

AS Business 9609: full syllabus summary notes

These notes cover the five AS Level units of Cambridge International AS Level Business 9609 in syllabus order, written for the final week before the exam. Each sub-section lists the points you must know; the definitions to learn word for word sit in boxes; and every unit with calculations has a worked example. A few sections go a little beyond the AS year into A Level content (quality management, the Boston Matrix, trade unions and the financial statements); they are marked where they appear and are useful to A Level students using this summary. Finish with the key terms table and the fifteen quick-check questions.

1 Business and its environment

1.1 Enterprise

- Business activity turns inputs (the factors of production: land, labour, capital, enterprise) into goods and services that satisfy needs and wants. Resources are scarce, so every choice has an opportunity cost.
- Added value is raised by branding, design, quality, convenience and customer service.
- The business environment is dynamic: technology, competitors, laws, tastes and the economy keep changing. Common causes of failure: poor cash flow management, lack of market research, over-expansion, weak management.
- Entrepreneurs organise the other factors and take the risk. Qualities: initiative, risk-taking, self-confidence, commitment, resilience, multi-skilled. They create jobs, innovate, increase competition and pay taxes.
- Intrapreneurs apply entrepreneurial thinking inside an existing business, bringing innovation and keeping talented staff.
- A business plan sets out the idea, market, marketing, operations, people and finance. It makes the owner think the venture through and is usually needed to raise finance.

Opportunity cost: the next best alternative given up when a choice is made.

Added value: the difference between the selling price of a product and the cost of the bought-in materials and components used to make it.

Entrepreneur: a person who takes the risk of organising resources to start and run a business.

Intrapreneur: an employee who uses entrepreneurial skills to develop new ideas and products within an existing business.

1.2 Business structure

- Sectors: primary (extracting natural resources), secondary (manufacturing and construction), tertiary (services). As economies develop, employment shifts from primary to secondary (industrialisation) and then to tertiary (deindustrialisation).
- The private sector is owned by individuals and companies for profit; the public sector is owned by the state and aims to provide services.



- Sole trader: easy to set up, keeps all profit and control; unlimited liability, limited capital, no continuity.
- Partnership: shared capital, skills and risk; unlimited liability (unless a limited liability partnership), disagreements, shared profit.
- Private limited company (Ltd): separate legal entity, limited liability; shares cannot be sold to the public, so control stays close but capital is limited. More paperwork and disclosure.
- Public limited company (plc): shares traded on a stock exchange, so very large sums can be raised; risk of takeover, divorce of ownership and control, costly flotation.
- Franchise: the franchisee buys the right to use the franchisor's name, products and systems for a fee and royalty; a proven idea with less freedom.
- Cooperative: owned and run by members with equal votes. Joint venture: a separate business jointly owned by two or more firms for a project. Social enterprise: trades to achieve social or environmental aims (triple bottom line: people, planet, profit). Public corporation: a state-owned business set up by law.

Limited liability: the owners of a company are only liable for the debts of the business up to the amount they have invested in it.

Unlimited liability: the owners of a business are personally responsible for all of its debts, so their private assets can be used to pay them.

Franchise: a business arrangement in which the franchisor grants the franchisee the right to sell its products or services, using its name and business methods, in return for fees and a share of revenue.

1.3 Size of business

- Measures: number of employees, sales revenue, capital employed, market share, market capitalisation (plcs). Each has weaknesses (a capital-intensive firm has few employees), so use more than one.
- Small businesses create jobs, supply larger firms, serve niches and innovate. Strengths: close to customers, flexible. Weaknesses: limited finance, few economies of scale, dependence on the owner.
- Internal (organic) growth uses the firm's own resources: slower but lower risk. External growth by merger or takeover is faster but costly, with risks of culture clash.
- Horizontal integration gains market share and economies of scale; backward vertical integration secures supplies; forward vertical integration secures outlets; conglomerate integration spreads risk.
- A merger is agreed by both businesses; a takeover is the purchase of a controlling interest. Joint ventures, strategic alliances and franchising allow growth with shared risk.
- Firms grow for economies of scale, market power and security; growing too far brings diseconomies of scale.

Horizontal integration: integration with a business in the same industry and at the same stage of production.

Vertical integration: integration with a business in the same industry but at a different stage of production.

Conglomerate integration: integration with a business in a different industry.

1.4 Business objectives

- Hierarchy: mission statement, corporate aims, corporate objectives, departmental objectives, strategies, tactics.
- Objectives should be SMART: specific, measurable, achievable, realistic, time-bound.
- Common objectives: survival, profit maximisation, profit satisficing, growth, market share, shareholder value, corporate social responsibility, the triple bottom line.
- Objectives change: a new business aims to survive; an established one targets growth or profit; in a recession survival returns. Public sector bodies and social enterprises focus on service and social aims within budget.
- Ethical decisions may raise short-run costs but build reputation. Objectives give direction, motivate staff and allow performance to be measured.

