Cambridge International AS & A Level Business

Giáo trình luyện thi chuyên sâu

Song ngữ Anh–Việt

8020 ENGLISH

5A/2 Trần Phú, P.4, Q.5, TP.HCM · luyenthi8020.com

Thầy Tường 0332 747 169 · Cô Nancy 0983 422 692

Lời mở đầu · Foreword

Cuốn sách này thuộc bộ giáo trình luyện thi chương trình quốc tế của **8020 English (8020 Education)** — trung tâm luyện thi trọng điểm **IELTS · SAT · AP · IB · A-level · IGCSE** và săn học bổng du học. Toàn bộ nội dung được biên soạn bởi đội ngũ **Giáo sư · Tiến sĩ · Thạc sĩ** tốt nghiệp các trường top đầu thế giới, bám sát khung chương trình chính thức, trình bày đầy đủ lý thuyết, ví dụ mẫu, hình minh hoạ và hệ thống bài tập có lời giải chi tiết.

This book is part of the 8020 English international exam-prep series: complete English theory with Vietnamese explanations, worked examples, illustrations and fully-solved practice, aligned to the official framework.

Thành tích 8020 English

9.0 IELTS cao nhất	**1570** SAT cao nhất
5/5 AP — điểm tuyệt đối	**90/100** IB Diploma
100% GV $\geq$ 8.0 IELTS / 1500 SAT	**CMU** Tiến sĩ ĐH #1 Hoa Kỳ về CS

> **Đội ngũ tiêu biểu:** Thầy Châu Cát Tường (Academic Head, ThS Western Sydney, top 1% IELTS 8.5) · TS Nguyễn Anh Huy (Carnegie Mellon, cựu kỹ sư Amazon) · TS Nguyễn Phước Trường (Toán, ĐH Klagenfurt) · cùng đội ngũ giảng viên SAT 1500–1600, IELTS 8.0–8.5.

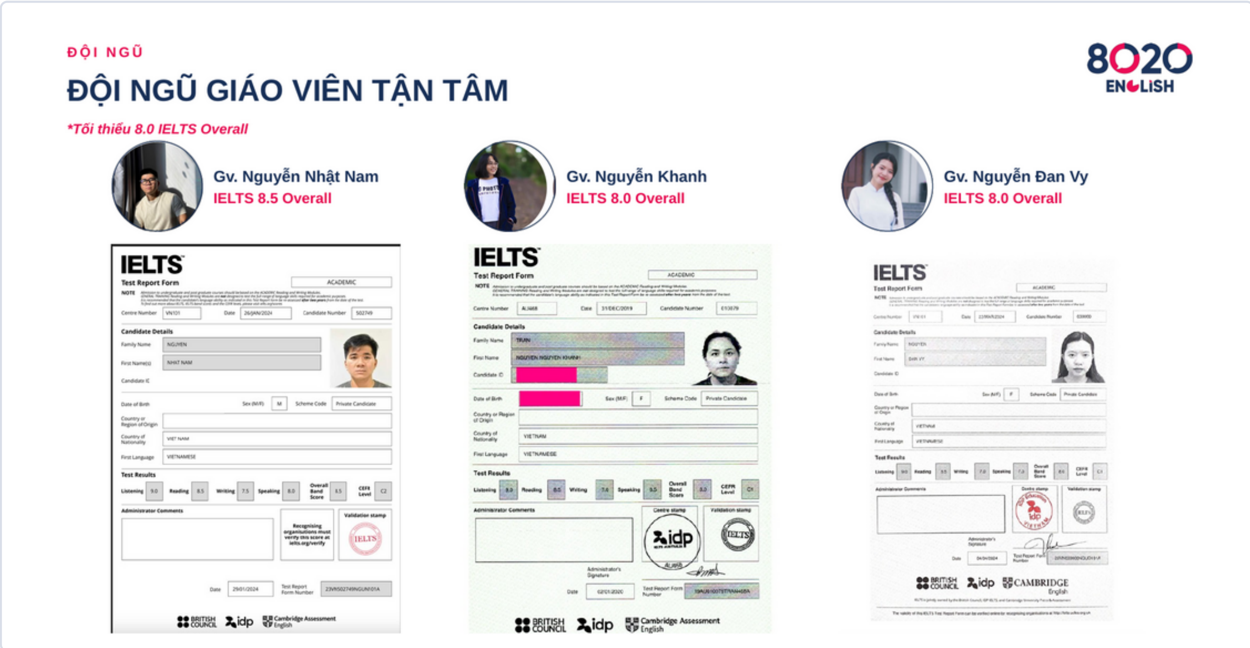
Kết quả học viên — điểm thi thật: IELTS 8.0–9.0 · SAT 1550 / 1570 / 1590 · AP 5/5 (Calculus BC, Microeconomics) · IB 90/100 (Economics) · Duolingo 110 · PTE 90 · TOEFL 120. **Bảng vàng SAT:** Khánh Đăng 1510 · Thảo Nguyên 1520 · Tâm Anh 1530.

"Cuối cùng đã đậu vào trường top như mong muốn." — Phan Thị Thanh Hằng, IELTS Overall 8.5.

Cách dùng sách hiệu quả: mỗi Unit gồm (1) **Lý thuyết trọng tâm** tiếng Anh kèm **giải thích tiếng Việt**; (2) **Ví dụ mẫu** có lời giải; (3) **Hệ thống bài tập** kèm **lời giải chi tiết**. Hãy tự làm bài trước khi xem lời giải để đạt hiệu quả tối đa.

THÀNH TÍCH THỰC TẾ • 8020 ENGLISH

Điểm thi thật · Bằng & bảng điểm thật của giảng viên và học viên 8020 English — **Điểm thật · Thầy thật · Kết quả thật**



Giảng viên 8020 — IELTS 8.5 & 8.0 Overall (British Council · IDP · Cambridge)

Học viên 8020 — IELTS 8.0 Overall (bảng điểm thật)

ĐỘI NGŨ

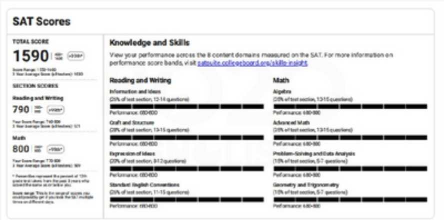
ĐỘI NGŨ GIÁO VIÊN TẬN TÂM

**Tối thiểu 1500 SAT Overall*

Thầy Quang Minh

Đại học Bách Khoa Hà Nội

SAT 1590 | IELTS 8.0



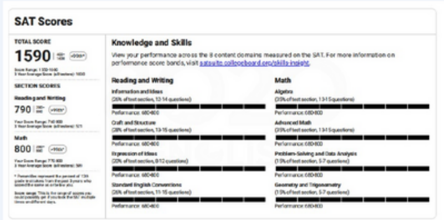
THẾ MẠNH & KINH NGHIỆM

- Học sinh đạt 1450–1560 SAT
- Dạy nhanh band 1400–1550+
- Chiến thuật làm bài & quản lý thời gian

Cô Phương Vy

Đại học Ngoại thương

SAT 1590 | IELTS 8.0



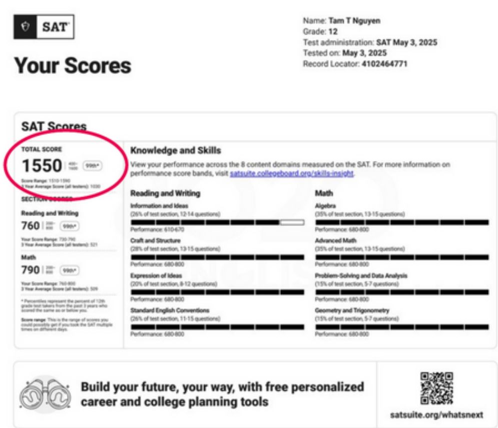
THẾ MẠNH & KINH NGHIỆM

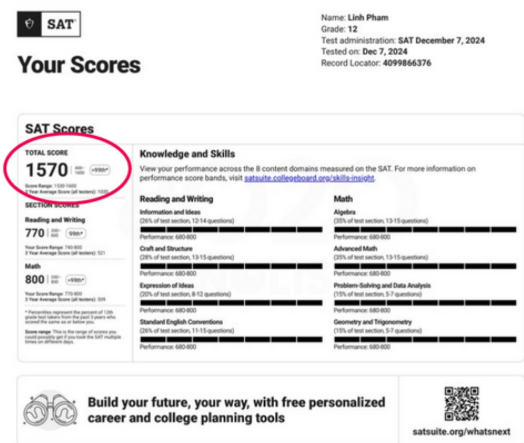
- SAT Verbal Instructor (Springboard, QAS)
- Dạy lớp nhỏ & xây dựng tài liệu riêng
- Chuyên Reading & Writing: Logic – Grammar

Giảng viên 8020 — SAT 1590 (ĐH Bách Khoa Hà Nội & ĐH Ngoại thương)

KẾT QUẢ HỌC VIÊN

TUTOR 1-1 – ĐIỂM SỐ ẤN TƯỢNG





Học viên 8020 — SAT 1550 & 1570 (College Board)

KẾT QUẢ HỌC VIÊN

BẢNG VÀNG HỌC VIÊN

8020 ENGLISH

SAT CHÂU CÁT TƯỜNG

Bảng vàng học viên

Bé Khanh Đặng	Bé Phan Nguyễn Thảo Nguyên	Bé Lê Tâm Anh
SAT Bứt phá + Nâng cao Cam kết 140++ => Kết quả 1510	*SAT Nâng cao*	*SAT Bứt phá + Nâng cao Cam kết 140++ => Bứt phá kết quả1530*

KHÁNH ĐẶNG – SAT 1510
"SAT Bứt phá + Nâng cao cam kết 140++ → 1510"

THẢO NGUYÊN – SAT 1520
"SAT Nâng cao → 1520"

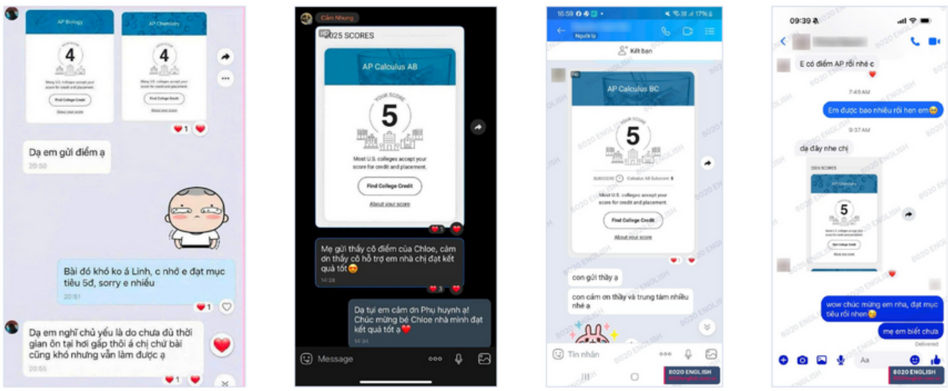
TÂM ANH – SAT 1530
"SAT Bứt phá + Nâng cao cam kết 140++ → 1530"

Bảng vàng SAT — Học viên đạt 1510 · 1520 · 1530

KẾT QUẢ HỌC VIÊN

ĐIỂM SỐ AP

8020 ENGLISH



AP Biology: 4 · AP Chemistry: 4 | AP Calculus AB: 5 | AP Calculus BC: 5 | AP Chemistry: 5

Bảng điểm AP thật của học viên – nhiều môn đạt điểm 4 & 5

Điểm AP thật — Calculus AB/BC 5/5 · Biology & Chemistry 4–5 (College Board)

Mục lục • Contents

Business and its Environment

Mục tiêu Unit: Tinh thần khởi nghiệp (enterprise) và vai trò doanh nhân; rủi ro, phần thưởng và chi phí cơ hội; nội dung một bản kế hoạch kinh doanh; các loại hình cấu trúc pháp lý doanh nghiệp (hộ kinh doanh cá thể, hợp danh, công ty TNHH, công ty cổ phần đại chúng, nhượng quyền); quy mô và tăng trưởng doanh nghiệp (tăng trưởng nội sinh và ngoại sinh, các hình thức sáp nhập/thâu tóm, kinh tế và phi kinh tế theo quy mô); mục tiêu doanh nghiệp, các bên liên quan (stakeholders) và trách nhiệm xã hội doanh nghiệp (CSR); môi trường kinh doanh bên ngoài theo khung PEST, chu kỳ kinh tế, cùng phần mở rộng bậc A2 về toàn cầu hoá và đạo đức kinh doanh.

1.1 Enterprise and the entrepreneur

1.1.1 The role of enterprise and the entrepreneur

Every economy faces the basic economic problem of **scarcity**: resources (land, labour, capital) are limited relative to the unlimited wants of consumers. **Enterprise** is the fourth factor of production — the willingness and ability of an individual to take the risk of organising the other three factors (land, labour, capital) to produce goods and services in search of a profit. The person who performs this function is the **entrepreneur**.

The entrepreneur's function

An entrepreneur identifies a gap in the market or an unmet customer need, raises the finance required to exploit that opportunity, organises the necessary land, labour and capital, and bears the ultimate financial risk of the venture. If the venture succeeds, the entrepreneur is rewarded with **profit**; if it fails, the entrepreneur bears the loss — potentially including personal assets, depending on the legal structure chosen (see Section 1.2).

Commonly identified characteristics of successful entrepreneurs include:

- **Innovation and creativity** — spotting an opportunity that others have missed, or a new way of meeting an existing need.
- **Willingness to take calculated risk** — accepting uncertainty about future revenue in exchange for the possibility of profit, while trying to reduce that risk through research and planning.
- **Self-motivation and determination** — the drive to keep working through setbacks, long hours and initially uncertain income.
- **Leadership and decision-making ability** — organising and motivating other factors of production, especially labour, even with limited initial resources.
- **Independence** — the desire to "be one's own boss" rather than work for an employer.

GIẢI THÍCH TIẾNG VIỆT

VN **Tinh thần khởi nghiệp (enterprise)** là yếu tố sản xuất thứ tư, bên cạnh đất đai, lao động và vốn — đó là khả năng và sự sẵn lòng chấp nhận rủi ro để tổ chức các yếu tố sản xuất khác nhằm tạo ra hàng hoá/dịch vụ và tìm kiếm lợi nhuận. **Doanh nhân (entrepreneur)** là người thực hiện chức năng này: phát hiện cơ hội thị trường, huy động vốn, tổ chức nguồn lực và gánh chịu rủi ro tài chính. Nếu thành công, doanh nhân được thưởng bằng **lợi nhuận**; nếu thất bại, họ phải gánh chịu khoản lỗ — thậm chí mất cả tài sản cá nhân tuỳ vào loại hình pháp lý đã chọn. Những phẩm chất phổ biến ở doanh nhân thành công: sáng tạo, sẵn sàng chấp nhận rủi ro có tính toán, kiên trì, khả năng lãnh đạo và mong muốn độc lập, tự chủ.

Product innovation vs. process innovation

Innovation, one of the defining qualities of an entrepreneur, can take two broad forms. **Product innovation** is the development of a new or significantly improved good or service — creating a new market or taking market share from existing products by offering something customers value more highly. **Process innovation** is a new or significantly improved method of producing or delivering an existing good or service — typically aimed at cutting costs, improving quality/consistency, or speeding up delivery, rather than changing what is sold. A single entrepreneur may rely primarily on one type (e.g. inventing a genuinely new gadget) or the other (e.g. finding a cheaper way to manufacture an existing type of product), and many successful businesses combine both over time.

VN GIẢI THÍCH TIẾNG VIỆT

Đổi mới sản phẩm (product innovation): tạo ra sản phẩm/dịch vụ mới hoặc cải tiến đáng kể, mở ra thị trường mới hoặc giành thị phần từ đối thủ. **Đổi mới quy trình (process innovation)**: cải tiến phương pháp sản xuất hoặc cung cấp sản phẩm/dịch vụ hiện có, thường nhằm giảm chi phí, nâng cao chất lượng hoặc rút ngắn thời gian giao hàng, chứ không thay đổi bản thân sản phẩm.

1.1.2 Risk, reward and opportunity cost

Starting a business always involves **risk** — the possibility that the outcome will be worse than expected, including total loss of the capital invested. Entrepreneurship is encouraged by the potential **reward** of profit and independence, but discouraged by this risk of financial loss and by the **opportunity cost** of giving up secure employment (a stable salary, employment benefits, and a lower-risk lifestyle) in order to pursue the venture.

Opportunity cost is the value of the next best alternative forgone when a choice is made. An entrepreneur who leaves a salaried job paying $40,000 a year to start a business has, at minimum, an opportunity cost of that forgone salary (plus any job security and benefits) for as long as the new venture does not generate at least an equivalent return.

Opportunity cost of starting up

Hoa earns a salary of $32,000 a year as an accountant. She resigns to open a bakery, investing $45,000 of her own savings. In its first year, the bakery generates a profit of $21,000. Compare Hoa's position with what she gave up.

Opportunity cost of her time: $\$32{,}000 - \$21{,}000 = \$11{,}000$ — Hoa is, in pure financial terms, $11,000 worse off than if she had stayed employed, even though the bakery is profitable. This does not mean the decision was wrong: Hoa may value independence, expect profit to grow strongly in future years, or place a high non-financial value on running her own business — but the calculation shows precisely what "the price of independence" was in year one.

GIẢI THÍCH TIẾNG VIỆT

VN

Chi phí cơ hội (opportunity cost) là giá trị của lựa chọn tốt nhất tiếp theo bị bỏ lỡ khi ra quyết định. Khởi nghiệp luôn đi kèm chi phí cơ hội — ví dụ từ bỏ một công việc lương ổn định để theo đuổi ý tưởng kinh doanh. Ngay cả khi doanh nghiệp mới có lãi, lợi nhuận đó vẫn có thể thấp hơn mức thu nhập đã từ bỏ, nghĩa là về mặt tài chính thuần tuý, doanh nhân "lỗ" so với phương án thay thế — nhưng họ có thể chấp nhận điều này vì giá trị phi tài chính (sự tự chủ, đam mê, kỳ vọng tăng trưởng trong tương lai).

Entrepreneurs frequently face a direct choice between a safer option with a certain, modest return and a riskier option with a higher *expected* return but a chance of loss. One way to compare such options formally is to calculate an **expected value**: the sum of each possible outcome multiplied by its probability.

$$\text{Expected value} = \sum(\text{probability of outcome} \times \text{value of outcome})$$

Expected value gives a single figure that can be compared across options of different risk, but it does not by itself capture an individual's **attitude to risk** — a risk-averse entrepreneur may still prefer a lower, guaranteed return over a higher expected value if the risky option carries a realistic chance of a loss the business cannot survive.

Comparing risk and expected return

An entrepreneur with $50,000 to invest is choosing between two options. **Option A**: a fixed-term contract guaranteed to return a profit of $15,000. **Option B**: launching a new product line, with a 60% chance of $30,000 profit if it succeeds, and a 40% chance of a $5,000 loss if it does not. Calculate the expected value of Option B and compare it with Option A.

