UNIT 3: BUSINESS ANALYSIS AND STRATEGY

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Budgeting

Budgeting

Definition: A budget is a financial plan for the future; without such a plan, businesses and individuals often get into financial trouble.

- **Sales revenue budgets** set out a business' planned revenue from selling its products. Important information includes expected level of sales and the likely selling price of the product.
- **Expenditure budgets** set out a business' planned expenditure on labour, raw materials, fuel and other items essential for production.

The Pros and Cons of Budgeting

Advantages:

- A means of **controlling income and expenditure**.
- **Regulate the spending** of money and highlight losses, waste and inefficiency.
- They **act as a review** and allow time for corrective action to take place.
- They **allow delegation** without loss of control – subordinates can be set their own targets.
- They help in the **co-ordination of a business** and improve communication between different sections of the business.
- Budgets **provide clear targets** to be met and should help employees to focus on costs.
- Can **act as a motivator** for staff if budget is met.

Limitations:

- They can **be time consuming** for managers in small businesses; especially for those who are not particularly numerate.
- Some personnel can resent having to meet budget targets that they have had no part in constructing. **Poor motivation** and missed targets can result.
- If the actual figures are very different from the budgeted ones the budget can **lose its significance**.
- The budget **must not be too inflexible** as business opportunities might be missed.
- Poorly constructed budgets can lead to **poor decision making**.

Budgetary Control: Variances

Definition: A variance is any unplanned change from the budgeted figure. They occur when an actual figure for sales or expenditure differs from the budgeted figure. Variances can be favourable (F) or adverse (A):

- A ***favourable variance*** exists when the difference between the actual and budgeted figures will result in the business enjoying higher profits than shown in the budget. For example, when:
  - expenditure is less than expected
  - revenues are higher than expected.
- An ***adverse variance*** occurs when the difference between the figures in the budget and the actual figures will lead to the business' profits being lower than planned. For example, when:
  - expenditure is higher than expected
  - revenues are lower than expected.

JKP Ltd is a medium-sized business that manufactures ready-made meals. It was founded in 1974 by John Kenneth Pickles and is run today by his son, Peregrine. Peregrine has recently been studying the outcome of last year's company budget as shown in the table below.

	Budgeted (£000s)	Actual (£000s)	Variance (£000s)
Sales Revenue	2850	2420	430 adverse
Cost of Sales	1980	1760	220 favourable
Gross Profit	870	660	210 adverse

(a) Calculate the values of the variances for (i), (ii) and (iii), stating in each case whether the variances are adverse or favourable. [3]

Reasons for changes in variances:

- economy is in a recession, so people are spending less
- a competitor brought out a new product
- raw material costs may have fallen
- new/cheaper suppliers may have been found
- employees may have been better trained/motivated
- fewer employees may have been employed to produce the same output.

Zero Budgets

Definition: It involves managers starting with a clean sheet where they must justify all expenditure. This does the following:

- improves control
- helps with allocation of resources
- limits the tendency for budgets to increase annually with no real justification for the increase
- reduces unnecessary costs
- motivates managers to look at alternative options.

Reasons for Changes in the Variances

Favourable sales variances might be caused by numerous factors, including:

- an effective bonus scheme for salesmen
- a successful advertising campaign
- favourable weather
- the demise of a competitor.

Adverse sales variances might be caused by several factors, including:

- the successful activities of competitors
- they may have lost an important contract
- ineffective advertising
- logistical problems that meant that stock did not arrive with the customer on time
- bad weather
- general economic conditions (recession)
- changes in consumer tastes.

Favourable cost variances might have been caused by several factors, including:

- employees may have been better trained/motivated leading to improved labour productivity
- reduced costs of imported components due to a strengthening of Sterling
- raw material costs may have fallen.

Adverse cost variances might have been caused by several factors, including:

- a strike by employees
- bad weather in the growing region for crops such as sugar or coffee
- a devaluation of Sterling
- unexpected price rises from suppliers.

Depreciation

Depreciation

Definition: The difference between what the value was and what it is now is called depreciation. Depreciation represents the fall in the value of these fixed assets, either due to their use, due to time, or due to obsolescence.

The straight-line method of depreciation assumes that a fixed asset depreciates an equal amount to each year of its expected useful life.

Calculation: $\dfrac{\text{Original Cost - Residual Value}}{\text{Expected life of the asset (years)}}$

Example: A vehicle was bought for £10,000 and its residual value after 4 years was expected to be £2,000.

Calculate the annual rate of depreciation:

= (original cost – residual value) / life expectancy

= (10,000-2,000) / 4

= £2,000

Calculate the yearly value of the vehicle:

= after 1 year (£10000 - £2000) = £8,000

= after 2 years (£8000 - £2000) = £6,000

= after 3 years (£6000 - £2000) = £4,000

= after 4 years (£4000 - £2000) = £2,000

Why is it important for businesses to depreciate their assets?

- It is essential for businesses to depreciate the value of their machinery, because otherwise the true value would not be reflected.
- Over time machines become worn out and obsolete. If they were valued in the business' books at their cost price it would give a false picture of their true worth and it would cause the business in general to be overvalued.
- If it was known that the business was window-dressing its accounts in such a way, it would affect the business' reputation and may affect their ability to borrow money.
- By depreciating the value of their machinery, the business is in a better position to appreciate its real value and hence the need for putting money aside in order to purchase replacement machinery in the future.
- There is also a legal requirement to devalue fixed assets in order to reflect their true worth.

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Market Analysis

Price Elasticity of Demand (PED)

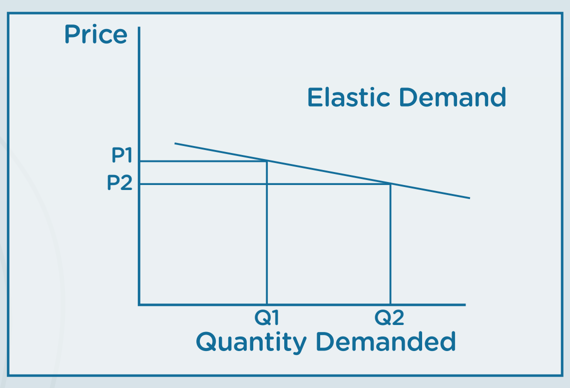
Definition: Measures the sensitivity of demand to a change in price. Price elasticity is always negative as the increase in price will lead to a fall in sales and, conversely, a reduction in price will lead to a rise in sales.

Formula: $\dfrac{\text{Percentage change in quantity demanded}}{\text{Percentage change in price}}$

A value greater than 1 is called price elastic, whilst a value of between 0 and 1 is called price inelastic.

Price Elastic

- Number is greater than 1.
- This means that a change in price will cause a more than proportional change in the quantity demanded. The level of demand is sensitive to a change in price.
- If the price goes up, the demand falls dramatically.
- If the price goes down, the demand rises dramatically.



A fall in price from P1 to P2, sees a more than proportional increase in quantity demanded from Q1 to Q2. This means that although revenue from each item sold has fallen, sales have increased more than proportionately which means that total revenue has increased. From a business point of view, if demand for the good is elastic then revenues will increase if your price falls, so it can make sense to cut prices.

Price Elasticity of Demand

Inelastic	• Necessities, such as water, power, petrol and basic foods. • Addictive goods, such as cigarettes. • The stronger the branding, the fewer alternatives (substitutes) are acceptable to customers. Good branding can therefore make a product more inelastic.
Elastic	• Goods that have lots of substitutes and are in a very competitive market, such as bread, cereals and chocolate bars. • Luxury goods, goods that can be done without e.g., sport cars, exotic holidays and organic bread. • Expensive goods that are a big percentage of income, such as sports cars.

Income Elasticity of Demand

Definition: measures how sensitive demand is to a change in income.

Formula:

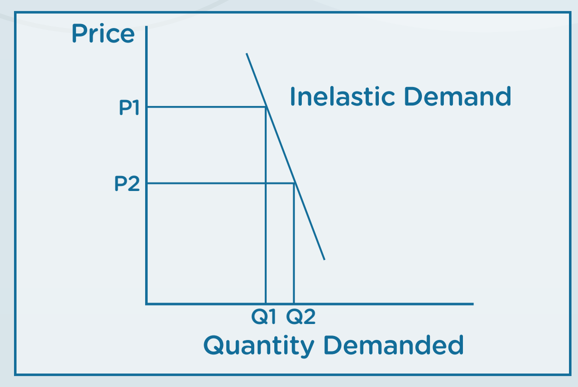
$$\text{Income elasticity} = \frac{\text{Percentage change in quantity demanded}}{\text{Percentage change in income}}$$

Income elasticity of demand can be grouped into three categories:

- **Normal goods** – as real incomes increase, the demand for normal goods will also increase positive income elasticity that is less than 1. Examples are matches, lemonade, newspapers.
- **Luxury goods** – the demand for luxury goods will grow at a faster rate than the increase in real income that created the change in demand: positive income elasticity that is greater than 1. Examples are holidays abroad, health club membership, sports cars.
- **Inferior goods** – these are cheap substitutes of products people prefer to buy when their income is reduced (such as value line baked beans): negative income elasticity.

Price Inelastic

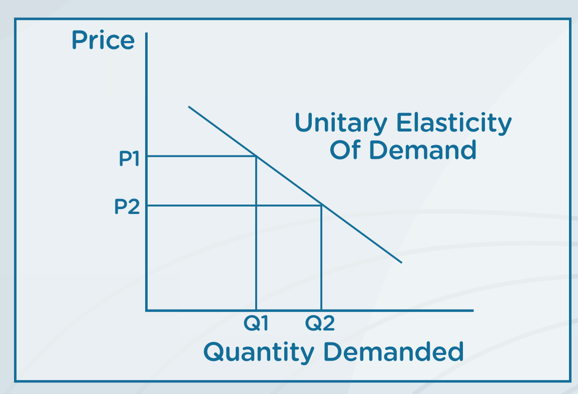
- Number is less than 1.
- If a good has inelastic price elasticity of demand, then a change in price causes a less than proportional change in the quantity demanded.
- If the price goes up, the demand falls just a little.
- If the price goes down, the demand increases just a little.



A fall in price from P1 to P2, sees a less than proportional increase in quantity demanded from Q1 to Q2. This means that although sales have increased, the fall in revenue from each item sold results in total revenue falling. From a business point of view, if demand for the good is inelastic, revenues will fall if your price falls, so it rarely makes sense to cut prices.

Unitary Inelastic

- Number is equal to 1.
- If a good has unitary price elasticity of demand, then a change in price will cause an equal and proportional change in the quantity demanded.



A fall in price from P1 to P2 sees an equal and proportional increase in quantity demanded from Q1 to Q2. This means that although sales have increased, the fall in revenue from each item sold results in total revenue remaining the same. From a business point of view it makes sense to cut prices if increased output reduces costs as this will lead to an increase in profits.

Interpreting the results of YED

All income elasticity of demand values can be placed into one of three categories:

ELASTIC – number is greater than 1 (positive and high) – this means that a change in income causes a more than proportional change in the quantity demanded. This result usually applies to luxury goods or services. For example, if consumer incomes decrease then this might result in a fall in cruise holidays or designer handbags.

INELASTIC – number is between 0 and 1 (positive and low) – this means that a change in income causes a less than proportional change in the quantity demanded. This result usually applies to normal goods or services. For example, if consumer income increases then this might encourage people to eat more fresh fruits and vegetables, thereby increasing the demand for these goods.

NEGATIVE – number is less than 0 (negative) – this means that if income rises then demand falls, and vice versa. If income falls then demand rises. This usually applies to inferior goods or services, where superior goods and services are available when a consumer has the money to purchase them. Examples of this includes supermarket own brand products, such as Tesco Value Baked Beans. If consumer income increases, then people may be able to afford Heinz Baked Beans instead. The opposite is that if consumer incomes fall, people might try to cut back on their expenditure and buy cheaper alternatives for the same type of good or service

If a business is producing inferior goods with a negative YED	If a business is producing luxury goods with YED of above 1 (positive and high), then this means it is income elastic
Demand will increase during periods of recessions and economic downturns. Therefore, retailers may be advised to advertise their value products. This may attract customers trying to survive on a tight budget. If a business is producing an inferior good and economic growth in the long term is positive, then they should consider diversifying into producing normal goods.	This means that demand will be sensitive to changes in income. High economic growth may lead to a boom in sales, but the business should be aware that this boom in sales could come crashing to an end if the economy went into recession. Therefore, businesses should be cautious about over stretching themselves. There may also be a case to diversify.

The impact on revenue for changes in income (YED)

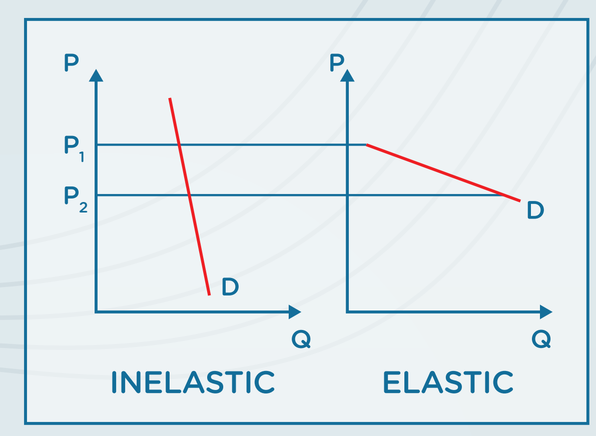
- Knowing the YED of a product helps a business respond to changing economic situations and allows them to plan.
- If a business knows the income elasticity of demand for its product(s) it can use this information to help develop its strategy and its product portfolio.
- Many UK businesses are likely to focus on normal and luxury products as in general terms the economy tends to grow, and incomes tend to go up. However, in times of recession, where incomes may go down, inferior goods could be profitable for businesses as consumers may cut back on spending and look for cheaper and lower quality products.

Price Elasticity and Sales Revenue

- PED is important when deciding on a pricing strategy. This is because the price of a product affects sales revenue.
- If demand is price elastic, then putting up the price will lead to a fall in sales revenue. The increase in price will be more than offset by a decrease in sales. Conversely, lowering price when demand is price elastic will lead to a rise in sales revenue. The fall in price will be more than offset by an increase in sales.
- If demand is price inelastic, a rise in price will lead to a rise in sales revenue. A fall in price will lead to a fall in sales revenue.
- Changing the price can therefore affect sales revenue. But the exact effect, and whether it leads to an increase or decrease, depends on the price elasticity.