Mission statement: a statement of the business's core aims and values, phrased to motivate employees and inform stakeholders of its purpose.

Corporate social responsibility (CSR): the concept that a business should consider the interests of society, including the community, employees and the environment, in its decisions and not only the interests of shareholders.

Profit satisficing: aiming to make enough profit to satisfy the owners rather than the maximum possible profit.

Exam tip: when evaluating an objective, link it to the type and age of the business and to the stakeholders named in the case.

1.5 Stakeholders in a business

- Internal: employees, managers, owners or shareholders. External: customers, suppliers, lenders, government, local community.
- Objectives: shareholders want dividends and share price growth; employees want pay, security and conditions; customers want quality and value; suppliers want prompt payment; lenders want interest and repayment; government wants taxes, jobs and compliance; the community wants employment and a clean environment.
- Conflicts: higher wages reduce profit; closing a factory raises returns but hurts employees and the community; paying suppliers late helps cash flow but damages relationships.
- Stakeholders have rights (a safe workplace) and responsibilities (deliver on time, pay bills).
- The shareholder concept puts owners first; the stakeholder concept says balancing all groups brings better long-term performance. Businesses manage stakeholders through communication, consultation and compromise.

Stakeholder: any individual or group with an interest in, or who is affected by, the activities and decisions of a business.

2 Human resource management

2.1 Human resource management

- HR aims to have the right number of people with the right skills in the right jobs at the right time, and to keep them motivated and productive.
- Workforce planning forecasts labour needs from sales forecasts, technology and labour turnover, then plans recruitment, training or redundancy.
- Recruitment: job analysis, job description, person specification, advertising, applications, shortlisting, selection (interviews, tests, references).
- Internal recruitment is cheaper, quicker and motivating but narrows choice; external brings new ideas and wider choice but costs more.
- Contracts: full-time, part-time, temporary, permanent, zero-hours. Flexible working cuts costs and aids retention but complicates coordination.
- Training: induction, on-the-job (cheap, relevant), off-the-job (wider skills, costly). Benefits: productivity, quality, motivation. Costs: fees, lost output, trained staff may leave.
- Appraisal reviews performance against targets. Dismissal is for conduct or capability; redundancy is because the job no longer exists.
- Morale, welfare, equality and diversity, and work-life balance affect retention and productivity. High labour turnover raises recruitment and training costs.
- Trade unions bargain collectively over pay and conditions; poor relations lead to industrial action.
- Hard HRM treats employees as a resource to use efficiently; soft HRM treats them as the most valuable asset to develop.

Labour turnover: the number of employees leaving a business in a period as a percentage of the average number employed.

Labour turnover (%) = $\text{number of staff leaving in the year} \div \text{average number employed} \times 100$

Worked calculation: A call centre employed an average of 120 people last year and 30 left.

Labour turnover = $30 \div 120 \times 100 = 25\%$.

If the industry average is 15%, the business is losing staff faster than rivals and should investigate pay, workload and leadership.

2.2 Motivation

- Motivated staff are more productive, produce better quality, are absent less, stay longer and accept change.
- Taylor (scientific management): workers are motivated by money; find the one best way, train workers, pay by piece rate. Ignores social needs.
- Mayo (human relations, Hawthorne studies): attention from managers, group working and consultation motivate as much as pay.
- Maslow (hierarchy of needs): physiological, safety, social, esteem, self-actualisation. A satisfied need no longer motivates. People do not always move up in order.

- Herzberg (two-factor theory): hygiene factors (pay, conditions, policy, supervision) prevent dissatisfaction; motivators (achievement, recognition, the work itself, responsibility, advancement) motivate. Recommends job enrichment.
- McClelland: learned needs for achievement, affiliation and power; match jobs and rewards to the dominant need.
- Vroom (expectancy theory): motivation depends on expectancy (effort leads to performance), instrumentality (performance leads to reward) and valence (the reward is valued).
- Financial motivators: time rate, piece rate, salary, commission, bonus, performance-related pay, profit sharing, share ownership, fringe benefits.
- Non-financial motivators: job rotation, job enlargement, job enrichment, team working, empowerment, participation (quality circles), training, status.
- The best method depends on the job, cost, culture and the individual.

Motivation: the internal and external factors that stimulate people to take actions that lead to achieving a goal.

Hygiene factors: aspects of a job that do not motivate but cause dissatisfaction if absent or inadequate, such as pay and working conditions.

Motivators: aspects of a job that lead to positive job satisfaction, such as achievement, recognition and responsibility.

Job enrichment: designing jobs to give employees more responsibility, challenge and a complete unit of work.