Expected value of B $= (0.6 \times 30{,}000) + (0.4 \times (-5{,}000)) = 18{,}000 - 2{,}000 = \$16{,}000$.
Since $\$16{,}000 > \$15{,}000$, Option B has the higher expected value and would be preferred by a purely profit-maximising, risk-neutral decision-maker. However, a risk-averse entrepreneur — particularly one who could not absorb a $5,000 loss without threatening the survival of the business — might rationally choose the lower but guaranteed return of Option A instead. This illustrates why expected value is a useful starting point for decision-making, but not the only factor a real entrepreneur must weigh.

GIẢI THÍCH TIẾNG VIỆT

VN

Giá trị kỳ vọng (expected value) = tổng của (xác suất mỗi kết quả × giá trị của kết quả đó). Đây là công cụ giúp so sánh các phương án có mức độ rủi ro khác nhau bằng một con số duy nhất, nhưng không phản ánh được **thái độ với rủi ro** của từng cá nhân — một doanh nhân e ngại rủi ro (risk-averse) có thể vẫn chọn phương án chắc chắn có giá trị kỳ vọng thấp hơn nếu phương án rủi ro hơn có khả năng gây thua lỗ đe doạ đến sự tồn tại của doanh nghiệp.

1.1.3 The business plan

A **business plan** is a formal written document that sets out a new venture's objectives, its target market and marketing strategy, its operations plan, and detailed financial forecasts. It serves three main purposes: (1) it forces the entrepreneur to think through and test the viability of the idea before committing money; (2) banks and investors will almost always require one before agreeing to lend or invest; and (3) once trading begins, it provides a **benchmark** against which actual performance can be compared, highlighting variances that need investigation.

Section	Typical content
Executive summary	A concise overview of the business idea, mission and objectives.
The product/service	What is being sold and what makes it distinctive (unique selling point).
Market research	Evidence on target customers, market size, and competitor analysis.
Marketing plan	How the 4Ps (product, price, place, promotion) will be used to reach customers.
Operations plan	How and where the product will be made, sourced or delivered; staffing needs.
Financial forecasts	Start-up costs, a cash flow forecast, and a forecast income statement.
Finance required	The amount of capital needed and its intended source(s).

VN **GIẢI THÍCH TIẾNG VIỆT**

Kế hoạch kinh doanh (business plan) là văn bản trình bày mục tiêu, thị trường mục tiêu, chiến lược marketing, kế hoạch vận hành và các dự báo tài chính (chi phí khởi nghiệp, dự báo dòng tiền, dự báo lợi nhuận) của một dự án kinh doanh mới. Vai trò: (1) giúp doanh nhân tự kiểm chứng tính khả thi của ý tưởng; (2) là điều kiện bắt buộc để ngân hàng/nhà đầu tư xem xét cấp vốn; (3) là mốc chuẩn (benchmark) để so sánh với kết quả thực tế sau này.

1.1.4 Why new businesses fail

Many new ventures do not survive their first few years. Cambridge examiners commonly credit the following causes:

- **Undercapitalisation** — starting with too little capital to survive the period before the business becomes established and cash-generative, leaving no buffer for unexpected costs.
- **Poor cash flow management** — even a profitable business can fail if cash inflows do not arrive in time to pay staff, suppliers and rent (*"cash is king"*); this is especially common where customers are given long periods of credit.
- **Lack of market research** — misjudging customer demand, price sensitivity, or the strength of competition before launch.
- **Poor management skills** — a founder who is technically excellent at the product/service but inexperienced at pricing, staffing, marketing or record-keeping.
- **Diseconomies of growing too fast** — expanding capacity, staffing or stock faster than sales revenue can support, straining cash and management control.

VN **GIẢI THÍCH TIẾNG VIỆT**

Nguyên nhân phổ biến khiến doanh nghiệp mới thất bại: **thiếu vốn ban đầu (undercapitalisation)** — không đủ vốn để trụ qua giai đoạn đầu chưa có lãi; **quản lý dòng tiền kém** — doanh nghiệp có lãi trên sổ sách vẫn có thể phá sản nếu tiền mặt không về kịp để trả lương, nhà cung cấp; **thiếu nghiên cứu thị trường**; và **kỹ năng quản lý yếu** của người sáng lập.

1.1.5 Types of business risk

Beyond the general risk of failure, it is useful to distinguish several categories of risk an entrepreneur or established business may face:

Categories of business risk

- **Market risk** — the risk that customer demand, competitor behaviour or prices move against the business (e.g. a competitor launches a cheaper substitute).
- **Financial risk** — the risk arising from how the business is financed, particularly the risk that a highly indebted firm cannot meet interest and loan repayments if revenue falls.
- **Operational risk** — the risk of loss from failures in day-to-day processes, systems, equipment or people (e.g. a machinery breakdown halting production, or a data breach).
- **Strategic risk** — the risk that a major long-term decision (e.g. entering a new country, a large acquisition) turns out to be the wrong choice, even if it is well executed.

Firms cannot eliminate risk entirely, but can manage it — for example, through market research (reducing market risk), maintaining a prudent level of borrowing (reducing financial risk), insurance and quality control (reducing operational risk), and thorough strategic analysis such as PEST/PESTEL before major decisions (reducing strategic risk).

VN GIẢI THÍCH TIẾNG VIỆT

Rủi ro kinh doanh có thể phân loại thành: **rủi ro thị trường** (nhu cầu khách hàng, đối thủ cạnh tranh thay đổi bất lợi), **rủi ro tài chính** (doanh nghiệp vay nợ quá nhiều có thể không trả được lãi/nợ gốc khi doanh thu giảm), **rủi ro vận hành** (hỏng máy móc, sự cố hệ thống, lỗi con người), và **rủi ro chiến lược** (một quyết định lớn dài hạn hoá ra sai lầm dù được thực hiện tốt). Doanh nghiệp không thể loại bỏ hoàn toàn rủi ro nhưng có thể quản lý chúng thông qua nghiên cứu thị trường, kiểm soát nợ vay hợp lý, bảo hiểm và phân tích chiến lược kỹ lưỡng.

(!) Lỗi thường gặp: Do not assume that "riskier" automatically means "better expected return," or vice versa. A risky option can have a *lower* expected value than a safe one if its probability of failure is high enough relative to the size of the potential gain — always calculate expected value (or examine the actual figures given) rather than assuming risk and reward are always positively linked in a specific case.

1.1.6 Support for enterprise

Governments and other institutions often try to encourage enterprise because new and small businesses create employment, innovation and competition. Typical forms of support include: government-backed **start-up loans** or **grants** at below-market interest rates; **business incubators** and **accelerators** that provide low-cost office space, mentoring and networking to early-stage firms; simplified tax regimes or temporary tax relief for new small businesses; and free advisory services (business plan reviews, export advice) delivered through government agencies or chambers of commerce.

(!) Lỗi thường gặp: Do not confuse a **grant** (money that does not have to be repaid, usually conditional on meeting certain criteria) with a **loan** (money that must be repaid, normally with interest). Both reduce the entrepreneur's need for personal savings, but only a loan adds to the firm's future financial obligations (and, for a sole trader, to personal liability).

Comparing a grant-supported loan with a full commercial loan

A start-up needs $40,000 of capital. **Option 1**: a full commercial bank loan of $40,000 at 9% annual interest. **Option 2**: a government start-up grant of $15,000 (not repayable) combined with a commercial loan of only $25,000 at the same 9% rate. Calculate the first-year interest cost under each option.

Option 1 interest $= 0.09 \times 40{,}000 = \$3{,}600$.
Option 2 interest $= 0.09 \times 25{,}000 = \$2{,}250$.
By securing the $15,000 grant, the entrepreneur reduces first-year interest cost by $3{,}600 - 2{,}250 = \$1{,}350$, and reduces the total debt principal that must eventually be repaid by $15,000 — illustrating why enterprise-support grants materially lower both the risk and the financing cost of a new venture compared with relying entirely on commercial borrowing.

1.2 Business structure

The legal structure a business chooses affects how much finance it can raise, how much control the owner(s) retain, how much it must disclose publicly, and — critically — how much personal risk the owner(s) carry.

1.2.1 Unincorporated businesses

An **unincorporated** business has no legal identity separate from its owner(s): the business and the owner are, in law, treated as the same entity.

Sole trader

A **sole trader** is a business owned (though not necessarily solely staffed) by one person.

Advantages: cheap and simple to set up (minimal legal formality); the owner keeps 100% of the profit; full control over all decisions; and privacy — accounts do not have to be published.

Disadvantages: unlimited liability — if the business cannot pay its debts, creditors can pursue the owner's personal assets (house, savings, car); heavy workload and reliance on one person's skills; and it is usually harder to raise large amounts of capital, since banks may see a one-person business as higher risk.

The cost of unlimited liability

A sole trader's business fails owing creditors a total of $80,000. When the business's remaining assets (stock, equipment, cash) are sold, they raise only $50,000. Calculate the shortfall, and explain what happens to it under unlimited liability.

Shortfall $= 80{,}000 - 50{,}000 = \$30{,}000$. Because a sole trader has **unlimited liability**, this shortfall does not simply disappear — creditors are legally entitled to pursue the owner's *personal* assets (savings, car, and potentially the family home) to recover the remaining $30,000. Had the same business instead been trading as a private limited company, the owner's personal liability would have been limited to the capital they had invested in shares, and the unpaid $30,000 would instead be a loss borne by the company's creditors, not the owner personally.

VN GIẢI THÍCH TIẾNG VIỆT

Ví dụ: một hộ kinh doanh cá thể phá sản, nợ $80,000 nhưng tài sản doanh nghiệp chỉ thu hồi được $50,000 — khoản thiếu hụt $30,000 không tự biến mất. Do chịu **trách nhiệm vô hạn**, chủ nợ có quyền truy đòi tài sản **cá nhân** của chủ hộ kinh doanh (tiền tiết kiệm, xe, thậm chí nhà ở) để thu hồi phần còn thiếu. Nếu doanh nghiệp này là công ty TNHH, trách nhiệm cá nhân của chủ sở hữu sẽ chỉ giới hạn ở số vốn đã góp, và khoản $30,000 còn thiếu sẽ là khoản lỗ mà chủ nợ công ty phải gánh chịu, không phải cá nhân chủ sở hữu.

Partnership

A **partnership** (ordinary partnership) is a business owned by between 2 and 20 partners (the usual maximum in many jurisdictions, though rules vary), who share capital, decision-making, workload and profit according to a **Deed of Partnership** — a legal agreement specifying each partner's capital contribution, profit/loss-sharing ratio, and any salary paid to partners for specific duties.

Advantages: more capital and a wider range of skills than a sole trader; shared workload, decision-making and risk.

Disadvantages: ordinary partners usually have **unlimited liability** (and may even be liable for a fellow partner's mistakes, under "joint and several liability"); profit must be shared; and disagreements between partners can slow decision-making or cause the partnership to dissolve.

A well-drafted **Deed of Partnership** typically specifies: each partner's **capital contribution**; the rate of **interest on capital** (if any); any **salary** paid to partners for specific working roles; the **profit/loss-sharing ratio** applied to the residual profit; and the agreed procedure for admitting a new partner, for a partner leaving, or for dissolving the partnership entirely. Without a written deed, many jurisdictions default to assuming profits and losses are shared *equally* regardless of unequal capital contributions or workload — which is precisely why most partnerships put a detailed deed in place rather than relying on this default.

VN GIẢI THÍCH TIẾNG VIỆT

Thoả thuận hợp danh (Deed of Partnership) nên quy định rõ: vốn góp của từng thành viên, lãi suất trên vốn góp (nếu có), lương cho thành viên đảm nhiệm công việc cụ thể, tỷ lệ chia lợi nhuận/lỗ còn lại, và quy trình khi kết nạp thành viên mới, thành viên rút lui, hoặc giải thể hợp danh. Nếu không có thoả thuận bằng văn bản, nhiều nơi mặc định chia lợi nhuận/lỗ **bằng nhau** bất kể vốn góp hay khối lượng công việc khác nhau — đây chính là lý do phần lớn các hợp danh đều lập thoả thuận chi tiết thay vì dựa vào quy định mặc định này.

VN GIẢI THÍCH TIẾNG VIỆT

Doanh nghiệp không có tư cách pháp nhân riêng (unincorporated): doanh nghiệp và chủ sở hữu được coi là một thực thể pháp lý duy nhất. **Hộ kinh doanh cá thể (sole trader)**: một cá nhân sở hữu, dễ thành lập, giữ toàn bộ lợi nhuận, nhưng chịu **trách nhiệm vô hạn** — nếu phá sản, chủ nợ có thể truy đòi cả tài sản cá nhân. **Hợp danh (partnership)**: 2–20 người góp vốn theo thoả thuận hợp danh (Deed of Partnership), chia sẻ vốn, công việc và lợi nhuận, nhưng thường vẫn chịu trách nhiệm vô hạn.

1.2.2 Incorporated businesses: limited companies

An **incorporated** business has its own **separate legal identity** from its owners: it can own property, enter contracts, and sue or be sued in its own name. Crucially, its owners (**shareholders**) enjoy **limited liability** — if the company fails, a shareholder can lose only the amount they invested in shares, never their personal possessions.

Private limited company (Ltd) vs. public limited company (Plc)

Private limited company (Ltd) — shares are sold privately (to family, friends, employees, or invited investors) and *cannot* be traded on a public stock exchange. This suits family or founder-led businesses that want limited liability and some outside capital while retaining close control over who holds shares.

Public limited company (Plc) — shares are offered to the general public and traded freely on a recognised stock exchange, typically after an **Initial Public Offering (IPO)**. A Plc can raise very large amounts of capital from a wide pool of investors, but must publish detailed audited accounts, faces the risk of an unwanted **takeover** (another investor buying a controlling stake), and founders may see their proportion of ownership — and control — diluted as shares are issued or traded.

A **limited liability partnership (LLP)** is a hybrid structure: partners have limited liability (as in a company) but the business retains much of the operational flexibility and tax treatment of a partnership. LLPs are common among professional-service firms (law firms, accountancy practices) where several partners want to share ownership without exposing personal assets to the mistakes of other partners.

	Sole trader	Partnership	Private Ltd	Public Plc
Legal identity	Same as owner	Same as owners	**Separate**	**Separate**
Liability	Unlimited	Usually unlimited	**Limited**	**Limited**
Capital raising	Very limited	Limited	Moderate	**Very high**
Control	Full, one owner	Shared among partners	Shared, closely held	Shared; risk of takeover
Disclosure	Minimal	Minimal	Must file accounts	Full audited accounts, stock-exchange rules

A limited liability partnership (LLP) sits between partnership and Ltd: partners have limited liability but retain partnership-style flexibility, common among professional-service firms.

VN GIẢI THÍCH TIẾNG VIỆT

Trách nhiệm hữu hạn (limited liability): chủ sở hữu chỉ có thể mất số vốn đã góp vào công ty, tài sản cá nhân được bảo vệ — áp dụng cho công ty TNHH (Ltd) và công ty cổ phần đại chúng (Plc). Công ty **Ltd** bán cổ phần riêng tư (không niêm yết); công ty **Plc** niêm yết cổ phần rộng rãi trên sàn chứng khoán sau đợt IPO, huy động được vốn lớn hơn nhiều nhưng phải công bố báo cáo tài chính đầy đủ và có nguy cơ bị thâu tóm (takeover). **Công ty hợp danh trách nhiệm hữu hạn (LLP)** kết hợp ưu điểm của cả hai: các thành viên có trách nhiệm hữu hạn nhưng vẫn giữ được sự linh hoạt của mô hình hợp danh.

1.2.3 Other legal and organisational forms

- **Franchise** — a **franchisor** (owner of an established brand and business format) sells a **franchisee** the right to trade under its name, using its branding, supply chain and support systems, in exchange for an initial fee and ongoing royalties (usually a percentage of revenue), and sometimes a compulsory marketing levy.
- **Joint venture** — two or more businesses agree to share the costs, risks and profits of one specific project, while each partner remains an independent business overall (useful for entering a new country, where a local partner brings market knowledge).
- **Co-operative** — a business owned and democratically controlled by its members (often workers or consumers), typically one member, one vote regardless of capital invested; surplus is usually shared in proportion to trade with the co-operative rather than capital contributed.

- **Public sector / state-owned enterprise** — an organisation owned and controlled by government, which may aim to provide a universal service (e.g. a national postal service) rather than maximise profit, though many public corporations are still expected to operate efficiently and may be later **privatised** (sold into the private sector).

Partnership profit-sharing calculation

Partners X, Y and Z run a consultancy. Capital contributed: X $60,000, Y $40,000, Z $20,000 (total $120,000). Under the Deed of Partnership: (i) each partner earns **5% interest on capital** per year; (ii) X, as managing partner, earns an annual **salary** of $15,000; (iii) the residual profit is shared in the ratio **3:2:1** (matching the capital ratio). Total profit for the year is $90,000. Calculate each partner's total share.

Step 1 — Interest on capital: X $= 0.05 \times 60{,}000 = \$3{,}000$; Y $= 0.05 \times 40{,}000 = \$2{,}000$; Z $= 0.05 \times 20{,}000 = \$1{,}000$. Total interest $= \$6{,}000$.
Step 2 — Salary: X only, $\$15{,}000$.
Step 3 — Residual profit: $90{,}000 - 6{,}000 - 15{,}000 = \$69{,}000$, split 3:2:1 (six parts of $\$11{,}500$ each): X $= 3 \times 11{,}500 = \$34{,}500$; Y $= 2 \times 11{,}500 = \$23{,}000$; Z $= 1 \times 11{,}500 = \$11{,}500$.
Step 4 — Totals: X $= 3{,}000 + 15{,}000 + 34{,}500 = \$52{,}500$; Y $= 2{,}000 + 0 + 23{,}000 = \$25{,}000$; Z $= 1{,}000 + 0 + 11{,}500 = \$12{,}500$.
Check: $52{,}500 + 25{,}000 + 12{,}500 = \$90{,}000$ — matches total profit (✓).

The economics of a franchise

A franchisee pays a franchisor an initial fee of $25,000, plus an ongoing royalty of 8% of revenue and a compulsory marketing levy of 2% of revenue. In year one, the outlet generates revenue of $500,000.

Royalty $= 0.08 \times 500{,}000 = \$40{,}000$. Marketing levy $= 0.02 \times 500{,}000 = \$10{,}000$. Total ongoing payments $= \$50{,}000$. Including the one-off initial fee, total first-year cost of the franchise relationship $= 25{,}000 + 50{,}000 = \$75{,}000$. From year two onward (no initial fee), the ongoing cost at the same revenue level would be $\$50{,}000$ a year. In exchange, the franchisee gains an established, recognised brand, a tested business format, and head-office support (training, bulk-purchasing terms, national advertising) — benefits that would be costly and risky to build alone, and which historically give franchised outlets a lower failure rate than fully independent start-ups.

