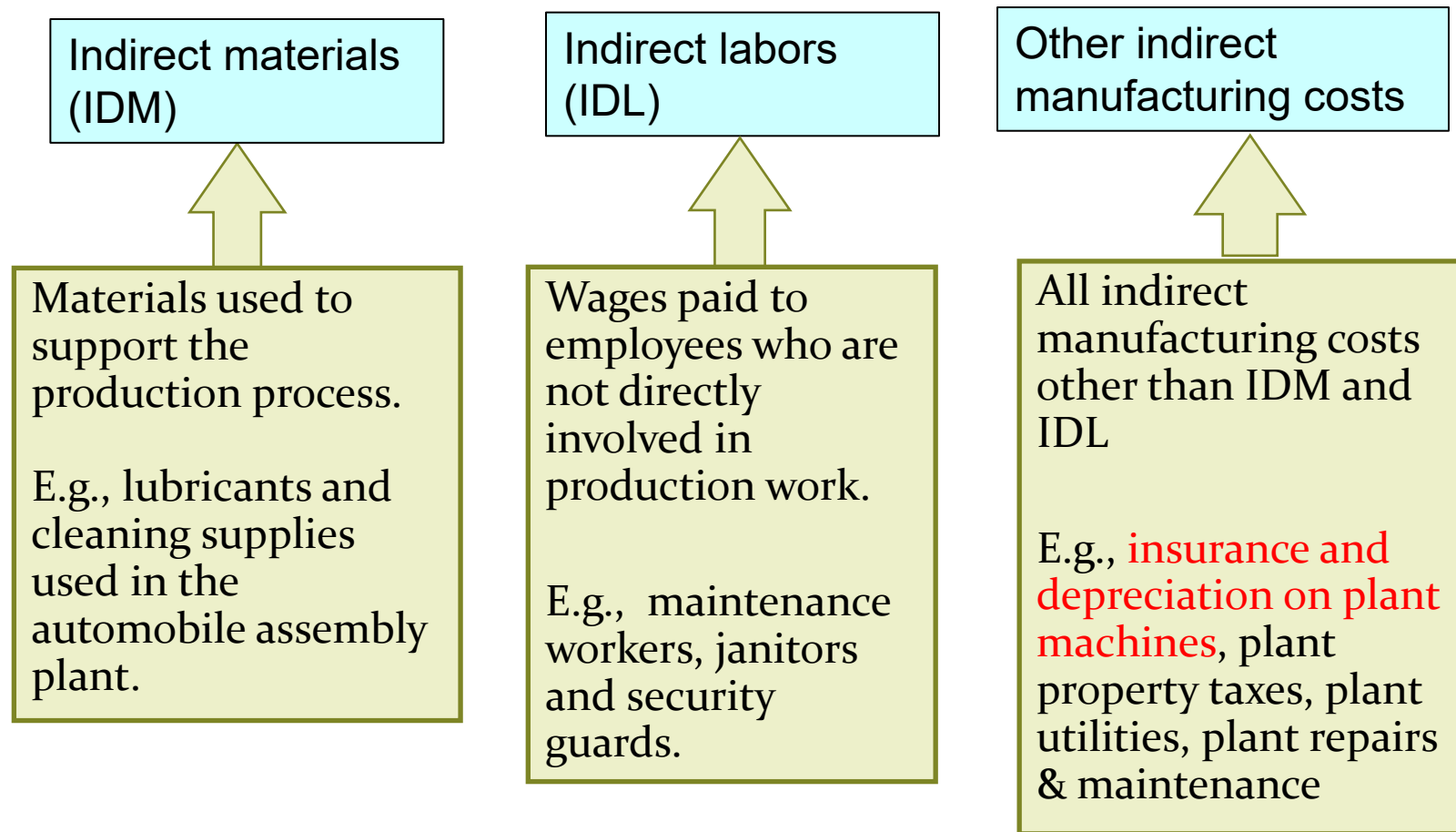
Sunk cost – those costs necessary for an activity that cannot be reversed or recovered if the activity ceases.

