

# Accounting for Business Decisions 22107

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## Week 1: Accounting in the world of business

### Readings

- ACCT Financial - Chapter 1 (pg 2 - 15)
- Law textbook - Chapter 4

### Learning objectives

- Describe the four assumptions made when communicating accounting information
- Describe the purpose and structure of a statement of comprehensive income (income statement/profit or loss statement) and the terms and principles used to create it
- Describe the purpose and structure of a statement of financial position (balance sheet) and the terms and principles used to create it
- Describe the purpose and structure of a statement of changes in equity and how it links the statement of comprehensive income and the statement of financial position
- Describe the purpose and structure of a cash flow statement and the terms and principles used to create it
- Describe the qualitative characteristics that make accounting information useful
- Describe the conceptual framework of accounting

### Example

Imagine for a moment that you are home for the summer and decide to mow lawns to make some money. With **\$100 of your own money** and **\$200 borrowed from your mother**, you purchase a **\$260 lawn mower**, a **\$20 petrol can** and **\$15 of petrol**. During January, you mow **28 lawns at \$40 each**, buy **\$75 of additional petrol** and pay mum **\$5 of interest**. At the end of January, you have **\$194 in cash**, **\$10 in petrol** and **\$120 due from customers**.

### Beginning assumptions

- The purpose of accounting is to identify, measure and communicate economic information about a particular entity to interested users
- As a foundation for accomplishing this → accountants make the following assumptions:
- **Accomplishing the process of accounting → four assumptions**
  - Economic entity: *financial activities of a business can be separated from the financial activities of the business's owner*
    - This assumption allows a user to examine a company's accounting information without concern that the information includes the personal affairs of the owner or other business activities
  - Time period: economic information can be meaningfully captured and communicated → over *short periods of time*
    - Most companies communicate to users on both a half-yearly and quarterly basis → business owners and interested parties want periodic measurements of the business's success or failure
  - Monetary units: accountants assume that the *dollar* is the most effective means to communicate economic activity
    - If it cannot be communicated in dollars, then it is not recorded in the accounting system
    - It assumes that the dollar is reasonably stable with respect to inflation and deflation → as a result, accountants do not adjust economic values based on inflation or deflation
  - Going concern: accountants assume that a company will *continue to operate into the foreseeable future*
    - Those that are not going concerns are often in the process of liquidation (Selling their resources and paying off their obligation)

### *Reporting profitability*

- **THE STATEMENT OF COMPREHENSIVE INCOME (Profit or loss statement or income statement)**
  - **What: Reporting profitability → revenues and expenses**
    - Is a business profitable? (making money, generating more resources than it uses)
  - **Related Terms**
    - A statement of comprehensive income reports revenues and expenses
    - Revenue: an *increase* in resources → resulting from the sale of goods and services (e.g. sale of inventory to customers, other income)
      - Revenues are recorded according to the revenue recognition principle: *revenue* should be *recorded* → when a resource has been earned. A resource is earned when either the sale of the good or the provision of the service is substantially complete and collection of cash is reasonably assured
      - E.g. assuming that your customers will pay, your lawn mowing service creates revenue each time a lawn is mowed. So if you mowed 28 lawns at \$40 each → \$1120. Of those revenues, you have received cash except \$120 that has been earned but not received in cash
    - Expense: a *decrease* in resources → resulting from the sale of goods or services (e.g. cost of sales, employee benefits, depreciation and amortisation expenses, marketing, admin costs) salaries and wages, rent, interest payments, electricity expenses, taxes) → they will not have value in the future. (Things that will have value in the future include: a boat certain supplies such as snorkels for a snorkelling business etc)

- Expenses are recorded according to the matching principle: *expenses* should be *recorded* → when a resource has been earned to *generate revenue*
- e.g. since fuel is used to mow lawns in January → January expenses should include the fuel used
- although things such as a boat and some supplies are an asset → it depreciates → therefore becomes less and less in the future → this depreciation becomes an expense. E.g. assuming that the equipment will ONLY be used for four months, it is reasonable to expense one-quarter of the equipment's cost each month e.g. \$65 for the lawn mower (260 divided by 4) and \$5 for petrol can (20 divided by 4). Therefore the depreciation expense for the month = \$70
- Profit: the residual (remaining) resources from the sale or services → that goes to shareholders
- **Basic structure of the statement of comprehensive income**
  - Revenue – expenses = *will ultimately equal a net profit or a net loss* (this is reported over a specific period e.g. year ended June 30, 2014)
  - The Statement of Comprehensive Income → is also referred to as the income statement or the profit and loss statement
  - The Comprehensive Income → is also often called profit or loss, income, or net income

*Statement of comprehensive income example – exhibit 1-1*

Lawn Service

Statement of Comprehensive Income

**For the month ending** 31 January 2015

|  |              |
|--|--------------|
| <b>Revenues</b> (\$40 x 28)  | \$1120       |
| <b>Expenses:</b>   |              |
| Fuel (\$15 on hand beginning of Jan, \$75 bought, minus \$10 on hand end of Jan) | \$80         |
| Interest (paid to mum)   | 5            |
| Depreciation (of lawn mower and petrol can)                                      | 70           |
| Total expenses   | <u>155</u>   |
| <b>Net profit (total comprehensive income)</b>                                   | <b>\$965</b> |

*Reporting financial position*

- **THE STATEMENT OF FINANCIAL POSITION** (Balance Sheet using the accounting equation: **assets = liabilities + equity**)
  - **What: Reporting financial position**
    - The financial position is an important question for businesses → encapsulating what the businesses OWNS and what is OWES (assets and expenses)
    - These answers can be found in the statement of financial position → accounting essentially provides answers to these questions (owns and owes) with a financial statement (the statement of financial position)
    - Its purpose is to show, at a given point in time, a company's resources and its claims against those resources