VN **GIẢI THÍCH TIẾNG VIỆT**

Nhượng quyền thương mại (franchise): bên nhận nhượng quyền trả phí ban đầu và phí bản quyền định kỳ (thường theo % doanh thu), đôi khi kèm phí marketing bắt buộc. Đổi lại, họ được sử dụng thương hiệu uy tín, mô hình kinh doanh đã kiểm chứng và hỗ trợ từ bên nhượng quyền, giúp giảm rủi ro thất bại so với tự khởi nghiệp. **Liên doanh (joint venture)**: hai doanh nghiệp cùng chia sẻ chi phí, rủi ro và lợi nhuận của một dự án cụ thể trong khi vẫn độc lập về tổng thể. **Hợp tác xã (co-operative)**: doanh nghiệp do các thành viên sở hữu và kiểm soát dân chủ, mỗi thành viên một phiếu biểu quyết bất kể góp vốn nhiều hay ít.

Distributing surplus in a consumer co-operative

A consumer co-operative store generates a total annual surplus of $50,000. Under its rules, the surplus is distributed to members in proportion to the value of their own purchases at the co-operative during the year, rather than in proportion to capital invested. Total member purchases for the year were $100,000, of which Member A personally purchased $2,000 of goods. Calculate Member A's share of the surplus.

Member A's share of total purchases $= 2{,}000/100{,}000 = 2\%$. Member A's surplus payment $= 0.02 \times 50{,}000 = \$1{,}000$. Note the key contrast with a company dividend: a shareholder's dividend depends on how many *shares* they own, whereas a co-operative member's surplus payment here depends on how much they *traded* with the co-operative — rewarding participation and loyalty rather than capital contribution.

Sharing cost and profit in a joint venture

Firms A and B set up a joint venture to develop a new product, agreeing to share both the project's costs and its profits in the ratio **60:40**, reflecting their respective capital contributions. Total project cost is $600,000, and in its first year the joint venture generates a profit of $250,000. Calculate each firm's share of the cost and of the profit.

Cost: A's share $= 0.60 \times 600{,}000 = \$360{,}000$; B's share $= 0.40 \times 600{,}000 = \$240{,}000$.
Profit: A's share $= 0.60 \times 250{,}000 = \$150{,}000$; B's share $= 0.40 \times 250{,}000 = \$100{,}000$.
Both firms remain fully independent businesses outside this specific project — only the costs and returns of the joint venture itself are shared according to the agreed ratio.

(!) Lỗi thường gặp: Do not describe a Ltd company and a Plc as "the same, just with different names." Both have separate legal identity and limited liability, but they differ fundamentally in *how shares are sold and traded*: Ltd shares are sold and transferred privately (often requiring existing shareholders' agreement); Plc shares can be bought and sold freely by the general public on a stock exchange. This difference is precisely why only a Plc faces meaningful risk of an unwanted takeover through the open market.

1.2.4 Forming a company: key documents, and raising capital through an IPO

Forming an incorporated company requires two founding legal documents to be filed with the relevant company registrar:

> The **Memorandum of Association** states the company's name, its registered office address, and its objectives (the scope of business it is set up to conduct). The **Articles of Association** set out the internal rules of the company: how directors are appointed, shareholders' voting rights, and how meetings are run. Together they form the company's constitution and must be filed before the company can be legally incorporated.

When a private limited company converts to a Plc and lists on a stock exchange for the first time, this is called an **Initial Public Offering (IPO)**: new shares are sold to outside investors, and the funds raised become new capital for the business.

Calculating capital raised through an IPO

A private company converts to a Plc and offers 4 million new shares to the public at an issue price of $2.50 each. An investment bank charges an underwriting fee of 3% of the gross amount raised for managing the share sale. Calculate (a) the gross capital raised, and (b) the net capital received by the company after the underwriting fee.

(a) Gross capital raised $= 4{,}000{,}000 \times \$2.50 = \$10{,}000{,}000$.
(b) Underwriting fee $= 0.03 \times 10{,}000{,}000 = \$300{,}000$. Net capital received $= 10{,}000{,}000 - 300{,}000 = \$9{,}700{,}000$. This example shows why an IPO can raise vastly more capital in a single

transaction than a private Ltd company could typically obtain from a small group of private investors — but a real cost (the underwriting fee, plus ongoing costs of stock-exchange listing and disclosure) is deducted from the amount actually available to the business.

VN GIẢI THÍCH TIẾNG VIỆT

Bản ghi nhớ thành lập công ty (Memorandum of Association) nêu tên công ty, địa chỉ đăng ký và phạm vi hoạt động; **Điều lệ công ty (Articles of Association)** quy định nội quy vận hành nội bộ (bổ nhiệm giám đốc, quyền biểu quyết của cổ đông). Đây là hai văn bản pháp lý bắt buộc phải nộp trước khi công ty được thành lập hợp pháp. Khi công ty TNHH tư nhân chuyển đổi thành công ty cổ phần đại chúng và niêm yết lần đầu, quá trình này gọi là **IPO (Initial Public Offering)** — bán cổ phần mới cho nhà đầu tư bên ngoài để huy động vốn mới cho doanh nghiệp.

1.2.5 Evaluating the choice of legal structure

There is no universally "best" legal structure — the right choice depends on the specific priorities of the owner(s) and the stage of the business. A useful way to answer an exam question asking a business to justify its legal form is to weigh up the same four criteria every time: **liability** (how much personal risk the owner is willing to accept), **capital-raising needs** (how much finance the venture requires, now and in future), **control** (how much say the owner wants to keep over decisions), and **disclosure** (how much administrative burden and public transparency the owner is willing to accept). A small, low-capital, low-risk venture run by one person who wants full privacy and control (e.g. a local tutoring business) may rationally remain a sole trader indefinitely; a fast-growing venture with large capital needs and multiple future investors will usually need to incorporate, and may eventually need Plc status specifically to access stock-market-scale capital, accepting greater disclosure and takeover risk as the trade-off.

1.2.6 Public corporations, nationalisation and privatisation

A **public corporation** (state-owned enterprise) is a business owned and controlled by government but often run with some commercial independence, typically to provide a service considered essential (e.g. national rail infrastructure, a public water utility).

Nationalisation is the transfer of a business from private ownership into state (public sector) ownership. Governments may nationalise a strategically important industry, a failing firm whose collapse would cause serious economic harm, or a natural monopoly where competition is impractical (e.g. a national electricity grid). **Privatisation** is the reverse process — the sale of a state-owned organisation into the private sector. Supporters argue privatisation increases efficiency and introduces competition (removing the "soft budget constraint" of guaranteed government support); critics argue that essential services may then prioritise profit over universal, affordable access, and that a natural monopoly may simply become a private monopoly rather than a genuinely competitive market.

VN GIẢI THÍCH TIẾNG VIỆT

Quốc hữu hoá (nationalisation): chuyển doanh nghiệp từ sở hữu tư nhân sang sở hữu nhà nước, thường áp dụng cho ngành chiến lược, doanh nghiệp có nguy cơ phá sản gây hậu quả kinh tế nghiêm trọng, hoặc độc quyền tự nhiên. **Tư nhân hoá (privatisation)**: quá trình ngược lại — bán doanh nghiệp nhà nước cho khu vực tư nhân, với kỳ vọng tăng hiệu quả và cạnh tranh, nhưng có thể khiến dịch vụ thiết yếu ưu tiên lợi nhuận hơn khả năng tiếp cận phổ cập.

1.3 Size and growth of business

1.3.1 Measuring the size of a business

No single measure of business size is perfect, so examiners expect awareness of several, used together:

- **Number of employees** — simple to compare, but a highly automated firm may have huge output with few staff.
- **Turnover (revenue/sales value)** — reflects market activity, but ignores profitability and cost structure.
- **Capital employed** (total long-term finance invested in the business) — reflects scale of assets, but two firms with identical capital employed can generate very different output.
- **Market share** — the proportion of total industry sales captured by one firm; useful for judging competitive power, but says nothing about absolute size if the whole market is small.
- **Market capitalisation** (share price $\times$ number of shares issued) — relevant only to companies with publicly traded shares (Plcs).

Calculating and comparing market capitalisation

Firm P is a Plc with 50 million shares in issue, currently trading at $4.20 per share, and employs 1,200 staff. Firm Q employs 5,000 staff but is a Plc with 20 million shares in issue trading at $4.00 per share. Calculate each firm's market capitalisation and comment on what this reveals about using a single measure of size.

Firm P: market capitalisation $= 50{,}000{,}000 \times \$4.20 = \$210{,}000{,}000$.
Firm Q: market capitalisation $= 20{,}000{,}000 \times \$4.00 = \$80{,}000{,}000$.
By market capitalisation, Firm P is over *2.6 times larger* than Firm Q, yet Firm Q employs more than four times as many staff. This confirms why examiners expect several measures of size to be used together: ranking firms by employees alone would suggest Firm Q is much the larger business, while the stock market's valuation suggests the opposite.

GIẢI THÍCH TIẾNG VIỆT

VN

Không có một chỉ số duy nhất đo lường chính xác quy mô doanh nghiệp; cần kết hợp nhiều chỉ số: **số lượng nhân viên**, **doanh thu (turnover)**, **vốn sử dụng (capital employed)**, **thị phần (market share)** và, với công ty niêm yết, **giá trị vốn hoá thị trường (market capitalisation)**. Mỗi chỉ số đều có điểm yếu riêng — ví dụ doanh nghiệp tự động hoá cao có thể có sản lượng lớn nhưng rất ít nhân viên, và giá trị vốn hoá thị trường có thể xếp hạng hai doanh nghiệp hoàn toàn trái ngược so với xếp hạng theo số nhân viên.

Many governments and statistical agencies classify firms as **micro**, **small**, **medium** or **large** using thresholds combining employee numbers and turnover (exact cut-offs vary by country) — for example, a **small and medium-sized enterprise (SME)** is commonly defined as a business employing fewer than around 250 staff. SMEs are economically significant even though each is individually small: collectively, they are typically responsible for a large share of total employment and a substantial share of new job creation in most economies, and they often play a key role in innovation and local competition against larger incumbent firms.

GIẢI THÍCH TIẾNG VIỆT

VN

Nhiều chính phủ phân loại doanh nghiệp theo quy mô **siêu nhỏ, nhỏ, vừa** và **lớn**, dựa trên số lượng nhân viên và doanh thu. **Doanh nghiệp vừa và nhỏ (SME)** thường được định nghĩa là doanh nghiệp có dưới khoảng 250 nhân viên. Dù mỗi SME có quy mô nhỏ, tổng thể khu vực SME đóng góp tỷ trọng lớn vào việc làm và đổi mới sáng tạo của nền kinh tế.

1.3.2 Organic and external growth

A business can grow in two broad ways.

Organic (internal) growth vs. external growth

Organic (internal) growth — expanding by reinvesting retained profit (or raising new finance) to build new capacity, hire more staff, open new outlets, or develop new products, without combining with another firm. Slower, but lower-risk, and the firm retains full control.

External growth — expanding by combining with another firm, through:

- **Merger** — two firms agree, by mutual consent, to combine into a single new organisation.
- **Takeover (acquisition)** — one firm buys a controlling stake in another, which may be agreed (friendly) or unwanted by the target's management (hostile).

External growth is typically much faster, giving instant access to an established brand, customer base, technology or supply chain — but is often expensive, can be financed by risky levels of debt, and carries the risk of clashing management styles, incompatible cultures or systems, and diseconomies of scale if the combined organisation becomes too complex to manage effectively.

Comparing the cost and speed of organic vs. external growth

A supermarket chain wants to add 20 new stores to its network. **Organic route**: build new stores from retained profit at an estimated $800,000 per store, opening 5 stores per year (so full expansion takes 4 years). **External route**: immediately acquire a rival chain of 20 existing stores for a total price of $22,000,000, including a premium for the rival's established brand and customer base. Compare the two routes.

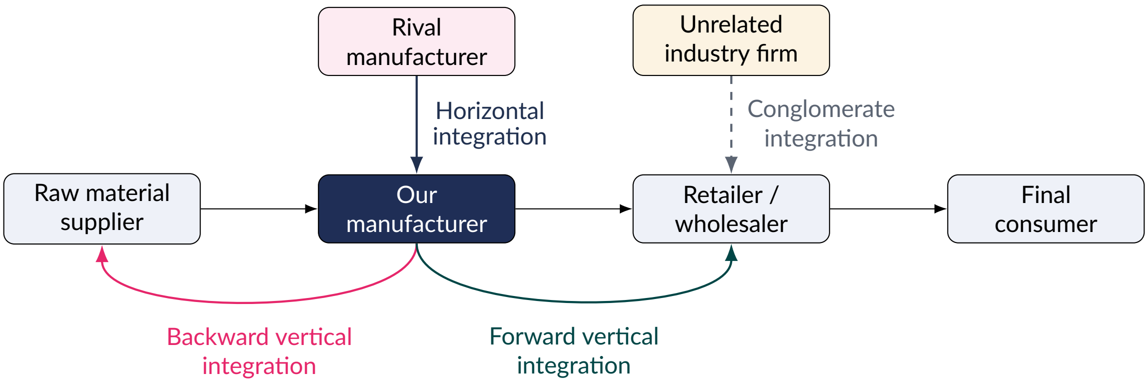
Total cash cost of organic growth $= 20 \times \$800{,}000 = \$16{,}000{,}000$, spread over 4 years. Total cash cost of the acquisition $= \$22{,}000{,}000$, paid essentially at once. The external route costs $22{,}000{,}000 - 16{,}000{,}000 = \$6{,}000{,}000$ more in total, but delivers the full 20-store expansion **immediately** rather than over 4 years — meaning the chain starts earning revenue from all 20 locations, and denies a competitor the chance to acquire the rival first, much sooner. Whether the extra $6,000,000 is worth paying depends on how much additional profit the chain expects to earn from those 4 "early" years of operation, and how much it values removing a rival from the market compared with building fresh capacity from scratch.

External growth (merger/takeover) is classified by the direction of combination relative to the firm's existing supply chain:

Types of integration

- **Horizontal integration** — combining with a firm at the *same stage* of the *same* industry (e.g. two supermarket chains merging). Motive: economies of scale, increased market share, reduced competition.
- **Backward vertical integration** — combining with a firm at an *earlier* stage of the same supply chain (e.g. a car manufacturer buying a steel supplier). Motive: securing supply, controlling input quality/cost, cutting out a supplier's profit margin.
- **Forward vertical integration** — combining with a firm at a *later* stage of the same supply chain (e.g. a manufacturer buying a chain of retail outlets). Motive: securing distribution/shelf space, capturing the retailer's profit margin, closer contact with final customers.
- **Conglomerate (lateral) integration** — combining with a firm in a *completely unrelated* industry (e.g. a food company acquiring a technology firm). Motive: diversification — spreading

risk across unrelated markets so a downturn in one does not threaten the whole group.



Direction of external growth relative to "our manufacturer" in the centre of its own supply chain: backward (toward suppliers), forward (toward retail/customers), horizontal (same stage, same industry) and conglomerate (an unrelated industry).

Identifying integration and its motive

A national coffee-shop chain acquires (i) a coffee-bean plantation and processing facility, and separately (ii) a rival coffee-shop chain operating in a region it does not yet serve. Classify each acquisition and state one likely motive.

(i) The plantation/processing facility is an *earlier* stage of the same supply chain ⇒ **backward vertical integration**; motive: securing a reliable, quality-controlled supply of beans and capturing the margin previously earned by an external supplier.
(ii) The rival chain operates at the *same stage* of the *same* industry ⇒ **horizontal integration**; motive: rapid entry into a new region with an existing customer base, plus economies of scale in purchasing and marketing.

1.3.3 Economies and diseconomies of scale

As a firm grows in scale, its **long-run average cost (LRAC)** — total cost per unit when *all* factors of production, including the size of premises and machinery, can be varied — typically falls at first, then may eventually rise again.

Internal economies of scale

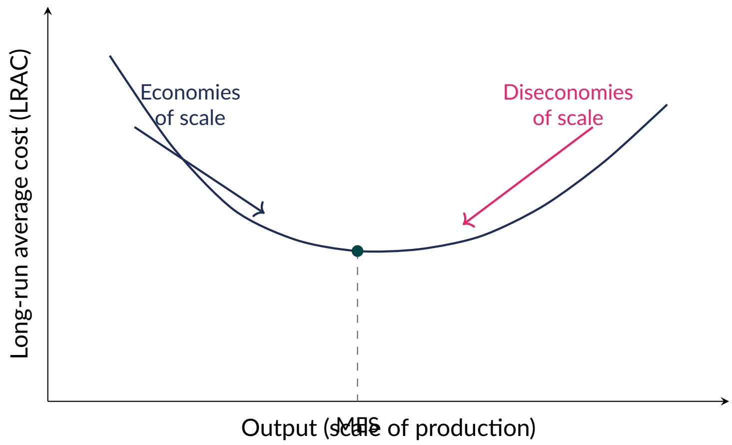
1. **Purchasing (bulk-buying) economies** — larger orders allow discounts from suppliers, lowering unit input cost.
2. **Technical economies** — larger-scale, more specialised or automated machinery/production lines can produce at a lower cost per unit than small-scale equipment.
3. **Financial economies** — larger firms are usually seen as lower-risk borrowers and can access loans at lower interest rates, and can raise capital in ways unavailable to small firms (e.g. a share issue).
4. **Managerial economies** — a large firm can afford to hire specialist managers (finance, marketing, HR) instead of relying on one generalist, raising efficiency in each function.
5. **Risk-bearing economies** — a large, diversified firm can spread risk across many products/markets, and can absorb the loss of a single product or market failing without threatening survival.

Diseconomies of scale

Beyond a certain size, average cost per unit may start to *rise* again as the firm becomes harder to manage:

- **Communication problems** — messages take longer to pass through more layers of management and may be distorted or delayed, causing slower and poorer decisions.
- **Alienation and lower motivation** — employees in a very large organisation can feel like "just a number," reducing morale and productivity.
- **Loss of control/co-ordination** — with many sites, departments and staff, it becomes harder for senior management to monitor performance and maintain consistent quality or culture.

External economies of scale are cost advantages available to *all* firms in an industry when the whole industry (not just one firm) grows and clusters in a particular location — for example, a specialised local pool of trained labour developing over time, specialist local component suppliers setting up nearby, improved local transport infrastructure built to serve the industry, or shared research/training facilities. Unlike internal economies of scale, external economies do not depend on the size of any single firm, but on the scale of the whole local industry.



The long-run average cost (LRAC) curve. LRAC falls as scale increases while internal economies of scale are captured, reaches a minimum at the minimum efficient scale (MES), and may rise again beyond that point if diseconomies of scale set in.

Calculating internal economies of scale

A firm produces 2,000 units at a total cost of \$80,000. After expanding its scale of production to 8,000 units, total cost rises to \$248,000. Determine whether the firm is experiencing economies of scale.

Average cost before $= 80{,}000/2{,}000 = \$40$ per unit. Average cost after $= 248{,}000/8{,}000 = \$31$ per unit. Average cost has fallen by $\$9$ per unit, a decrease of $9/40 = 22.5\%$, even though output rose four-fold. Because total cost rose *proportionally less* than output, the firm is experiencing **economies of scale**.