2.3 Management and leadership

- Fayol's functions of management: planning, organising, commanding, coordinating, controlling.
- Mintzberg's roles: interpersonal (figurehead, leader, liaison), informational (monitor, disseminator, spokesperson), decisional (entrepreneur, disturbance handler, resource allocator, negotiator).
- Managers achieve objectives through planning and control; leaders inspire people to follow a vision.
- Autocratic: leader decides alone; quick and clear, suited to crises and unskilled staff, demotivating for experienced staff.
- Democratic: staff consulted; better decisions and motivation, but slower.
- Laissez-faire: staff decide within broad limits; suits creative skilled teams, risks lack of direction.
- Paternalistic: leader decides in what they see as employees' interests; loyal staff, limited participation.
- Style depends on the task, time, workforce skills, the leader's personality and culture. McGregor's Theory X and Theory Y describe managers' assumptions about workers, not types of worker.
- Goleman's emotional intelligence: self-awareness, self-management, social awareness, social skills.

Theory X: the view that employees dislike work and responsibility, are motivated by money alone and must be closely supervised.

Theory Y: the view that employees find work natural, will seek responsibility, can be creative and are motivated by more than money.

Leadership: the art of motivating a group of people towards achieving a common objective.

3 Marketing

3.1 The nature of marketing

- Marketing objectives (for example, raise market share by 5% in two years) must support corporate objectives and fit the other departments' resources.
- Demand is what consumers are willing and able to buy at a price; supply is what producers will sell; the equilibrium price is where they are equal. Demand shifts with income, tastes and advertising; supply shifts with costs, technology and taxes.
- Consumer markets sell to individuals; industrial markets sell to businesses. A mass market sells standard products to most consumers; a niche market serves a small specialised segment with higher margins but more risk.
- Market size is total sales by value or volume; market growth is the percentage change in size; market share is one firm's sales as a percentage of the market.
- Product orientation makes the product the firm believes best and then sells it; market orientation researches customer wants first. Product orientation suits new technology or craft goods.
- Segmentation: demographic (age, gender, income), geographic, psychographic (lifestyle, values), behavioural (usage, loyalty). Benefits: targeted products and promotion, less waste, gaps found. Costs: research, small segments may not pay.
- A consumer profile describes the typical customer; targeting chooses segments; positioning decides how the product is seen against competitors. Customer relationship marketing builds long-term loyalty, since keeping a customer is cheaper than winning one.

Marketing: the management process responsible for identifying, anticipating and satisfying customer requirements profitably.

Market segmentation: dividing a market into distinct sub-groups of consumers with similar characteristics and needs.

Worked calculation: Bottled water sales were \$500 million last year and \$550 million this year. A firm sold \$66 million this year.

Market growth = $(550 - 500) \div 500 \times 100 = 10\%$.

Market share = $66 \div 550 \times 100 = 12\%$.

If the firm's sales also grew by 10%, its share is unchanged; share only rises if the firm grows faster than the market.

3.2 Market research

- Market research reduces the risk of marketing decisions, measures market size and growth, reveals customer needs and tests new products.
- Primary research: questionnaires, interviews, focus groups, observation, consumer panels, test marketing. Specific and current but costly and slow.
- Secondary research: government statistics, trade reports, agency reports, the internet, internal sales records. Cheap and quick but may be dated, general or unreliable.
- Quantitative research gives numbers (how many); qualitative research explores attitudes and reasons (why).
- Sampling: random, systematic, stratified (reflects group proportions), quota, cluster, convenience. Larger samples cost more but are more reliable.
- Inaccuracy comes from leading questions, small or unrepresentative samples and dated data.
- Present results in tables and charts; summarise with mean, median, mode and range. The mean is distorted by extremes; the median suits incomes.

Primary research: the collection of first-hand data that did not exist before, for a specific purpose.

Secondary research: the use of data that has already been collected and published by others.

Sample: a group of people selected to represent the population being researched.

3.3 The marketing mix: product and price

- The 4Ps are product, price, promotion and place; services add people, process and physical evidence (7Ps). The elements must be consistent with each other and the target segment.
- Products have a core function, actual features (quality, design, brand, packaging) and augmented benefits (warranty, after-sales service). A USP sets the product apart; branding builds loyalty and allows premium pricing. A balanced portfolio spreads risk.
- Product life cycle: development (costs, no sales), introduction (slow sales, losses), growth (rising sales and profit), maturity (sales peak, price competition), decline. Cash flow is negative until growth.
- Extension strategies: new uses, new markets, new packaging or versions, price cuts, fresh promotion, added features.
- Boston Matrix: stars (high share, high growth: invest), cash cows (high share, low growth: milk), question marks (low share, high growth: build or drop), dogs (low share, low growth: withdraw). It uses only two factors and assumes share equals profit.
- Pricing methods: cost-plus (mark-up on unit cost, ignores demand), penetration (low launch price, raised later), skimming (high launch price, reduced later), competitive, psychological (\$9.99), price discrimination (different prices to different segments, such as peak and off-peak), dynamic (prices move with demand), loss leader, promotional pricing.
- Price depends on costs, competitors, objectives, life cycle stage, brand image and PED.
- PED is normally negative; judge by size. Greater than 1: elastic, a price cut raises revenue. Less than 1: inelastic, a price rise raises revenue. Branding makes demand more inelastic. PED relies on past data and ignores competitor reactions.