○ **Related terms**

- Asset: an economic resource → that is objectively measurable → that *results from a prior transaction* → and that will *provide future economic benefit* (e.g. cash, building, inventories, receivables, property, plant and equipment). Intangible assets are assets that have no physical form (copyright, trademarks)
  - Assets are recorded and reported to the cost principle: the principle → that *assets should be recorded and reported → at the cost paid to acquire them* (cost price)
  - E.g. for lawn company → at the end of January they have \$194 in cash, \$10 for remaining petrol and \$120 for receivables from customers, as well as a lawnmower and petrol can, which are calculated however they have depreciated)
- Liability: an obligation of a business → that *results from a past transaction* → and will *require the sacrifice of economic resources at some future date* (e.g. accounts payable to suppliers, salaries payable to employees, taxes or a loan)
  - E.g. in the lawnmower example → mum is considered a creditor (as you borrowed \$200 from her) → therefore total liabilities = \$200
- Equity: *the difference → between assets and liabilities* (assets – liabilities = equity) → representing the *share of assets* → that is *owned by shareholders* (owner's equity)
  - Contributed capital or ordinary shares: the resources → that investors contribute to a business → in exchange for ownership interest (e.g. lawnmowing example - \$100 → this did not come from the sale of goods and services). The most common method that companies use to generate capital is the sale of shares to investors (ordinary shares)
  - Retained earnings through profitable operations: the profit or loss → generated from all accounting periods not paid out to shareholders in the form of shareholders, but is kept within the business (FYI: dividends are not an expense)

○ **Structure**

- Accounting equation: assets = liabilities + equity → reported at a given time or date
- May also be referred to as the balance sheet

*Example – exhibit 1-2*

**Lawn Service**

**Statement of financial position**

**At 31 January 2015**

|                     |              |                              |              |
|---------------------|--------------|------------------------------|--------------|
| Cash                | \$194        | Note payable (to Mum)        | \$200        |
| Accounts receivable | 120          | <b>Total liabilities</b>     | <b>200</b>   |
| Supplies (petrol)   | 10           | Contributed capital          | 100          |
| Lawnmower           | 195          | Retained earnings            | 234          |
| Petrol can          | 15           | <b>Total equity</b>          | <b>334</b>   |
| <b>Total assets</b> | <b>\$534</b> | <b>Total liab and equity</b> | <b>\$534</b> |

## Reporting equity

- **STATEMENT OF CHANGES IN EQUITY**

- **What:** shows the **change in the company's equity** (equity = contributed capital and retained earnings, mainly **the change in retained earnings** over a specific period of time
  - Owners → usually interested in how their equity is growing as a result of profitable operations + how that equity is distributed in the form of dividends
  - Such information is reported on the statement of changes in equity
- **Structure**
  - Starts with the *beginning balance of retained earnings*
  - Then, it *adds net income (or net profit)* or *subtracts net loss* (net income or net loss is found by calculating revenue – expenses, which is down in the statement of comprehensive income)
  - Then, it *subtracts dividends (or drawings)* for the period
  - = what is obtained is the retained earnings for the period (usually the month ending or the financial year ending)

|                                      |
|--------------------------------------|
| Retained Earnings, Beginning Balance |
| +/- Net Income/Loss                  |
| - Dividends                          |
| = Retained Earnings, Ending Balance  |

### Example – exhibit 1-3

Lawn Service

Statement of Retained Earnings

For the month ending 31 January 2015

|                                   |            |
|-----------------------------------|------------|
| Retained earnings, 1 June         | \$ 0       |
| + Net income (or Net profits)     | 965        |
| - Drawings (Dividends)            | 731        |
| <u>Retained earnings, 30 June</u> | <u>234</u> |

**NOTE:** within these statements, you must include

- the company name
  - The statement name
  - The time reference
- 
- **LINKING THE STATEMENT OF CHANGES IN EQUITY** with the **THE STATEMENT OF COMPREHENSIVE INCOME** (profit and loss statement) and the **STATEMENT OF FINANCIAL POSITION** (balance sheet)

- In addition to showing the *change in retained earnings* the statement of changes in equity *links* the statement of comprehensive income and the statement of financial position (links all three)

### Statement of Comprehensive Income

Profits \$ 965

### Statement of Changes in Equity

Retained earnings, 1 January \$ 0  
 + Profits 965  
 – Drawing (965 – 234 = 731  
 Retained earnings, 30 June \$ 234

### Statement of Financial Position

Liabilities 200  
 Contributed capital 100  
 Retained earnings 234

Total assets \$ 534    Total liab & equity \$ 534

### Reporting cash flows

- **THE STATEMENT OF CASH FLOWS (Cash flow statement)**

- **What: reports cash flows**
  - A business needs to answer questions regarding the management of cash: where do we get it, where does it go, will these be enough cash to pay bills?
  - These questions are answered through the statement of cash flows → this reports a company's *cash inflows and outflows* from its *operating, investing and financing activities*
  - Its purpose: to inform users → about how and why → a company's cash changed during the period
- **Financing activities:** generating and repaying cash from creditors (money borrowed) and investors (money received) e.g. \$100 of contributed capital and \$200 in contributed by shareholders (mum)
- **Investing activities:** the buying and selling of revenue-generating assets. E.g. \$260 lawnmower and \$20 petrol can
- **Operating activities:** transactions in the day-to-day operations of the business e.g. the purchase of supplies, the payment of employees and the sale of products (e.g. \$1000 received)

from customers for mowing their lawns, \$90 for petrol and \$5 in interest = the net cash inflow from operating activities for the month was \$905: \$1000 minus \$90 minus \$5)

*Example:*

#### Cash Flow Statement

**For the month ending** 31 January 2015

#### **Operating activities**

|   |        |
|---|--------|
| Cash received from customers              | \$1000 |
| Cash paid for petrol                      | (90)   |
| Cash paid for interest                    | (5)    |
| Net cash provided by operating activities | \$905  |

#### **Investing activities**

|                                       |         |
|---------------------------------------|---------|
| Cash paid for lawnmower               | \$(260) |
| Cash paid for petrol can              | (20)    |
| Net cash used by investing activities | (280)   |