Price Elasticity and Profit

- Price elasticity also affects profit. Profit is calculated as sales revenue minus costs. Costs are likely to change with sales. The more that is produced, the higher the costs.
- If demand is price inelastic, a rise in price will lead to lower sales but increased sales revenue, but the lower sales will mean lower variable costs. So, profits will increase not just from higher sales revenue but also from lower costs.
- If demand is price elastic, an increase in sales revenue can be achieved by lowering price and raising sales. But higher sales also mean higher costs. In this situation, higher profits will only occur if the increase in sales revenue is greater than the increase in costs.



The impact on revenue for changes in price (PED)

Businesses use PED and YED to calculate how much demand will change if there is a change in price or income. The resulting change in demand can lead to a change in revenue. This could have an impact on their levels of success and meeting targets.

ELASTIC DEMAND – If price falls, then businesses see a greater increase in the quantity demanded. Even though the revenue from each product sold has fallen. As the amount sold has increased more than the decrease in price, businesses will achieve higher total revenue levels. Businesses can use this information to influence lower pricing strategies. If prices were to decrease, they would see an increase in revenue through more than proportionate sales. However, if price increases, then quantity demanded will fall more than proportionately, which leads to a fall in revenue.

INELASTIC DEMAND – If price falls, then businesses see a less than proportionate increase in the quantity demanded. Even though sales have increased, the fall in revenue from each item sold is greater than the increase in quantity sold, leading to a fall in total revenue.

PED Inelastic	
Increase Prices	Revenue Increases
Decrease Prices	Revenue Falls
PED Elastic	
Increase Prices	Revenue Falls
Decrease Prices	Revenue Increases

Market Analysis

Market analysis is concerned with collecting and interpreting data about customers and the market so that businesses adopt a relevant marketing strategy. Businesses carry out market research so that they can identify, anticipate and ultimately fulfil the needs and wants of their customers - both existing and potential.

Quantitative data allows a business to gather and interpret data to answer questions such as:

- Does a market exist and what is the size of the market for the business's products and services?
- What are the demographics of the target market?
- What segments exist within the target market?
- Are the segments large enough to be a worthwhile target?
- What is the level of brand awareness that exists in the target market?
- What are customers' buying habits?
- In what ways is the target market evolving?

Qualitative data allows businesses to explore answers to questions such as:

- What are customers' motivations when purchasing a product?
- What are customers' views on competitor products? What was the impact on viewers' feelings in response to a visual marketing campaign?
- How did attitudes of existing and potential customers change in response to a marketing strategy?

Data analysis following the collection of data helps to informs a business' marketing strategy. For example, data might show that disposable incomes of customers are on average falling by 2% a year (quantitative) and that brand loyalty to market leaders is declining (qualitative). Therefore, retailers might use this information to focus more on stocking unbranded goods in their stores that offer better value for money.

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Profit and Loss Accounts

Profit and Loss Account

Definition: An accounting statement showing a business' sales revenue over a trading period and all the relevant costs incurred in earning that revenue. (Income and expenditure.)

	Sales Revenue
(minus)	Cost of Sales
(equals)	Gross Profit
(minus)	Expenses
(equals)	Net Profit

Cost of Sales: All costs of production used. Any direct costs, such as raw materials, wages, used in the production process.

Formula: Opening stock + Purchases – Closing Sales

Gross Profit: The difference between the revenue from selling the product and the direct costs of making it.

Formula: Sales Revenue – Costs of Sales

Net Profit: It is the profit that belongs to the sole trader following the reduction of all expenses from the Gross Profit. The sole trader must pay income tax on this profit.

Formula: Gross Profit – Expenses

Example of a P+L Question

Calculate the value of each of the following items for the Profit and Loss Account for 2014:

	2014 (£)	2013 (£)
Sales Turnover	1 106 540	900 500
Opening Stock	44 000	52 800
Purchases	440 500	352 200
Less Closing Stock	35 000	52 000
Cost of Sales	449 500	353 000
Gross Profit	(i)	547 500
Less:		
Wages/Bonuses	509 000	475 000
Vehicle Expenses	16 000	14 000
Marketing	(ii)	3 000
Telephone	1 010	1 200
Insurance	2 200	2 000
Training	10 000	1 500
Business Rates	4 150	4 000
Accountancy Fees	1 700	1 500
Depreciation	3 500	3 500
Electricity	2 900	2 750
Total Expenses	(iii)	508 450
Net Profit	(iv)	39 050

Gross Profit = Sales Revenue – Costs of Sales
= £1,106,540 – £449,500
= £657,040

Marketing = *increased this marketing expenditure by 75% compared with the previous year.*
= £3000 x 1.75
= £5250

Total expenses = *Add up all the expenses.*
= £555,710

Net Profit = Gross profit – Expenses
= £101,330

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Sales Forecasting

Sales Forecasting

Definition: Projection of achievable sales revenue, based on historical sales data, analysis of market surveys and trends, and salespersons' estimates. Also called sales budget, it forms the basis of a business plan because the level of sales revenue affects practically every aspect of a business.

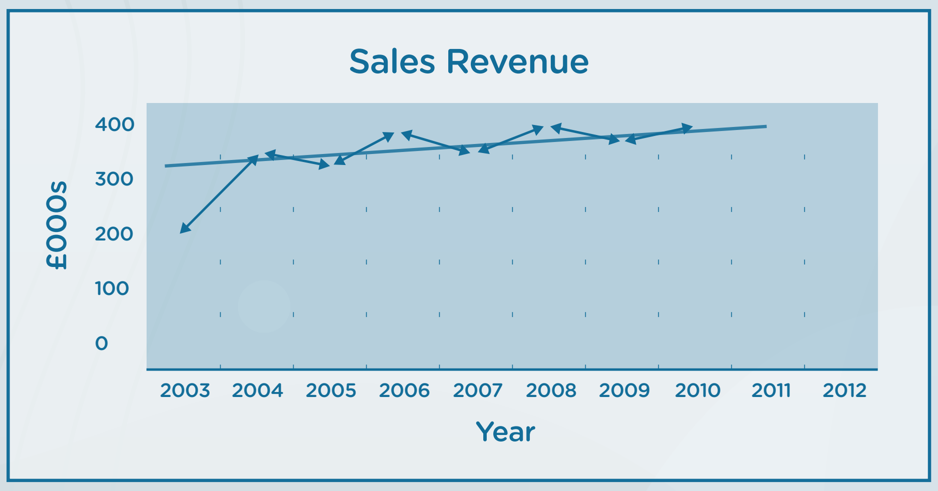
Purpose: A sales forecast acts as a goal against which a business can measure its progress. It also drives many other decisions within the firm. For example: planning production levels and scheduling; planning cash flows; planning human resources (through workforce planning).

The method of sales forecasting used by a business will depend on the nature of the product and the market situation.

(a) Calculate a three-year moving average of the company's sales revenue, writing your answers in the table provided. [3]

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
225	240	270	360	260	340	330	380	280	420
	245	290	297	320	310	350	330	360	

(b) Plot your answers on the graph provided and draw in a line of best fit. [2]



(c) Use the line of best fit to predict the likely sales revenue for 2012. [1]
Based on candidate's answer £350 000-£450 000.

Sales Forecasting - Qualitative

Definition: Dealing with wider issues than just numbers, such as forecasting when there might be a shift in popularity from mountain bikes to road bikes.

Advantages:

- Involves people's knowledge of the market and uses their intuition and 'hunches', which can provide a greater insight into future trends than statistical data.
- It considers known future conditions.

Disadvantages:

- It involves people's perceptions of what might happen, which might be biased to further their own ends.
- Often 'experts' disagree completely.

Brainstorming

Definition: Frequently employees who have experience of the market will 'brainstorm'. They will get together to 'bounce' ideas off each other in order to determine their collective best estimate of what is likely to happen in the future. Use might be made of previous life cycles of similar products.

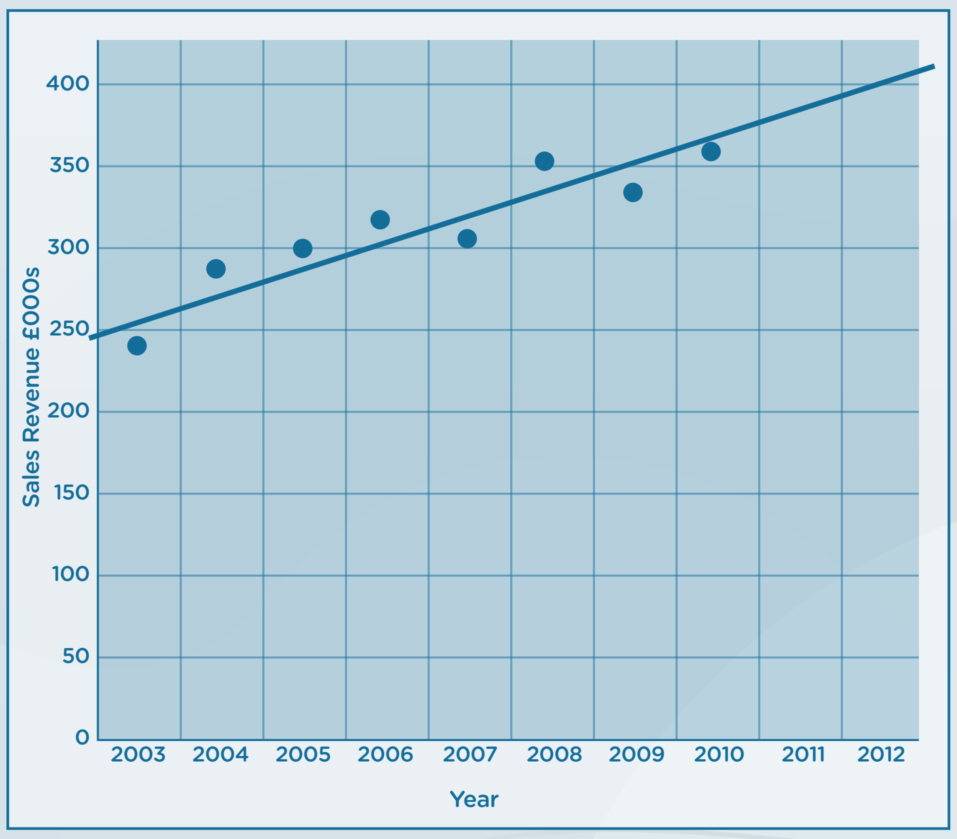
Intuition

Definition: An experienced manager is often able to predict sales based on intuition or a 'hunch'. The use of intuition is cheap, and fast. But gut feeling and experience should not be the only guide.

Moving Averages

Definition: Extrapolation involves identifying the underlying trend in past data and projecting this trend forwards. Extrapolation predicts future trends based on what has happened in the past. It assumes that nothing much is going to change.

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Sales Revenue £000s	225	240	270	360	260	340	330	380	280	420
Three-year moving average		245	290	297	320	310	350	330	360	



Advantages:

- Helps the business to plan.
- Helps financial planning, including cash flow management.
- Can help with production planning e.g. ordering in the correct number of raw materials.
- Human resource planning, getting the right number and type of staff in the jobs that are needed.
- May motivate managers to reach targets.

Disadvantages:

- It uses information from the past and does not consider what might happen in the future (such as a competitor launching a new product or if the economy might go into recession, supplies of raw materials might be disrupted, etc).
- It can only be useful when sales have been stable with no major upsets.
- It is only as accurate as the information collected.
- It assumes that consumers will maintain their buying habits.
- Does not account for qualitative issues.

Delphi Technique

Definition: This uses expert opinion to predict the future, on the basis that better predictions are made by human experts than from extrapolating trends.

Advantages:

- Experts can reconsider their judgements after reading feedback from other members of the expert group.
- It is flexible enough to be used in a variety of situations and be applied to a range of complex problems.
- Participants have time to think through their ideas leading to a better quality of response.
- The Delphi method creates a record of the expert group's responses and ideas, which can be used when needed.

Disadvantages:

- All depends on the content and structure of the questionnaires.
- It assumes that experts are willing to come to a consensus and allow their opinions to be altered by the views of other experts.
- Expert panels often lose members because of boredom, and disillusionment with the process.
- Monetary payments to the experts may lead to bias in the results of the study.
- The method will more than likely require a substantial length of time to complete and can be costly in terms of the researcher's time.

Seasonal Analysis

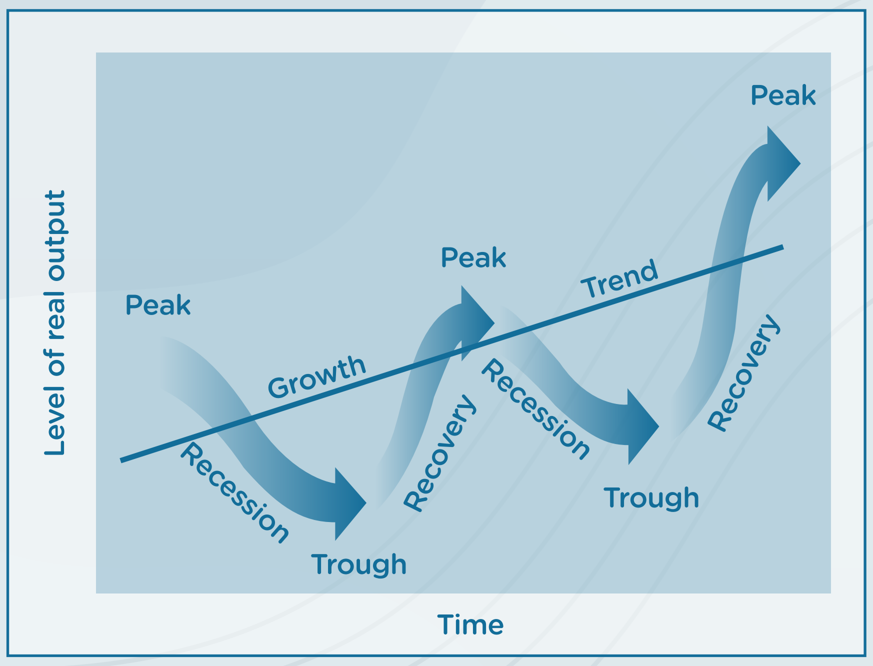
Definition: Sales are measured on a monthly or weekly basis to examine the seasonality of demand. In some industries, the seasonality index experiences huge swings. For example, toy makers are likely to experience peak demand in the month leading up to Christmas. Data from a seasonality index may be used to determine safety lead times or safety stock levels.