Price elasticity of demand (PED): a measure of the responsiveness of quantity demanded to a

change in price.

$PED = \text{percentage change in quantity demanded} \div \text{percentage change in price}$

Worked calculation: A cinema raises its ticket price from \$8 to \$10 and weekly admissions fall from 2,000 to 1,700.

Change in price = $(10 - 8) \div 8 \times 100 = +25\%$. Change in quantity = $(1,700 - 2,000) \div 2,000 \times 100 = -15\%$.

$PED = -15 \div 25 = -0.6$, so demand is price inelastic.

Revenue before = $2,000 \times \$8 = \$16,000$. Revenue after = $1,700 \times \$10 = \$17,000$. Revenue rises by \$1,000, although the cinema also loses snack sales from the 300 lost customers.

3.4 The marketing mix: promotion and place

- Promotion informs, persuades and reminds, to raise awareness, build loyalty, launch products and increase sales. AIDA: attention, interest, desire, action.
- Above-the-line: paid mass media advertising (television, radio, press, posters, online display), informative or persuasive.
- Below-the-line: sales promotion (offers, coupons, samples, competitions, loyalty cards), personal selling, public relations, sponsorship, direct marketing, trade fairs.
- Digital promotion: social media, search engine marketing, influencers, viral and e-mail campaigns. Cheap, targeted, measurable and global, but crowded and negative comments spread fast. The promotion mix depends on budget, target market, product, life cycle stage and competitors.
- Channels of distribution: direct (producer to consumer, including online), one intermediary (retailer), two intermediaries (wholesaler and retailer), agents (export markets).
- Intermediaries break bulk, hold inventory and give coverage, but take a margin and reduce the producer's control. Channel choice depends on the product, the market, costs, control wanted and brand image.
- E-commerce gives small firms cheap global reach around the clock, but brings delivery, security and returns costs and strong price competition.
- An integrated mix sends one message: a luxury perfume needs a high price, exclusive retailers and glossy advertising.

Exam tip: a question asking you to recommend a marketing mix wants all four Ps applied to the product and segment in the case, then a judgement on which element matters most. Do not describe the 4Ps in general terms.

4 Operations management

4.1 The nature of operations

- Operations is the transformation process: inputs (land, labour, capital, materials) become goods and services with added value.
- Effectiveness is meeting customer needs; efficiency is producing with least waste; productivity is

output per unit of input; sustainability means operating without harming future generations.

- Labour productivity = $\text{output} \div \text{number of employees}$. Capital productivity = $\text{output} \div \text{capital employed}$. Productivity rises through training, motivation, better equipment and lean methods, and lowers unit costs.
- Capital-intensive production (car plants) gives consistent quality and low unit costs at volume but high fixed costs. Labour-intensive production (hairdressing) is flexible and personal but quality varies.
- Job production: one-off products to order (bridge, bespoke suit). High quality and flexible, motivating for skilled workers, but slow and costly.
- Batch production: groups of identical products pass through each stage together (bakery, clothing sizes). Some variety and economies of scale, but work in progress builds up and machines must be reset.
- Flow (mass) production: continuous output of identical products on an assembly line (drinks, cars). Very low unit costs and consistent quality, but huge set-up costs, boring work, a breakdown stops everything.
- Mass customisation combines flow techniques with flexible machinery to offer individual options at near mass-production cost.
- The method depends on the product, market size, capital and skills. Changing method needs new equipment and retraining.

Productivity: the ratio of outputs to inputs during production, for example output per worker per time period.

Labour productivity = $\text{total output in a period} \div \text{number of employees}$

Worked calculation: A workshop with 25 workers makes 750 chairs a week. After new tools and training, 24 workers make 840 chairs a week.

Before: $750 \div 25 = 30$ chairs per worker per week. After: $840 \div 24 = 35$ chairs per worker per week.

Increase = $(35 - 30) \div 30 \times 100 = 16.7\%$. If each worker's wage is unchanged, labour cost per chair falls by about 14% ($30 \div 35 = 0.857$), so the workshop can cut prices or raise its margin.

4.2 Inventory management

- Inventory is held as raw materials, work in progress and finished goods. It keeps production going if deliveries are late, meets sudden demand and allows bulk discounts.
- Costs of too much inventory: storage, insurance, capital tied up, damage, obsolescence. Costs of too little: stoppages, lost sales, no bulk discounts.
- Inventory control chart: maximum level, reorder level (set so inventory does not fall below the buffer during the lead time), reorder quantity, buffer (minimum) level, lead time. Faster usage or a longer lead time can cause a stock-out.
- Just-in-time (JIT): materials arrive as needed and goods are made as ordered, so buffer inventory is near zero. Benefits: lower holding costs, less waste, space and cash freed, faults found quickly. Drawbacks: no protection against late delivery, bulk discounts lost, needs reliable suppliers and flexible staff. Just-in-case holds buffer inventory to cope with uncertainty.

Buffer inventory: the minimum level of inventory held to protect against unexpected demand or late deliveries.