#### **Financing activities**

|                                       |        |
|---------------------------------------|--------|
| Cash received from borrowing          | \$ 200 |
| Cash received from owner              | 100    |
| Drawings (dividend)                   | (731)  |
| Net cash used by financing activities | (431)  |
| Net increase in cash                  | \$194  |
| Cash balance, 1 June                  | 0      |
| Cash balance, 30 June                 | \$194  |

#### *Qualitative characteristics of accounting information → to be considered useful*

- Understandability: the ability of accounting information to “be comprehensive to those who have a reasonable understanding of business... and are willing to study the information with reasonable diligence”
  - **Ramification**: users must spend time studying accounting info → for it to be understandable
- Relevance: the capacity of accounting information to make a difference in decisions
  - It is closely tied to the capacity of:
    - *feedback value*: the ability to assess past performance
    - *predictive value*: the ability to form expectations of future performance
  - **Ramification**: information should have predictive or feedback value and should be timely

- **Reliability:** the extent to which accounting information can be depended upon to represent what it purports to represent, both in description and in number. It must (**ramification**):
  - Be verifiable (free from error)
  - Have representational faithfulness
  - Be neutral
- **Comparability**
  - The ability to use accounting information → to compare or contrast the financial activities of different companies.
  - **Ramification:** entities must disclose the accounting methods that they use → so that comparisons across companies can be made
- **Consistency**
  - The ability to use accounting information → to compare or contrast the financial activities of the same entity over time
  - **Ramification:** an entity should use the same accounting methods year to year and disclose when they change methods
- **Materiality**
  - The threshold → at which a financial item → begins to affect decision making
    - Items are material when they are large enough to possibly affect decision making
  - **Ramification:** when an amount is small enough, normal accounting procedures are not always followed
- **Conservatism**
  - Guides accountants toward the presentation of the least optimistic alternatives when uncertainty exists.
  - **Ramification:** an entity should choose accounting techniques that guard against overstating revenues or assets

*CHAPTER 1 SUMMARY: The components of the conceptual framework of accounting*

- The *conceptual framework of accounting*: the collection of concepts that guide the manner in which accounting is practiced

*Assumptions made when communicating economic information*

| <b>Assumption</b>      | <b>Definition</b>   | <b>Ramification</b>   |
|------------------------|---|---|
| <b>Economic entity</b> | The financial activities of a business → can be accounted for separately from the business's owners | The financial information of the owner will not be mixed with the financial information of the business |
| <b>Monetary unit</b>   | The \$, adjusted for inflation → is the best means of communicating accounting information          | All transactions in foreign currencies are converted to dollars   |
| <b>Time period</b>     | Accounting information → can be communicated effectively over short periods of time                 | Most businesses prepare quarterly and annual financial statements                                       |

|                      |   |   |
|----------------------|---|---|
| <b>Going concern</b> | The company for which we are accounting → will continue its operations indefinitely | If an entity is not selling its assets → then the cost principle is appropriate |
|----------------------|---|---|

*Terms used to identify and describe economic information*

| <b>Term</b>         | <b>Definition</b>   | <b>Reported on the ..</b>         |
|---------------------|---|-----------------------------------|
| Asset               | A resource of a business  | Statement of financial position   |
| Liability           | An obligation of a business   | Statement of financial position   |
| Equity              | The difference between assets and liabilities                               | Statement of financial position   |
| Contributed capital | Equity → resulting from contributions from owners                           | Statement of financial position   |
| Retained earnings   | Equity → resulting from profitable operations                               | Income and equity statements      |
| Revenue             | An increase in assets → resulting from selling a good or giving services    | Statement of comprehensive income |
| Expense             | A decrease in assets → resulting from selling a good or providing a service | Statement of comprehensive income |
| Dividend            | A distribution of profits to owners   | Statement of changes in equity    |

- These terms are used to identify and describe economic information + are part of the conceptual framework

*Principles used to measure economic information*

- These principles are also an integral part of the accounting conceptual framework

| <b>Principle</b>           | <b>Definition</b>  | <b>Ramification</b>   |
|----------------------------|--|---|
| <b>Revenue recognition</b> | Revenues are recorded → when they are earned   | The receipt of cash is not required to record a revenue                                 |
| <b>Matching</b>            | Expenses are recorded → in the time period when they are incurred to generate revenues | For many assets → the cost of the asset must be spread over the periods that it is used |

|             |  |   |
|-------------|--|---|
| <b>Cost</b> | Assets are recorded → and maintained at their historical costs | Except in a few cases → market values are not used for reporting asset values |
|-------------|--|---|

| <b>Statement</b>                                       | <b>Purpose</b>  | <b>Structure</b>  | <b>Links to other statements</b>   |
|--|---|---|--|
| <b>Statement of financial position (balance sheet)</b> | Shows a company's assets, liabilities and equity at a specific point in time      | Assets = liabilities + equity   | <ul style="list-style-type: none"> <li>- The balance in retained earnings (under equity) → comes from the statement of changes in equity</li> <li>- the balance in cash (under assets) → should agree with the ending cash balance on the statement of cash flows</li> </ul> |
| <b>Statement of comprehensive income</b>               | Shows a company's revenues and expenses over a specific period of time            | Revenue – expenses = profit or loss   | - total comprehensive income/loss → goes to the statement of changes in equity → to compute retained earnings  |
| <b>Statement of changes in equity</b>                  | Shows the changes in a company's retained earnings over a specific period of time | Beginning retained earnings +/- net income/loss – dividends = ending retained earnings      | Ending retained earnings → goes to the statement of financial position   |
| <b>Statement of cash flows</b>                         | Shows a company's inflows and outflows of cash over a specific period of time     | Operating cash flows +/- investing cash flows +/- financing cash flows = net change in cash | The ending cash balance on the statement of cash flows → should agree with the balance in cash on the statement of financial position  |

## Week 8: Introduction to management accounting and costing

### Readings

- **ACCT Managerial – Chapter 1 (pg. 2-13); Chapter 2 (pg. 16-28)**

### Learning objectives

1. Describe the contemporary view of accounting information systems
2. Compare and contrast managerial accounting with financial accounting
3. Recognise the role of relevant factors in decision making
4. Describe common elements of a typical business model and management decisions made throughout the business model
5. Describe the manufacturing context
6. Distinguishing manufacturing costs from non-manufacturing costs, and classify manufacturing costs as direct material, direct labour or overhead
7. Diagram the flow of costs in manufacturing companies and calculate the cost of manufacturing or selling goods and services
8. Prepare the financial statements for a manufacturer