Trend Analysis

Definition: This focuses on long-term data, which has been collected over several years. The objective is to determine the general trend of sales - rising, falling or stagnant.

Cyclical Analysis

Definition: In time-series analysis it is the variation which can be attributed to the economic or trade cycle. For example, the increase in demand for consumer durables after a period of recession may be cyclical rather than indicate a change in the underlying trend.



Random Factor Analysis

Definition: This method of analysis attempts to explain how unusual or extreme sales figures occur. For example, if sales of ice cream doubles for a two-week period, then could this be explained by weather conditions, rather than an effective advertising campaign? Random factor analysis therefore attempts to provide explanations for unusual or abnormal sales activity.

External Factors Affecting Sales Forecasting

- Economic factors – business cycle, exchange rates
- Consumer factors – changing tastes and fashions
- Competition factors – they will have their own strategies and plans.

"Qualitative factors are often more important than quantitative factors when making investment decisions." Discuss this statement in relation to the situation facing Pitch Ltd. [8]

Qualitative Factors:

- **Production factors** - will new machinery be compatible with the existing machinery? Will new supplier be reliable? (Spaces after sales service, etc.)
- **Personnel factors** - will new machinery or network suit the staff? (Training/Safety/ Redundancies/Morale/ Motivation.)
- **Image** - gaining prestigious order, good PR, better quality product.
- **Aims of the organisation** - if the business places a high value on social issues it might reject a profitable investment if it is considered to exploit the workplace or damage the environment.

Quantitative Factors:

- Businesses which are unprofitable eventually go out of business.
- **Reliability of quantitative data** based on market research and predictions. Figures predicted 5 years ahead may be inaccurate, undermining investment appraisal.
- Recessions/Booms.
- **The economy** can impact upon quantitative predictions. A rise in interest rates will require a project to be more profitable in the future.

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Aims and Objectives

Aims and Objectives

Business aims are what the business wants to achieve in the future, and they tend to be quite generic and broad. They set out the goals for the business.

Business objectives are more specific and measurable targets the business will set to achieve its aims. A business may aim to increase sales revenue and will set sales targets (objectives) in order to achieve the aim.

Aims of **For-Profit** Organisations:

- survival
- profit maximisation
- sales maximisation
- growth/increase market share
- increase shareholder value
- corporate social responsibility/environmental/ethical
- increase productivity/improve quality.

Aims of **Not-For-Profit** Organisations:

- to provide services
- to avoid wasteful duplication of resources where a natural monopoly exists, such as litter collection and beach cleaning
- to control strategic industries
- to prevent exploitation by monopoly suppliers
- to help people in need, whether it's age, disability, poverty or illness.

SMART Objectives

Objectives should be written using the SMART model, in order to make them clearer to understand and achieve:

Specific - objectives should specify what the business wants to achieve. They should be clear so that all stakeholders understand what the objective is.

Measurable - objectives should be measured to make sure the objective has been achieved. This measurement should be numeric.

Achievable - are the objectives achievable and attainable? There is no point in setting an unrealistic target, this can be demotivating.

Realistic - is the business likely to achieve the objectives with the resources available?

Time limited or constrained - a time-scale needs to be set for achieving the objectives.

SMART objectives contain the potential to focus attention and gain commitment from all levels within a business to agreed performance targets. They will also encourage teamwork, and they direct resources to where they can be most effective.

Typically, businesses set objectives that relate to profit, growth, social considerations and employee welfare.

Long-term objectives – if businesses are aiming to grow in the long term, they may want to:

- invest in training their staff
- building up their brands
- expanding into new markets
- putting money into developing new products.

Short-term objectives – a business that wants to maximize profit in the short-term and is not concerned about the long term might cut back on all the above activities. In addition, it might:

- make staff redundant
- change to cheaper suppliers
- increase productivity at the expense of quality
- set a high price for maximum immediate profit
- sell assets.

Vision Statements

Definition: It is a description of what a business sets out to achieve in the medium to long term. The vision statement should provide a clear guide to senior management of the future direction of the business and help to direct strategic decision-making across the business.

Having a vision statement can bring about benefits:

- A clear vision can give the business a clear identity and ethos.
- Can help in setting objectives and support the business strategy.
- Focus senior managers on the tasks to achieve the vision.
- Communicates to employees how they can contribute, and can improve employee engagement.
- Commits resources to achieving the vision.

Mission Statements

Definition: A business mission statement is a description of what a business sets out to achieve in the medium to long term. The mission statement should provide a clear guide to senior management of the future direction of the business and help to direct strategic decision-making across the business.

Reasons for having mission statements include:

- Helps to ensure that all stakeholders are clear on the purpose of the business so everyone can be focused on the same goals and objectives.
- Helps with the strategic planning since this should be the starting point.
- Gives some transparency for investors – they understand how their capital will be used.
- Helps customers understand the ethics and objectives of a company.

Analysing Non-Financial Performance

Non-Financial Measures of Performance

Managers want to measure business performance. This is frequently carried out by analysing and evaluating the financial aspects of the business.

However, it is also extremely important to measure the non-financial aspects to ensure that the business is working as efficiently as possible and that it is meeting all its objectives, some of which will probably not be connected to the business' finances.

Examples of non-financial performance indicators are:

1. productivity
2. market share
3. sales targets
4. environmental impact
5. quality
6. customer satisfaction.

Productivity

Definition: This is the output produced in relation to the inputs used. For a given time period this could be; output per worker; output per machine; output per site.

Productivity is a crucial concept as it can have a significant effect on the costs of producing a unit. Consequently, managers are constantly seeking ways to improve productivity (particularly labour productivity) as it means the business will either make more profit per unit or it can reduce the price to become more competitive.

Methods of improving labour productivity are:

- increasing the number of hours worked
- training
- investment in equipment and technology
- changing the way work is done
- motivating employees.

Quality

Targets can be set for the number of defects produced by a production process within a given time frame, or the number of faulty goods returned by customers. Businesses are always looking at ways of improving quality as poor quality indicates a lack of efficiency and it increases costs and, consequently, reduces profit. In addition, producing poor quality products can affect a business' reputation.

There are national and international quality standards that businesses can strive to meet, such as 'Investors in People' and ISO 9000. The gaining of such awards, and keeping them, can partly measure a business success.

Window Dressing

Definition: 'Window Dressing' is the term used to describe techniques for **improving a business' balance sheet position**, in particular its apparent liquidity.

Although accounts must represent a 'true and fair record' of the financial affairs of a business, businesses may manipulate their accounts legally to present different financial pictures.

Why would a business want to make itself look as successful as possible?

- To **please the shareholders** of public limited companies – a high profit usually means a high share price.
- To **show growth in terms of sales**, value of fixed assets or dividends; for example, to impress potential investors.
- In order **to raise finance** from a bank or any other source.
- To **increase the likelihood of a merger** with, or takeover by, another firm.

Why would a business NOT want to make itself look as successful as it has been?

- To **reduce the risk of a hostile takeover**.
- To **delay paying tax** until the next financial year.

Market Share

This measures the sales of a business relative to the market size. It is calculated using:

$$\frac{\text{Sales of a business}}{\text{Total sales in a market}} \times 100\%$$

The sales can be measured either in financial terms or volume (the number of items).

Market share is important as it might indicate that a business is the market leader. This might influence the strategy or objectives of the business. A business with a small market share may set a target of increasing its share by a certain amount over a fixed period. Market share might be an indication of the success or the failure of a business or its strategy.

Environmental Impact

Consumers are becoming increasingly concerned about the effect that business activity has on the environment. As a result many organisations have environmental policies, which seek to limit the amount of pollution damage they do (air and noise pollution and waste disposal), restricting the damage done to wildlife, developing brownfield sites (as opposed to greenfield sites), using renewable energy sources and promoting conservation measures, for example.

Businesses regularly set themselves environmental targets that they wish to achieve, such as reducing waste by 20% over the next year. In addition, many businesses are carrying out environmental audits whereby they assess the environmental impact their activities are having.

How can a Business Window Dress its Accounts?

Manipulating sales: Choosing whether to record a sale when an order is placed or when the money has been received. (This might span two financial years.)

Depreciation: Assets can be written off over different time spans – for example, if a piece of machinery is written off over 3 years, the profit will be less each year for those three years than if it is written off over 10 years.

Appreciation: Businesses do not tend to get a professional valuation of its property each year, which means that the estimate given could be over or under the true value. The value of stock, similarly, may be over- or under-estimated.

Writing off bad debts: A business may choose in which year to accept that a debt will never be paid and to reduce its profit accordingly.

Borrowing money for a short period to improve its cash position: This enhances a business' apparent ability to pay its short-term debts.

Sale and leaseback: This involves selling assets (which improves the cash position) and then leasing back the same assets.

Presenting the company account in a favourable light - to flatter the business performance.

Sales Targets

This measures the amount of sales that a business makes (either in terms of money or volume) in a specific time period compared with what it set as an objective (or budget).

Targets are set as goals to aim for. They are often included in a business' budget because the amount of revenue generated from sales will indicate how high the expenditure budget can be. Targets can motivate staff. However, if they are set too high or too low, they can have the opposite effect.

Customer Satisfaction

This stems from customer service, which is about meeting the needs of customers. Customer service/satisfaction has become increasingly important in recent years due to market orientation and the importance of customers to businesses. If businesses offer good customer service/ satisfaction, they are more likely to see customers return and for customers to recommend them to others.

Customer satisfaction can be measured, amongst other methods, through questionnaires, recording telephone conversations, repeat purchases, referrals from existing customers and the number of complaints. Targets can be set to assess the performance of the business in this respect.

Which Measure is Best?

The most appropriate measure of performance will depend on the nature of the business:

- An airline might measure the proportion of flights that take off and land on time.
- A call centre might measure how many calls are taken in a day and how long it takes to answer them.
- A college might measure its absolute exam results or the value it has added to students' performance.

	BENEFIT OF THE MEASURE IN ASSESSING PERFORMANCE	DRAWBACK OF THE MEASURE IN ASSESSING PERFORMANCE
Productivity	High productivity can lead to lower unit costs.	Speed of working may reduce quality.
Market Share	An increase can indicate the success of the business.	It does not show if the market is growing or shrinking.
Sales Targets	Indicates whether objectives have been met.	Factors outside the business' control might have caused sales targets to be missed, or their overachievement.
Environmental Impact	This is a 'hot topic' amongst consumers at present; anything that can be done to make a business appear to be more environmentally friendly is likely to impress current and potential customers.	It can take quite a long time for environmental policies to take effect, as it may require new suppliers to be sought or there may be a very gradual reduction in pollution, for example.
Quality	Consumers wish to purchase good quality products; a rise in quality is likely to lead to an increase in demand and, consequently, an increase in profit.	Some measures used to increase quality may not be cost-effective as the cost of them outweighs the potential gain.
Customer Satisfaction	Contented customers are vital to a business' success, particularly if they remain loyal to the business.	It can be difficult to measure customer satisfaction, particularly when using questionnaires as only those not happy with a business' products may respond.

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Balance Sheet

Terminology on a Balance Sheet

Debtors

- People who owe the business money.
- They represent the total value of sales to their customers for which payment has not yet been received.

Trade creditors

- Businesses to which the business owes money.
- A business is likely to have purchased goods from suppliers or services on credit so that payments are still outstanding.
- These debts must be be paid within 12 months/a short period of time.

Drawings

- Money taken out of the business by the owner - a reduction of owner's capital – a withdrawal by a sole trader (the owner) from the business for personal reasons.
- Represents the salary taken out of an unlimited liability business.
- If the business is owned by one person then it will represent their salary.

Working Capital

- The day-to-day finance available for running a business.
- Formula: current assets – current liabilities = working capital.

Capital Expenditure

- Spending on new fixed assets – such as machinery, buildings, polytunnels.

Usefulness of Balance Sheets

- Shareholders are owners of the business, so they want to know how well it is doing.
- Gives a picture of the assets/what the business owns and the liabilities/what the business owes.
- If the current liabilities are a lot more than the current assets in each year, then the business could have a problem in paying its debts.
- Can be compared over time.

The Importance of Working Capital

- **Needed to fund the day-to-day finance** available for running a business. If there is not enough cash for the business then it may not be able to pay its bills on time. If a business borrows too much through trade credit, then it might be unable to pay invoices when they are due.
- Working capital is **needed to pay for raw materials and running costs**. Production/growth would be halted if a business runs out of raw materials.
- Working capital is also **needed to fund the credit offered to customers (debtors)** when making a sale. Customers may go to a competitor if a business cannot offer credit.
- If a business has too little working capital it **may struggle to finance increased production** without straining its liquidity position.

Balance Sheet

Definition: A measure of the assets and liabilities of a business.

Fixed Assets: Items owned by the business which do not change in the short term/they last a long time/used repeatedly, e.g. buildings/machines/vehicles.

Current Assets: Assets which can be converted into cash quickly, e.g. stock, debtors, cash in till/bank.

Current Liabilities: What the business owes, and which must normally be paid within 12 months, e.g. overdraft, creditors.

Long-term Liabilities: Money owed to others that will take more than a year to pay back, e.g. bank loan and debentures.

