

Module 1: Introduction to the course and the role of accounting information in business

• Accounting

- Accounting can be defined as the process of **identifying**, **measuring** and **communicating** economic information (both financial and non-financial) about an entity to a variety of users for decision-making purposes
 - o **Identifying business transactions**: A business transaction is an event that affects the financial position of an entity and can be reliably measured and recorded
 - o **Measuring of information**: Identify how transactions will affect the entity's position, and groups together similar items such as expenses and income
 - o **Communication of relevant information**: Statement of profit or loss, and the statement of financial position helps users with decision making

• Accounting users

- Accounting information is designed to meet the needs of both **internal and external users**
 1. **Internal users** (entity owners or management)
 - o Help make decisions concerning the operations of a business entity
 - **Example**: Assist in determining the appropriate sales mix and price of goods
 - o Evaluate the success of the entity in achieving its objective
 - **Example**: Compares the performance of the entity against budgets and assessing how well employees have achieved their set targets
 - o Weigh up various alternatives when investing the resources of the business entity
 2. **External users** (stakeholders)
 - o Parties outside the entity who use information to make decisions about the entity

Stakeholder	Accounting information and decision making
Shareholders	Information to assess the future possibility of an entity, the future cash flows for dividends and the possibility of capital growth of investment
Banks	Information to determine whether the entity has the ability to repay a loan
Suppliers	Information to determine the entity's ability to repay debts associated with purchases
Employees	Information concerning job security, the potential to pay awards and bonuses, and promoting opportunities
Consumers	Information regarding the continuity of the entity and its ability to provide appropriate goods and services

• Financial accounting

- Financial accounting provides information for the use of **external** parties so that they can make economic decision about the entity. Financial accounting is bound by the generally accepted accounting principles (**GAAP**). There is usually a **time lag** from the date of the report to when it is distributed to the various users. Financial accounting information is concise, as extra detail is disclosed in the notes to the **financial statements**. The users of financial statements include suppliers, consumers, banks, investors and regulatory bodies.

• Management accounting

- Management accounting concerns the creation of reports for use by management in **internal** planning and decision making. Management accounting reports are much **less formal** than financial accounting reports, as they are **not bound by regulatory requirements**. These reports can also be tailored to suit the needs of management. There is **no time lag** with management reports, so they are up to date.

• Financial statements

- Set of statements directed towards the common information needs of a wide range of users (**internal** and **external**)
 - o The **statement of cash flows** reports on an entity's cash inflows and cash outflows, which are classified into operating, investing and financing activities
 - o The **statement of profit or loss** reflects the profit for the entity for a specified time period
 - o The **statement of financial position** reports an entity's assets and liabilities at a point in time

- **Capital structure analysis**

- An entity's capital structure is the proportion of **debt financing** relative to **equity financing**, and reflects the entity's financing decision
 - o Financial flexibility is the ability of an entity to adapt to change
 - o Investments in assets are funded externally by liabilities, or internally by owner's equity
- Analysis of the capital structure of an entity:
 - o Assess a business' **long-term flexibility**:
 - Too much existing debt reduce flexibility
 - o Assess **financial risk**:
 - Like short-term debt, long-term debt must at some point be re-paid
 - Unlike, most short-term debts, long term debt usually incurs interest
- Capital structure indicate use of debt relative to equity to finance investments in assets
 - o The **debt ratio** indicates how many dollars of liabilities exist per dollar of assets

$$\frac{\text{Total liabilities}}{\text{Total assets}} \times 100 = x \%$$
 - o The **debt to equity ratio** indicates how many dollars of debt exist per dollar of equity financing

$$\frac{\text{Total liabilities}}{\text{Total equity}} \times 100 = x \%$$
- **Interest coverage ratio** measures the number of times an entity's EBIT (earnings before interest and tax) covers the entity's net finance costs
 - o Net finance costs (total interest expense) = interest expense – interest income op

$$\frac{\text{EBIT}}{\text{Net finance costs}} = x \%$$

- **Market performance analysis**

- These ratios are most applicable to companies listed on organised securities exchanges, as the ratios relate reported numbers to the number of shares on issue or the market price of the share
- **Earnings per share** is a measure of the profit generated for each ordinary share on issue
 - o Shown on the face of the income statement
 - o Companies seek to achieve growth in earnings per share, as this signals to the market a company's earning ability

$$\frac{\text{Profit available to ordinary shareholders}}{\text{Weighted number of ordinary shares on issue}} = x \text{ cents/share}$$
- **Price earnings** ratio is a market value indicator that reflects the number of years of earnings that investors are prepared to pay to acquire a share at its current price

$$\frac{\text{Current market price}}{\text{Earnings per share}} = x \text{ times}$$

- **Limitations of ratio analysis**

- Limitations of the analytical process need to be considered when interpreting and relying on the ratios to form an opinion as to a firm's financial health, both past and present
 - o Limitations relate to the **quality** of the financial statements and the data disclosed (or not disclosed)
 - o The balance sheet reflects the financial position of an ongoing entity **at a particular date** and may not be representative of the rest of the year
 - o Different **accounting policies** (such as depreciation) will give rise to different profit values
 - o **Non-financial considerations**, such as environmental performance, are also taken into consideration by users when assessing an entity's performance