**Financial accounting:** *the area of accounting primarily concerned with the **preparation and use of financial statements** by creditors, investors and other users outside the company*

Prior (Weeks 1-7) → transactions that have happened in the past

**Managerial accounting:** *the area of accounting primarily concerned with **generating financial and non-financial information** for use by managers in their decision making roles within a company*

Now → where the business is going in the future

### The contemporary view of accounting information systems

**Accounting information systems:** *a transaction-processing system that captures financial data, resulting from accounting transactions within a company*

- Accounting information is usually captured by a company's accounting information system
- This is the traditional view of AIS –
  - From this perspective, accounting information simply represents financial information, expressed in terms of AUD or other monetary units
- Other, non-financial information (e.g. number of units of inventory on hand), were likely collected and processed outside the traditional AIT
  - HOWEVER, the use of multiple information systems within a company causes a number of problems → e.g. it is costly to support multiple systems, it is difficult to integrate information coming from various systems to make decisions
- in addition, other useful transaction information (the quality of the material purchased, the timeliness of its delivery or customer satisfaction) → may not be captured at all, and therefore not evaluated by management
- THUS, over the past few years, enterprise resource planning (ERP) systems → have been developed in an attempt to address these shortcomings.
  - ERP systems integrate the traditional AIS with other information systems → to capture both qualitative and quantitative data → to collect and organise useful information.

- ERP systems also help transform that information into knowledge that can be communicated throughout an organisation
- Utilising both qualitative and quantitative information is of utmost importance, as in order for managers to make effective business decisions:
  1. financial data must be linked with non-financial data
  2. transformed into useful information and knowledge
  3. communicated throughout the organisation
- **Traditional financial accounting information:**
  - Assets
  - Liabilities
  - Revenues
  - Gross margin
  - Operating
  - Expenses
- **Non-financial information**
  - Other quantitative information:
    - Percentage of defects
    - # of customer complaints
    - Warranty claims
    - Inventory units
    - Budgeted hours
  - Qualitative information:
    - Customer and employee satisfaction
    - Product and service quality
    - Reputation
- All are important for *decision making*

### *A comparison of financial and managerial accounting*

#### *Users of accounting information*

- **External:** shareholders, potential investors, creditors, government taxing agencies, regulators, suppliers, customers and others outside the company→ financial accounting
- **Internal:** employees, teams, departments, regions, top management and others outside the company (referred to as managers)→ managerial accounting
- Although both financial accounting information and managerial accounting information are generated from the same AIS, the information is used in different ways by the various stakeholders of the company
- A stakeholder is any person or group that either affects or is affected by the company's actions and decisions. As such, stakeholders include both internal and external information

#### *Types of information needed by external users*

- **Public companies: shareholders + potential investors:**
  - Information to help them analyse the current and future profitability of an organisation
  - Companies that have issued shares to the public provide this information in the form of annual reports, registration statements, prospectuses and other reports issued to shareholders, potential investors and ASIC

- Although this information is primarily financial (e.g. sales and net profit) → it also may include non-financial information (units shipped and market share)
- It may also include qualitative information → typically described in the Management's Discussion and Analysis section of annual reports
- **Private companies and NFP organisations: banks or potential donors to non-profit organisations**
  - Creditors: Generally want to assess a company's overall financial health, and may be particularly interested in cash flow or ability to repay their loans
  - Potential contributors to NFP: may need to know financial information such as the budget that is spent for charitable purposes, and non-financial information such as how many women with children are served by the local homeless shelter
- Generally, accounting information provided to shareholders, creditors and government agencies is characterised by:
  - A lack of flexibility (its content is often dictated by the users)
  - The reporting of past events using historical costs (Financial statements for the previous three years)
  - An emphasis on the organisation as a whole

#### *Types of information needed by **internal users***

- Include employees, teams, departments, regions and top management → for convenience, these internal users are often referred to as managers
- *Internal users* (particularly management) → *need more flexible and detailed information that will allow them to perform*:
  - Planning
  - Operating
  - Controlling
- **Planning activities**: *the development of both the short term (operational) and long term (strategic) objectives and goals of an organisation and the identification of the resources needed to achieve them*.
  - Long term: known as strategic planning (*the development of long term questions of how an organisation positions and distinguishes itself from competitors*):
    - Market share
    - New equipment investment
    - Sales growth
    - Plant locations
  - Short term (known as operational planning (*the development of short-term objectives and goals*)):
    - Time budgets
    - Sales quotas
    - Customer service needs
    - Current cash needs
- **Operating activities**: i.e. the daily business decisions
  - Should we accept special offers (e.g. accepting special orders may lead to losing other sales as a result)
  - Should we advertise?
  - Should we make or buy parts?
  - What price should be charged?
- **Controlling activities**

- Involves employee motivation, monitoring and evaluation of employees to attain company goals
- E.g. incentives, performance measures, product quality → allows goals to be achieved

### *The functional areas of management*

- **Operations:** produces the products or services than an organisation sells to its customers
  - Concerned with providing quality products and services that are competitive
  - They need accounting information to make planning decisions affecting how and when products are produced and services are provided
  - They need to know the costs of production + storage → in order to decide how much inventory to have on hand
  - They need to know the cost of labour
- **Marketing:** developing, pricing, promoting and distributing goods and services sold to customers
  - They need to know how much a product costs → in order to help establish a reasonable selling price
  - They need to know how a given advertising campaign and its resulting impact on the number of units sold → is expected to impact income
  - They need to know how enhancing a product's features/packaging → influence its cost
- **HR:** the utilisation of human resources to help an organisation reach its goals
  - HR supports other functions by recruiting and staffing, designing compensation and benefit packages, ensuring the safety and overall health of personnel, and providing training and development opportunities for employees
  - These decisions require input from all other functions
  - HR needs certain accounting info such as:
    - Hiring new employees → made under budget constraints
    - Ensuring safe workplaces → may involve the redesign of the manufacturing workplace → cost of redesign?
- **Finance:** managing the financial resources of the organisation
  - Make decisions about how to raise capital and how to invest it
  - Need accounting info to answer such questions:
    - Whether money should be raised through borrowing or selling shares
    - Whether a new piece of manufacturing equipment should be purchased or leased
    - Whether plant expansion should be paid for in cash or by borrowing from the bank