VN **GIẢI THÍCH TIẾNG VIỆT**

Kinh tế theo quy mô (economies of scale) là hiện tượng chi phí bình quân dài hạn (LRAC) giảm khi sản lượng tăng, nhờ: kinh tế mua hàng, kinh tế kỹ thuật, kinh tế tài chính, kinh tế quản lý và kinh tế phân tán rủi ro. Khi doanh nghiệp vượt quá "quy mô hiệu quả tối thiểu" (MES), **phi**

kinh tế theo quy mô (diseconomies of scale) có thể xuất hiện — do vấn đề giao tiếp nội bộ, nhân viên mất động lực và khó kiểm soát — khiến LRAC tăng trở lại.

1.3.4 Why some firms remain small

Not every firm aims to grow. Reasons a business may deliberately stay small include: the market itself is small or niche (e.g. a bespoke tailor or a highly localised repair service), where growth would dilute the personalised service that is the firm's competitive advantage; the owner prioritises retaining full personal control rather than sharing decision-making or ownership; the owner values a manageable workload and work–life balance over higher profit; and in some markets, growth could attract large competitors or regulatory attention that a small, low-profile firm can avoid.

VN GIẢI THÍCH TIẾNG VIỆT

Không phải doanh nghiệp nào cũng muốn tăng trưởng. Một số doanh nghiệp chủ động duy trì quy mô nhỏ vì: thị trường ngách nhỏ, tăng trưởng sẽ làm loãng chất lượng dịch vụ cá nhân hoá; chủ sở hữu muốn giữ toàn quyền kiểm soát; hoặc ưu tiên cân bằng công việc — cuộc sống hơn là lợi nhuận tối đa.

It is useful to distinguish a **lifestyle entrepreneur** — someone who starts a business primarily to support a preferred way of living (flexible hours, working from a chosen location, doing work they enjoy) and who deliberately caps growth once it comfortably supports that lifestyle — from a **growth-oriented entrepreneur**, who treats the business as a vehicle for continually expanding scale, market share and, eventually, wealth or capital gain (e.g. through an eventual sale or IPO). Neither approach is inherently superior; Cambridge mark schemes reward candidates who recognise that "staying small" can be a deliberate, rational strategic choice rather than automatically a sign of a business that has failed to grow.

1.4 Business objectives and stakeholders

1.4.1 Mission, corporate objectives and SMART targets

Mission, aims and objectives

A **mission statement** is a broad, often aspirational, statement of a business's overall purpose and values — why it exists beyond simply making profit. **Corporate objectives** are the specific, medium-to-long-term goals set to help achieve that mission (e.g. "become the market leader in sustainable packaging within five years"). **Targets** are shorter-term, more precise numerical goals derived from those objectives (e.g. "reduce packaging waste by 10% this year").

Common corporate objectives include **survival** (especially for new or struggling firms), **profit maximisation**, **growth** (in revenue, market share or scale), increasing **shareholder value**, and pursuing **corporate social responsibility (CSR)** goals such as environmental sustainability targets.

Well-designed objectives are usually described as **SMART**: **S**pecific (clearly defined, not vague), **M**easurable (a quantifiable target so achievement can be checked), **A**chievable (realistic given the firm's resources), **R**elevant (aligned with the wider mission/strategy), and **T**ime-bound (a clear deadline).

Evaluating an objective against the SMART framework

Compare two stated objectives for an online retailer:
(A) "We want to become better at business and please our customers more."
(B) "Increase online sales revenue by 15% within the next 12 months, measured against last year's sales figure of $2,000,000."

Objective (A) fails the SMART test: it is not Specific (what does "better at business" mean?), not Measurable (no numerical target), and not Time-bound (no deadline) — it cannot be used to judge success or failure. Objective (B) is SMART: it is **Specific** (online sales revenue), **Measurable** (15% of $\$2{,}000{,}000 = \$300{,}000$, giving a precise target of $\$2{,}300{,}000$), has a clear **Time-bound** deadline (12 months), and is presumably **Relevant** to a strategy of growing the online channel. Whether it is **Achievable** would need to be checked against the firm's marketing budget, capacity and past growth trend.

VN **GIẢI THÍCH TIẾNG VIỆT**
Mục tiêu SMART: Cụ thể (Specific), Đo lường được (Measurable), Khả thi (Achievable), Liên quan (Relevant), Có thời hạn (Time-bound). Một mục tiêu như "trở nên tốt hơn" không đạt chuẩn SMART vì không cụ thể, không đo lường được và không có thời hạn; ngược lại "tăng doanh thu bán hàng trực tuyến 15% trong 12 tháng tới" đáp ứng đầy đủ các tiêu chí này.

1.4.2 A2 extension: alternative theories of the firm

A2 EXTENSION: Traditional economic theory assumes a firm's objective is simply to **maximise profit**. A2-level study introduces alternative theories that better explain some real-world business behaviour, particularly in large companies where ownership (shareholders) is separated from day-to-day control (professional managers).

Managerial and behavioural theories of the firm

Baumol's sales revenue maximisation model — William Baumol argued that managers, whose salary, status and job security are often more closely linked to the *size* of the firm (sales revenue) than to profit itself, may aim to **maximise sales revenue** rather than profit, subject to earning at least a **minimum acceptable level of profit** needed to keep shareholders satisfied and avoid a takeover.

Behavioural theory of the firm (Cyert and March) — in large organisations, different internal groups/departments (e.g. sales, finance, production) have different, sometimes conflicting, goals, and important decisions emerge from negotiation and compromise between them rather than from one single, rational profit-maximising calculation. Because managers face limited time and information (**bounded rationality**), they often pursue **"satisficing"** — reaching a satisfactory outcome on several objectives at once, rather than a theoretical maximum on any single one.

Applying Baumol's sales-maximisation model

A company's shareholders require a minimum acceptable profit of $300,000 to remain satisfied. The management board is choosing between: **Strategy 1** — expected profit $400,000 on sales revenue of $5,000,000; **Strategy 2** — expected profit $350,000 on sales revenue of $8,000,000. Which strategy would a sales-revenue-maximising manager (as described by Baumol) choose, and why?

Both strategies clear the minimum acceptable profit of $300,000 (Strategy 1 gives $400,000;

Strategy 2 gives $350,000), so the constraint is satisfied either way. A manager maximising sales revenue *subject to* that minimum profit constraint would choose **Strategy 2**, since it generates far higher sales revenue ($8,000,000 versus $5,000,000) while still keeping profit comfortably above the $300,000 threshold — even though Strategy 1 would actually generate $50,000 more profit. This highlights the key difference between a pure profit-maximiser (who would choose Strategy 1) and a sales-revenue-maximiser constrained by a minimum profit requirement (who would choose Strategy 2).

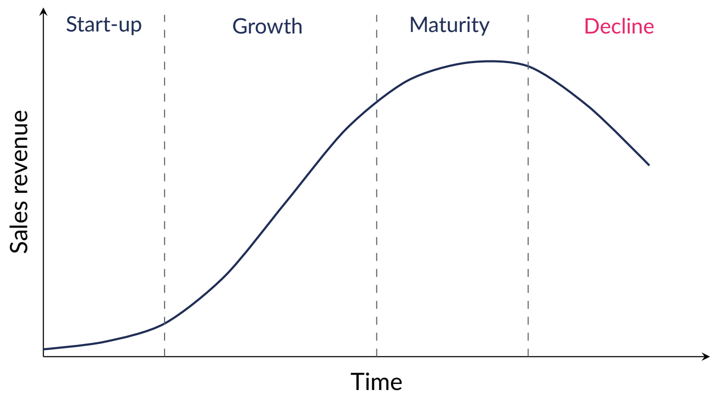
VN GIẢI THÍCH TIẾNG VIỆT

Mô hình tối đa hoá doanh thu của Baumol: người quản lý có thể theo đuổi mục tiêu tối đa hoá **doanh thu bán hàng** thay vì lợi nhuận, vì lương thưởng và vị thế của họ thường gắn với quy mô doanh nghiệp hơn là lợi nhuận — miễn là lợi nhuận đạt mức tối thiểu để cổ đông hài lòng. **Lý thuyết hành vi của doanh nghiệp (Cyert và March)**: trong tổ chức lớn, các quyết định thường là kết quả của thương lượng, thoả hiệp giữa các bộ phận có mục tiêu khác nhau, và người quản lý thường theo đuổi **"sự thoả đáng" (satisficing)** — đạt kết quả chấp nhận được trên nhiều mục tiêu cùng lúc — thay vì tối đa hoá tuyệt đối một mục tiêu duy nhất, do giới hạn về thời gian và thông tin.

1.4.3 Objectives over the business life cycle

The relative importance of different objectives typically changes as a business matures through the stages of the **business (product/organisational) life cycle**: introduction, growth, maturity and, eventually, decline (unless the firm successfully relaunches or diversifies).

Stage	Typical primary objective	Why
Start-up (introduction)	**Survival**	Cash is scarce, the customer base is unproven, and even a small shock can threaten the business's existence.
Growth	**Growth** / increasing market share	Once viable, the firm reinvests to build scale, capture economies of scale, and establish market position before competitors do.
Maturity	**Profit maximisation** / shareholder value	With an established position and predictable revenue, the focus often shifts to maximising returns to owners/shareholders, alongside maintaining market share.
Decline	**Cost control** / diversification / exit	Sales fall as the market saturates or new rivals/technology emerge; management must decide whether to cut costs and hold on, relaunch with an updated product, diversify into new markets, or wind the business down.



A stylised business/product life cycle. Sales revenue grows slowly at start-up, accelerates through the growth phase, levels off at maturity, and eventually falls in decline — the dominant business objective typically shifts at each of the dashed stage boundaries.

GIẢI THÍCH TIẾNG VIỆT

VN

Mục tiêu doanh nghiệp thường thay đổi theo vòng đời sản phẩm/tổ chức: giai đoạn **khởi nghiệp** ưu tiên **sự sống còn (survival)**; giai đoạn **tăng trưởng** tập trung mở rộng thị phần; giai đoạn **trưởng thành** chuyển sang **tối đa hoá lợi nhuận** và giá trị cổ đông; giai đoạn **suy thoái** đòi hỏi kiểm soát chi phí, tái định vị sản phẩm, đa dạng hoá hoặc rút lui khỏi thị trường.

1.4.4 Stakeholders in a business

A **stakeholder** is any individual or group with an interest in, or affected by, the activities and decisions of a business — distinct from a **shareholder**, who specifically owns shares in the company (all shareholders are stakeholders, but not all stakeholders are shareholders).

> **Internal stakeholders** operate inside the business: **shareholders/owners** (want profit, dividends, growth in share value), **managers** (want authority, job security, resources to run their department well) and **employees** (want fair pay, job security, good working conditions).
>
> **External stakeholders** are outside the business but affected by it: **customers** (want quality, value, reliability), **suppliers** (want prompt payment and continued orders), **government** (wants tax revenue, compliance with law, employment), **the local community** (wants local jobs, minimal pollution/disruption) and **pressure groups** (campaign on specific issues, e.g. the environment or animal welfare).

Stakeholder groups frequently have **conflicting objectives**: shareholders wanting higher dividends may conflict with employees wanting higher wages (both draw on the same pool of profit); a decision to expand a factory might please employees and local suppliers but anger local residents concerned about noise or traffic; and a supplier wanting prompt payment can conflict with a firm's own cash flow objective of delaying payments as long as possible.

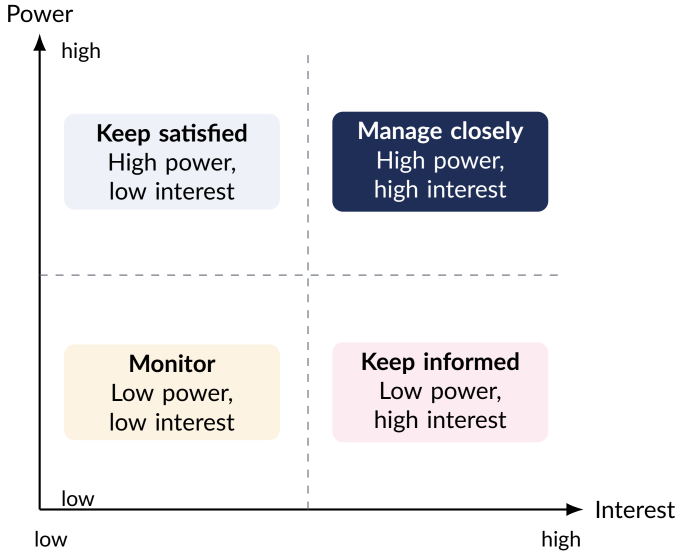
> Common stakeholder conflict pairs that appear repeatedly in case studies include: **shareholders vs. employees** (dividends/share buy-backs vs. higher wages, drawing on the same profit pool); **shareholders vs. customers** (higher prices/profit margins vs. lower prices/greater value); **the firm vs. the local community** (expansion, jobs and local investment vs. noise, congestion or environmental disruption); **the firm vs. suppliers** (extending payment terms to protect the firm's own cash flow vs. the supplier's need for prompt payment); and **managers vs. shareholders** (managers pursuing growth, status or job security vs. shareholders wanting maximum short-term returns — related to the "principal-agent problem" of separated ownership and control). A strong exam answer identifies not just *that* a conflict exists but precisely *which two* stakeholder groups are in tension and *why*.

VN GIẢI THÍCH TIẾNG VIỆT

Bên liên quan (stakeholder) là bất kỳ cá nhân/nhóm nào có lợi ích hoặc bị ảnh hưởng bởi hoạt động của doanh nghiệp — khác với **cổ đông (shareholder)**, người sở hữu cổ phần cụ thể. Bên liên quan **nội bộ**: cổ đông, quản lý, nhân viên. Bên liên quan **bên ngoài**: khách hàng, nhà cung cấp, chính phủ, cộng đồng địa phương, nhóm vận động (pressure groups). Các nhóm này thường có mục tiêu **xung đột** với nhau — ví dụ cổ đông muốn cổ tức cao trong khi nhân viên muốn lương cao hơn, cả hai đều lấy từ cùng một khoản lợi nhuận.

1.4.5 The stakeholder power/interest matrix

Because a business cannot satisfy every stakeholder equally, managers often prioritise using a **power/interest matrix** (based on the work of Mendelow), which classifies stakeholders by (i) how much **power** they have to influence the business, and (ii) how much **interest** they have in its decisions.



The stakeholder power/interest matrix. Large shareholders and government regulators typically fall into ”manage closely”; a small individual shareholder with a large but passive interest may fall under ”keep informed”; a distant supplier with little influence and little day-to-day interest falls under ”monitor.”

Classifying stakeholders on the power/interest matrix

A listed manufacturing Plc is deciding whether to close one of its factories. Classify: (i) a pension fund holding 18% of the company’s shares; (ii) the national government, which regulates the industry and could impose fines for breaching redundancy law; (iii) a small local newsagent that occasionally sells the firm’s products; (iv) employees at the factory facing closure.

(i) The pension fund has **high power** (a large shareholding gives real voting influence) and, given the scale of its investment, **high interest** ⇒ **manage closely**.
(ii) Government has **high power** (legal/regulatory authority) but, for a single factory decision, relatively **lower day-to-day interest** unless the closure is large-scale ⇒ typically **keep satisfied**.
(iii) The newsagent has **low power** and **low interest** in this specific decision ⇒ **monitor**.
(iv) Employees have **low formal power** over the decision but extremely **high interest** (their jobs are directly at stake) ⇒ **keep informed**, and in practice, firms often consult them closely to manage industrial relations risk even though their formal power is limited.

VN GIẢI THÍCH TIẾNG VIỆT

Ma trận quyền lực – lợi ích (power/interest matrix) phân loại các bên liên quan theo hai trục: mức độ **quyền lực** (khả năng tác động đến quyết định) và mức độ **lợi ích/quan tâm** đến quyết định đó. Bốn nhóm: **"giữ hài lòng"** (quyền lực cao, lợi ích thấp), **"quản lý sát sao"** (quyền lực cao, lợi ích cao — nhóm quan trọng nhất), **"thông báo thường xuyên"** (quyền lực thấp, lợi ích cao) và **"theo dõi"** (quyền lực thấp, lợi ích thấp).

1.4.6 Corporate social responsibility (CSR) and business ethics

There are two contrasting views of what a business is fundamentally *for*.

Shareholder theory vs. stakeholder theory

The economist **Milton Friedman** argued for the **shareholder theory** (or "shareholder primacy") view: a firm's only social responsibility is to conduct business to increase its profits (within the law), because shareholders have entrusted their capital to managers specifically to earn a return — spending shareholders' money on wider social causes, in this view, is not management's decision to make.

The **stakeholder theory** view holds that a business has genuine responsibilities to *all* its stakeholders — employees, customers, suppliers, the community and the environment — not only its shareholders, and that balancing these interests is not only ethically right but can also build long-term brand value, customer loyalty and staff retention that ultimately benefit shareholders too.

Corporate social responsibility (CSR) is a firm's voluntary commitment to operate in a way that benefits stakeholders and society *beyond* the minimum required by law — for example, paying above-market wages, using only certified sustainable materials, or funding local community projects, even where none of this is legally compulsory.

Carroll's CSR pyramid

One influential model, developed by Archie Carroll, arranges a firm's responsibilities into four layers, built from the base upward: (1) **Economic responsibilities** — the foundation: being profitable enough to survive, pay employees and reward investors. (2) **Legal responsibilities** — obeying the laws and regulations set by government. (3) **Ethical responsibilities** — doing what is right, fair and just even where the law is silent. (4) **Philanthropic responsibilities** — the top layer: voluntarily contributing resources to improve the wellbeing of the community (charitable donations, sponsoring local causes), going beyond what is expected as a normal part of doing business. The model treats CSR as an addition on top of a firm first meeting its basic economic and legal duties, not a replacement for them.

VN GIẢI THÍCH TIẾNG VIỆT

Mô hình kim tự tháp CSR của Carroll chia trách nhiệm doanh nghiệp thành 4 tầng từ dưới lên: **trách nhiệm kinh tế** (nền tảng — phải có lãi để tồn tại), **trách nhiệm pháp lý** (tuân thủ luật pháp), **trách nhiệm đạo đức** (làm điều đúng đắn ngay cả khi luật không yêu cầu), và **trách nhiệm từ thiện** (tầng cao nhất — tự nguyện đóng góp cho cộng đồng). CSR được xem là phần bổ sung phía trên các nghĩa vụ kinh tế và pháp lý cơ bản, không thay thế chúng.

Investors increasingly assess companies using **ESG** criteria — **E**nvironmental (carbon emissions, resource use, pollution), **S**ocial (labour standards, community impact, product safety) and **G**overnance (board structure, executive pay, transparency, anti-corruption controls). A company with a poor ESG record may find it harder or more expensive to raise capital, as institutional investors and lenders increasingly screen out or charge a premium to firms seen as high-risk on these dimensions — meaning CSR performance is no longer purely a matter of reputation, but can directly affect the cost and availability of finance.