Capital Employed: The total money that has been invested in the business such as shareholders' funds (share capital); owners' capital; retained profit and reserves

[Capital Introduced + Retained Profit + Long Term Liabilities]

Example of Exam Question Calculations using the Balance Sheet

Designer Garden Sheds Balance Sheet as at 31.03.09

	£	£
Fixed Assets		
Machinery and tools		52 300
Van and trailer		25 200
		77 500
Current Assets		
Stocks (wood, fixings, preservatives)	5 120	
Debtors	73 450	
Cash at bank and in hand	5 550	
	84 120	
Less: **Current Liabilities**		
Trade creditors	62 490	
Loan	20 000	
	82 490	
Working Capital (net current assets)		(i)
Net Assets		(ii)
Financed by:		
Opening capital		60 000
Add Net profit		(iii)
Less Drawings		28 500
Capital Employed		**79 130**

Work out the following:

(i) **Working Capital** = Current Assets – Current Liabilities
= 84120 – 82490
= 1630

(ii) **Net Assets** = Fixed Assets + Current Assets – Current Liabilities
= 77500 + 84120 – 82490
= 79130

(iii) **Net Profit** = Capital Employed – Opening Capital + Drawing
= 79130 – 60000 + 28500
= 47630

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Ratio Analysis

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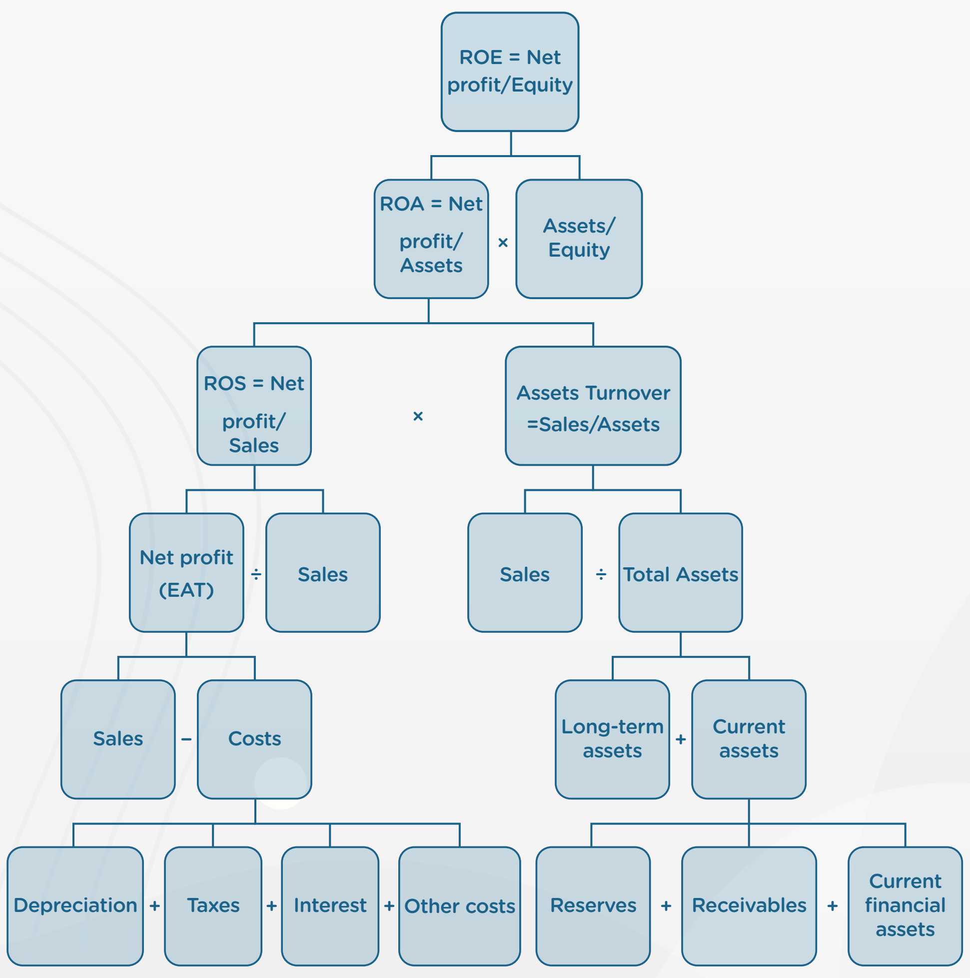
Ratio Analysis

Ratios can only reveal a limited amount of information about a business if they are analysed in isolation. A much greater depth of understanding is possible if certain **comparisons** can be made. These enable trends to be uncovered and relative measures of efficiency to be employed.

Trends over time can be detected by making a comparison with the same business' results in a previous period.

Relative measures of efficiency can be deduced from using a comparison with another business in the same business sector. Nevertheless this can be difficult in practice as businesses are rarely identical in size, capital structure, etc.



Profitability Ratios

Profitability measures a business' total profit against resources used in making that profit. On its own, profit is a relatively meaningless figure – it needs comparing against figures such as turnover and capital employed.

There are three profitability ratios:

- ROCE
- Gross profit margin
- Net profit margin.

These profitability ratios are used to assess how well the business is performing. They concentrate on profit, capital employed and turnover.

A constant gross profit ratio combined with a declining net profit ratio means the business is having problems controlling its expenses.

The gross profit margin and net profit margin ratios can be used together to assess the ability of the company to control their overheads.

Gross Profit %

Definition: Measures the proportion of money left over from revenues after accounting for the cost of goods sold.

Calculation: $\frac{\text{Gross Profit}}{\text{Sales Revenue}} \times 100$

If the gross profit margin is 30%, this means that the business' cost of sales are 70% of its turnover because turnover = cost of sales + gross profit.

Reasons for change:

- increase or decrease in sales turnover
- increase or decrease in cost of goods sold.

Liquidity Ratios

Liquidity is the amount of cash a business can get quickly in order to settle its immediate debts.

Liquidity funds consist of:

- cash in hand and at the bank
- short-term investments and deposits
- trade debtors.

Liquidity ratios measure the likelihood of a business falling into **insolvency**, i.e. being unable to pay its debts as when they are due. The acid test ratio is particularly useful as it excludes stock, which is the least liquid of currents assets and is thus not ideally suited to paying debts.

Current Ratio

Definition: A liquidity ratio that measures a business' ability to pay short-term obligations. For most businesses, a ratio between 1.5 and 2 is ideal.

Calculation: $\frac{\text{Current Assets}}{\text{Current Liabilities}}$:1

- A figure less than 1.5 indicates that the business may experience difficulties in meeting its short-term debts (i.e. a liquidity crisis).
- A figure of more than 2 indicates that the business may be holding cash in an unproductive and unprofitable form, and it may be better used elsewhere.

Reasons for change:

- increase or decrease in stock
- increase or decrease in the time it takes to receive monies owed (debtors) or pay money owed (creditors)
- increase or decrease in cash in the bank.

Net Profit %

Definition: Measures how much out of every pound of sales a company keeps in earnings.

Calculation: $\frac{\text{Net Profit}}{\text{Sales Revenue}} \times 100$

Reasons for change:

- increase or decrease in sales turnover
- increase or decrease in cost of goods sold
- increase or decrease in expenses.

Return on Capital Employed (ROCE)

Definition: ROCE shows the profitability of the investment by calculating its percentage return. This measures the efficiency with which the business generates profits from the capital invested in it.

Calculation: $\frac{\text{Net Profit}}{\text{Capital Employed}} \times 100$

A 'satisfactory figure' for ROCE is 20% or greater. ROCE shows the amount of profit made for every £1 invested in the business.

A business' ROCE can also be compared with the percentage return offered by risk free interest-bearing accounts at banks and building societies. Anything over 3% higher would be considered 'good'. However, the higher the perceived risk the better the return that would be required by investors.

Reasons for change:

- increase or decrease in GP or NP margins
- increase or decrease in retained profit or shareholders' funds
- increase or decrease in long term liabilities.

Acid Test Ratio

Definition: A stringent indicator that determines whether a business has enough short-term assets to cover its immediate liabilities without selling stock. Most businesses seek a value of at least 1.

Calculation: $\frac{\text{Current Assets - Stock}}{\text{Current Liabilities}}$:1

Stock is excluded because a business may not be able to convert it into cash quickly.

- 1:1 is ideal.
- A figure less than 1 indicates that the business may experience difficulties in meeting its short-term debts (i.e. a liquidity crisis).
- A figure of more than 1.2 indicates that the business may be holding cash in an unproductive and unprofitable form, and it may be better used elsewhere.

Reasons for change: *Same as Current Ratio (excluding the stock)*

Gearing Ratio

Definition: A measure of the business' capital structure. It measures the proportion of total capital that has been obtained from debt or loan sources rather than from equity sources.

Calculation: $\frac{\text{Long Term Liability}}{\text{Capital Employed}} \times 100$

- **>50% = Highly Geared**

The higher the gearing of a business the greater the level of risk due to the enhanced exposure to changes in interest rates. Highly geared businesses may experience problems in raising new finance as the business is seen as a risky investment for the ordinary shareholder. However, it may be adventurous in its expansion plans leading to high potential profits in the future.

- **<50% = Lowly Geared**

A business with a gearing ratio of less than 50% is said to have 'low gearing', since its monthly debt repayments do not form a significant proportion of its monthly outgoings. It can be perceived as a weakness – failing to borrow to expand can indicate an overly cautious management. An investment in a business with low gearing would be safe, but dull. However, there is not much to repay and so not much interest to pay.

Reasons for change:

- increase or decrease in retained profit or shareholders' funds
- increase or decrease in long term liabilities.

Limitations of Ratios Analysis

Ratios reflect changes in performance, but they do not explain these changes:

- A range of ratios is more valid – too much importance should not be attached to any single ratio.
- Major one-off transactions may distort the true performance of a company.
- The financial accounts may have been 'window dressed'.

Concluding Statements:

All ratios should be compared with those of the previous year (and preferably three years before that as well) to determine trends and with those of similar companies.

Exam Practice

Evaluate the financial performance of the business.

Premier Foods plc's financial position

Table 1 Profit and Loss Account (in £ millions)

	2008 (£m)	2007 (£m)
Sales revenue	2 865	2 356
Cost of sales	1 820	1 477
Gross Profit	**1 045**	**879**
Less Expenses	829	579
Net Profit	**216**	**300**
Less Tax and Interest	114	79
Net Profit after tax and interest	**102**	**221**

Table 2 Balance Sheet (in £ millions)

	2008 (£m)	2007 (£m)
Fixed Assets	**3 333**	**3 494**
Current Assets		
Stock	363	239
Debtors	337	329
Cash and Bank	62	32
Total Current Assets	**762**	**600**
Current Liabilities		
Creditors	596	539
Overdraft	476	216
Total Current Liabilities	**1 072**	**755**
Net Current Liabilities	**(310)**	**(155)**
Long Term Liabilities	**2 032**	**1 880**
Net Assets	**991**	**1 459**
Shareholders' Funds		
Shares	769	769
Reserves	222	690
Total Shareholders' Funds	**991**	**1 459**

	2008	2007
Gross profit margin	1045/2865x100 = 36.47%	879/2356x100 = 37.31%
Net profit margin	216/2865x100 = 7.54%	300/2356x100 = 12.73%
ROCE	216/3023x100 = 7.15%	300/3339x100 = 8.98%
Current ratio	762/1072 = 0.71:1	600/755 = 0.79:1
Acid test ratio	399/1072 = 0.37:1	361/755 = 0.48:1
Gearing	2032/3023x100 = 67.22%	1880/3339x100 = 56.30%

Premier Foods

The gross profit margin seems good at just below 40% although there was a slight deterioration between 2007 and 2008.

Net profit has fallen, and the net profit margin has shown a marked deterioration, which is worrying. ***This appears to be because both the cost of sales and expenses have risen.*** The former could be a result of inflation in the cost of raw materials, which may improve in the future, but tighter control of expenses is essential.

ROCE is less encouraging but is, nevertheless, better than current interest rates. ***However, as Premier Foods has large debts it may find it difficult to service them in the longer term. This is referred to in the passage and indeed debts have been rescheduled.***

The current ratio is worrying. The ideal figure is between 1:5 and 2:1. Not only that but the situation seems to have got worse. The acid test also paints a dire picture as it should ideally be around 1:1 and it is also getting worse. However, as Premier Foods is such an important purchaser of raw materials it can probably get away with paying its suppliers slowly ***(even though it is against their stated policy of corporate responsibility).***

The figure for gearing shows a very high level of external debt that is a considerable burden for the business. ***Recently, as is stated in the passage, they have swapped some debt for equity. This means a slight loss of control and a dilution of profits available to existing shareholders.*** This high level of debt, despite being rescheduled, is likely to be a problem for the company in the future. The only silver lining is that, at the moment, interest rates are low.

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Location / Relocation

Regional Location – The Main Determinants

Access to markets

For some businesses it is the availability of, and access to, markets that is the prime consideration that determines the location of the business.

- For most bricks and mortar retailers the **business must be near customers**. More recently this locational relationship between retailer and customer is being broken down by the growth of e-commerce and online purchasing.
- **Manufacturers of components in many industries (suppliers) need to be located close to the users of their products.** This has become increasingly true with the increased use of just-in-time systems, where being 'on the doorstep' is now the expected norm.
- **Access to markets** can be limited because of trade restrictions, or the existence of 'trading blocs', such as the EU. To overcome these restrictions, it is often necessary to set up a manufacturing base within the trading bloc.
- **Infrastructure** used to mean roads, rail, and shipping. But a more modern definition includes electronic communication systems, training agencies, financial services as well as the traditional components.

Cost and nature of factors of production

- When businesses use bulky, difficult to handle **raw materials**, then a location close to the source of these raw materials can substantially reduce costs.
- As a factor of production, '**labour**' can be a deciding factor in determining location. This includes the cost, availability and skills of labour.
- The availability of **land** is also an important factor. Most large investments are based on 'green field' sites. Local government, along with development agencies, often work hard to ensure that planning permission is available to allow large developments to proceed.

Social reasons

Managers might want to live in an environment that suits them and their families. They want leisure facilities, good schools and low crime. Therefore, it can be difficult to attract businesses to deprived areas.

Historical reasons

The original reason for choosing a business location might have disappeared, but they remain in the locality where they were originally established. For example, around the country there are steel and tin plate plants that had their historical origins in the availability of local raw material. These raw materials were exhausted decades ago, but the plants remain.

International Location – The Main Determinants

Large businesses have the alternative of locating their production facilities virtually anywhere in the world. If there is a stable political background and an available work force, most countries will offer the possibility of hosting a production base. The main influences are:

- **Maximising economies of scale**

If businesses can have a single plant supplying all their requirements for a type of product or range of components, then their average costs of production can fall. That is why huge factories are built to produce products that are sold in many different countries.

- **Access to international markets**

Access to a trading bloc such as the EU or NAFTA (North American Free Trade Association) may depend on setting up a production facility within that trading bloc.

- **Tax advantages**

Companies sometimes establish operations where taxation levels are lower than their home base. This can allow transfer costing to take place.

- **Freedom from restrictions**

Businesses can reduce their costs if they locate operations in countries where red tape is less present, or employment law is less complete. Practices or systems that would have been unacceptable in economically developed countries may be the norm in less developed nations.

- **Footloose businesses**

A business that is not tied to a location or country can relocate across national borders in response to changing economic conditions. This allows them to follow cheap capital, low-cost labour and tax advantages.

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Rationalisation

Rationalisation

Definition: Rationalisation is the reorganisation of a business in order to increase its efficiency. This reorganisation normally leads to a reduction in business size, a change of policy or an alteration of strategy relating to products.