### *The information needs of internal and external users*

- **Flexibility:** Due to the varying needs of internal users → managerial accounting is more flexible than financial accounting
- **Customisation:** while financial accounting is geared toward the preparation of financial statements other reports according to GAAP and other rules → managerial accounting can be customised to a specific company or segment of a company
- **Areas:** while financial accounting is primarily concerned with reporting on the company as a whole, managerial accounting emphasises the various segments of a company such as divisions, departments, sales regions and product lines
- **Orientation:** because of the decision focus of internal managers, managerial accounting information must focus on the future rather than the past
- **Information:** planning is a crucial part of a manager's job → up-to-date information is therefore required

- **Timeliness:** although the timeliness of information is paramount, managerial accounting information is often less precise, and often includes estimates

### *Recognise the role of relevant factors in decision making*

*Decision making: the process of identifying alternative courses of action and selecting an appropriate alternative in a given decision-making situation*

- There are many variables or factors that must be considered → the number and type of variables considered might differ for each individual and for each decision that individual makes
- Decisions may need to be made under time, budget or other constraints → therefore they may not be perfect, but they should be the best you can make given the information that is available to you at the time
- Decisions may also often lead to other decisions
- The process of the word ‘appropriate’ alternative → cannot be underestimated
  - With the information available at the time, the best decision is the decision that broadly encompasses all factors reasonably considered
  - The actual correctness of a decision is influenced by a range of factors and may not be fully realised until sometime in the future
  - All decisions therefore require judgement
- THUS, an effective decision making model is one THAT FOCUSES ON RELEVANT FACTORS that differ between alternatives

### *Relevant costs*

- **Relevant costs:** costs that differ among alternatives and are therefore relevant to decision making
- E.g. if you were deciding which car to purchase, and each car you were considering had the same options at the same cost → you would conclude that those options are not relevant to decision making
- Relevant costs → therefore those costs that are relevant to decision making, as they are those costs that differ between alternatives → requires cost-benefit analysis between alternatives
- In choosing among cars, if one car has air conditioning and the other does not, the cost of air conditioning is relevant because choosing one of the other cars could eliminate the cost
- RELEVANT COSTS ARE AVOIDABLE COSTS

### *Sunk costs*

- **Sunk costs:** costs that have already been incurred and are therefore irrelevant to decision making
- Because they cannot be avoided → they are irrelevant to decision making
- IRRELEVANT COSTS ARE UNAVOIDABLE COSTS
- Also, future costs that do not differ among alternatives → unavoidable → irrelevant

### *The common elements of a typical business model and management decisions made throughout the business model*

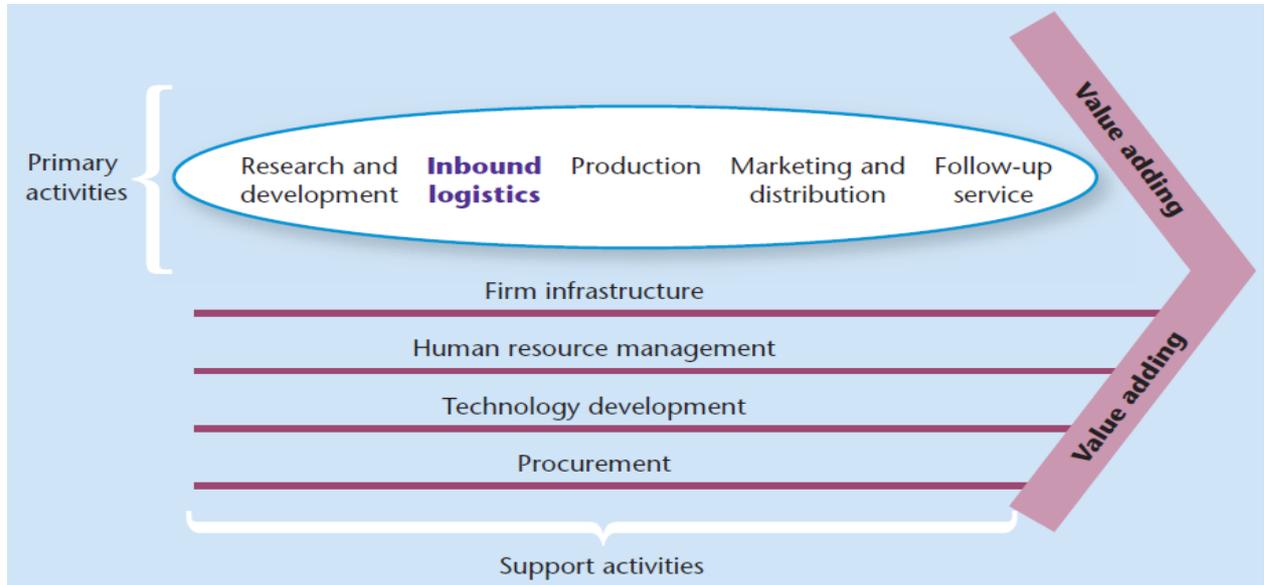
#### *Common elements of a typical business model*

**Business model:** the organisation’s approach → to conducting core activities

- The management accountant is crucial in modern business → assisting the organisation to formulate and implement its business model

- **Mission:** sets out the *fundamental reason for the organisation's existence*
- **Vision and core values:** many companies identify a vision statement and core values, *which guide the achievement of the company mission*
- **Business strategy:** the company identifies the *primary ways in which the vision, mission and core values are to be pursued*