VN GIẢI THÍCH TIẾNG VIỆT

Nhà đầu tư ngày càng đánh giá doanh nghiệp theo tiêu chí **ESG**: **Môi trường (Environmental)**, **Xã hội (Social)** và **Quản trị (Governance)**. Doanh nghiệp có hồ sơ ESG kém có thể gặp khó khăn hơn hoặc chi phí cao hơn khi huy động vốn, vì các nhà đầu tư tổ chức ngày càng sàng lọc hoặc yêu cầu mức lợi suất cao hơn đối với các doanh nghiệp bị đánh giá rủi ro cao trên các tiêu chí này.

Shareholder theory vs. CSR — a mini-case

A garment manufacturer's board is choosing between two cotton suppliers. Supplier P is 12% cheaper but has a documented record of poor labour conditions and no independent audits. Supplier Q charges more but is independently certified for fair wages and safe working conditions, and the firm could publicise this in its marketing.

Under a strict **shareholder-theory** view, the board might choose Supplier P, since it directly maximises short-term profit and the firm has broken no law by using it. Under a **stakeholder/CSR** view, the board would likely choose Supplier Q: although unit costs rise, the firm avoids reputational risk (a labour-conditions scandal could trigger a costly consumer boycott), may charge a price premium to increasingly ethically-conscious customers, and may find it easier to attract and retain staff and investors who screen for ethical supply chains. The case illustrates that CSR and profit are not always in conflict — the trade-off is often between *short-term* cost savings and *long-term* reputation and revenue.

VN GIẢI THÍCH TIẾNG VIỆT

Lý thuyết cổ đông (shareholder theory) của Milton Friedman cho rằng trách nhiệm xã hội duy nhất của doanh nghiệp là tối đa hoá lợi nhuận trong khuôn khổ pháp luật. **Lý thuyết các bên liên quan (stakeholder theory)** cho rằng doanh nghiệp có trách nhiệm thực sự với tất cả các bên liên quan, không chỉ cổ đông. **Trách nhiệm xã hội doanh nghiệp (CSR)** là cam kết tự nguyện vượt trên mức tối thiểu luật pháp yêu cầu để mang lại lợi ích cho các bên liên quan và xã hội — ví dụ trả lương cao hơn thị trường, dùng nguyên liệu bền vững, tài trợ cộng đồng địa phương.

1.5 The external business environment

Businesses do not operate in isolation — they are shaped by forces outside their control. The **PEST** framework groups these into four categories: **P**olitical, **E**conomic, **S**ocial and **T**echnological.

1.5.1 Political factors

Government action shapes the environment businesses operate in through: **laws and regulation** (employment law, consumer protection, health and safety, competition law restricting anti-competitive behaviour such as price-fixing); **taxation policy** (corporation tax rates affect after-tax profit; sales/-consumption taxes affect prices and demand); **trade policy** (tariffs, quotas, trade agreements affecting the cost and ease of importing/exporting); **environmental regulation** (emissions limits, mandatory recycling targets, carbon taxes, which raise compliance costs but can also open markets for

”green” products); and overall **political stability**, which affects business and investor confidence — firms are generally reluctant to make large, long-term investments in a country where policy or government could change unpredictably.

VN GIẢI THÍCH TIẾNG VIỆT

Yếu tố chính trị (political factors): luật pháp và quy định (lao động, bảo vệ người tiêu dùng, cạnh tranh), chính sách thuế (thuế thu nhập doanh nghiệp, thuế tiêu dùng), chính sách thương mại (thuế quan, hạn ngạch, hiệp định thương mại), quy định môi trường, và mức độ ổn định chính trị — tất cả ảnh hưởng đến chi phí tuân thủ, lợi nhuận sau thuế và niềm tin đầu tư dài hạn của doanh nghiệp.

1.5.2 Economic factors

Key economic variables affecting business decisions include:

- **Interest rates** — the cost of borrowing. A rise in interest rates increases the cost of loans (reducing investment and consumer spending on credit) and increases the reward for saving (reducing spending); a fall has the opposite effect.
- **Inflation** — a sustained rise in the general price level, which raises input costs, can trigger wage demands, and erodes the real value of savings and fixed incomes.
- **Exchange rates** — the price of one currency in terms of another, which directly affects the competitiveness and home-currency revenue of importers and exporters (see the worked example below).
- **Unemployment** — high unemployment can mean an easier supply of labour and lower wage pressure for firms, but also lower consumer spending in the wider economy.

The impact of a change in interest rates on an investment decision

A firm is considering borrowing $200,000 over one year to buy new equipment expected to generate $212,000 of additional revenue net of running costs (i.e. a gross return of $12,000 before financing cost). Compare the decision at an interest rate of 4% and at 7%.

At 4%: interest cost $= 0.04 \times 200{,}000 = \$8{,}000$. Net benefit $= 12{,}000 - 8{,}000 = \$4{,}000$ — the investment is worthwhile.
At 7%: interest cost $= 0.07 \times 200{,}000 = \$14{,}000$. Net benefit $= 12{,}000 - 14{,}000 = -\$2{,}000$ — the same investment now makes a loss once financing cost is included, and a rational firm would postpone or cancel it. This illustrates why a rise in interest rates tends to reduce the overall level of business investment in the economy.

Exchange-rate impact on export revenue

A European exporter sells machinery to a Japanese customer, invoiced at ¥15,000,000. At the initial exchange rate of €1 = ¥150, this converts to home-currency (euro) revenue of $15{,}000{,}000/150 = €100{,}000$.

Scenario 1 — the euro appreciates to €1 = ¥200 (each euro now buys more yen). The same ¥15,000,000 sale now converts to only $15{,}000{,}000/200 = €75{,}000$ — a fall of €25,000, a **25% decrease** in euro revenue, even though the yen price and quantity sold are unchanged. Appreciation makes exports effectively more expensive to foreign buyers (in their currency) and reduces exporters’ home-currency earnings unless they raise the foreign-currency price.

Scenario 2 — the euro instead depreciates to €1 = ¥125. The same sale now converts to $15{,}000{,}000/125 = €120{,}000$ — a rise of €20,000, a **20% increase** on the original €100,000. Depreciation benefits exporters (higher home-currency revenue from unchanged foreign sales) but raises the cost of any imported materials priced in foreign currency.

VN GIẢI THÍCH TIẾNG VIỆT

Tỷ giá hối đoái (exchange rate): khi đồng nội tệ **tăng giá (appreciation)**, hàng xuất khẩu trở nên đắt hơn với người mua nước ngoài và doanh thu quy đổi về nội tệ của nhà xuất khẩu giảm; khi đồng nội tệ **giảm giá (depreciation)**, hàng xuất khẩu rẻ hơn với người nước ngoài và doanh thu quy đổi về nội tệ tăng lên, nhưng chi phí nhập khẩu nguyên liệu định giá bằng ngoại tệ lại tăng.

1.5.3 Social factors

Social/demographic trends affect the size and nature of demand: an **ageing population** increases demand for healthcare and retirement services while shrinking the working-age labour supply; changing **lifestyles and tastes** (e.g. growing health-consciousness) create new markets and shrink others; population growth or decline changes the overall size of the domestic customer base and labour force; and rising **consumer awareness of ethical/environmental issues** increases demand for businesses seen to act responsibly (linking back to CSR).

VN GIẢI THÍCH TIẾNG VIỆT

Yếu tố xã hội (social factors): dân số già hoá làm tăng nhu cầu dịch vụ y tế/hưu trí nhưng thu hẹp nguồn cung lao động; thay đổi lối sống và thị hiếu tạo ra thị trường mới và thu hẹp thị trường cũ; nhận thức của người tiêu dùng về đạo đức/môi trường ngày càng tăng khiến các doanh nghiệp có trách nhiệm xã hội được ưa chuộng hơn.

1.5.4 Technological factors

New technology can create entirely new markets (e.g. streaming services displacing physical media), force existing firms to innovate or become obsolete, change production methods (automation lowering unit costs but potentially reducing the workforce needed) and open new distribution channels (e-commerce, mobile payments) that widen a firm's potential customer base beyond its immediate location.

VN GIẢI THÍCH TIẾNG VIỆT

Yếu tố công nghệ (technological factors): công nghệ mới có thể tạo ra thị trường hoàn toàn mới, buộc doanh nghiệp hiện tại phải đổi mới hoặc bị đào thải, thay đổi phương thức sản xuất (tự động hoá giảm chi phí đơn vị nhưng có thể giảm nhu cầu lao động), và mở ra các kênh phân phối mới (thương mại điện tử, thanh toán di động) giúp mở rộng phạm vi khách hàng vượt ra ngoài vị trí địa lý.

Factor	Examples	Typical business impact
Political	Employment law, taxation, trade policy, political stability	Compliance costs; after-tax profit; ease of importing/exporting
Economic	Interest rates, inflation, exchange rates, unemployment, the business cycle	Cost of borrowing/investment; input costs; export/import competitiveness; level of consumer demand
Social	Demographics, lifestyle trends, ethical/environmental awareness	Size and nature of target markets; reputational pressure to act responsibly
Technological	Automation, e-commerce, new materials/processes	Production costs; new products/channels; risk of obsolescence

A PEST summary. At A2 level this is extended into PESTEL by adding Environmental and Legal factors as distinct categories, and by adding globalisation as a major cross-cutting force (see below).

1.5.5 The business (economic) cycle

Economies do not grow smoothly; they move through a repeating **business cycle** of four broad phases: **boom** (strong growth, low unemployment, but rising inflation risk as demand outpaces supply); **recession/downturn** (falling or negative output growth, rising unemployment, falling consumer confidence — technically, many economies define a recession as two consecutive quarters of falling real GDP); **trough** (the low point, where output and confidence are weakest); and **recovery** (output growth resumes, unemployment gradually falls, confidence returns).

> During a **recession**, consumer demand for **income-elastic goods** (luxuries, consumer durables, big discretionary purchases) tends to fall sharply, while demand for **inferior goods** (cheaper substitutes) can rise as households trade down. Firms often respond by cutting investment and postponing expansion, and central banks/governments may cut interest rates to try to stimulate borrowing and spending. During a **boom**, the opposite pressures apply, and firms may struggle to expand capacity fast enough to meet demand, risking capacity constraints and rising costs.

> VN GIẢI THÍCH TIẾNG VIỆT
> **Chu kỳ kinh tế (business cycle)** gồm 4 giai đoạn lặp lại: **tăng trưởng nóng (boom)**, **suy thoái (recession)**, **đáy chu kỳ (trough)** và **phục hồi (recovery)**. Trong suy thoái, nhu cầu với hàng hoá xa xỉ/lâu bền giảm mạnh trong khi hàng hoá thứ cấp (rẻ hơn) có thể tăng do người tiêu dùng "hạ cấp" chi tiêu; ngân hàng trung ương thường hạ lãi suất để kích thích vay và chi tiêu.

1.5.6 A2 extension: from PEST to PESTEL

A2 EXTENSION: At A2 level, the four-factor PEST framework is usually widened to **PESTEL**, separating out two further categories that AS-level treatment often folds into the factors above:

- **Environmental factors** — climate change regulation, carbon pricing/taxes, resource scarcity, and rising customer expectations of sustainable production, treated as a distinct force rather than only a subset of social attitudes.
- **Legal factors** — the specific body of law a business must comply with (employment law, consumer protection law, competition/anti-monopoly law, health and safety law), separated from broader political factors because legal change can occur independently of the party in power (e.g. through court rulings or independent regulators).

Cambridge A2 strategic-management analysis (developed further in the Strategic Management unit) typically expects candidates to use PESTEL alongside globalisation analysis when assessing the external environment facing major strategic decisions, since large-scale decisions (e.g. entering a new country) are rarely driven by only one category of external factor in isolation.

> VN GIẢI THÍCH TIẾNG VIỆT
> Ở bậc A2, khung PEST 4 yếu tố thường được mở rộng thành **PESTEL**, tách riêng **yếu tố môi trường (Environmental)** — quy định biến đổi khí hậu, thuế carbon, khan hiếm tài nguyên — và **yếu tố pháp lý (Legal)** — luật lao động, luật bảo vệ người tiêu dùng, luật cạnh tranh — như hai lực lượng riêng biệt thay vì gộp chung vào yếu tố xã hội và chính trị.

1.5.7 A2 extension: globalisation, multinationals and protectionism

A2 EXTENSION: At A2 level, the external environment is analysed through the wider lens of **globalisation** — the increasing interconnection of national economies through trade, investment, capital flows and communication.

Drivers of globalisation include: **trade liberalisation** (falling tariffs and quotas through trade agreements and the World Trade Organization); the growth of **ICT** (information and communication technology), which allows instant communication and co-ordination of operations across countries; and falling **transport costs** (e.g. containerisation) that make it economical to produce components in one country and assemble them in another.

For an individual business, globalisation creates both **opportunities** — access to new customer markets far larger than the domestic market; the ability to source lower-cost labour, materials or land abroad; and the possibility of importing innovation and expertise from foreign partners — and **threats**: increased competition from foreign firms entering the domestic market; the complexity of operating across different **legal systems**, tax regimes and **cultural** expectations (e.g. language, consumer tastes, business etiquette); and exposure to exchange-rate and political risk in unfamiliar markets.

Multinational companies (MNCs)

A **multinational company** owns or controls production facilities in more than one country. Common motives for locating production abroad include: access to lower labour or land costs; avoiding **tariffs** by producing inside the target market (*"tariff-jumping" foreign direct investment*); being closer to a large foreign customer base; and access to natural resources or specialist skills not available (or not as cheaply available) at home.

Governments sometimes restrict free trade through **protectionism** — **tariffs** (a tax on imported goods, raising their price to protect domestic producers), **quotas** (a physical limit on the quantity of a good that may be imported), and **subsidies** to domestic producers (lowering their costs relative to foreign rivals). Countries may also join **trade blocs** (groups of countries that reduce or remove trade barriers between members, e.g. a customs union or free trade area), which increase market access for member-country businesses but can disadvantage firms outside the bloc facing the bloc's external tariff.

VN GIẢI THÍCH TIẾNG VIỆT

Toàn cầu hoá (globalisation) là sự gia tăng kết nối giữa các nền kinh tế quốc gia thông qua thương mại, đầu tư và công nghệ, được thúc đẩy bởi tự do hoá thương mại, sự phát triển của công nghệ thông tin (ICT) và chi phí vận chuyển giảm. Doanh nghiệp có thể tận dụng **cơ hội** (thị trường mới, chi phí sản xuất thấp hơn ở nước ngoài) nhưng cũng đối mặt **thách thức** (cạnh tranh gia tăng, khác biệt pháp lý/văn hoá). **Công ty đa quốc gia (MNC)** sở hữu cơ sở sản xuất tại nhiều quốc gia, thường để tránh thuế quan (tariff), tiếp cận lao động giá rẻ hoặc gần thị trường tiêu thụ lớn. Các chính phủ có thể áp dụng **chính sách bảo hộ (protectionism)** — thuế quan, hạn ngạch (quota), trợ cấp — hoặc tham gia **khối thương mại (trade bloc)** để giảm rào cản thương mại giữa các thành viên.

1.5.8 A2 extension: business ethics vs. corporate social responsibility

A2 EXTENSION: Although closely related, **business ethics** and **CSR** are distinct concepts and Cambridge examiners expect candidates to separate them clearly.

Business ethics concerns doing what is morally right in specific business decisions — how staff are treated, how customers are advised, how competitors are dealt with — *regardless of whether the law explicitly requires it*, and is judged by an internal moral code (a code of conduct) rather than a formal, publicised social programme. **CSR**, by contrast, refers to a business's broader, usually publicised, *voluntary* commitments and programmes that go beyond legal minimums to benefit stakeholders and society (environmental targets, community investment, supply-chain audits). In short: **ethics is about individual/organisational conduct and decision-making**; **CSR is about strategic, often publicly visible, policies and programmes.**

Distinguishing ethics from CSR

A sales manager is instructed to hit an ambitious quarterly sales target. She discovers that recommending an unnecessary, more expensive add-on product to elderly customers who do not understand it would help her reach the target, though nothing illegal is involved. Her decision *not* to exploit these customers is a matter of **business ethics** — an individual, values-based choice about right and wrong. Separately, the same company publishes an annual sustainability report, funds a scholarship programme for students in the communities where it operates, and commits to a target of net-zero carbon emissions by a stated year — these are **CSR** initiatives: formal, strategic, publicly-communicated commitments that go beyond what the law requires.

VN GIẢI THÍCH TIẾNG VIỆT

Đạo đức kinh doanh (business ethics) là làm điều đúng đắn về mặt đạo đức trong các quyết định kinh doanh cụ thể, ngay cả khi luật pháp không bắt buộc — mang tính cá nhân, dựa trên quy tắc ứng xử nội bộ. **CSR** là các cam kết và chương trình chiến lược, thường được công bố công khai, vượt trên mức tối thiểu luật pháp yêu cầu, nhằm mang lại lợi ích cho các bên liên quan và xã hội. Nói ngắn gọn: đạo đức kinh doanh là về hành vi/quyết định của cá nhân hoặc tổ chức; CSR là về chính sách và chương trình chiến lược có tính công khai.

(!) Lỗi thường gặp: Do not treat "growth" and "profit maximisation" as automatically the same objective. A firm can grow revenue and market share while profit falls or stays flat (e.g. by cutting prices aggressively, or by taking on debt-financed expansion whose interest costs outweigh the extra profit generated) — growth and profit maximisation can conflict, and Cambridge mark schemes reward candidates who recognise this rather than assuming growth is always "good for profit."

1.6 Bringing the unit together

The topics in this unit are not independent of one another, and the strongest exam answers draw connections across them. The entrepreneur's initial choice of **legal structure** (Section 1.2) directly constrains how much capital can later be raised to fund **growth** (Section 1.3): a sole trader relying on retained profit and personal savings faces a much lower ceiling on organic growth than a Plc that can launch a share issue. The chosen **growth method** in turn reshapes the firm's **stakeholder landscape** (Section 1.4): an acquisition instantly brings in a new set of employees, suppliers and possibly a new local community, each with their own objectives and bargaining power, while organic growth changes stakeholder relationships more gradually. Finally, every decision covered in this unit is bounded by the **external environment** (Section 1.5): a business plan's financial forecasts depend on assumed interest and exchange rates; a growth strategy that looks attractive in a boom may become unviable in a recession; and a stakeholder's power can itself shift with political or legal change (e.g. new employment law strengthening employees' bargaining position). Examination questions frequently reward candidates who can trace this kind of causal chain across sections, rather than treating each topic in isolation.

1.7 Practice and consolidation

Bài tập luyện tập

Which factor of production is rewarded with *profit*?

(A) Land
(B) Labour
(C) Capital
(D) Enterprise

Lời giải chi tiết

Enterprise is rewarded with profit, as the entrepreneur bears the risk of organising the other factors of production. **(D)**. (Land earns rent, labour earns wages, capital earns interest.)

Bài tập luyện tập

Nadia earned a salary of $28,000 a year as a graphic designer. She leaves to start a design studio, investing her savings. In its first year the studio makes a profit of $19,000. Calculate the financial opportunity cost of Nadia's decision in year one, and explain in one sentence why she might still consider the decision worthwhile.