Reorder level: the level of inventory at which a new order is placed with the supplier.

Lead time: the time between an order being placed with a supplier and the inventory being delivered.

Just-in-time (JIT): an inventory management system in which materials and components arrive just as they are needed for production and finished goods are produced just as they are ordered.

4.3 Capacity utilisation and outsourcing

- Capacity is the maximum output in a period with existing resources. High utilisation spreads fixed costs and lowers unit cost; working at 100% leaves no room for maintenance or extra orders and strains quality.
- Excess capacity (falling or seasonal demand, new competitors) raises unit costs and lowers morale. Responses: rationalisation, rent out space, marketing or lower prices, subcontract work for others.
- Capacity shortage means lost sales. Responses: overtime, extra shifts, outsourcing, leasing equipment, new capacity (slow and risky), raising prices.
- Outsourcing transfers an activity (IT, cleaning, call handling, components) to another firm. Benefits: lower costs, specialist skills, flexibility, focus on core activities. Drawbacks: loss of control over quality and timing, confidentiality, redundancies, dependence on the supplier. Business process outsourcing moves whole back-office functions such as payroll, often overseas.

Capacity utilisation: the proportion of maximum output capacity currently being achieved.

Capacity utilisation (%) = $\text{current output} \div \text{maximum possible output} \times 100$

Worked calculation: A hotel has 200 rooms. In March an average of 150 rooms were occupied each night; in August the average was 196.

March: $150 \div 200 \times 100 = 75\%$. August: $196 \div 200 \times 100 = 98\%$.

In March the hotel could offer off-peak discounts or conference packages. In August it is nearly full and should consider peak pricing.

4.4 Quality in operations (A Level content)

- Quality means meeting customer expectations consistently. It cuts rework and complaints, builds reputation and allows higher prices.
- Quality control inspects output after production and rejects faults. Quality assurance builds quality into every stage so faults are prevented, with employees responsible for their own work.
- Total quality management is a culture of zero defects where the next stage is treated as an internal customer. Benchmarking compares with the best in the industry. Kaizen is continuous improvement in small steps.

5 Finance and accounting

5.1 Business finance

- Finance is needed for start-up capital, working capital, expansion, research and development, and to survive losses.
- Capital expenditure buys non-current assets used for more than a year; revenue expenditure covers day-to-day costs such as wages, rent and materials.
- Too little working capital means bills cannot be paid; too much means idle cash and excess inventory. The working capital cycle runs from paying for materials to collecting cash from customers.
- Internal sources: retained profit (no interest or loss of control, but lower dividends), sale of assets, reducing working capital (lower inventory, chase receivables).
- External short term: overdraft (flexible, interest only on the amount used, repayable on demand), trade credit, debt factoring.
- External long term: bank loans (fixed repayments, usually secured), leasing (use without owning), hire purchase, debentures, share issue (including a rights issue to existing shareholders), venture capital and business angels (equity plus expertise), crowdfunding, government grants, microfinance.
- Choice depends on the amount and duration, cost, legal structure, existing debt (gearing), willingness to give up control and security available. Match long-term assets with long-term finance.

Working capital: the capital needed to pay for raw materials, day-to-day running costs and credit offered to customers; in accounting terms, current assets minus current liabilities.

Debt factoring: selling the right to collect trade receivables to a factoring company in exchange for immediate cash, less a fee.

Venture capital: risk capital invested in small or new businesses with high growth potential, usually in return for a share of ownership.

5.2 Forecasting and managing cash flows

- Cash is the money actually available; profit is revenue minus costs for a period. A profitable firm can run out of cash if customers pay late or it buys inventory and equipment; lack of cash is the commonest reason new businesses fail.
- A cash flow forecast lists monthly inflows (cash sales, receipts from credit customers, loans, share capital) and outflows (materials, wages, rent, loan repayments, equipment, tax). Net cash flow = inflows – outflows; closing balance = opening balance + net cash flow; the closing balance becomes next month's opening balance.
- Uses: shows when an overdraft is needed, supports loan applications, lets plans be adjusted in advance. Limitations: built on estimates, upset by unexpected events.
- Causes of cash flow problems: poor planning, late-paying customers, overtrading, too much inventory, seasonal demand, unexpected costs, over-borrowing.
- Improving cash flow: speed up inflows (prompt-payment discounts, tighter credit control, factoring, sell off inventory), slow outflows (longer trade credit, leasing, cut overheads), find extra cash (overdraft, loan, sale and leaseback). Each has a cost: discounts cut revenue,

delaying suppliers damages relations, factoring loses part of the receivable.

Cash flow forecast: an estimate of the future cash inflows and outflows of a business, usually month by month, showing the expected cash balance at the end of each period.

Worked calculation: A new café opens with \$5,000 in the bank and forecasts the following (all figures in \$).