### The value chain



### The manufacturing context

#### Types of companies

**Manufacturing companies:** companies that take raw materials from other companies and transform them into a finished product, usually with the assistance of labour and other supporting activities, technologies and infrastructure (overheads)

**Service companies:** companies that do not sell a tangible product as their primary business (provide services such as airlines, hospitals etc)

**Merchandising companies (retailers):** companies that sell products that someone else has manufactured

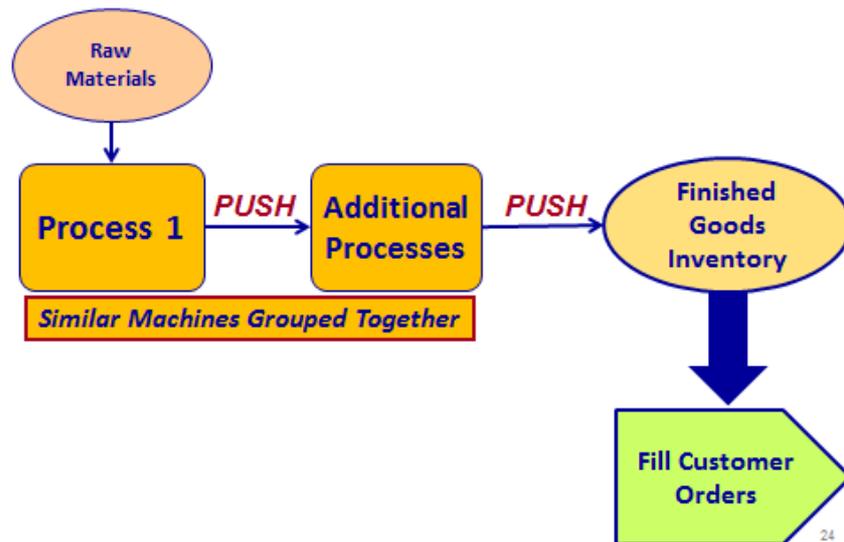
#### Inventories in a traditional environment

- Serve as buffers in case of unexpected demand for products or unexpected problems in production
- Three inventories exist in a traditional environment:
  - Raw materials (inputs)
  - Work-in-process (the value of inventory that is being processed)
  - Finished goods (outputs)

#### Manufacturing in a traditional environment

1. Raw materials → process 1
2. Additional processes → finished goods inventory

### 3. Fill customer orders



- Traditionally, the factory of a manufacturing company was organised with similar machines grouped together
- As raw materials are processed in each area, they are ‘pushed’ to the next area for further processing
- It is then moved to additional processes
- After leaving the finishing department, the good is ready for packaging and selling to customers
- **In this traditional system, it was normal (and perhaps desirable) to accumulate raw materials inventory + finished goods inventory to serve as buffers in case of unexpected demand for products or unexpected problems in product**
- **It was also normal to accumulate inventories of partially completed products (work in process inventory)**

#### *Lean production and JIT environment*

*Lean production: a system focused on eliminating waste associated with holding more inventory than required, as well as:*

- *Making more product than is needed*
- *Over-processing a product (doing more than a customer values)*
- *Moving products (and people) further than required*
- *Experiencing downtime caused by people waiting for work to do and products waiting in mid-assembly*

*JIT manufacturing: the philosophy of having materials arrive ‘just in time’ to be used in production and for finished goods inventory to be completed just in time to be shipped to customers*

- In an effort to reduce costs and increase efficiency → companies began to focus on the costs and problems associated with the traditional manufacturing facility and the practice of carrying large amounts of inventory

#### Lean production

- One of the key aspects of lean production is managing inventory so only that which is needed in the immediate future is carried
- Disadvantages of traditional manufacturing systems:

- Storage and insurance costs (because of carrying large amounts of inventory)
- The production of lower-quality products with more defects
- The buffers → may lead workers to pay less attention to detail and work less efficiently
- The organisation of factories in which similar machines are grouped together → Greatly increases the time necessary to manufacture products and makes it more difficult to meet special orders or unexpected increases in demand without having large amounts of inventory on hand

### Just-in-time (JIT)

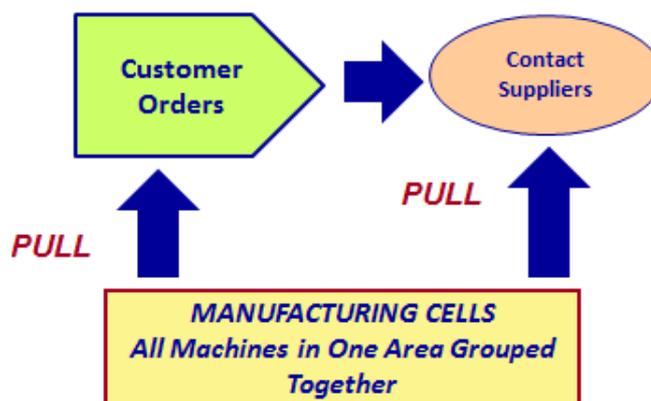
- The process begins with a customer order, and products are ‘pulled’ through the manufacturing process
- Under ideal conditions, companies operating in a JIT environment would reduce inventories of raw materials, work-in-process and finished goods to very low levels or even zero.
- With only a small buffer of extra finished goods and raw materials, it is imperative that companies employing JIT be able to procure supplies and raw materials on a timely basis
- Thus, regardless of benefits, there are higher risks that may arise in satisfying customer demand when lower inventory stocks are held

### Ensuring the success of lean production and JIT

- This must be done through companies being able to manufacture products very quickly
- This often entails restructuring the factory itself → factories are typically organised so that all the machinery and equipment needed to make a product is available in one area – ‘manufacturing cells’
  - These cells minimise the handling and moving of products + reduces or eliminates setup time

### Benefits:

1. Reduced waste and scrap
2. Improved product quality
3. Lower overall production costs
4. Lower labour costs
5. Reduced inventory
6. Reduced processing time
7. Increased manufacturing flexibility
8. → increased customer satisfaction, increased motivation and increased profits