Lời giải chi tiết

Opportunity cost $= 28{,}000 - 19{,}000 = \$9{,}000$ — in pure financial terms, Nadia is $9,000 worse off in year one than if she had remained employed. She might still consider it worthwhile because she values independence and control over her own work, expects profit to grow in future years as the studio becomes established, or gains non-financial satisfaction that outweighs the financial shortfall.

Bài tập luyện tập

Case study. Mai runs a small tailoring business as a sole trader and wants to expand into a second city, which will require a large amount of new capital. Her accountant suggests converting the business into a private limited company. Recommend whether Mai should make this change, explaining one advantage and one disadvantage.

Lời giải chi tiết

Recommendation: converting to a private limited company is likely to support Mai's expansion plans. **Advantage:** she would gain **limited liability** — if the expanded business ran into difficulty, she would risk losing only the capital invested in shares, not personal assets such as her home, and the Ltd structure typically makes it easier to bring in additional shareholders' capital to fund the new city location. **Disadvantage:** she would face a greater administrative and reporting burden (filing annual accounts, following company law formalities) and, if she brings in outside shareholders, she may have to share some control over decision-making that she previously held entirely alone as a sole trader.

Bài tập luyện tập

A firm's revenue rises from $2.5 million to $2.9 million. Over the same period, the total size of its market grows from $25 million to $35 million. Calculate (a) the firm's revenue growth rate, (b) its market share in each year, and (c) state whether its market share rose or fell.

Lời giải chi tiết

(a) Revenue growth rate $= (2.9 - 2.5)/2.5 \times 100 = 16\%$.
(b) Market share Year 1 $= 2.5/25 \times 100 = 10\%$. Market share Year 2 $= 2.9/35 \times 100 = 8.29\%$ (to 2 d.p.).
(c) Market share **fell**, from 10% to approximately 8.3%, because the overall market grew faster (40%) than the firm's own revenue (16%) — a reminder that revenue growth alone does not guarantee a firm is gaining competitive ground.

Bài tập luyện tập

Case study. A public limited company reports record profit and proposes to increase the annual dividend paid to shareholders by 20%. In the same announcement, it confirms a pay freeze for factory employees and states it will extend supplier payment terms from 30 to 60 days to preserve cash. Identify the stakeholder conflict here, and explain the position of *two* affected stakeholder groups.

Lời giải chi tiết

The core conflict is between **shareholders**, who benefit from a higher dividend funded partly by holding down costs elsewhere, and both **employees** and **suppliers**, who bear the cost of that decision. **Employees** are likely to feel aggrieved that record profit is not being shared with them through higher pay, which may reduce morale and increase staff turnover. **Suppliers** face a cash flow disadvantage from waiting twice as long to be paid, which could strain their own working capital, particularly if they are small businesses reliant on prompt payment from this one large customer.

Bài tập luyện tập

Partners J and K run an architecture practice. Capital contributed: J $80,000, K $20,000 (total $100,000). The Deed of Partnership specifies 4% interest on capital per year, an annual salary of $10,000 for K (the only partner working full-time client hours), and the residual profit shared *equally* (1:1) despite the unequal capital contributions. Total profit for the year is $54,000. Calculate each partner's total share.

Lời giải chi tiết

Interest on capital: J $= 0.04 \times 80{,}000 = \$3{,}200$; K $= 0.04 \times 20{,}000 = \$800$. Total interest $= \$4{,}000$.
Salary: K only, $\$10{,}000$. Total before residual $= 4{,}000 + 10{,}000 = \$14{,}000$.
Residual profit $= 54{,}000 - 14{,}000 = \$40{,}000$, split equally: $\$20{,}000$ each.
Total to J $= 3{,}200 + 0 + 20{,}000 = \$23{,}200$. Total to K $= 800 + 10{,}000 + 20{,}000 = \$30{,}800$.
Check: $23{,}200 + 30{,}800 = \$54{,}000$ — matches total profit (✓). Note that despite contributing far less capital, K receives more total profit share, because the salary and equal residual split reward K's working role rather than only capital invested.

Bài tập luyện tập

Which of the following best describes the liability position of an ordinary partner in a standard partnership (not an LLP)?

(A) Fully protected — the partner can never lose personal assets

(B) Usually unlimited — personal assets can be used to pay business debts

(C) Limited to the amount of the partner's original capital contribution only

(D) Limited only if the partnership has fewer than five partners

Lời giải chi tiết

Ordinary partners usually have **unlimited liability**, meaning personal assets can be claimed by creditors if the partnership cannot pay its debts (unless it is specifically structured as a limited liability partnership, LLP). **(B)**.

Bài tập luyện tập

A franchisee pays an initial franchise fee of $20,000 and an ongoing royalty of 5% of revenue (no separate marketing levy). Year 1 revenue is $300,000; Year 2 revenue is $360,000 (no initial fee is payable again in Year 2). Calculate the total amount paid to the franchisor across the two years.

Lời giải chi tiết

Year 1: royalty $= 0.05 \times 300{,}000 = \$15{,}000$; plus initial fee $\$20{,}000$; Year 1 total $= \$35{,}000$.
Year 2: royalty $= 0.05 \times 360{,}000 = \$18{,}000$ (no initial fee).
Total over two years $= 35{,}000 + 18{,}000 = \$53{,}000$.

Bài tập luyện tập

Case study. A furniture retailer takes over the timber-processing company that supplies its raw materials. What type of integration is this, and state one likely benefit to the retailer.

(A) Horizontal integration

(B) Backward vertical integration

(C) Forward vertical integration

(D) Conglomerate integration

Lời giải chi tiết

The timber processor is an *earlier* stage of the same supply chain, so this is **backward vertical integration**. **(B)**. Benefit: the retailer secures a reliable, quality-controlled supply of timber and captures the profit margin the supplier previously earned, reducing dependence on external suppliers.

Bài tập luyện tập

Explain *two* internal economies of scale that a small regional supermarket chain might gain if it grows into a large national chain.

Lời giải chi tiết

Any two of, for example: **Purchasing economies** — a national chain can negotiate much larger bulk-buying discounts from food suppliers than a small regional chain, lowering the cost per unit sold. **Financial economies** — a large, established national chain is typically seen by banks as lower-risk and can borrow at lower interest rates to fund new stores. **Managerial economies** — the chain can afford to employ specialist buyers, marketing managers and logistics managers instead of relying on generalist regional managers, raising efficiency in each area. **Marketing economies** — the fixed cost of a national advertising campaign is spread across far more stores and sales, lowering the advertising cost per unit sold.

Bài tập luyện tập

A firm produces 2,000 units at a total cost of $70,000. After expanding to 6,000 units, total cost rises to $252,000. Calculate average cost before and after the change, and state whether the firm is experiencing economies or diseconomies of scale.

Lời giải chi tiết

Before: $70{,}000/2{,}000 = \$35$ per unit. After: $252{,}000/6{,}000 = \$42$ per unit. Average cost has **risen** even though output rose, so the firm is experiencing **diseconomies of scale** — total cost rose proportionally *more* than output (output rose 3-fold, but cost rose more than 3.6-fold).

Bài tập luyện tập

Which of the following is a *diseconomy*, rather than an economy, of scale?

(A) Bulk-buying discounts from suppliers

(B) Access to cheaper borrowing due to firm size

(C) Employees feeling alienated and less motivated in a very large organisation

(D) Employing specialist managers instead of one generalist

Lời giải chi tiết

Alienation and reduced motivation among employees in a very large, impersonal organisation is a **diseconomy of scale** — a cost of becoming too large. **(C)**. The other three are all economies of scale.

Bài tập luyện tập

Case study. A new restaurant closes after eight months. Investigation shows the owner started with only enough capital to cover two months of rent and wages, expecting revenue to cover costs from month one, and had not surveyed local demand or competitor pricing before opening. Identify *two* likely causes of failure illustrated here.

Lời giải chi tiết

Undercapitalisation — starting with only two months' worth of costs covered left no buffer for the (very common) delay before a new restaurant builds a stable customer base and steady cash inflow. **Lack of market research** — not surveying local demand or competitor pricing means the restaurant may have misjudged customer demand, chosen an unsuitable price point, or entered a market that was already saturated with strong local competition.

Bài tập luyện tập

Classify each of the following as an internal or external stakeholder: (i) a bank that has lent the firm a long-term loan; (ii) the firm's operations manager; (iii) an environmental pressure group campaigning against the firm's packaging.

Lời giải chi tiết

(i) A lending bank is an **external** stakeholder — outside the organisation, but with a financial interest in its ability to repay. (ii) The operations manager is an **internal** stakeholder — employed within the organisation. (iii) An environmental pressure group is an **external** stakeholder — outside the organisation but affected by, and seeking to influence, its decisions.

Bài tập luyện tập

Case study. Using the power/interest matrix, classify a local town council that has significant legal authority over a firm's planning permission for a new factory, but limited day-to-day interest in the firm's routine operations once the factory is built. Which quadrant does it fall into, and what management approach does this suggest?

Lời giải chi tiết

The council has **high power** (legal authority over planning permission) but relatively **low ongoing interest** once the factory is operating normally, so it falls into the **"keep satisfied"** quadrant. This suggests the firm should ensure the council remains satisfied with its compliance and community impact (to avoid triggering closer scrutiny or objections to future planning applications) without needing to consult it on every routine operational decision.

Bài tập luyện tập

Case study. A mining company's board argues: "Our only responsibility is to maximise returns for our shareholders within the law; wider social spending is not our job." Identify which theory of the firm this reflects, and outline one argument against this position.

Lời giải chi tiết

This reflects Milton Friedman's **shareholder theory** (shareholder primacy) — the view that a firm's sole social responsibility is to increase profit within the law. **Argument against:** ignoring wider stakeholders (e.g. the local community affected by environmental damage, or employees affected by unsafe conditions) can create serious long-term risks — reputational damage, regulatory penalties, difficulty recruiting staff, or consumer boycotts — that ultimately reduce shareholder returns; the **stakeholder theory** view holds that balancing these wider interests can protect and even enhance long-term shareholder value rather than conflicting with it.

Bài tập luyện tập

A US exporter sells goods priced at \$240,000 to a European customer. At the initial exchange rate of €1 = \$1.60, calculate the euro-equivalent price. The dollar then appreciates so that €1 = \$1.20. Recalculate the euro-equivalent price and explain the effect on the European customer.

Lời giải chi tiết

Initial euro price $= 240{,}000/1.60 = €150{,}000$. After the dollar appreciates to €1=\$1.20 (each euro now buys fewer dollars), the same \$240,000 sale converts to $240{,}000/1.20 = €200{,}000$ — a rise of €50,000, a **33.3% increase**. Because the dollar has strengthened against the euro, the European customer now needs significantly more euros to pay the same fixed dollar price — US exports have effectively become more expensive for euro-based buyers, which could reduce demand for the exporter's goods in Europe unless it lowers its dollar price to compensate.

Bài tập luyện tập

Which of the following is classified as an *economic* factor in a PEST analysis, rather than a political, social or technological factor?

(A) A new law raising the national minimum wage

(B) A rise in the central bank's interest rate

(C) Growing consumer preference for environmentally friendly products

(D) The launch of a new mobile payment app used by competitors

Lời giải chi tiết

A change in the interest rate is an **economic** factor — it directly affects the cost of borrowing, consumer spending and investment decisions. **(B)**. (Note: raising the minimum wage *by law* is political in origin, though its direct cost impact is economic — Cambridge mark schemes generally classify the legislative act itself as political.)

Bài tập luyện tập

Case study. A manufacturer of household furniture, a durable and relatively expensive category of goods, is reviewing its sales forecast as the economy moves from a boom into a recession. Explain the likely effect on the firm's demand, and outline one action it might take in response.

Lời giải chi tiết

Furniture is a significant, discretionary purchase that consumers can usually postpone, so during a **recession** — as consumer confidence and disposable income fall and unemployment rises — demand for furniture is likely to **fall sharply**, more than proportionally more than the fall in overall consumer spending (i.e. it behaves as an income-elastic/normal good with high responsiveness to the economic cycle). In response, the firm might postpone planned expansion or new investment until demand recovers, focus marketing on lower-priced or "value" ranges as customers trade down, and tighten cost control (e.g. reducing stock levels) to preserve cash flow through the downturn.

Bài tập luyện tập

Case study. A domestic clothing manufacturer is considering opening a factory in a lower-cost country abroad to reduce production costs, but is concerned about unfamiliar labour laws, import tariffs that may apply if goods are later re-imported, and the risk of currency movements affecting the value of profits repatriated home. Identify *one* opportunity and *one* threat of globalisation illustrated by this case.

Lời giải chi tiết

Opportunity: lower labour and land costs abroad can substantially reduce unit production costs, improving profit margins or allowing more competitive pricing at home. **Threat:** operating across borders exposes the firm to unfamiliar legal/regulatory systems (labour law), the risk of tariffs affecting the profitability of moving goods between countries, and exchange-rate risk, where an adverse currency movement could reduce the home-currency value of profits earned abroad.

Bài tập luyện tập

A company's staff handbook states that "employees must never accept personal gifts from suppliers, even where local law would permit it, because it could improperly influence purchasing decisions." Is this best described as an example of business ethics or of CSR? Justify your answer.

Lời giải chi tiết

This is best described as **business ethics**. It concerns an internal standard of right and wrong conduct for individual employees in a specific type of decision (accepting gifts), applied *even though the law does not require it* — it is a values-based rule about conduct, not a publicised, strategic social programme aimed at wider stakeholders or society (which would instead be classified as CSR).

Bài tập luyện tập

Explain *two* reasons a bank might insist on seeing a completed business plan before agreeing to lend a new business start-up capital.

Lời giải chi tiết

Any two of, for example: the business plan provides **financial forecasts** (start-up costs, cash flow forecast, forecast income statement) that let the bank judge whether the business is likely to generate enough cash to repay the loan with interest; it demonstrates that the entrepreneur has carried out **market research** and thought seriously about customers, competitors and operations, rather than launching on guesswork, reducing the bank's perceived risk; and it sets out precisely **how much finance is needed and for what purpose**, allowing the bank to judge whether the amount requested is realistic and appropriately used.

Bài tập luyện tập

A firm's revenue rises from $12 million to $12.6 million. Over the same period, the total size of its market rises from $80 million to $105 million. Calculate the firm's revenue growth rate and its market share in each year, and comment on the result.

Lời giải chi tiết

Revenue growth rate $= (12.6-12)/12 \times 100 = 5\%$. Market share Year 1 $= 12/80 \times 100 = 15\%$. Market share Year 2 $= 12.6/105 \times 100 = 12\%$. Although revenue grew by 5%, market share **fell** from 15% to 12%, because the overall market (up 31.25%) grew far faster than the firm's own sales — a clear illustration that positive revenue growth does not by itself guarantee a firm is strengthening its competitive position.

Bài tập luyện tập

Which of the following is most likely to be a genuine advantage of buying a franchise rather than starting an entirely independent business?

(A) The franchisee keeps complete freedom over pricing, branding and suppliers

(B) The franchisee pays no ongoing fees once the initial cost is covered

(C) The franchisee benefits from an established brand and a business format with a track record of success

(D) The franchisee is guaranteed to make a profit in the first year

Lời giải chi tiết

A franchisee benefits from a tested, established business format and brand recognition, which historically reduces the failure rate compared with fully independent start-ups. **(C)**. (Franchisees must usually follow strict brand rules rather than having complete freedom, they pay ongoing royalties, and no business format guarantees profit.)

Bài tập luyện tập

Case study. A company's official statement reads: "We exist to make the world's cities cleaner and more liveable, one journey at a time." Is this best classified as a mission statement or a corporate objective? Explain your answer, and suggest one SMART corporate objective that could sit beneath it.

Lời giải chi tiết

This is a **mission statement** — it is broad, aspirational, and expresses the company's underlying purpose and values rather than a specific, measurable target. A SMART corporate objective that could support this mission might be: "Increase the proportion of journeys made using our electric vehicle fleet from 30% to 50% of total journeys within three years" — this is Specific (the electric-vehicle share of journeys), Measurable (30% to 50%), plausibly Achievable, Relevant to the mission of cleaner cities, and Time-bound (three years).

Bài tập luyện tập

Two rival airlines operating on entirely different, non-overlapping routes agree to merge to form a single larger airline with a combined route network. What type of integration is this most likely to be classified as, and state one benefit of the merger?

(A) Horizontal integration

(B) Backward vertical integration

(C) Forward vertical integration

(D) Conglomerate integration

Lời giải chi tiết

Both firms operate at the **same stage** of the **same industry** (airlines providing passenger flights), so despite serving different routes this is still **horizontal integration** — the combination is within the same industry and stage of production, not across different industries. **(A)**. Benefit: the combined airline can offer passengers a far wider route network (attracting more customers through better connections) and can achieve economies of scale in areas such as aircraft purchasing, maintenance and administration.

Bài tập luyện tập

A charity-run enterprise sells hand-made goods produced by disadvantaged workers and reinvests all surplus income into training programmes rather than distributing it to owners. Which organisational form best describes this enterprise?

(A) Sole trader

(B) Public limited company

(C) Social enterprise

(D) Public corporation

Lời giải chi tiết

An organisation that trades commercially but reinvests its surplus into a defined social mission, rather than distributing profit to owners, is best classified as a **social enterprise**. **(C)**.

Bài tập luyện tập

Case study. A government imposes a new tariff on imported steel to protect domestic steel producers from cheaper foreign competition. Explain *one* way this policy could benefit a domestic steel producer, and *one* way it could harm a domestic car manufacturer that uses imported steel as a raw material.

Lời giải chi tiết

Benefit to the domestic steel producer: the tariff raises the price of imported steel, making the domestic producer's steel relatively more competitive on price, likely increasing its sales volume and/or allowing it to raise its own prices without losing customers to foreign suppliers. **Harm to the car manufacturer:** if it relies on imported steel as an input, the tariff raises its raw material costs (either by paying the tariff on imports directly, or by paying a higher price to domestic suppliers who face less competitive pressure), which could reduce its profit margin or force it to raise the price of its own cars, potentially harming its own competitiveness.

People in Organisations

Mục tiêu Unit: Phong cách quản lý và lãnh đạo (Fayol, Mintzberg, các phong cách lãnh đạo, thang liên tục Tannenbaum–Schmidt, lãnh đạo tình huống, văn hoá tổ chức Handy); các lý thuyết động lực làm việc (Taylor, Maslow, Herzberg, McGregor, Vroom); quản trị nguồn nhân lực (hoạch định nhân lực, tuyển dụng, đào tạo, đánh giá, sa thải/dôi dư); cơ cấu tổ chức (span of control, delayering, tập trung/phân quyền, cơ cấu ma trận); quan hệ lao động và giao tiếp trong tổ chức.

2.1 Management and leadership

2.1.1 The functions of management: Fayol

Henri Fayol, a French management theorist, argued that the work of every manager can be broken down into five interlinked functions, regardless of the size or type of organisation.

Fayol's five functions of management

- **Planning** — setting objectives and deciding the course of action needed to achieve them (e.g. sales targets, production schedules).
- **Organising** — arranging resources (people, finance, materials) and allocating tasks and responsibilities so that plans can be carried out.
- **Commanding (directing)** — giving clear instructions, motivating staff and leading day-to-day activity so that tasks are actually performed.
- **Coordinating** — ensuring that the activities of different individuals and departments fit together harmoniously and do not conflict.
- **Controlling** — monitoring progress against targets, identifying variances, and taking corrective action where performance falls short.