Examples of rationalisation include:

- **Closing of branches.** Barclays Bank recently closed several underperforming rural branches.
- **Transferring of production.** Ford stopped production of the Fiesta in the UK, instead using its Dagenham factory for engine production only.
- **Trimming of product ranges.** Growing businesses can end up producing large ranges of products but find that many of these have little profitability. Businesses will discontinue less profitable products and ranges and focus on those that maximize sales. Boots the Chemist stopped selling pet food and increased sales space for organic products.
- **Incorporation of IT systems to replace paper systems.** The government is currently trying to increase efficiency of the NHS by computerising all its patient records.

Although rationalisation is supposed to achieve increased efficiencies in a business it can result in uncertainty, resistance from staff, loss of jobs and cause insecurity for employees.

Rationalisation schemes are often fought against by those likely to lose out from the changes and this reaction can lead to industrial action. Rationalisation schemes must therefore be well planned and thought through. The objectives must be clear, as well as the means of achieving these objectives.

Outsourcing

Outsourcing

Definition: Outsourcing occurs when outside suppliers are involved in activities that could be undertaken internally by a business. These suppliers are not directly employed by the business.

For example, the outside suppliers or sub-contractors may deal with phone enquiries, computer processing and production of components or even produce finished products.

Outsourcing moves jobs outside the business and may even replace them with employment overseas (sometimes called 'offshoring').

Outsourcing can lead to increased efficiency and lowered costs. The outside businesses who take on the job will often carry out the same work for a lower cost.

Pros and Cons of Outsourcing

Advantages:

- Significantly reduced staffing costs.
- Well trained staff provided by the outsourcing company will reduce HRM costs such as recruitment and training.
- Existing workload and stress levels are reduced. This is very important if a business is operating near or at full capacity.
- Less investment risk. Instead of investing in new production facilities, let the outside supplier take the risk of investing.
- Capital needs are reduced. Because there is less investment, there is less need to raise finance.
- Lower costs increase profits giving more capital for research and development, therefore speeding the development of new products.

Disadvantages:

- Potential of poor customer service (call centre related), with communication made difficult because of cultural differences.
- Existing employees may feel demotivated if they believe their jobs are at risk. This demotivation can increase staff turnover and reduce productivity.
- Quality of production / product cannot be guaranteed. Quality may be maintained, but it is difficult to keep up with improvements in quality from competitor companies.
- More difficult to implement JIT systems, which reduce the need for working capital.
- Breakdown of communication in the production chain. It is often difficult for functional departments to talk to each other when they are not in the same building.
- Loss of security of data. There have been cases where customer data has been made available to external organisations from subcontracting businesses.
- Lost tax revenues to the home government when offshoring is used.

Business Objectives and Strategy

Strategy is the way a business operates in order to achieve its aims and objectives. The formulation of strategy is basically the same thing as constructing a business plan. Implementation is putting the plan into practice.

A plan should not be rigid; it should be sufficiently flexible to allow for changing circumstances. It should include a feedback loop to regularly check if the plan is working and adapting it as and when necessary.

The setting and achievement of objectives within a large business is a hierarchical process, which starts at the top with the setting of a corporate strategy and is put into action by business functions that design strategies to fulfil objectives:

There are three main types of decisions:

- **Strategic decisions** concern the general direction and overall policy of a business.
- **Tactical decisions** tend to be medium-term decisions which are less far-reaching than strategic decisions.
- **Operational decisions** are administrative decisions that will be short-term and carry little risk.

STRATEGIC DECISIONS	TACTICAL DECISIONS	OPERATIONAL DECISIONS
Long-term	Medium-term	Short-term
Involves high commitment of resources	Less resources involved	Few resources involved
Difficult to reverse	Can be changed in a reasonably short time-scale	Fairly easy to reverse
Usually taken by senior management	Usually taken by middle management	Usually taken by junior management
Made infrequently	Made occasionally	Made regularly

Corporate Strategy is concerned with the strategic decisions a business makes that affect the entire business. At the corporate level, strategy is concerned with setting objectives for overall financial performance, proposed mergers or acquisitions, long term human resource planning and the allocation of resources to different business divisions.

Strategic Direction is a course of action that ultimately leads to the achievement of the stated goals of the corporate strategy. Once the corporate strategy is established then the strategic planning that follows is used to establish the strategic direction, i.e. sets out in broad terms of how the objectives will be achieved.

Divisional Strategy the overall corporate strategy will be communicated to the divisional managers. This information shapes the plans the divisional managers create.

Functional Strategy relates to a single functional operation such as: production, marketing or HRM and the activities involved within each of these functions. The decisions made at this level of strategy are guided and limited by the higher level corporate and divisional strategies and will support those strategies.

Tactical Decisions

Tactical decisions are medium-term decisions made by middle managers. They follow on from strategic decisions and aim to meet the objectives stated in any strategic plan.

A corporate objective may be to grow market share and in order to do this a business may have to widen distribution channels or improve web presence. Again, these decisions are tactical in nature. Tactical decisions are also adaptable - the tactical approach can change to adjust to changing market conditions even though the corporate objectives have not changed.

The Corporate Plan

A corporate plan is a statement of organisational goals to be achieved in the medium- to long-term. It will be based on management assessments of market opportunities, the economic situation and the resources and technologies available to the business. It will make clear measurable objectives and formulate strategies for achieving these objectives. The corporate plan will include methods for monitoring the achievement of objectives and the tactical decisions made to achieve these objectives.

SWOT

A SWOT analysis is used to identify and analyse the internal strengths and weaknesses of an organisation, as well as the external opportunities and threats created by the business and economic environment.

SWOTs are often used when developing corporate objectives, or on a smaller functional scale such as a marketing strategy. This analysis looks at both the things that the business can control, its strengths and weaknesses and the factors that are beyond its control, the opportunities and threats that it faces.

The objective of using a SWOT is the development of a strategic plan that considers many different internal and external factors and maximises the potential of the strengths and opportunities whilst minimising the impact of the weaknesses and threats.

Benefits of carrying out a SWOT analysis:

- It makes a business assess its current market position in terms of its strengths and weaknesses.
- It enables a business to build on its strengths and protect itself against its weaknesses.
- It will show where there are market opportunities to exploit.
- It will enable a business to reduce the impact of any threats.

Drawbacks of carrying out a SWOT analysis:

- It may be assumed that all strengths, weaknesses, opportunities and threats have been thought of, whereas something important might have been missed which means the business may take a wrong direction.
- There may be unexpected exogenous shocks, such as a recession.

		Definition	Example
S	Strengths [Internal]	A strength is only a strength when a business is good at something and also takes advantage of this strength.	• Effective distribution networks • Strong brand identity • High staff motivation • Thought of as a price leader • Good industrial relations • High levels of productivity
W	Weaknesses [Internal]	A weakness occurs when a business performs poorly in an important area of operations or when it fails to take advantage of an existing strength.	• Limited product range • Poor investment record in technology • High levels of staff turnover • Failing to achieve industry benchmarks • Bad debt or cash-flow problems
O	Opportunity [External]	An opportunity is an external condition that could positively impact on the business's performance and improve competitive advantage provided positive action is taken in time.	• Changes in technology and competitive structure of markets • Changes in government policy related to the business's field • Changes in social patterns, population profiles, lifestyle changes, fashion etc.
T	Threats [External]	A threat is an external condition that could have a negative impact on the business's performance and reduces competitive advantage.	• Economic recession • Changing consumer incomes or tastes • New product launches by competitors • Environmental legislation • New or increased taxes • New technologies being used by competitors

Using The Swot

Once the SWOT has been completed, the information can be used to help develop a strategy that uses the strengths and opportunities to reduce the weaknesses and threats and to achieve the objectives of the business.

An effective SWOT will allow a business to:

- build on strengths
- resolve weaknesses
- exploit opportunities
- avoid threats.

The Bargaining Power of Suppliers

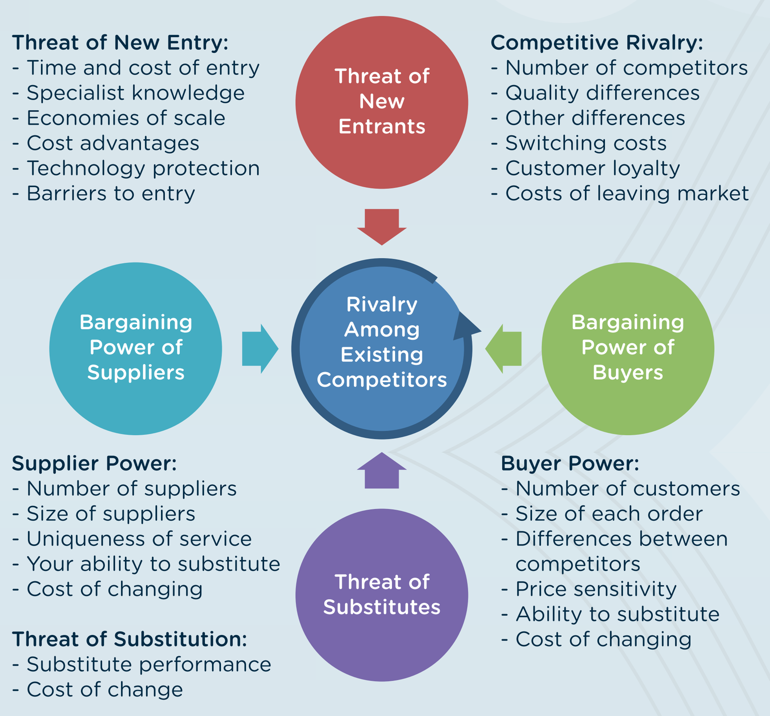
Suppliers want to maximize their profits. The more power a supplier has over its customers, the higher prices it can charge and the more it can reallocate profit from the customer to itself. Limiting the power of its supplier, therefore, will improve the competitive position of a business. It has a variety of strategies it can use:

- Backward vertical integration (taking over a supplier).
- Seek out new suppliers to create more competition between its suppliers.
- Engage in technical research to find substitutes for a particular input.
- Minimize the information provided to suppliers in order to prevent the supplier realising its power over customers.

Porters Five Forces

Michael Porter outlined five forces or factors which determine the profitability of an industry. He argued that the aim of competitive strategy is to cope with and ideally change those forces in favour of the business.

Where the collective strength of those five forces is favourable, a business will be able to earn above average rates of return on capital. Where the collective strength of the five forces is unfavourable, a business will be locked into low or wildly fluctuating returns.



Threat of New Entrants

If businesses can easily come into an industry and leave it again if profits are low, it becomes difficult for existing businesses in the industry to charge high prices and make high profits. This can be countered by erecting barriers to entry to the industry. These may take the form of:

- Applying for patents and copyright to protect its intellectual property.
- Attempting to develop strong brands which attract customer loyalty and make products less price sensitive.
- Spending large amounts of money on advertising.
- Pricing.

Bargaining Power of Buyers

Buyers want to obtain goods and services for the lowest price. If buyers or customers have considerable market power, they will be able to beat down prices offered by suppliers. Strategies to reduce the bargaining power of customers are:

- Forward vertical integration (taking over a customer).
- Make it more expensive for customers to switch to another supplier. (For example, games console manufacturers make their games incompatible with any other games machines.)

Threat of Substitutes

The more substitutes there are for a particular product, the fiercer the competitive pressure on a business making the product. A business can reduce the number of potential substitutes through:

- Research and development and patenting the substitutes themselves. (Sometimes a business will buy the patent for an invention from a third party and do nothing with it simply to prevent the product coming to market.)
- Marketing tactics, such as predator (destroyer) pricing.

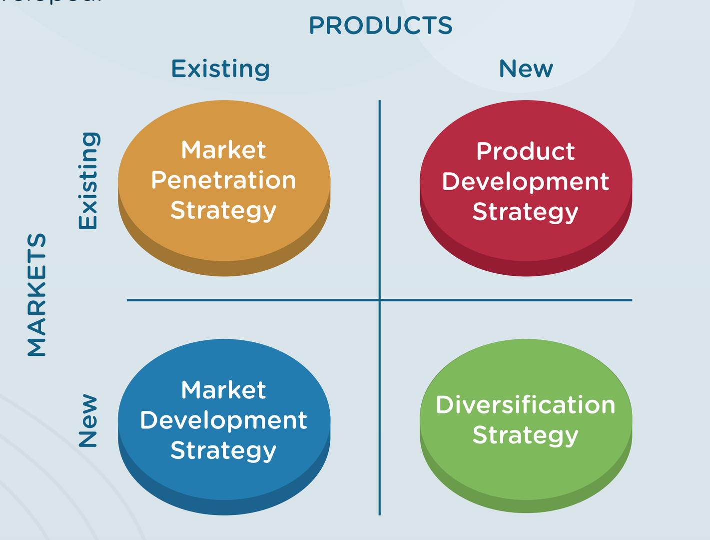
Rivalry Among Existing Business

The degree of rivalry among existing business in an industry will also determine prices and profits for any single business. Businesses can reduce rivalry by:

- Forming cartels or engaging in a broad range of anti-competitive policies. (In UK and EU law this is illegal but is not uncommon.)
- Taking over their rivals (horizontal integration). (This is legal, but Competition Law may prevent it from happening.)
- Not competing on price but competing by bringing out new products, and through advertising.

Ansoff Matrix

Definition: The Ansoff matrix outlines the options open to businesses if they wish to grow, with a view to increase profitability and revenue. The Ansoff matrix considers whether the marketing strategy is targeted at existing customers or new customers and if existing products should be used or alternatively, if new products should be developed.



Product Development

Involves the development of new products for existing markets.

- Improve or relaunch the product into existing markets by changing an existing product (for example, repackaging or adding extra ingredients).
- Developing new products (such as Mars ice cream).
- Requires businesses to innovate and look at new ways of extending the product life cycle of their existing products.

Market Development

Finding and developing new markets for existing products.

- There are two broad market development strategies. Identifying users in different markets with similar needs to existing customers (the market could be in a different country). This strategy can be risky as different counties have different tastes and needs – the product may have to be adapted. Also new distribution channels may have to be used.
- Identifying new customers who would use a product in a different way. For example, using Lucozade as a sports drink rather than something to have next to your bed when you have flu or measles. Repackaging and resizing the product may open a new market. For example, a business selling food to the hotel or restaurant market may start selling to consumers by repackaging the product in small quantities.

Market Penetration

Concentrating on sales of existing products to existing markets.