	Month 1	Month 2	Month 3
Cash sales (inflow)	20,000	18,000	26,000
Materials	9,000	10,000	12,000
Wages	6,000	6,000	6,500
Rent	3,000	3,000	3,000
New equipment	0	0	9,000
Total outflows	18,000	19,000	30,500
Net cash flow	2,000	(1,000)	(4,500)
Opening balance	5,000	7,000	6,000
Closing balance	7,000	6,000	1,500

Month 1: net cash flow = $20,000 - 18,000 = 2,000$; closing = $5,000 + 2,000 = 7,000$. Month 2: $18,000 - 19,000 = (1,000)$; closing = $7,000 - 1,000 = 6,000$. Month 3: $26,000 - 30,500 = (4,500)$; closing = $6,000 - 4,500 = 1,500$.

The café stays in credit but \$1,500 is thin: the owner could lease the equipment instead, or arrange an overdraft facility before Month 3.

5.3 Costs and break-even analysis

- Fixed costs do not change with output in the short run (rent, salaries, interest). Variable costs change with output (materials, piece-rate wages). Semi-variable costs have both elements. Total cost = fixed + variable.
- Direct costs can be identified with one product; indirect costs (overheads) are shared across the business. Marginal cost is the extra cost of one more unit. Average cost = total cost ÷ output and falls as fixed costs are spread.
- Contribution per unit = price – variable cost per unit. Total contribution = contribution per unit × units sold. Profit = total contribution – fixed costs.
- Break-even output = fixed costs ÷ contribution per unit. Margin of safety = actual output – break-even output. Output for a target profit = (fixed costs + target profit) ÷ contribution per unit.
- A break-even chart plots total revenue and total cost against output; the lines cross at break-even and the vertical gap shows profit or loss.
- Uses: tests price and cost changes, supports loan applications, gives a clear target. Limitations: assumes all output is sold, constant price and variable cost, costs easily split and a single product.

Contribution per unit: selling price per unit minus variable cost per unit.

Break-even output: the level of output at which total revenue equals total costs, so the business makes neither a profit nor a loss.

Margin of safety: the amount by which current or forecast output exceeds the break-even output.

Worked calculation: A firm makes garden benches. Fixed costs are \$60,000 a year, each bench sells for \$40 and variable cost is \$25 per bench. Forecast sales are 5,500 benches.

Contribution per unit = $40 - 25 = \$15$. Break-even output = $60,000 \div 15 = 4,000$ benches.

Margin of safety = $5,500 - 4,000 = 1,500$ benches.

Forecast profit = $(5,500 \times 15) - 60,000 = 82,500 - 60,000 = \$22,500$.

Output for a target profit of \$30,000 = $(60,000 + 30,000) \div 15 = 6,000$ benches.

If the price fell to \$35, contribution would be \$10 and break-even would rise to 6,000 benches, above forecast sales.

5.4 Budgets

- Budgets set targets, allocate resources, coordinate departments, control spending, motivate managers and allow performance to be measured. Types: sales, production, marketing, cash, capital expenditure and the master budget. A delegated budget is one a department manager controls.
- Incremental budgeting adjusts last year's figures (quick, carries forward waste); zero-based budgeting justifies every item from zero (thorough, time-consuming); flexible budgets adjust to actual output.
- Variance analysis compares actual with budget. Favourable variances raise profit against budget (higher revenue, lower costs); adverse variances reduce it. Investigate causes before acting.
- Limitations: based on forecasts, may be unrealistic, can encourage spending to the limit, inflexible budgets discourage necessary spending.

Budget: a detailed financial plan for a future period, setting out expected revenues and costs.

Variance: the difference between the actual figure and the budgeted figure.

Worked calculation: Budgeted revenue \$120,000, actual \$126,000: \$6,000 favourable. Budgeted materials \$40,000, actual \$44,000: \$4,000 adverse. Budgeted wages \$30,000, actual \$29,000: \$1,000 favourable. Net effect = $+6,000 - 4,000 + 1,000 = \$3,000$ better than budget. Higher materials cost may simply reflect higher sales volume, so check cost per unit before blaming purchasing.

5.5 Income statement and statement of financial position: the basics (A Level content)

- The income statement records revenue and costs over a period: revenue – cost of sales = gross profit; gross profit – expenses = operating profit; – finance costs = profit before tax; – tax = profit for the year, split between dividends and retained earnings.
- Cost of sales = opening inventory + purchases – closing inventory. Gross profit margin = gross

$\text{profit} \div \text{revenue} \times 100$; profit margin = operating profit $\div$ revenue $\times 100$.

- The statement of financial position shows assets, liabilities and equity at one date: non-current assets (buildings, machinery, brands), current assets (inventory, receivables, cash), current liabilities (payables, overdraft), non-current liabilities (long-term loans). Net assets = total assets – total liabilities = equity (share capital plus retained earnings).
- Depreciation spreads the cost of a non-current asset over its life; it is an expense but not a cash outflow.

Income statement: a financial statement that records the revenue, costs and profit (or loss) of a business over a given period of time.

Statement of financial position: an accounting statement that records the assets, liabilities and equity of a business at one point in time.