- **Payback period**

- The **payback period** is the **amount of time** required for a firm to recover its initial investment in a project, as calculated from cash inflows
- **Decision rule:**
 - o The length of the **maximum acceptable payback period** is determined by management
 - o If the payback period is **less** than the maximum acceptable payback period, **accept** the project
 - o If the payback period is **greater** than the maximum acceptable payback period, **reject** the project
 - o If the projects are mutually exclusive of under capital rationing, select the projects with the **lowest payback period first**

$$\text{Payback} = \frac{\text{Initial investment}}{\text{Operating cash flow annuity}}$$

A company invests \$10,000 in a project that is expected to generate: \$2,000 in Y₁; \$3,000 in Y₂; \$4,000 in Y₃; \$5,000 in Y₄ and \$1,000 in Y₅.

The company's policy requires a maximum payback of 3 years.

Question:

Calculate the investment's payback period and comment on the project's acceptability.

Answer:

When the operating cash flows are not an annuity the payback period can be determined by sequentially reducing the initial investment by the amount of each annual payment.

When the outstanding balance is less than the next annual payment the fraction of the year can be estimated by dividing the remaining balance by the amount of that next annual payment.

Period	Cashflow	Cumulative cashflow
Yr 0	-10,000	-10,000
Yr 1	+2,000	= -8,000
Yr 2	+3,000	= -5,000
Yr 3	+4,000	= -1,000
Yr 4	+5,000	= 4,000
Yr 5	1,000	

Payback period = 3 + 1,000/5,000 = 3.2 years

Payback period in years and months: 3 years and 3 months (0.2x12=2.4 months)

- **Advantages:**
 - o Simple to calculate and intuitive
 - o Because it can be viewed as a measure of risk exposure, many firms use the payback period as a decision criterion
- **Disadvantages:**
 - o It ignores time value of money
 - o Ignores all cash inflows after payback has occurred
 - o The appropriate payback period is merely a subjectively determined number

- **Accounting rate of return**

- Accounting rate of return is a financial ratio used in capital budgeting
- ACC calculates the % return generated from net profit of a proposed capital investment:
 - o Unlike the other methods, the ARR method does not use cash flows in its decision rule

$$ACC = \frac{\text{Average profit}}{\text{Average investment}}$$

- **Decision rule:**
 - o Usually, the ARR is compared to the company's current ROA or the ROA for the industry
 - o Accept the investment with the **highest ARR** at the time
 - o If the ARR of an investment is equal to or greater than the required rate of return, the project is **acceptable**
 - o If it is less than the desired rate, it should be **rejected**
- **Advantages:**
 - o It is easy to compute and understand
- **Disadvantages:**
 - o Time value of money is ignored
 - o ARR is built on evaluation of profits and it can be easily manipulated with changes in non-cash items such as bad-debts write-offs and depreciation methods
 - o The cost of capital is ignored: ROA does not equal cost of capital
 - o ARR can give misleading information when evaluating investments of different size

- **Summary**

- The **overall budget variance** is the difference between actual and budget (eg actual profit - budgeted profit)
- The **sales volume (profit) variance** holds prices (variable cost per unit and selling price per unit) constant at the budgeted rate and measures the effect of a volume difference (eg flexed profit - budgeted profit)
- The **total flex budget variance** holds volume constant at the actual level achieved and measures the effect of a price and efficiency difference (eg actual profit - flexed profit) thus consists of price and efficiency variances
- The total flex budget variance then can be divided into **individual flex budget variances**, such as sales, labour and materials for further analysis

- **Budget targets and behaviour**

- Aspect of behaviour relates to the role of **budget targets in motivating managers**;
 - o Budget targets are best set as challenging but attainable
 - o The manager should have 'ownership' of the target
 - o The manager should be able to control the factors influencing the achievement of the budget target
 - o The budget estimates should give enough scope for managers to properly execute their duties

- **Investigating variances**

- Management by exception: only **significant variances** are investigated
- Assign responsibility to the correct manager for variances
- There should be a link between responsibility for a variance and reward/punishment
- A favourable variance may not really be as favourable as it appears:
 - o Budgets might be padded (**budgetary slack**)
 - o Results might be padded (**manipulating sales/costs figures**)
 - o One variance could have a crossover effect with another where an adverse variance may hide behind a favourable variance

- **Summary**

- Entities use relevant income/costs to analyse three decision making scenarios;
 - o Make or buy
 - o Special order
 - o Dropping a product
- *Overall budget variance = Actual profit – budgeted profit*
- *Sales volume variance = Flex profit – budgeted profit*
 - o Difference only due to differences in volume
- *Flex budget variance = Actual profit – flex profit*
 - o Budget variance – sales volume variance
 - o Difference due to sales price
- *Individual flexed budget variances = Actual – flexed*
- Variances are caused because
 - o Sales volume is more/less than expected
 - o Prices paid for materials/wages are more/less than expected
 - o The amount of raw material or labour time can be more or less than expected
 - o Sales price is more/less than expected