- Attracting customers who have not yet become regular users, but are occasional users, by increasing brand loyalty.
- Taking customers from competitors (aggressive pricing). Internet service providers are continually trying to win customers from competitors through pricing strategies and promotional activities.
- Persuading existing customers to increase usage perhaps by reducing the price or offering promotions e.g., Sky offers packages or bundles to get existing customers to increase their monthly subscription.

Diversification

Developing new products and new markets.

- It involves offering a new product in a different area. It is when a business expands its activities outside its normal range, for example, farmers starting up quad biking or Cadbury's moving into the market for toilet bleach.
- Developing new products for new markets involves changes to both a business's product and market. Diversification may be attempted if a business sees a new opportunity and has investment funds available.
- Diversification carries the greatest level of risk (compared with market penetration, which is low risk and the other two options considered as medium risk strategies) because it involves changes in both the market and the product. Virgin Trains have had limited success, but Virgin Money has been more successful.
- Diversification spreads risk for a business as it allows a business to reduce its reliance on existing markets and products. If sales are falling for existing products or in existing markets, then a successful launch and growth of a new product in a new market can help to maintain the overall performance of the business.

Reasons for Takeovers and Mergers

- Takeovers can help a firm grow. As a result, it can benefit from **economies of scale** such as bulk purchasing; manufacturing economies; use of specialists and marketing economies of scale.
- **Increased market share** leads to increased market power in the market and a **reduction in competition**.
- **Diversification** – businesses will benefit from spreading their risks across several products and markets.
- **Acquiring new products and technology.** A takeover is one way of acquiring technology that may be protected by patent or may be expensive or time consuming to develop internally.
- Strong brands also are likely to attract a high degree of **customer loyalty**, which also reduces risk and allows for long-term planning.
- Control of supply chain.
- Rapid growth.
- Higher returns to shareholders.
- Benefit from synergy – the two businesses fit together in a way that allows costs to be reduced and profits increased.
- Acquisition of technology and expertise.
- Underperforming management teams can be removed giving an immediate boost to performance.

Business Growth

Organic growth or internal growth is when a business expands by selling more of its existing products/expansion. This is a less risky but slower growth strategy. This can be achieved by:

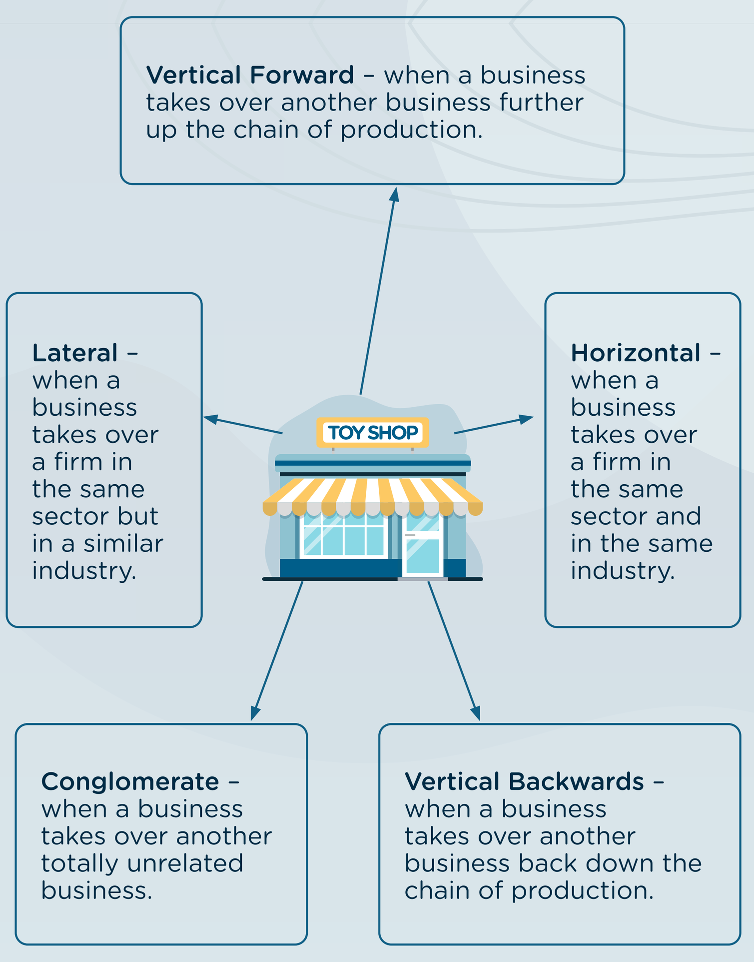
- Expanding the product range
- Targeting new markets
- Expanding the distribution network, such as opening more stores or selling in new places.

External growth is growth by acquisition, takeover or merger. A quicker method of growth than organic growth. It can be via mergers, takeovers or acquisitions.

Arguments for growth: Eliminate competition; increase market share; exploit new markets; benefit from economies of scale.

Arguments against growth: Costs involved; issues with HR; diseconomies of scale; bad publicity.

Types of Integration



Vertical Integration

Definition: The merging of two businesses at different stages of production. This can be Forward Vertical Integration or Backward Vertical Integration.

Benefits of Vertical Integration:

- Security of supplies and control of suppliers' prices.
- Improves supply chain co-ordination.
- Can guarantee the quality of its raw materials.
- Security of distribution outlet for products.
- Can determine standard of outlets/shops.
- Use of outlets to determine brand image.
- Keeps all profit – no middlemen – increased profit margins means not having to buy raw materials from a third-party outlets.
- Control over quality.
- Possible benefits of economies of scale.

Horizontal Integration

Definition: The merging of business which are at the same stage of production. Often the firms are both providing the same service and selling similar goods.

Benefits of Horizontal Integration:

- Removes some of the competition – possibly for defensive reasons.
- May benefit from increased economies of scale.
- Increases market power to compete with market leaders by spreading the brand.
- Synergy – the two businesses joined together may form an organisation that is more powerful and efficient than the two businesses operating on their own. It's a quick way for a business to expand the business as opposed to growing it internally.
- Increased capital of merged businesses.
- Opportunity to cut costs, for example combining HR/ ICT services.
- Combination of new ideas/innovation.

Franchises

Definition: A **franchise** is the legal right to use the brand name, products and business style of an existing business. McDonald's restaurants, for example, often operate as franchises. A business-person has paid McDonald's a fee to open a franchise of McDonald's. The franchisee (the person who has bought the franchise) now has the right to use the business model, brand, business style etc. in a specific area.

Franchisor

Definition: The **franchisor** is the individual who owns the business which is being franchised out.

Benefits for the Franchisor:

- **Extra commitment from franchisees.**
- Able to **expand the market** and sales quickly.
- **Increased revenues** e.g., in the form of monthly royalties which must be paid even if the franchisee makes a loss.
- **Risks and uncertainty are shared.**
- **Initial fee** – what the franchisee must pay to buy into the franchise.
- **Expansion** can be achieved relatively cheaply.

Disadvantages for the Franchisor:

- **Franchisees may not operate in a satisfactory manner** and the reputation of the business may be damaged which may result in bad PR.
- Franchise agreements must be carefully drawn up or **disputes could occur.**
- **Could the franchisor effectively recruit, support and service many franchisees?** If not dissatisfaction and poor practice could result.
- **Does not have complete control** of the day to day running of the business.

Franchisee

Definition: The franchisee is the individual who is buying into the franchise.

Benefits for the Franchisee:

- **May be supported by national advertising/promotion.**
- **Reduced risk of failure** as they are selling an already proven product or service which makes it easier to get loans from the bank to fund business ventures.
- **Support is offered by the franchisor** e.g., full training, and start-up equipment such as materials.
- **Retaining a degree of independence.**

Disadvantages for the Franchisee:

- **Cannot operate with same level of freedom** as an ordinary business because of the franchise agreement.
- Franchisee **cannot sell the business** without the franchisor's permission.
- In some franchises the **franchisor can end the franchise** without reason or compensation.
- Franchisee must make **regular payments** to the franchisor. This is a royalty fee.

Expanding via Franchising or Opening Own Stores

Benefits of expansion through franchising:

- many businesses already have many franchises and evidence suggests that they are successful
- receipt of royalties
- no need to find finance to set up because that is the role of franchisee
- no need to find sites because that is the role of franchisee
- able to expand the market and sales quickly
- expansion can be achieved relatively cheaply
- employees are the responsibility of the franchisee
- can take advantage of enthusiasm/commitment of franchisees
- do not suffer losses of individual outlets
- do not have effort/cost of running individual outlets
- spreading of risks
- statistics tend to suggest that franchise businesses generally do well.

Benefits of expansion through opening of own shops:

- retain independence
- control of expansion
- will keep all profits
- avoids training and administration associated with setting up franchises
- can reap benefits from economies of scale.

Cost Benefit Analysis

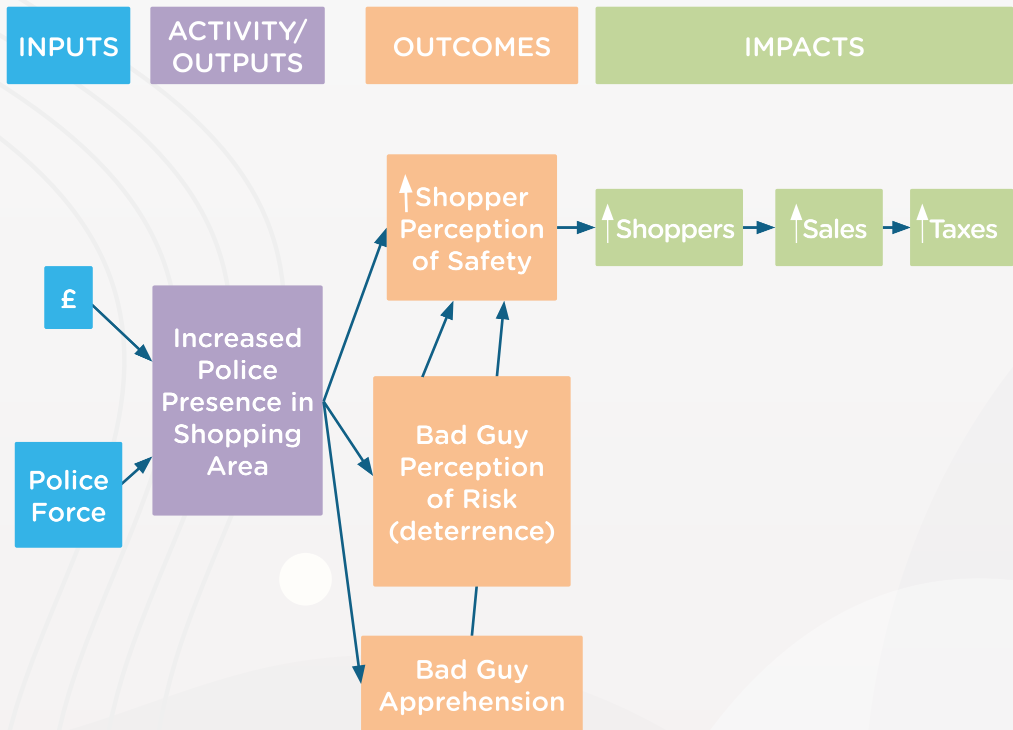
Cost Benefit Analysis

Definition: Cost benefit analysis (CBA) is a method for measuring, in financial terms, the costs and benefits of an investment project. It includes a consideration of the external costs and benefits to society as well as the costs and benefits to just the business.

Cost benefit analysis is often used by governments when they are considering a public project, such as the building of a new motorway, rail bridge or hospital. Many different options can be ranked in order.

When carrying out a cost benefit analysis there are a wide range and variety of costs and benefits to be identified and given a value. These can be divided into two groups:

- Private Costs and Benefits
- Public Costs and Benefits.



Private Costs and Benefits

Private Costs:

- These are costs that the business making the investment must accept.
- They include training and recruitment costs, the purchase of new capital equipment, marketing costs etc.

Private Benefits:

- These are benefits that the business gains from as a result of making the investment.
- These benefits will include things such as increased productivity, increased sales, brand values and increased profits.

Public Costs and Benefits

Public Costs:

These are costs external to the business making the investment.

- A building company will have an environmental impact as it builds houses – increased traffic, noise etc.
- A farm extracting water from a river to irrigate its crops leaves less water further downstream for fishing.
- A new factory may involve the loss of open space, increased traffic congestion and so on.

Public Benefits:

- These are benefits external to the business that result from making the investment.
- An obvious external benefit from a large-scale investment would be jobs created by the business.
- Other public benefits include further jobs created outside the business as a result of increased business activity and an increase in tax paid by employees to the government.
- In areas where unemployment is high, crime and social problems might be reduced.

Social Costs and Benefits

– **Social Benefit** (private benefit + public benefits)

– **Social Cost** (private costs + public costs)

- If the social benefits are greater than social costs, then go ahead with proposal.
- If the social costs are greater than social benefits, then do not go ahead with proposal.

Advantages of CBA

- Considers a wide range of benefits and costs.
- Impacts on society and the community are included.
- Puts a value to external benefits and costs that would normally be ignored by private sector businesses.
- Can be used to rank possible major projects in order of public cost.
- It shows that a business cares about the local community and the environment, which can be good for public relations.

Disadvantages of CBA

- The valuation of intangibles will be difficult – how do you put a value on the effect of pollution or the improved traffic flow of a new road?
- Valuations will often include value judgements – one person's or manager's calculation of an intangible benefit is likely to differ from another person's calculation, who has a different set of views on what is important for a business.
- If the social costs and benefits are incorrectly calculated, then the wrong choice could be made.
- Will all stakeholders be included in the calculation of social costs and benefits?

Consider the issues that will need to be considered when undertaking a cost-benefit analysis of the Severn Barrage

The advantage of this method of analysis is by using a numerical/quantitative approach it is possible to compare unlike things and come to a more objective decision.

However, it is often very difficult to quantify some of the costs and benefits, e.g., how do you put a monetary figure on the loss of habitat for feeding birds? In this case they will need to assess a variety of costs and benefits.

Costs might include:

- Environmental costs of damming the river and the impact on wildlife, fishing etc. It may, for instance, be necessary to provide alternative feeding grounds for migratory birds and fish ladders for salmon, etc.
- Flooding.
- The costs of preventing ships passing beyond the barrage, perhaps expensive lock systems will need to be built into the barrage.
- There will be external costs to residents with massive numbers of lorries carrying materials to the site causing pollution and noise.
- There may be several accidents and even fatalities during the project and estimates will have to be made of the monetary costs involved.
- The private costs to the consortium of construction.