Exam tip: in calculations show the formula, the substitution and the answer with units (\$, %, units). Method marks are given even when the final figure is wrong.

Key terms

Term	Meaning
Added value	Selling price minus the cost of bought-in materials and components.
Opportunity cost	The next best alternative given up when a choice is made.
Entrepreneur	A person who organises resources and takes the risk of starting a business.
Intrapreneur	An employee who develops new ideas with entrepreneurial skills inside an existing business.
Primary sector	Businesses that extract or grow natural resources.
Tertiary sector	Businesses that provide services.
Limited liability	Shareholders are liable for company debts only up to the amount invested.
Sole trader	A business owned and controlled by one person with unlimited liability.
Public limited company	A company whose shares are traded by the public on a stock exchange.
Franchise	The right to trade under another business's name and methods in return for fees.
Social enterprise	A business with social or environmental aims that reinvests most of its surplus.
Capital employed	The total long-term finance invested in a business.
Organic growth	Growth from within, using the business's own resources.
Takeover	Buying a controlling interest in another company.
Vertical integration	Joining with a business at a different stage of the same industry.
Economies of scale	Falling average cost as the scale of output rises.
Mission statement	A statement of the core aims and values of a business.

SMART objectives	Objectives that are specific, measurable, achievable, realistic and time-bound.
Profit satisficing	Making enough profit to satisfy the owners rather than the maximum.
Corporate social responsibility	Taking account of society and the environment, not only shareholders, in decisions.
Stakeholder	Any group or individual with an interest in or affected by a business.
Workforce planning	Forecasting the number and type of employees a business will need.
Person specification	The qualifications, skills and qualities required of a job holder.
Redundancy	Ending employment because the job no longer exists.
Labour turnover	Staff leaving in a period as a percentage of the average number employed.
Hygiene factors	Herzberg's job factors that cause dissatisfaction if absent but do not motivate.
Job enrichment	Giving employees more responsibility and challenge in their work.
Piece rate	Payment per unit produced.
Autocratic leadership	A style in which the leader decides alone and expects to be obeyed.
Theory X	McGregor's view that workers dislike work and need close control.
Emotional intelligence	The ability to understand and manage one's own emotions and those of others.
Market share	A business's sales as a percentage of total market sales.
Niche market	A small, specialised segment of a larger market.
Market orientation	Basing product decisions on research into what customers want.
Market segmentation	Dividing a market into groups of consumers with similar needs.
Primary research	Collecting new data for a specific purpose.
Quota sampling	Selecting set numbers of respondents from each group in the population.
Unique selling point	A feature that makes a product different from competitors' products.
Product life cycle	The stages a product passes through from development to decline.
Extension strategy	Action taken to lengthen the maturity stage of a product's life cycle.
Penetration pricing	Setting a low initial price to gain market share quickly.
Price skimming	Setting a high initial price for a new or exclusive product.
Price elasticity of demand	The responsiveness of quantity demanded to a change in price.
Above-the-line promotion	Paid advertising through mass media.
Channel of distribution	The route a product takes from producer to consumer.
Productivity	Output per unit of input, such as output per worker.
Flow production	Continuous production of identical products on an assembly line.

Buffer inventory	The minimum inventory held to guard against late deliveries or unexpected demand.
Lead time	The time between placing an order and receiving the goods.
Just-in-time	Inventory arrives only when needed, so very little is held.
Capacity utilisation	Current output as a percentage of maximum possible output.
Outsourcing	Contracting another business to carry out an activity.
Working capital	Current assets minus current liabilities.
Overdraft	Permission to withdraw more from a bank account than it holds, up to a limit.
Debt factoring	Selling trade receivables to a factor for immediate cash, less a fee.
Fixed costs	Costs that do not change with output in the short run.
Contribution	Selling price minus variable cost, available to cover fixed costs.
Break-even output	The output at which total revenue equals total cost.
Margin of safety	The amount by which actual output exceeds break-even output.
Adverse variance	A difference between actual and budget that reduces profit.

Quick check

1. Define the term opportunity cost and give one example of an opportunity cost faced by a sole trader.
2. State two advantages that a private limited company has over a sole trader.
3. Explain one possible conflict between the objectives of shareholders and the objectives of employees.
4. A supermarket employed an average of 150 workers last year and 18 of them left. Calculate the labour turnover rate and state one cost to the business of high labour turnover.
5. Distinguish between Herzberg's hygiene factors and motivators, giving one example of each.
6. Explain one situation in which an autocratic leadership style might be appropriate.
7. Total sales in a market were \$400 million last year and are \$440 million this year. A business sold \$66 million this year. Calculate the market growth rate and the business's market share.
8. A business cuts the price of a product from \$50 to \$45 and weekly sales rise from 1,000 units to 1,150 units. Calculate the price elasticity of demand and explain whether the price cut has increased revenue.
9. Explain the difference between penetration pricing and price skimming and suggest one type of product suited to each.
10. A factory has a maximum capacity of 12,000 units a month and currently produces 9,000 units. Calculate its capacity utilisation and explain one problem of operating at this level.
11. Explain two benefits and one risk of just-in-time inventory management.
12. Explain the difference between job production and flow production, giving one example of a product suited to each.