VN GIẢI THÍCH TIẾNG VIỆT

Fayol chia công việc quản lý thành năm chức năng: **Hoạch định** (đặt mục tiêu, lập kế hoạch), **Tổ chức** (phân bổ nguồn lực, phân công công việc), **Chỉ huy** (ra chỉ thị, thúc đẩy nhân viên làm việc), **Phối hợp** (đảm bảo các bộ phận hoạt động ăn khớp, không chồng chéo) và **Kiểm soát** (theo dõi kết quả so với mục tiêu, điều chỉnh khi lệch hướng). Đây là mô hình cổ điển và vẫn được dùng để mô tả vai trò của người quản lý hiện đại.

2.1.2 An alternative view: Mintzberg's managerial roles

Henry Mintzberg observed practising managers directly and concluded that, in reality, managerial work is fragmented and reactive rather than a neat sequence of planning-organising-controlling. He grouped what managers actually *do* into ten roles under three broad headings.

Mintzberg's managerial roles:

- **Interpersonal roles** — figurehead (ceremonial duties), leader (motivating and directing staff), liaison (building networks outside the direct chain of command).
- **Informational roles** — monitor (scanning the environment for information), disseminator (passing information to staff), spokesperson (representing the organisation to outsiders).
- **Decisional roles** — entrepreneur (initiating change), disturbance handler (resolving unexpected problems), resource allocator (deciding how resources are shared out), negotiator (representing the organisation in bargaining, e.g. with suppliers or unions).

Fayol's functions describe an idealised, planned view of management; Mintzberg's roles describe the observed, often interrupted and informal reality. Cambridge questions may ask you to classify a described managerial activity under either framework, so learn both.

2.1.3 Comparing the two models

The two frameworks are not rival theories so much as two different lenses on the same job. Fayol asks "what should a manager's work consist of, in principle?"; Mintzberg asks "what does a manager's work actually look like, minute to minute?" A single afternoon spent by a manager resolving a supplier dispute, for example, would sit under Fayol's *controlling* function (correcting a deviation from plan) but would equally be classified under Mintzberg's *disturbance handler* and *negotiator* roles.

Fayol's function	Closest Mintzberg role(s)	Everyday example
Planning	Entrepreneur (initiating change), Monitor (scanning for information to plan with)	Setting next year's sales targets after reviewing market data
Organising	Resource allocator	Deciding which team gets the new production line
Commanding	Leader, figurehead	Briefing the team on daily priorities
Coordinating	Liaison, disseminator	Passing updates between departments so plans stay aligned
Controlling	Disturbance handler, monitor	Investigating why a delivery target was missed

Table 2.1: Fayol's functions mapped against Mintzberg's roles

2.1.4 Leadership styles

Leadership is the ability to influence and inspire others towards a shared goal or vision — distinct from management, which is more concerned with planning, organising and controlling existing systems. A person can be a competent manager without being an effective leader, and vice versa.

Leadership styles

- **Autocratic** — the leader retains all decision-making authority, gives clear instructions and expects compliance without consultation. *Advantage:* fast decisions, clear direction, useful in a crisis or with unskilled/inexperienced staff. *Disadvantage:* can demotivate staff, discourage initiative, and cause resentment or high staff turnover.
- **Democratic** — the leader consults staff and involves them in decision-making, though final authority may still rest with the leader (or be delegated to the group). *Advantage:* improves motivation and buy-in (consistent with Herzberg/Maslow), draws on staff expertise. *Disadvantage:* slower decision-making; not ideal in emergencies.
- **Laissez-faire** — the leader delegates almost all decision-making to subordinates and takes a minimal, hands-off role. *Advantage:* effective with highly skilled, self-motivated profes-

sionals; encourages creativity and autonomy. *Disadvantage:* risk of lack of direction, coordination failures and inconsistent standards if staff are inexperienced.

- **Paternalistic** — the leader acts in what they believe are the best interests of staff (like a parent), consulting to some degree but ultimately deciding on staff's behalf. *Advantage:* can build loyalty and a caring culture. *Disadvantage:* can feel patronising; still fundamentally top-down.

Matching leadership style to context

Scenario A: A fast-food restaurant chain needs every branch to prepare food to an identical, time-critical standard, using a largely part-time, low-experience workforce with high turnover.
Scenario B: A creative advertising agency employs a small team of highly experienced copywriters and designers who are given open briefs and expected to generate original campaign ideas.
Analysis. In Scenario A, an **autocratic** style (backed by tight standard operating procedures) suits the need for speed, consistency and low reliance on individual judgement given an inexperienced, fast-changing workforce. In Scenario B, a **laissez-faire** (or strongly democratic) style suits highly skilled staff who need autonomy to be creative; heavy-handed control would stifle the very originality the agency depends on. This illustrates a general principle: the "best" leadership style is contingent on the task, the workforce, and the time pressure involved — there is no single style that is correct in every situation.

Factors influencing the appropriate leadership style in a given situation:

- **The task** — routine and time-critical (favours autocratic) vs. creative and open-ended (favours democratic/laissez-faire).
- **The team** — skilled, experienced and confident (favours delegation) vs. inexperienced or newly formed (favours closer direction).
- **Time available** — an emergency leaves little time for consultation; a long-term strategic decision allows fuller participation.
- **Organisational culture** — a role culture tends to reinforce autocratic/bureaucratic leadership, while a task or person culture tends to reinforce democratic or laissez-faire leadership.

2.1.5 The Tannenbaum–Schmidt continuum

Rather than treating leadership styles as four rigid boxes, Tannenbaum and Schmidt presented leadership as a continuum (spectrum) running from manager-centred (authority-retaining) at one end to subordinate-centred (freedom-granting) at the other.

Tannenbaum–Schmidt continuum (manager authority → subordinate freedom):

1. **Tells** — manager makes the decision and announces it.
2. **Sells** — manager makes the decision but tries to persuade staff to accept it.
3. **Consults** — manager presents a problem, gathers suggestions, then decides.
4. **Joins** — manager defines the limits and asks the group to make the decision jointly with the manager.
5. **Delegates** — manager allows the group (or an individual) to decide within agreed limits, with minimal manager involvement.

As the workforce becomes more skilled, confident and trusted, effective leaders can move rightwards along the continuum; under time pressure or with an inexperienced team, leaders typically shift back towards "tells."

VN **GIẢI THÍCH TIẾNG VIỆT**

Lãnh đạo (leadership) khác với quản lý (management): lãnh đạo là khả năng truyền cảm hứng và dẫn dắt con người, còn quản lý thiên về lập kế hoạch, tổ chức, kiểm soát. Bốn phong cách lãnh đạo chính: **Độc đoán** (ra quyết định một mình, phù hợp khi cần tốc độ hoặc nhân viên thiếu kinh nghiệm), **Dân chủ** (tham khảo ý kiến nhân viên, tăng động lực), **Tự do** (giao toàn quyền cho nhân viên có chuyên môn cao), **Gia trưởng** (quyết định vì lợi ích nhân viên nhưng vẫn từ trên xuống). Thang liên tục Tannenbaum–Schmidt mô tả năm mức độ trao quyền tăng dần: *Ra lệnh* → *Thuyết phục* → *Tham khảo* → *Cùng quyết định* → *Uỷ quyền hoàn toàn*.

A2 EXTENSION: Situational leadership. Contingency theorists argue that no single style is universally "best": effective leaders adapt their style to the *task maturity* of their followers — a combination of *competence* (skills and experience) and *commitment* (confidence and motivation). A follower with low competence and low commitment typically needs a directive, telling style with close supervision; as competence and confidence grow, the leader can shift towards coaching, then supporting, and finally delegating almost fully once the follower is both highly competent and highly committed. A common exam error is to assume a "good" manager always uses one fixed style — situational leadership rewards flexibility: using an autocratic style with a novice and a laissez-faire style with an expert is not inconsistent, it is appropriate.

Situational leadership across a project lifecycle

A project manager leads the same junior analyst through four stages of a twelve-month project.

- **Month 1 (low competence, high enthusiasm):** the manager gives detailed, step-by-step instructions and checks work closely — a *telling* style.
- **Month 4 (some competence built, confidence dips as difficulty increases):** the manager explains the reasoning behind decisions and asks for the analyst's input, while still guiding closely — a *coaching/selling* style.
- **Month 8 (good competence, variable confidence):** the manager shares decision-making and provides encouragement rather than instruction — a *participating/supporting* style.
- **Month 12 (high competence, high confidence):** the manager sets the objective and steps back, trusting the analyst to manage the remaining work — a *delegating* style.

Conclusion: the same manager and the same subordinate move through four different, equally appropriate leadership styles over the life of a single project, purely as competence and commitment change — illustrating why situational leadership treats style as a variable to be managed, not a fixed personal trait.

A2 EXTENSION: Organisational culture — Handy's culture types. Charles Handy argued that every organisation develops a shared set of values, beliefs and "the way things are done around here" — its culture — which shapes how decisions are made and how staff behave, often more powerfully than the formal rules.

Culture type	Description	Typical example
Power culture	Power radiates from a single central figure or small group; few rules, fast decisions, but highly dependent on that individual.	A small owner-managed start-up where the founder decides everything.
Role culture	Highly structured, bureaucratic; power comes from an individual's formal position/job title, with clear rules and procedures.	A large civil service department or long-established bank.
Task culture	Flexible, project-based teams are formed around a specific task, drawing on expertise wherever it is found; power comes from expertise, not position.	A management consultancy or an advertising agency running project teams.
Person culture	The organisation exists mainly to serve the individuals within it; minimal hierarchy, individuals are the central resource.	A barristers' chambers or a small partnership of independent consultants.

Table 2.2: Handy's four organisational culture types

A firm's culture influences which leadership style tends to work best within it: a role culture usually rewards a more autocratic/bureaucratic style, while a task or person culture usually rewards democratic or laissez-faire leadership. Culture also helps explain why a change of leadership style alone often fails: a newly-appointed chief executive who tries to introduce a democratic, task-culture style of working into a long-established role culture (e.g. a traditional government department) may meet resistance, because staff have built careers around following clear rules and defined job titles, and may distrust a sudden shift towards flexible project teams and shared authority. Culture, in other words, tends to change more slowly than a leader's stated intentions.

2.2 Motivation theories

Motivation is the internal drive that causes an individual to want to achieve a goal, and it is central to productivity, quality and staff retention. Four theorists dominate the AS syllabus; Vroom's expectancy theory extends the analysis at A2.

2.2.1 F.W. Taylor: scientific management

Taylor argued that there is "one best way" to perform any task, which management should discover through time-and-motion study, and that workers are motivated almost exclusively by money. His recommendations: break jobs into simple, repetitive tasks; select and train workers scientifically for those tasks; and pay strictly according to output (*piece rate*).

Piece-rate pay calculation

A worker on a piece-rate scheme is paid $1.20 per unit produced, plus a flat weekly bonus of $40 if total output exceeds 400 units. In one week she produces 480 units.
Step 1 — piece-rate earnings: $480 \times \$1.20 = \$576.00$.
Step 2 — bonus check: $480 > 400$, so the $40 bonus applies.
Step 3 — total pay: $\$576.00 + \$40 = \$616.00$.

2.2.2 Elton Mayo: the human relations school

Mayo led a series of experiments at the Hawthorne electrical plant in Chicago, originally designed (in the spirit of Taylor) to test how physical conditions, such as lighting levels, affected worker output. The results were unexpected and reshaped management thinking.

The Hawthorne studies

Researchers found that productivity rose almost *regardless* of whether lighting was made brighter or dimmer — and even when conditions were returned to the original level. Mayo concluded that output had risen not because of the physical change itself, but because the workers involved felt singled out for special attention and had formed a cohesive social group with a sense of purpose. This became known as the **"Hawthorne effect"**: people change their behaviour, often positively, simply because they know they are being observed or made to feel valued.

Key conclusions: workers are strongly motivated by social factors — a sense of belonging to a group, recognition from management, and being consulted — and not by pay or physical conditions alone, as Taylor had assumed. This directly foreshadowed Maslow's social/esteem needs and Herzberg's motivators.

Practical applications: team-working, regular consultation and communication with staff, recognising individual and group achievement, and treating employees as social beings rather than as interchangeable units of production.

GIẢI THÍCH TIẾNG VIỆT

VN

Mayo tiến hành thí nghiệm Hawthorne ban đầu để kiểm tra ảnh hưởng của điều kiện vật chất (ánh sáng) lên năng suất — giống tư duy của Taylor. Kết quả bất ngờ: năng suất tăng lên bất kể ánh sáng tăng hay giảm, vì công nhân cảm thấy được quan tâm đặc biệt và hình thành tinh thần nhóm gắn kết. Đây gọi là **hiệu ứng Hawthorne**: con người thay đổi hành vi tích cực hơn khi biết mình đang được chú ý/quan tâm. Kết luận: động lực làm việc đến từ yếu tố xã hội (thuộc về nhóm, được công nhận, được tham vấn) chứ không chỉ từ tiền lương hay điều kiện vật chất — đặt nền móng cho các lý thuyết của Maslow và Herzberg sau này.

2.2.3 A. Maslow: hierarchy of needs

Maslow proposed that human needs are arranged in a hierarchy, and that a lower-level need must be substantially satisfied before the next level becomes an effective motivator.

Figure 2.1: Maslow's hierarchy of needs

The five levels, base to top: (1) *Physiological* — food, water, sleep, a living wage; (2) *Safety* — job security, a safe working environment, a pension; (3) *Social* — belonging, teamwork, friendship at work; (4) *Esteem* — status, recognition, promotion, respect; (5) *Self-actualisation* — fulfilling one's full potential through challenging, meaningful work.

Implication for managers: once a need is satisfied it stops motivating; management must continually identify which level of need is currently unmet for each employee and design rewards accordingly (e.g. offering more pay to someone already financially secure will have limited motivational effect if their unmet need is actually esteem or belonging).

2.2.4 F. Herzberg: two-factor theory

Herzberg's research (interviewing workers about times they felt exceptionally good or bad about their job) led him to conclude that the factors causing *dissatisfaction* are different in kind from the factors causing genuine *motivation* — they are not opposite ends of a single scale.

Herzberg's two factors

- **Hygiene factors** (extrinsic) — pay, working conditions, company policy, job security, relationships with colleagues. If absent or poor they cause dissatisfaction; if adequate, they merely prevent dissatisfaction — they do *not* actively motivate.
- **Motivators** (intrinsic) — achievement, recognition, responsibility, the nature of the work itself, advancement/growth. These are the factors that genuinely increase motivation and job satisfaction.

Practical applications: *job enlargement* (adding more tasks of a similar skill level, to reduce monotony), *job enrichment* (adding tasks that require more skill and responsibility, giving genuine motivators), *job rotation* (moving staff between tasks periodically to reduce boredom, though this does not itself add responsibility), and *empowerment* (delegating real decision-making authority to staff).

Job enrichment vs job enlargement

A supermarket checkout operator currently only scans items and takes payment.
Job enlargement option: the operator is also asked to restock nearby shelves and tidy the checkout area during quiet periods — more tasks are added, but they require a similar (low) level of skill and carry no extra responsibility.
Job enrichment option: the operator is instead trained and authorised to handle customer complaints and process refunds independently, without needing a supervisor's sign-off, and is given responsibility for training new checkout staff.
Herzberg's verdict: job enlargement may reduce monotony slightly but adds no genuine motivator, since responsibility and recognition are unchanged — Herzberg predicted this would have only a limited, temporary effect on motivation. Job enrichment adds real responsibility, trust and scope for achievement, which Herzberg identifies as true motivators, and should produce a more lasting improvement in job satisfaction.

2.2.5 D. McGregor: Theory X and Theory Y

McGregor argued that a manager's underlying assumptions about human nature shape their management style.

Theory X: assumes the average worker dislikes work, avoids responsibility, and must be closely controlled, directed and threatened with punishment to achieve targets — leads to autocratic, tightly supervised management.

Theory Y: assumes workers can enjoy work, will seek responsibility, and are capable of self-direction if committed to objectives — leads to democratic management, delegation and job enrichment.

VN GIẢI THÍCH TIẾNG VIỆT

Taylor cho rằng con người chỉ làm việc vì tiền, nên trả lương theo sản phẩm (piece rate) là cách tạo động lực hiệu quả nhất. **Mayo** (thí nghiệm Hawthorne) phát hiện ra rằng yếu tố xã hội — được quan tâm, thuộc về một nhóm, được tham vấn — có ảnh hưởng đến năng suất còn lớn hơn cả tiền lương hay điều kiện vật chất. **Maslow** cho rằng nhu cầu con người xếp theo năm bậc từ thấp đến cao (sinh lý → an toàn → xã hội → được tôn trọng → tự thể hiện bản thân); nhu cầu bậc thấp phải được thoả mãn trước khi bậc cao hơn trở thành động lực. **Herzberg** phân biệt *yếu tố duy trì* (lương, điều kiện làm việc — thiếu thì gây bất mãn nhưng có đủ cũng không tạo động lực thật sự) với *yếu tố tạo động lực thật sự* (thành tựu, được công nhận, trách nhiệm, sự phát triển). **McGregor** chia nhà quản lý thành hai giả định: *Thuyết X* (nhân viên lười biếng, cần kiểm soát chặt) và *Thuyết Y* (nhân viên có thể tự giác, thích trách nhiệm nếu được trao quyền).

Theory	Core idea	Practical application	Limitation
Taylor	Workers are motivated mainly by money; there is one best, scientifically-determined way to do a job.	Piece-rate pay; time-and-motion study; strict task specialisation.	Ignores social/psychological needs; can cause monotony, poor quality, and industrial conflict.
Mayo	Social factors (belonging, recognition, being consulted) drive motivation more than pay or physical conditions alone.	Team-working, regular consultation, recognising achievement, treating staff as social beings.	The original Hawthorne sample was small; the "observation effect" itself may fade once novelty wears off.
Maslow	Needs are hierarchical; a satisfied need stops motivating.	Design rewards to match the currently unmet need level (e.g. team-building for social needs, promotion for esteem).	Hierarchy is not fixed for everyone; hard to measure exactly which level an employee is at.
Herzberg	Hygiene factors prevent dissatisfaction; only motivators create real satisfaction/motivation.	Job enrichment, enlargement, empowerment; get hygiene factors right, but do not rely on them to motivate.	Some findings depend on the research method used; pay can motivate some workers directly.
McGregor	Managers' assumptions about workers (X or Y) shape their management style and, in turn, worker behaviour.	Move towards Theory Y practices — delegation, participation — where the workforce is capable of it.	Oversimplifies into two extremes; most real workplaces and workers sit somewhere in between.

Table 2.3: Comparing the core motivation theories

Financial motivators: time-based wages, piece-rate pay, commission, performance-related pay (PRP), bonuses, profit-sharing, share ownership schemes.

Non-financial motivators: job enrichment, job enlargement, job rotation, empowerment, teamworking, career progression, flexible working, recognition/praise, improved job title/status.