Benefits might include:

- The amount of power generated by the turbines, 5% of the UK's energy demands.
- The benefits of economic regeneration (but this is difficult to quantify).
- The jobs created and the subsequent boost to the economy.

Overall, CBA may be flawed but it is a widely used method to evaluate this sort of large-scale project. It has its drawbacks, many of the estimates may prove to be inaccurate, but it is better than not attempting to quantify these factors at all.

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Critical Path Analysis

Critical Path Analysis

Definition: Critical path analysis (CPA) is a method of planning and controlling large projects and is used to make decisions on the management of resources and time.

It is a technique used to find cheapest and quickest way to complete a task.

The Critical Path - in an operation which consists of a sequence of activities, this is the one sequence which cannot afford any delays without prolonging the whole operation.

Critical path analysis is used to allocate resources within a project, judge how long a project should take to complete, and to recognise those tasks or activities that take place within a project, that are critical to the project being completed on time. A 'critical' task or activity is one that must be started and completed on time if the project is to be finished on time.

CPA – The Process

- Identify and prioritise the activities
- Identify which activities MUST be done before others
- EST – identify earliest start time
- LFT – identify latest finish time
- Identify the FLOAT – tasks which can be completed outside the critical path
- Identify the critical path – points connecting ESTs and LFTs (where these are the same)

Advantages of CPA

- CPA is an effective management tool for planning and controlling complex projects. Critical activities can be identified which forces managers to think about the process and supports a systematic approach to planning activities. Problems can be highlighted early so that whole projects are not delayed.
- Allows effective management of resources. Allocating factors, such as labour, to where they are needed and can be most effective. Supports the transferring of resources for different tasks, if required.
- Reduces the need for working capital – parts used in the project can be ordered exactly when they are needed. Allows the use of just-in-time production.
- Improves cash flow as a result of reduced need for working capital. Also helps with cash flow forecasts.
- Can be used to check on the efficiency of individual activities and to identify if new resources are needed or if employees need training.
- Improves overall management of projects – managers understand what is involved and what needs to be done and when it needs to be done by.
- Can be used to give a business a competitive advantage by being more efficient and supports time-based management.

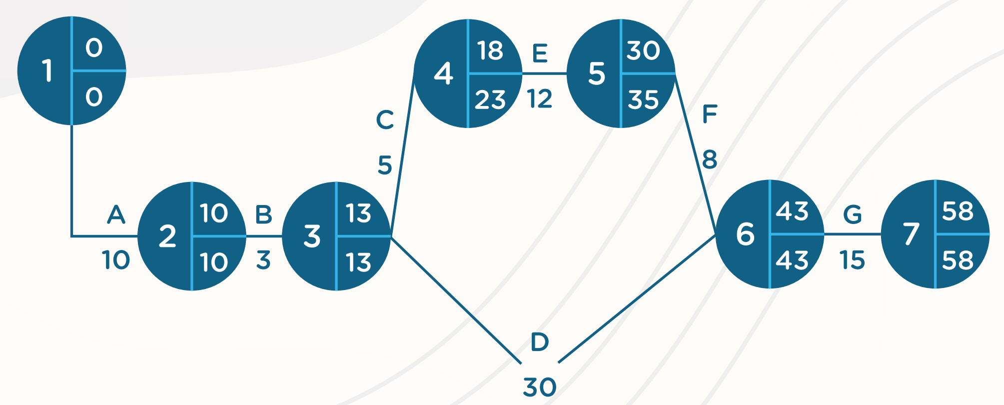
CPA – The Float

- An activity without spare time is **CRITICAL**
- Spare time is referred to as the **FLOAT**
- There are two types of float, each with its own formula:

FREE FLOAT	TOTAL FLOAT
This is the amount of spare time available for an activity without delaying the **NEXT ACTIVITY**	This is the amount of spare time available for an activity without delaying the **WHOLE PROJECT**
Free Float = EST at End of activity - (EST at start + Duration of activity)	**Total Float =** Activity's LFT - (Activity's LFT EST + Activity's Duration)

Disadvantages of CPA

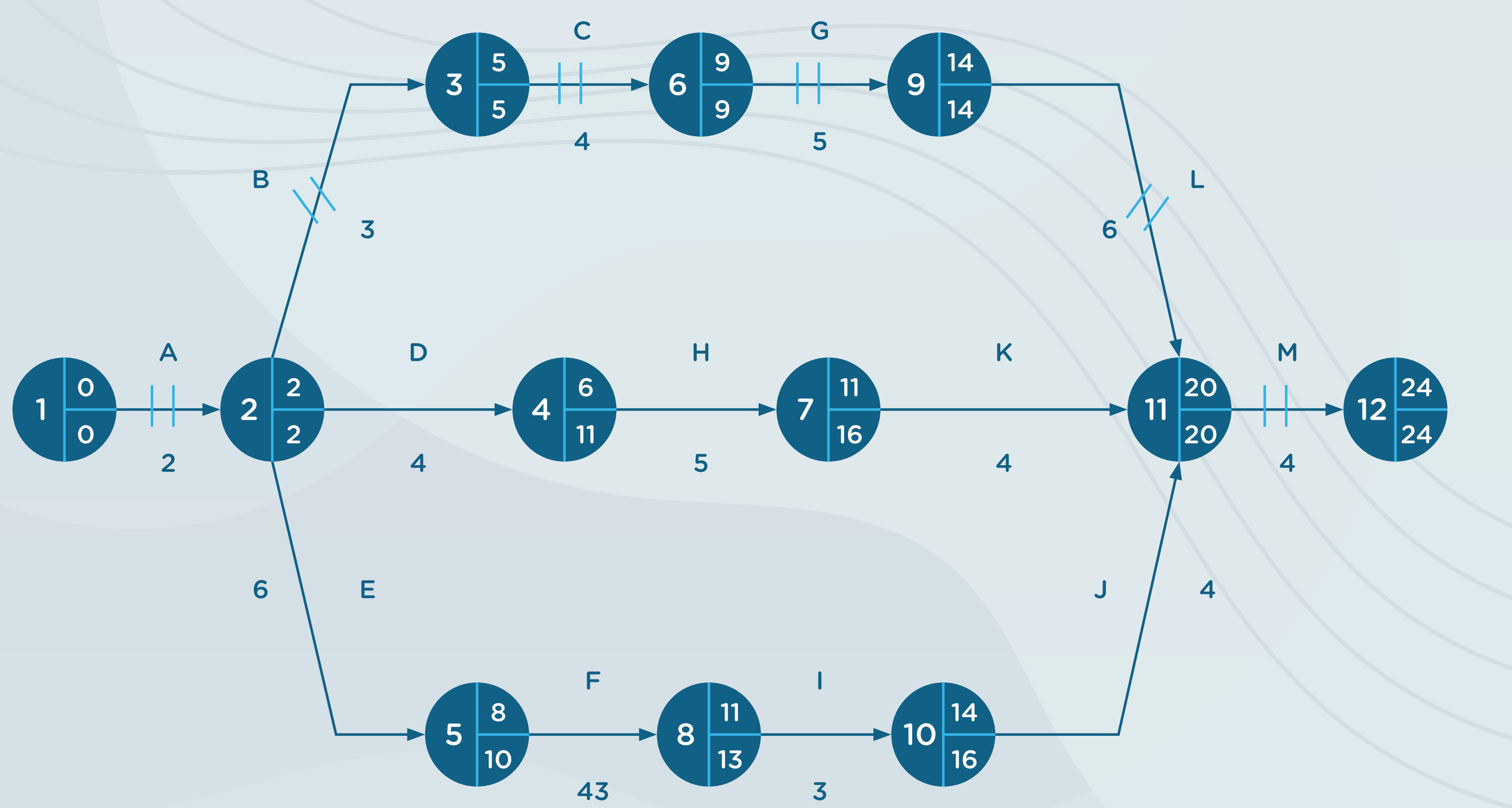
- Information can be distorted or poor (over optimistic) methods of estimation of activity times can be used. Lack of experience of those preparing CPA leads to inaccuracies.
- CPA can give the wrong results or fail to allow for external factors that will influence the total time taken.
- Sub-contractors, who may be completing some of the activities on a project, can be outside the control of the project manager.
- Supplies may be delayed; they may be of the wrong type or of poor quality.
- CPA only identifies the critical activities; it does not ensure these are done on time. Close supervision may be needed which may reduce employee morale.
- Requires ongoing checking of activities. Changes may be required if there is a delay. The construction of critical path analyses can be time consuming.
- CPA does not ensure quality – the focus is mainly on time and meeting deadlines.



Critical Path Analysis Example

P J Construction Ltd has been given an order to build a factory unit for one of its customers. The network diagram on the page opposite gives details of the steps required to complete the project. The time allocation in days is given in the table below.

Activity	Preceding Activity	Time (days)
A		2
B	A	3
C	B	4
D	A	4
E	A	6
F	E	3
G	C	5
H	D	5
I	F	3
J	I	4
K	H	4
L	G	6
M	J, K, L	4



(a) Complete the diagram including: the time required for each task, the earliest start times and the latest finishing times. [6]

(b) Mark the critical path on the diagram. [1]

(c) Discuss the usefulness of critical path analysis to P J Construction Ltd. [6]

Discuss the Usefulness of Critical Path Analysis

- The fact that CPA has several benefits for a business, including the fact that producing a network can help a business to become more efficient by saving time and materials. It can ensure that a business meets critical deadlines and so does not let down its customers.
- It can help the business make more accurate decisions as it will have to think clearly about the time that each task takes and the best sequence in which to work. It can speed up the overall time that a project takes as many processes can be carried out simultaneously and there should be less waiting time involved.
- By sequencing production, a business can make sure that raw material stocks arrive when and where needed and so be part of a JIT system. This cuts down on the costs of carrying inventory.
- On the other hand, CPA can be costly to carry out and it does not guarantee success since time estimates may be wrong, or unexpected events occur which mean that the original plan needs to be adapted.
- When used appropriately it can have significant benefits for a business.

Decision-making Models

Types of Decision-making Models

Strategic by senior management
Tactical by middle management
Operational by junior management

Strategic decisions are long term and will affect the direction the business takes. These decisions will affect the entire business and will be made by the owners or senior management. Strategic decisions are often complex and may result in major organisational change internal to the business or in the markets, or in new markets they operate in. Strategic decisions may also involve a large financial commitment in order to carry out the decision. It may take a few years, and a few million pounds, to see if strategic decisions have had the positive affect anticipated by the business.

Tactical decisions are not as far reaching as strategic decisions – they tend to be medium-term. They should aim to implement strategic decisions. Tactical decisions are less complex than strategic decisions and are usually carried out by middle management. Tactical decisions can also be more flexible – if it is failing to meet its objective then it can be changed.

Operational decisions are the day-to-day decisions made in a business. These are lower-level decisions that tend to be short term and have little risk. A business will make hundreds of operational decisions in a typical day by a range of employees, as they do not need the careful thought and planning of strategic and tactical decisions. Many decisions at this level are routine and can be made quickly.

Scientific and Intuitive Decision-making

Decision-making can be broadly categorised into two different approaches: scientific and intuitive.

Scientific decision-making involves the use of facts and data in a systematic way in order to arrive at a logical and evidence-based decision. The scientific approach will involve a structured approach that will involve:

Clearly identifying the objective/objectives or problem to solve

↓

Collect all relevant information needed to make the decision; this can include primary or secondary data and could take some time to gather

↓

Analyse the information to identify possible ways forward

↓

Make and implement the decision

↓

Monitor and review the decision and change if needed.

The scientific approach is favoured by most businesses making strategic and tactical decisions as it is based on logic and evidence and should reduce the risk of failure. The process includes the consideration of alternative decisions, so all possible courses of action are included, and the business will undertake a full analysis before making any decisions.

Intuitive decision-making uses experience and intuition (gut feeling) to make decisions. This has proved successful for many entrepreneurs and managers who use their experiences and emotions to decide. There is often no data or systematic approach to back up this decision. Intuitive decisions can be made quickly and are often useful for operational decisions, however at strategic and tactical level there is a large risk on relying on intuitive decision-making alone.

Evaluative Considerations

The predicted outcomes and estimates need to be based on valid data and research if they are to have any real quantitative value.

As with all decision-making methods, decision tree analysis should be used in conjunction with other types of decision-making. Decision trees are just one important part of a business decision-making tool kit.

Qualitative factors will also have an influence on the decision made, such as:

- the effects of decisions on stakeholders e.g., workforce, management, suppliers and customers
- training costs
- recruitment costs
- capacity management
- marketing impacts.

All need to be considered before a final decision is made.

UNIT 3: BUSINESS ANALYSIS AND STRATEGY

Decision Trees

Decision Trees

Definition: A method of tracing the alternative outcomes of any decision.

Advantages:

- Clearly lay out the problem so that all options can be considered.
- Allow managers to analyse fully the possible consequences and risks of a decision.
- Provide a framework to quantify the values of outcomes and the probabilities of achieving them.
- Decision trees give an easy-to-understand visual representation of the problem.

Disadvantages:

- Can oversimplify a decision and focus too much on the financial outcome.
- Don't include other factors such as manpower considerations, managers' opinions and marketing issues.
- Probabilities are difficult to predict and may reflect bias.
- There may be other options that are not included in the decision tree.
- Can be time consuming to construct and may be interpreted with bias.
- Time lags often occur in decision-making so information may be out of date.
- Use probabilities which only gives an estimate which may be inaccurate.

GG Adventure Holidays Ltd is thinking of ways of advertising its next year's programme, but is not sure which media to use. It has narrowed them down to three options: advertising in a Sunday newspaper, advertising on commercial radio or using direct mail.

The costs, probability of success and estimated revenues for each option are shown in the table below.