Cost Classification

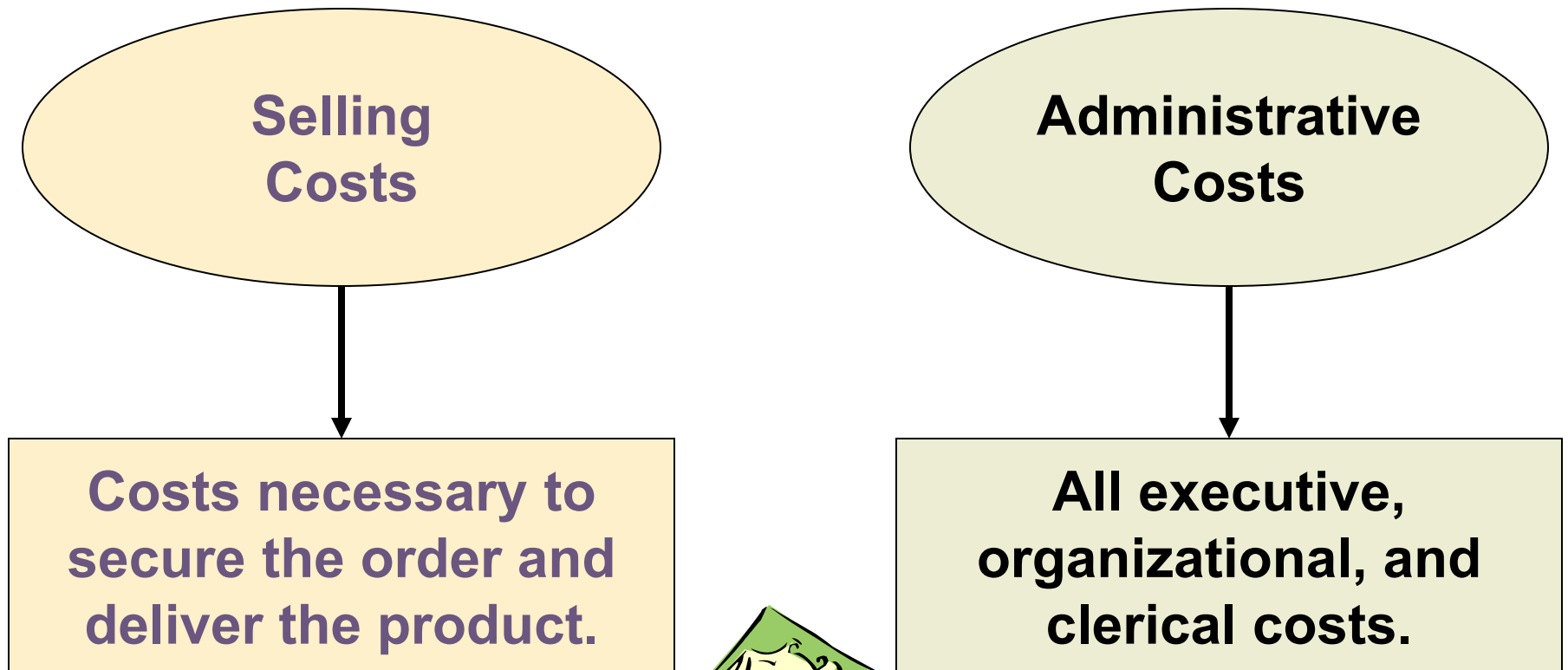


Manufacturing Overhead (MOH)

Manufacturing costs that **cannot** be traced directly to specific units produced.



Non-manufacturing Costs



Discuss: DM, DL and MOH information

- ▶ Is the information publicly available?
- ▶ Can we use COGS (or costs of inventories sold) to infer these components?
- ▶ If the information is provided, how will you use it?
- ▶ What is the possible unintended consequences of the mandatory disclosures of firm's cost structure?

Cost structure information is mandatory for firms listed on Shanghai or Shenzhen stock exchanges, but not required for HK-listed firms.

A + H shares listed firms at HK provide the cost structure information.