13. A business has fixed costs of \$45,000, sells its product for \$30 and has a variable cost of \$18 per unit. Calculate the break-even output and the margin of safety if it sells 5,000 units.
14. State two causes of cash flow problems and explain two ways a business could improve its cash flow.
15. Budgeted sales revenue was \$90,000 and actual revenue was \$84,000. Budgeted material costs were \$30,000 and actual material costs were \$27,000. Calculate both variances, state whether each is favourable or adverse, and comment on the overall effect on profit.

1. Opportunity cost is the next best alternative given up when a choice is made. A sole trader who spends \$10,000 on a delivery van gives up the chance to spend it on advertising or new inventory; the lost benefit of that alternative is the opportunity cost of the van.
2. Any two: shareholders of a private limited company have limited liability, so their personal assets are safe if the business fails; a company can raise more capital by selling shares to family, friends or contacts; a company has a separate legal identity and continuity, so it survives the death or departure of an owner.
3. Shareholders want higher profits and dividends, which encourages managers to keep wage costs low; employees want higher pay, better conditions and job security. A pay rise reduces profit and dividends, while cutting jobs to raise profit damages employees' security.
4. Labour turnover = $18 \div 150 \times 100 = 12\%$. One cost: each leaver must be replaced, so the business pays for advertising, interviewing and induction, and output and customer service suffer while the new worker learns the job.
5. Hygiene factors are features of the job environment, such as pay, working conditions and company rules, that do not motivate but cause dissatisfaction if poor. Motivators are features of the work itself, such as recognition, responsibility and achievement, that give satisfaction and increase effort. A clean, safe office is a hygiene factor; responsibility for a project is a motivator.
6. Autocratic leadership suits a crisis, such as a fire or a sudden product safety recall, where decisions must be taken immediately with no time to consult. It can also suit new or unskilled staff who need clear instructions.
7. Market growth = $(440 - 400) \div 400 \times 100 = 10\%$. Market share = $66 \div 440 \times 100 = 15\%$.
8. Change in price = $(45 - 50) \div 50 \times 100 = -10\%$. Change in quantity = $(1,150 - 1,000) \div 1,000 \times 100 = +15\%$. PED = $15 \div (-10) = -1.5$, so demand is price elastic. Revenue before = $1,000 \times 50 = \$50,000$; after = $1,150 \times 45 = \$51,750$. Revenue has risen by \$1,750, as expected for a price cut on an elastic product. Whether profit rises depends on the extra variable cost of the 150 units.
9. Penetration pricing sets a low launch price to win market share quickly, raising it once the product is established; it suits a new snack or soft drink in a competitive mass market. Price skimming sets a high launch price to recover development costs and build an exclusive image, lowering it as competitors arrive; it suits a new smartphone with a technological lead.
10. Capacity utilisation = $9,000 \div 12,000 \times 100 = 75\%$, leaving 3,000 units of spare capacity a month. Fixed costs are spread over fewer units, so unit cost is higher than at full capacity, reducing margins or forcing higher prices.
11. Benefits: JIT cuts holding costs (storage, insurance, capital tied up) and reduces waste because materials are not damaged or made obsolete in storage; the cash released can be used

elsewhere. Risk: with no buffer, a late delivery, supplier failure or transport strike stops production at once and orders are missed, so the business depends on highly reliable suppliers.

12. Job production makes a single product to the customer's specification with skilled workers, for example a wedding dress or a custom-built yacht; a unique high-quality product at a high unit cost. Flow production makes large volumes of identical products continuously on an automated line, for example bottled drinks or cars; low unit costs but little variety.

13. Contribution per unit = $30 - 18 = \$12$. Break-even output = $45,000 \div 12 = 3,750$ units. Margin of safety = $5,000 - 3,750 = 1,250$ units. Profit at 5,000 units = $(5,000 \times 12) - 45,000 = \$15,000$.

14. Causes (any two): customers paying late; overtrading, where rapid expansion means paying for materials and wages long before sales are paid for; too much inventory; seasonal demand with costs all year. Improvements (any two): tighten credit control and offer prompt-payment discounts, bringing cash in sooner although discounts lower revenue; negotiate longer trade credit, delaying outflows although suppliers may refuse; arrange an overdraft for short-term gaps, flexible but with interest; lease equipment rather than buy it, spreading the outflow.

15. Sales revenue variance = $84,000 - 90,000 = \$6,000$ adverse. Materials variance = $30,000 - 27,000 = \$3,000$ favourable. Overall effect = $-6,000 + 3,000 = \$3,000$ adverse, so profit is \$3,000 below budget. The favourable materials variance may simply result from making fewer units, so the manager should investigate why sales fell short rather than praise the saving.