	Cost (£)	Probability of success	Estimate Revenue (£)	
			Success	Failure
Sunday Newspaper	120 000	0.6	600 000	120 000
Commercial Radio	100 000	0.4	700 000	150 000
Direct Mail	70 000	0.5	500 000	100 000

(a) Use the information provided to create a decision tree diagram and recommend which one of these media the company would be best advised to use. [7]

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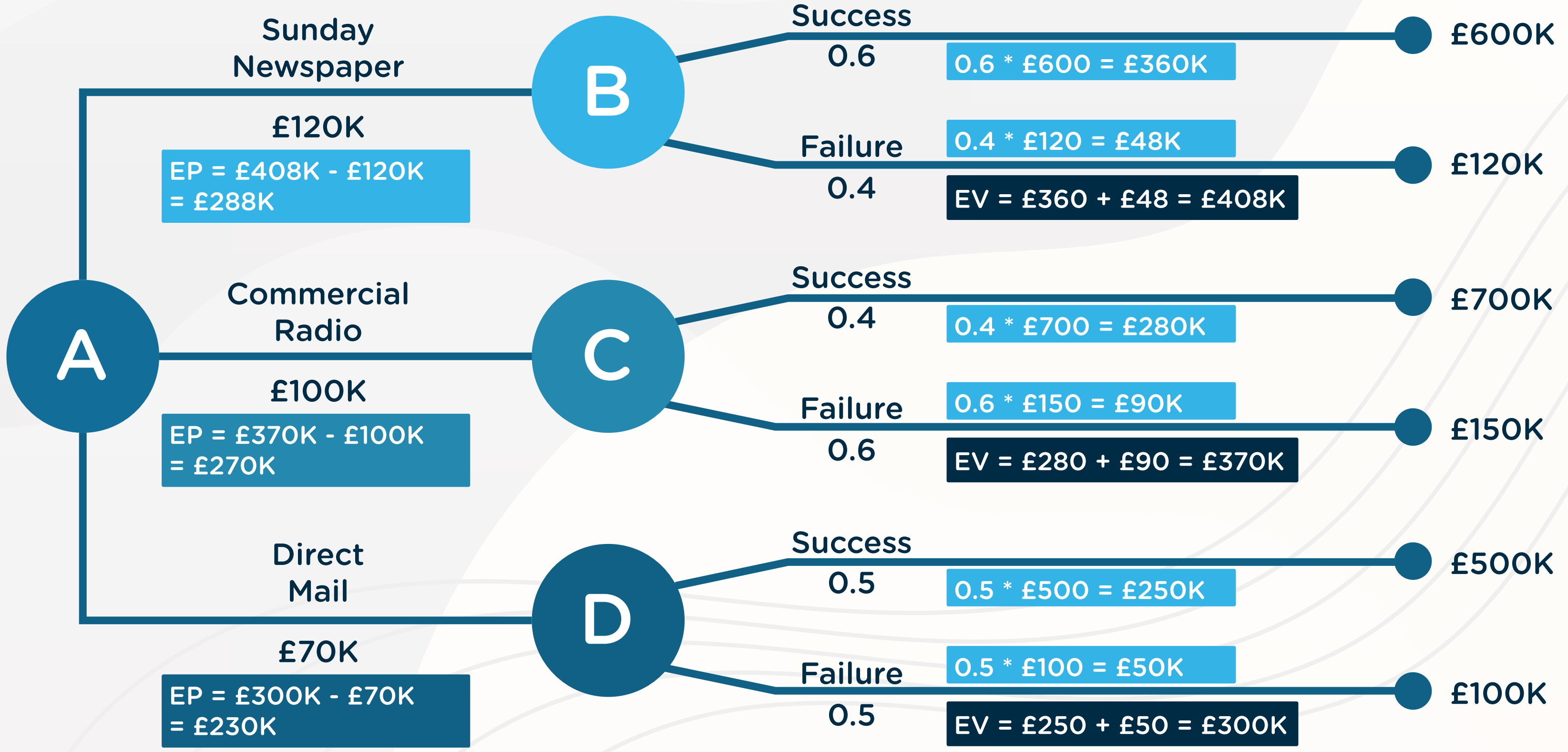

ICT and Decision-making

Computer technology can be used by businesses to make many day-to-day decisions.

- **Stock Inventory** – Decisions on when to order new stock, how to manage deliveries, or on staffing levels can be calculated and implemented by IT systems.
- **Information systems can collect inputs** from several sources, organise the data then distribute the data to make the most efficient decisions.
    - IT systems in an ice-cream factory can monitor sales in supermarkets through Electronic Point of Sale (EPOS) systems, take in forecast of future sales and weather data, and from this determine levels of production, rota staff shifts and arrange delivery schedules.
- **Buying online** allows:
    - **Analysis of browsing and purchasing habits.** This is used to determine search results and what is seen on screen.
    - **Cookies** allow retail websites to present choices that are most likely to meet a browser's needs.
    - **Database marketing** is based on data-mining, searching through patterns in gathered customer information and using these buying behaviours to create directed advertising – all automatic.
- **Decision-making models** such as decision trees and critical path analysis can be carried out by computer models which save time and help accuracy.

Investment Appraisal

Definition: Investment Appraisal is a technique used to evaluate planned investment by a business and measure its potential value to the business.

There are several different IA methods used to compare projects that may be competing for a business' investment capital.

- Payback period
- Average rate of return (ARR)
- Discounted Cash Flow (DCF).

Cashflows

Definition: To make a financial assessment of a capital investment, businesses must utilise data regarding the expected cash flows associated with it. The cost of the investment is calculated and set against the expected returns.

E.g. an investment of £50,000 will bring £80,000 over the following years:

Year	Cash In	Cash Out	Net Cash Flow	Cumulative Cash Flow
0	0	£50,000	(£50,000)	(£50,000)
1	£30,000	£20,000	£10,000	(£40,000)
2	£50,000	£30,000	£20,000	(£20,000)
3	£40,000	£20,000	£20,000	0
4	£40,000	£10,000	£30,000	£30,000

Net Present Value/ Discounted Cash Flow

Discounted Cash Flow: The discounted cash flow method of investment appraisal considers the time value of money i.e., the realisation that the value of money changes over time.

Net Present Value: The NPV is the value of future money if you had it now (considering inflation and the potential for earning interest on investment capital or cost of finance on raising investment capital). In other words, money in the future is worth less than the same amount today.

Advantages:

- Allows for future earnings to be adjusted to present values.
- Easy to compare different projects.
- Allows for impact of inflation on value of future cash flows.
- Discounts can be changed to accommodate changes in the economic and financial climate.
- Allows for effect of risk on estimated future cash flows.

Disadvantages:

- Complex to calculate.
- Discount factors could be incorrect which makes the NPV inaccurate.
- Difficult to set discount factors far into the future, the longer into the future we go the less reliable the discount factor.
- Interest Rate estimations over time period may be inaccurate.

Payback Period

Definition: The payback period is the time it takes for the project to pay back the initial outlay.

Calculation:

$$\text{Month of Payback} = \frac{\text{Income needed in period}}{\text{Contribution per month}}$$

Example: A £100,000 investment brings in £30,000 in Year 1, £40,000 in Year 2, £60,000 in Year 3 and £35,000 in year 4. Calculate payback.

Year	Net Cash Flow	Cumulative Cash Flow
0	(£100,000)	(£100,000)
1	+ £30,000	(£70,000)
2	+ £40,000	(£30,000)
3	+ £60,000	+ £30,000
4	+ £35,000	+ £65,000

The income needed in the third year is £30,000

The total income, or contribution, for year 3 is £60,000, so the monthly contribution is (£60,000 / 12 =) £5000

Using the formula, we get: £30000 / £5000 = 6 months

So, payback period is 2 years and 6 months.

Advantages:

- Easy to calculate and simple to use.
- Helps with managing cash flow.
- Considers timings of cash flows.
- Effective to use when technology is changing at a fast rate, such as hi-tech projects, in order to recover the cost of investment as quickly as possible.

Disadvantages:

- Ignores what happens after the payback period.
- May encourage a short-term attitude.
- Ignores total profitability, the focus is just on the speed to which the initial outlay is repaid.

NPV Using the Discount Table

A discount factor is given (which is based on bank interest rates). These are normally given in tables to show how much future values will be discounted to give its present value. The further into the future the earnings go the lower the discount factor will be.

Years Ahead	6%	8%	10%	12%	15%
0	1.00	1.00	1.00	1.00	1.00
1	0.94	0.93	0.91	0.89	0.87
2	0.89	0.86	0.83	0.80	0.75
3	0.84	0.79	0.75	0.71	0.66
4	0.79	0.74	0.68	0.64	0.57
5	0.75	0.68	0.62	0.57	0.50

Example: A business is faced with two alternative proposals for investment. Both cost £250,000 but have different future cash flows over their projected lives. The rate of interest over the period is 10%. Work out the NPV for both investments and state which one the business should invest in.

	Project Z			Project Y		
Year	Cash Flow	Discount Factor	Present Value	Cash Flow	Discount Factor	Present Value
0	(£250,000)	1.00	(£250,000)	(£250,000)	1.00	(£250,000)
1	+ £50,000	0.91	£45,500	+ £200,000	0.91	£182,000
2	+ £100,000	0.83	£83,000	+ £100,000	0.83	£83,000
3	+ £200,000	0.75	£150,000	+ £50,000	0.75	£37,500
NPV =			£28,500			£52,500

To calculate the NPV per year as a percentage of the initial cost:

NPV / Initial Investment * 100

Project Z
= 28500 / 250000 *100
= 11.4%

Project Z
= 525000 / 250000 *100
= 21%

Project Y seems a better option as the payback is sooner and the NPV is greater.

Average Rate of Return

Definition: This is an investment appraisal technique which calculates the average annual profit of an investment project, expressed as a percentage of the sum of money invested. The option/project that has the highest average rate of return is chosen.

Calculation:

$$\text{ARR} = \frac{\text{Average Annual Return}}{\text{Initial Outlay}} * 100$$

Advantages:

- Uses all the cash flows over life of the project.
- Focuses on profitability.
- Easy to make comparisons (compare % returns on different investments).
- Allows comparison with costs of borrowing for investment.

Disadvantages:

- Ignores timings of the cash flows.
- Does not allow for effects of inflation on values of future cash flows.

Example 1

AC Carpets is considering whether to invest £20,000 in a labour-saving wrapping machine. The company policy is to invest in projects only if they deliver a 15%+ profit. The initial outlay generates £36,000 of positive flows in four years as detailed below:

Year	Net Cash Flow	Cumulative Cash Flow
0	(£20,000)	(£20,000)
1	+ £5,000	(£15,000)
2	+ £11,000	(£4,000)
3	+ £10,000	+ £6,000
4	+ £10,000	+ £16,000

Calculate the ARR...

$$\text{ARR} = \frac{\text{Average Annual Return}}{\text{Initial Outlay}} * 100$$

Step 1 Identify lifetime profit	£16,000
Step 2 Divide by no. of years (4)	£4,000 (£16,000/4)
Step 3 Calculate annual profit as a % of outlay	£4,000/£20,000 x 100 = 20%

Qualitative Factors

When deciding on whether to invest, alongside the financial figures a business will need to consider other factors:

Internal business considerations such as:

- Does the investment match the strategy and objectives of the business?
- Impact on staff. Can staff handle the changes brought about by the investment? Can staff be trained to use new technology? Will there be redundancies as a result of the investment?
- Impact on existing products. Will managers concentrate on new products/investment to the detriment of existing output?

External Economic Environment factors include:

- The state of the economy. Is the economy booming? Or is there a recession, which is likely to reduce demand, on the way?
- Action of competitors. Are they investing in/improving their products?
- Does the investment have any ethical considerations? Would the investment damage the environment?
- Is there sufficient funding available to invest in the project? Would the investment put the business at risk by reducing cash flow or increasing borrowing?
- Availability of new technology. New technology is one of the main factors that encourage further investment.
- Confidence of managers. Optimistic managers are more likely to invest.

Special Orders

Special Order Costing

Sometimes businesses receive orders which are unexpected, from a new customer or for a new product perhaps. On these occasions a business must decide whether to accept the order. The business will consider whether the order is profitable, however, even if the order is not profitable it may still be accepted. This may be because the business is considering the size of the **CONTRIBUTION** when making the decision to accept the order.

Example:

A business makes High Powered Speed Boats. Firstly we must work out what their profits normally are.

Production:	120 boats last year
Fixed Costs:	£500,000
Variable Costs:	£18,000
Price of the Boats:	£23,000

So what's its profit?

- TR = £23,000 * 120 = £2,760,000
- TC = £500,000 + (£18,000 * 120) = £2,660,000
- P = £2,760,000 - £2,660,000 = £100,000

But what if… they have received an order from a new business for 10 boats, and the customer was only willing to pay £19,000 each? Should the business accept the order?

Think contribution!

- Generated Revenue = £19,000 * 10 = £190,000
- Cost of producing the boats (variable) = £18,000 * 10 = £180,000
- Profit = £190,000 - £180,000 = £10,000

The business is likely to accept the order as it gives a positive contribution which can go towards paying the full costs of the business.

Accepting Special Orders

Before going ahead with such special orders, **QUALITATIVE FACTORS** (non-financial factors) would also need to be carefully considered:

- **Capacity** – does the business have the space and resources to accommodate the new order or is this the best way to utilise the spare capacity?
- **Labour demands** – would the special order be completed in normal hours or would extra hours have to be paid to employees?
- **Future orders** – will completing this special order lead to future orders for the company from the customers?
- **Existing customers** – how will existing customers react if they find out that the new customer got the same product for cheaper?
- **Product adjustment** – would the special order require a product slightly different to the regular product?
- **Current utilisation** – an unprofitable order may be accepted to keep employees occupied.
- **Retaining customer loyalty** – a business may accept an unprofitable order from a regular customer as a favour to retain their loyalty.

This could involve changing the production process, using different materials and training employees.

Should the Business Accept the Order?

Reasons to accept the order:

- Further orders may follow. Some businesses will accept an unprofitable special order if there is a possibility that it will result in a profitable regular and long-term order.
- Spare capacity is used, increasing return on capital invested.
- The new order may give access to new markets and new opportunities e.g., is it from overseas leading to new export markets or is it in a different market?
- Increasing production can have HRM benefits, such as increased wages for employees and payment of bonuses.
- Also, it can be useful to keep employees busy if the normal orders are not sufficient due to poor economic conditions. Special orders can help keep employees in their jobs.

Arguments to decline the order:

- Working at near or at full capacity can put pressure on quality. If the business is already operating at full capacity how can it cope with existing customers in addition to the special order?
- What if existing customers discover the discounted price offered to the new customer? Will they demand the same? They may become resentful and could look for a new supplier.
- Will the new customer demand even lower prices in the future and will there be a requirement to prioritise the new order over existing customers? This could have an adverse effect on loyal and long-term customers.
- The new customer may undercut existing customers when selling the finished product. This could impact on their sales, which could then impact on future orders.