2022 annual
report
MD&A part:

(3). *Cost analysis*

Unit: 0'000

By industry

By industry	Cost items	Amount for the Reporting Period	Amount for the Reporting Period as a percentage of total costs (%)	Amount for the corresponding period of last year	Amount for the corresponding period of last year as a percentage of total costs (%)	Year-on-year change (%)
Equipment manufacturing industry	Material	1,122,296	91.51	821,910	88.91	36.55
Equipment manufacturing industry	Labour	40,640	3.31	38,328	4.15	6.03
Equipment manufacturing industry	Production costs	63,523	5.18	64,138	6.94	-0.96

Exercise:

A Dairy Processing Company

Period cost or Product Cost? If product cost, then DM or DL or MOH??

1. Cost of milk purchased from farmers.
2. Lubricants used in bottling machines.
3. Property tax on dairy processing plant.
4. Television advertisements for products
5. Gasoline used to operate refrigerated trucks used to deliver finished dairy products to grocery stores
6. Company president's annual bonus
7. Depreciation on marketing department's computers
8. Wages and salaries paid to machine operators at dairy processing plant
9. Research and Development on improving milk pasteurization process

Discussion #1

- Incentive to “reclassify” period cost as product cost.
- Product cost goes to inventory, likely increasing the reported net income.

M.K. Gallant is the president of K Corp. In a meeting with investment analysts at the beginning of the year, Gallant had predicted that the company’s earnings would grow by 20% this year. Unfortunately, sales have been less than expected for the year, and Gallant concluded that it would be impossible to ultimately report an increase in earnings as large as predicted unless some dramatic action was taken.

Accordingly, Gallant ordered the company’s financial controller to carefully scrutinize all costs that are currently classified as period costs and reclassify as many as possible as product costs.

1. Why would reclassifying period costs as product costs increase earnings?

2. Is it possible that this reclassification does not work for the earnings?

In-class case:

Forrest Gump- Accounting in the Motion Picture Industry

Q1: What amount of box office gross revenue is required before the movie earns a profit according to “net profit participation” contract? (assume fixed financing costs)

By Hollywood standards, the film “lost” money by \$62 million.

- “profit” defined for different users
 - Actor and director vs. the author (gross revenue vs net profit)
- “loss is not really a loss at all”
 - project-based statement is prepared to reflect the contractual agreements.
- “Cost items” which have built-in profits
 - Distribution fee (as part of compensation for distributors)
 - Studio overhead
 - Financing cost (let’s assume to be fixed)

In financial accounting,
how to record the
distribution fee?

Q1:

1. What are the fixed and variable costs? Any sunk cost?

	Variable costs (as the percentage of box office revenues)	Fixed cost (\$mil)
Retained by theaters	50%	
Production costs		\$66.80
gross profit participation	8%	
Studio overhead	1.2%	10.02
Promotion and Distribution		67.2
Advertising overhead		6.72
Distribution fee	16.0%	
Financing cost (assumed fixed)		6
	total: 75.2%	\$156.74
16% x 50% = 8%		
15% x 8% = 1.2% & 15% x 66.8 = 10.02		
10% x 67.2 = 6.72		
32% x 50% = 16%		

$$\text{Revenue} \times (1 - 75.2\%) = \$156.74; \text{ Revenue} = \$632 \text{ mil}$$

Q2: What amount of box office gross revenue is required before the movie earns a profit for Paramount? (assume fixed financing costs)

- ▶ Key: which cost is not really a cost for Paramount?
- ▶ Distribution fee (16%) & the variable portion of studio overhead (1.2%)

$$\text{Revenue} \times (1 - 58\%) = \$156.74; \text{ Revenue} = \$373 \text{ mil}$$

- ▶ If we further assume that fixed advertising overheads and fixed studio overheads are not really costs?

$$\text{Revenue} \times (1 - 58\%) = \$140; \text{ Revenue} = \$333 \text{ mil}$$

Implication for project management:

Only TOP talents are offered a percent of the gross. If the gross participation points are too high, the break-even point is too high for the net profit participants.

Q3: Financing cost is based on loss as stated in the case. So, we recalculate the required revenue for scenarios in Q2

End of Chapter 1 (Part I)