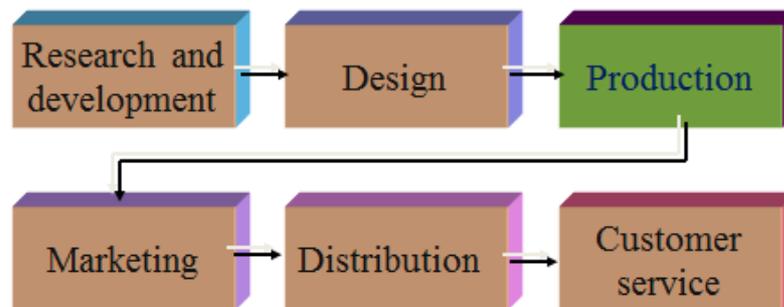


*Distinguishing manufacturing costs from non-manufacturing costs + classifying manufacturing costs as direct material, direct labour or overhead*

*Manufacturing costs vs. non-manufacturing costs*

*Manufacturing costs: costs incurred in the factory or plant (PRODUCTION)*

*Non-manufacturing costs: costs that are not related to the production process and classed as selling and administrative costs. These costs cannot be classed as inventory and must be immediately expensed in the profit and loss statement. They are therefore incurred outside the plant or factory (R&D, design, marketing, distribution, and customer service)*



*Direct materials, direct labour and manufacturing overhead*

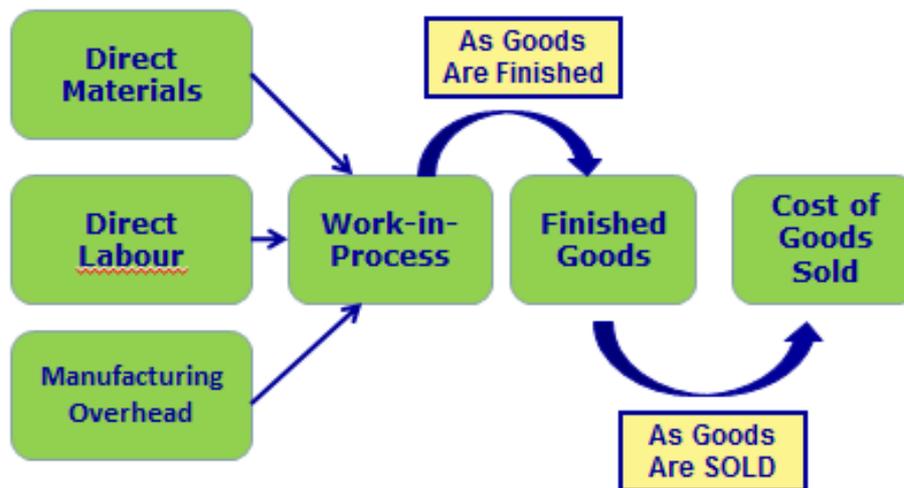
| Direct Materials  | Direct Labour  | Manufacturing Overhead   |
|---|--|--|
| <ul style="list-style-type: none"> <li>• Various materials that can be directly and conveniently traced to a product and that become an integral part of the finished product</li> <li>• E.g. Ford → sheet metal and tyres</li> </ul> | <ul style="list-style-type: none"> <li>• Labour costs of assembly-line workers (includes fringe benefits)</li> <li>• Assembly line workers are the clearest example of direct labour → identification accurate through timesheets</li> </ul> | <ul style="list-style-type: none"> <li>• Indirect materials such as welding material, glue, screws, etc.</li> <li>• Indirect labour such as factory maintenance workers and factory cleaners</li> <li>• Other factory costs</li> </ul> |

*Non-manufacturing costs*

- *Non-manufacturing costs: costs not incurred in the production process (selling and administrative costs) these costs cannot be classed as inventory and must be immediately expensed in the profit and loss statement*
- if a particular cost will still occur, it is generally a non-manufacturing cost
- examples:
  - advertising costs
  - commissions paid to salespersons
  - administrative and accounting salaries
  - office supplies

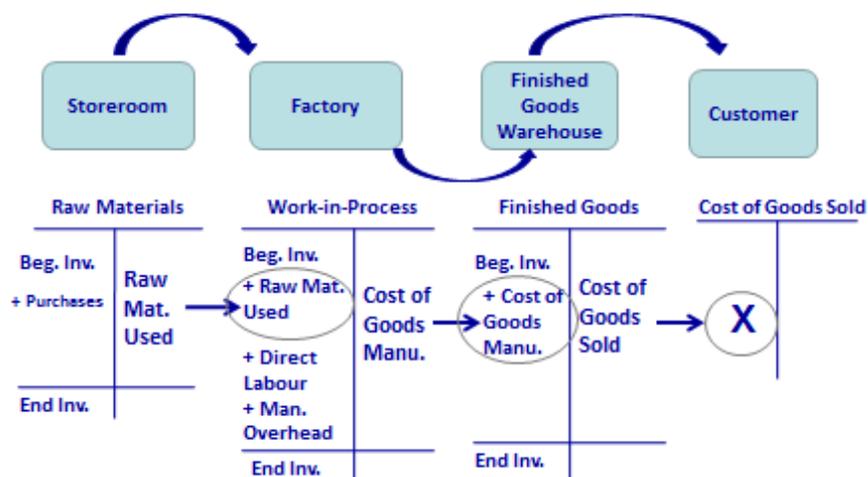
*Diagramming the flow of costs in manufacturing companies + calculating the cost of manufacturing or selling goods and services*

## Cost flows in a traditional manufacturing company



1. Production costs (storeroom) → direct materials, direct labour and manufacturing overhead are added to:
2. Work in process (factory)
3. Finished goods (finished goods warehouse)
4. COGS (customer bought)

### Typical cost flows and T-accounts



#### 1. Raw materials purchase (Storeroom)

- NTL purchased an additional 40,000 of raw materials during the year. The journal entry to record the purchase is:

| GENERAL JOURNAL |    |                            |        |        |
|-----------------|----|----------------------------|--------|--------|
| Date            |    | Description                | Debit  | Credit |
| 2010<br>XX      | XX | Raw Materials Inventory    | 40 000 |        |
|                 |    | Accounts Payable (or Cash) |        | 40 000 |

- Dr raw materials inventory (increase in an asset)
- Cr accounts payable or cash (increase in a liability/decrease in an asset)

## 2. Moving raw materials to WIP (Factory):

- NTL moves \$45,000 of raw materials to the factory for use in manufacturing cabinets, \$5000 of raw materials remains in raw materials inventory. The following journal entry should be made, and the T-account show the flow:

| GENERAL JOURNAL |    |                           |        |        |
|-----------------|----|---------------------------|--------|--------|
| Date            |    | Description               | Debit  | Credit |
| 2010            |    |                           |        |        |
| XX              | XX | Work-in-Process Inventory | 45 000 |        |
|                 |    | Raw Materials Inventory   |        | 45 000 |

- Dr Work-in-process inventory (increase)  
Cr Raw materials inventory (decrease)
- Any raw materials not used during the year remain in the raw materials inventory account (remaining ending inventory = \$5000 → therefore the raw materials used in production are \$45,000, which is moved to work-in-process)

| Raw Materials |            | Work-in-Process |  |
|---------------|------------|-----------------|--|
| \$10 000      |            |                 |  |
| + 40 000      |            |                 |  |
|               | - \$45 000 | + \$45 000      |  |
|               | \$5,000    |                 |  |

- Cr raw materials (-45,000) Dr work in process (+45,000)

## Direct Labour (Work-in-process)

- As direct labour costs of \$65,000 are incurred (factory workers work on the cabinets), the cost of the workers is added to the raw material cost in the WIP inventory account. The journal entry is:

| GENERAL JOURNAL |    |                           |        |        |
|-----------------|----|---------------------------|--------|--------|
| Date            |    | Description               | Debit  | Credit |
| 2010            |    |                           |        |        |
| XX              | XX | Work-in-Process Inventory | 65 000 |        |
|                 |    | Wages Payable (or Cash)   |        | 65 000 |

- Dr work in process inventory (increase of \$65,000, as the cost of the workers is added to the raw material cost in the WIP inventory account)  
Cr wages payable or cash (decrease in cash/wages payable)

## Manufacturing overhead (Work-in-process)

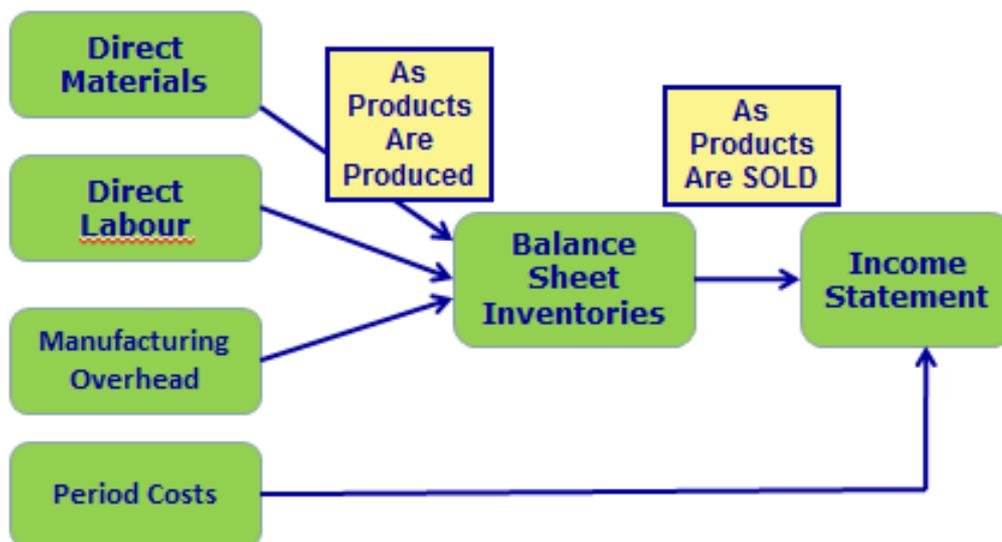


- 30,000 was beginning inventory, 5000 was ending inventory (finished, but not sold) 190,000 was accumulated costs in the finished goods inventory

| GENERAL JOURNAL |    |                          |         |         |
|-----------------|----|--------------------------|---------|---------|
| Date            |    | Description              | Debit   | Credit  |
| 2010            |    |                          |         |         |
| XX              | XX | Cost of Goods Sold       | 215 000 |         |
|                 |    | Finished Goods Inventory |         | 215 000 |
|                 |    |                          |         |         |
|                 |    | \$5,000                  |         |         |

- Dr cost of goods sold (increase)  
Cr finished goods inventory (decrease)

*Cash flows in a traditional manufacturing environment*



- Direct materials, direct labour and manufacturing overhead are assets (and therefore go on the balance sheet)
- It is not until they are sold that they go into the income statement (COGS)
- Because raw materials are immediately put into production when purchased, there is no need to record their purchase in a separate raw materials account
- Likewise, because all goods are typically finished and shipped out immediately to customers under a JIT environment, there is no reason to keep track of WIP or finished goods inventory
- Period costs:



Cost of Goods Sold (COGS) =

1. Beginning finished goods inventory + COGM = Cost of goods available for sale
2. Cost of goods available for sale – ending finished goods = COGS

*Gross profit*

- **Manufacturing company example**
  - Sales: \$627,000

|                      |                |
|----------------------|----------------|
| Sales                | \$627,000      |
| – Cost of goods sold | <u>327,000</u> |
| = Gross profit       | \$300,000      |

Gross Profit =

1. Sales – COGS = gross profit

*Net profit*

- **Manufacturing company example:**
  - Varsity has operating expenses as follows:
    - Sales, salaries and commissions: \$80,000
    - Delivery expense: \$10,000
    - Administrative expenses: \$30,000
    - Total: \$120,000

|                      |                |
|----------------------|----------------|
| Gross profit         | \$300,000      |
| – Operating expenses | <u>120,000</u> |
| = Net Profit         | \$180,000      |

Net profit =

2. Gross profit – operating expenses (non-manufacturing expenses) = net profit