Comparing pay schemes across output levels

A firm is deciding between three pay schemes for a production worker whose monthly output can be Low (600 units), Medium (800 units), or High (1,000 units).

- **Scheme 1 — fixed salary:** $2,000 per month regardless of output.
- **Scheme 2 — pure piece rate:** $3 per unit, no base salary.
- **Scheme 3 — salary plus bonus:** $1,200 base + $1.50 per unit produced above a 500-unit threshold.

Calculations.

Output	Scheme 1 (salary)	Scheme 2 (piece rate)	Scheme 3 (salary + bonus)
600 units	$2,000	$600 \times 3 = \$1{,}800$	$1{,}200 + 1.5(100) = \$1{,}350$
800 units	$2,000	$800 \times 3 = \$2{,}400$	$1{,}200 + 1.5(300) = \$1{,}650$
1,000 units	$2,000	$1{,}000 \times 3 = \$3{,}000$	$1{,}200 + 1.5(500) = \$1{,}950$

Interpretation: Scheme 1 gives income security regardless of effort (consistent with Theory X supervision, since it does not directly reward extra output). Scheme 2 rewards high output most strongly (a Taylor-style incentive) but gives no security if output — or demand — falls. Scheme 3 balances some security with an incentive to exceed a baseline, and is the closest fit to Herzberg's advice that hygiene (a guaranteed base) and a genuine performance incentive can coexist.

A2 EXTENSION: Vroom's expectancy theory. Vroom argued that motivation is the product of three perceptions, not a single factor: Motivation $=$ Expectancy $\times$ Instrumentality $\times$ Valence, where *expectancy* is the belief that effort will lead to improved performance, *instrumentality* is the belief that that performance will actually lead to a reward, and *valence* is how much the individual values that reward. Because the relationship is multiplicative, if any one factor is close to zero, overall motivation collapses — a generous bonus scheme (high valence) will not motivate an employee who believes their manager is biased and will not recognise good performance regardless of effort (near-zero instrumentality). This explains why simply raising the size of a reward does not always raise motivation: all three perceptions must be reasonably strong at the same time.

2.2.6 Bringing the theories together

No single motivation theory is complete on its own, and Cambridge exam questions typically reward candidates who can weigh several theories against a given scenario rather than mechanically applying just one.

Key limitations to keep in mind:

- **Taylor** was based on observations of unskilled manual work in a specific historical period; it explains piece-rate incentive schemes well but says little about motivating knowledge workers, whose output is harder to measure and who often value autonomy over pure pay.
- **Maslow's** hierarchy was not derived from workplace research at all (it was a general psychological theory), and different individuals do not necessarily move through the five levels in the same fixed order — a highly committed volunteer, for example, may pursue self-actualisation even while facing financial insecurity.
- **Herzberg's** original research method (asking workers to recall good and bad experiences) has been criticised for encouraging workers to blame the company (hygiene) for bad feelings and credit themselves (motivators) for good ones — a possible source of bias in the results.
- **McGregor's** Theory X/Theory Y is a simplification into two extremes; in practice, most managers hold a mixture of assumptions depending on the specific employee and task, and shift their style accordingly.

Practical synthesis: a well-designed reward package typically combines a competitive base salary and safe working conditions (removing Herzberg's hygiene factors / satisfying Maslow's lower needs), together with genuine autonomy, recognition and career progression (Herzberg's motivators / Maslow's higher needs), delivered by a manager whose style matches the skill and confidence of the individual employee (situational leadership) and who ensures staff genuinely believe effort will be rewarded (Vroom).

Maslow's level	Roughly corresponds to	Example workplace action
Physiological, Safety	Herzberg's hygiene factors	Fair pay, job security, safe conditions
Social	Partly hygiene (relationships), partly motivator	Team-building, a supportive manager
Esteem, Self-actualisation	Herzberg's motivators	Recognition, promotion, enriched, challenging work

Table 2.4: How Maslow's hierarchy loosely maps onto Herzberg's two factors

2.3 Human resource management

2.3.1 The role of the human resource function

The human resource (HR) department, or the specific manager responsible for people issues in a smaller firm, exists to make sure the organisation has the right number of people, with the right skills, in the right roles, at the right time — and that they are managed fairly and effectively once employed.

Core HR activities, in a typical order: (1) *workforce planning* — forecasting future staffing needs; (2) *recruitment and selection* — attracting and choosing candidates to fill any gap identified; (3) *training and development* — ensuring staff have (and keep) the skills the organisation needs; (4) *appraisal and reward* — monitoring and motivating performance through pay and feedback; (5) *employee relations* — managing communication, grievances, discipline and (where relevant) relations with trade unions; and (6) *managing exits* — handling resignation, redundancy and dismissal fairly and lawfully. Each stage connects to the next: poor workforce planning creates recruitment crises, poor recruitment creates a heavier training burden, and so on — HR decisions are rarely independent of one another.

2.3.2 Workforce planning

Workforce (human resource) planning is the process of forecasting an organisation's future demand for labour (by number, skill and location) and comparing it with the forecast internal supply of labour, in order to identify surpluses or shortages in good time.

> **Factors causing an organisation's demand for labour to change:** the state of the economy and level of consumer demand for the firm's products; new technology and automation (which can reduce the number, but raise the required skill level, of staff needed); seasonal fluctuations (e.g. extra retail staff needed before a peak shopping season); competitor actions and market share changes; and planned expansion, contraction, merger or relocation of the business.
>
> **Alternatives to recruiting new permanent staff to close a shortfall:** overtime for existing staff; temporary or agency staff; retraining staff from another department/role; outsourcing the work to an external specialist provider; or, for some roles, offshoring the work to a lower-cost location. Each of these can close a staffing gap faster or more flexibly than full recruitment, but usually at some cost to quality control, staff loyalty, or long-term cost compared with a well-trained permanent employee.

Workforce planning — calculating a staffing gap

A logistics firm forecasts it will need **85** qualified machine operators in 12 months' time to meet a new contract. It currently employs **70** operators. Over the next 12 months it expects **8** operators to leave (retirement and normal labour turnover), while **5** current trainees are expected to complete their qualification and become fully productive operators.
Step 1 — internal supply forecast: $70 - 8 + 5 = 67$ operators.
Step 2 — staffing gap: Demand − Supply $= 85 - 67 = 18$.
Conclusion: the firm faces a shortfall of 18 operators and must plan to recruit externally, retrain staff from other departments, and/or use overtime/temporary labour to close the gap before the contract begins.

2.3.3 Recruitment

Recruitment is the process of attracting suitable candidates to apply for a vacancy. It begins with two key documents.

> **Job description:** states the duties, responsibilities, reporting line and purpose of the post itself.
>
> **Person specification:** states the qualifications, skills, experience and personal qualities required of the *ideal candidate* for that post.

Internal vs external recruitment

> **Internal recruitment** (filling the post from within the existing workforce). *Advantages:* cheaper and faster; the candidate's ability and reliability are already known; motivates existing staff by offering a career path. *Disadvantages:* limits the pool of fresh ideas and skills; creates a further vacancy that must itself be filled; can cause resentment among unsuccessful internal candidates.
>
> **External recruitment** (advertising to candidates outside the organisation). *Advantages:* wider pool of talent, new skills and fresh perspectives; no existing internal rivalries. *Disadvantages:* more expensive and slower (advertising, agency fees); greater risk, since the candidate's true ability is less certain; requires a longer induction period.

1. Identify vacancy and workforce planning need
↓
2. Draft job description & person specification
↓
3. Advertise internally and/or externally
↓
4. Collect applications and shortlist candidates
↓
5. Interview / aptitude test / assessment centre
↓
6. Select candidate and make a job offer
↓
7. Induction and on-the-job training

Figure 2.2: The recruitment and selection process

2.3.4 Selection methods

- **Interviews** — the most common method; low cost, but subject to interviewer bias and limited in predicting on-the-job performance if used alone.
- **Aptitude / psychometric tests** — measure numerical, verbal or logical reasoning ability, or personality traits; give a more objective, comparable score across candidates.
- **Assessment centres** — combine several methods (group exercises, in-tray exercises, presentations, panel interviews) typically over one to two days; observe candidates' behaviour under realistic conditions, giving higher reliability, but are costly and time-consuming, so are usually reserved for senior or high-volume graduate recruitment.
- **Application forms and references** — structured application forms allow like-for-like comparison of candidates on the same criteria (unlike free-form CVs); references from a previous employer help verify claims about conduct and performance, though they are sometimes cautiously worded for legal reasons.
- **Recruitment agencies and headhunting** — an external agency screens candidates on the firm's behalf (useful for high-volume or specialist recruitment), or, for senior posts, a "headhunter" directly approaches suitably qualified individuals who are not actively job-seeking; both save management time but charge a substantial fee, often a percentage of the successful candidate's first-year salary.
- **Online/video-based testing and interviews** — initial screening conducted remotely (online aptitude tests, recorded or live video interviews); reduces cost and widens the geographic pool of candidates who can be considered before a face-to-face stage, though it can disadvantage candidates less comfortable with the technology.

> **(!) Lỗi thường gặp:** Nhiều học sinh chỉ liệt kê phỏng vấn như phương pháp tuyển chọn DUY NHẤT. Đề Cambridge thường yêu cầu so sánh *độ tin cậy (reliability)* và *tính hợp lệ (validity)* giữa các phương pháp: phỏng vấn đơn lẻ có độ tin cậy thấp do thiên vị người phỏng vấn, trong khi trung tâm đánh giá (assessment centre) và bài kiểm tra tâm lý (psychometric test) có độ tin cậy cao hơn nhưng tốn kém hơn.

2.3.5 Legal and ethical dimensions of recruitment and employment

Recruitment and selection decisions should be based only on a candidate's ability to do the job, not on personal characteristics unrelated to it (such as age, gender, ethnicity, religion or disability). Most Cambridge-syllabus economies have equal opportunities/anti-discrimination legislation requiring job descriptions, person specifications and selection criteria to focus strictly on job-relevant requirements. Firms found to discriminate unlawfully face legal penalties, reputational damage, and a smaller effective pool of talent to choose from — so equal opportunities policy is both an ethical and a commercial issue: a firm that discriminates arbitrarily is, in effect, rejecting potentially the best-qualified candidate for the post.

Beyond recruitment, employers generally owe employees a legal **duty of care** once employment begins — most importantly, a duty to provide a reasonably safe working environment, adequate training in safe working methods, and suitable safety equipment. A firm that neglects health and safety exposes itself to legal liability and compensation claims, higher labour turnover and absenteeism, and reputational damage, in addition to the direct human cost of workplace injury — so health and safety, like equal opportunities, functions as both an ethical obligation and a hygiene factor (Herzberg) that must be met before staff can be genuinely motivated.

2.3.6 Training

Training needs are usually identified through a **skills gap analysis**: comparing the skills the organisation currently needs (now and in the near future, linked to workforce planning) against the skills its existing staff actually hold. Any shortfall defines the training programme required, and training is planned alongside recruitment as an alternative (often cheaper) way of closing a staffing gap identified through workforce planning.

Types of training

Induction training — a short introduction for new employees covering health and safety, company policies, culture and their immediate team, to reduce early mistakes and anxiety.

On-the-job training — learning while performing the actual job (e.g. shadowing, coaching by a mentor). *Advantage:* cheap, directly relevant, output continues. *Disadvantage:* quality depends on the trainer; mistakes may affect real customers/output.

Off-the-job training — training away from the immediate workplace (e.g. a course, college day-release, external workshop). *Advantage:* expert instruction, no distraction, wider transferable skills. *Disadvantage:* more expensive; output is lost while staff are away; skills may not transfer perfectly to the specific workplace.

Training payback

A firm spends \$24,000 on an off-the-job training programme for 12 employees. After training, each employee's daily output rises from 40 to 46 units — an increase of 6 units/day. Each unit generates \$5 of contribution. The firm operates 250 working days per year.

Step 1 — extra daily contribution per employee: $6 \times \$5 = \$30$.

Step 2 — extra annual contribution, all 12 employees: $12 \times \$30 \times 250 = \$90{,}000$.

Step 3 — payback period: $\dfrac{\$24{,}000}{\$90{,}000} = 0.267$ years ≈ 3.2 months.

Conclusion: the training investment pays for itself in just over three months, after which the productivity gain becomes a net benefit to the firm (assuming output can actually be sold and staff remain with the firm).

2.3.7 Appraisal, redundancy and dismissal

Appraisal is the formal, periodic review of an employee's performance, usually against agreed objectives, and is used to inform pay, promotion, and training needs.

> **Purposes of appraisal:** identifying training and development needs; providing evidence to inform pay rises, bonuses or promotion decisions; giving staff structured feedback and recognition (a Herzberg motivator in itself); and setting clear objectives for the coming period so both employee and manager know what success looks like.

> **Redundancy** occurs when a job role itself is no longer needed (e.g. due to automation, falling demand, or closure of a site) — it is not a judgement on the individual, and redundant employees are usually entitled to redundancy pay.
>
> **Dismissal** occurs when an individual is removed from their post for reasons related to their own conduct or capability (e.g. poor performance, misconduct); if it does not follow a fair, documented process it may be ruled *unfair dismissal*.

Types of redundancy

> **Voluntary redundancy** — staff are invited to apply to leave (often with an enhanced payment) and management chooses among volunteers; tends to preserve morale among remaining staff, but the firm risks losing some of its best, most employable staff first (as they are the most confident of finding a new job elsewhere).
>
> **Compulsory redundancy** — management selects specific individuals to be made redundant, often using criteria such as **LIFO** ("last in, first out" — the most recently hired staff are selected first) or performance/appraisal records. LIFO is simple and seen as fair by length of service, but risks removing newer staff with valuable up-to-date skills while retaining longer-serving but less productive employees; selection by appraisal record is more closely tied to ability, but is more open to challenge/legal dispute if the criteria are not applied consistently.

A2 EXTENSION: The psychological contract. Beyond the written employment contract (pay, hours, holiday entitlement), employees and employers also hold unwritten, informal expectations of one another — known as the **psychological contract**. Employees may implicitly expect fair treatment, a reasonable degree of job security, opportunities for development, and to be kept informed of decisions that affect them; employers implicitly expect loyalty, reasonable flexibility, and effort beyond the bare minimum specified in the contract. When the psychological contract is broken — for example, an employee who has always received good appraisals is passed over for promotion without explanation, or a restructuring is announced with no consultation — motivation and trust can collapse sharply even though no term of the written contract has actually been breached, which is why communication and perceived fairness matter as much as the formal terms of employment.

A2 EXTENSION: Appraisal methods. Traditional appraisal is conducted solely by an employee's direct line manager. *Self-appraisal* asks the employee to assess their own performance first, encouraging reflection and ownership, though it risks being either too lenient or too harsh depending on the individual's self-confidence. *360-degree appraisal* gathers feedback on an employee from multiple sources — their manager, peers, subordinates and sometimes customers — combined with self-appraisal. *Advantage:* a more rounded, less biased picture than a single manager's view, and richer developmental feedback. *Disadvantage:* time-consuming and costly to administer, can provoke "appraisal fatigue," and is vulnerable to collusion (colleagues rating each other generously) or workplace conflict if feedback is delivered carelessly.

Labour turnover rate

$$\text{Labour turnover rate} = \frac{\text{Number of staff leaving during the period}}{\text{Average number of staff employed}} \times 100$$

In one year, 18 employees left a firm that employed an average of 240 staff.

$$\text{Labour turnover rate} = \frac{18}{240} \times 100 = 7.5\%$$

A rising labour turnover rate is often used as an early warning sign of falling motivation, poor management, or uncompetitive pay — prompting HR to investigate hygiene factors (Herzberg) and exit interviews before the problem worsens.

The cost of labour turnover

A retailer calculates the full cost of replacing one till operator who resigns: $150 in recruitment advertising, $120 in staff time spent shortlisting and interviewing, $80 for induction materials, and an estimated $650 in lost productivity while the new starter reaches full speed.
Total cost per leaver: $150 + 120 + 80 + 650 = \$1{,}000$.
If the store's labour turnover rate of 15% translates into 30 leavers this year, the total annual cost of turnover is $30 \times \$1{,}000 = \$30{,}000$ — a hidden cost that rarely appears as a single line in the accounts, but which strengthens the financial case for spending on retention (e.g. improved hygiene factors, or motivators such as recognition and career progression) if that spending costs less than $30,000 per year.

2.3.8 Flexible working practices

Alongside pay and non-financial motivators, many employers now offer flexibility in *how*, *when* and *where* work is done, both to motivate staff (matching Maslow/Herzberg's higher-level needs, such as autonomy) and to manage labour costs efficiently.

- **Part-time working** — employees work fewer than standard full-time hours; widens the recruitment pool (e.g. parents, students) but can complicate scheduling and communication across shifts.
- **Flexitime** — employees choose their own start/finish times around a core period when all staff must be present; increases staff autonomy and work–life balance, but requires trust and reliable time-recording systems.
- **Home-working / remote working** — staff perform some or all duties away from a central office, often supported by digital communication tools; saves office costs and commuting time, but can weaken informal communication and team cohesion.
- **Temporary and zero-hours contracts** — staff are hired for a fixed period or with no guaranteed minimum hours; gives the employer flexibility to match staffing to fluctuating demand (useful in workforce planning), but offers employees less job security, which can reduce commitment (Maslow's safety need).
- **Job-sharing** — two part-time employees share the responsibilities of a single full-time post; retains skilled staff who could not work full-time hours, at the cost of extra coordination between job-sharers.

VN GIẢI THÍCH TIẾNG VIỆT

Làm việc linh hoạt gồm: làm bán thời gian (part-time), giờ làm linh hoạt (flexitime — tự chọn giờ bắt đầu/kết thúc quanh một khung giờ bắt buộc), làm việc từ xa (home-working), hợp đồng tạm thời/không giờ cố định (zero-hours — linh hoạt cho doanh nghiệp nhưng thiếu an toàn cho nhân viên), và chia sẻ công việc (job-sharing — hai người bán thời gian cùng đảm nhận một vị trí toàn thời gian). Những hình thức này giúp tăng động lực (đáp ứng nhu cầu tự chủ) và giúp doanh nghiệp điều chỉnh nhân lực theo nhu cầu thay đổi.

VN GIẢI THÍCH TIẾNG VIỆT

Hoạch định nhân lực là dự báo nhu cầu lao động tương lai và so sánh với nguồn cung nội bộ để phát hiện thiếu/thừa nhân sự. **Tuyển dụng nội bộ** nhanh, rẻ, tạo động lực thăng tiến nhưng thiếu ý tưởng mới; **tuyển dụng bên ngoài** mang lại kỹ năng mới nhưng tốn kém và rủi ro hơn. Quy trình tuyển dụng gồm: xác định nhu cầu → viết bản mô tả công việc & yêu cầu ứng viên → đăng tuyển → sàng lọc → phỏng vấn/kiểm tra → chọn → hội nhập (induction). **Đào tạo** gồm đào tạo hội nhập, tại chỗ (rẻ nhưng phụ thuộc người hướng dẫn) và ngoài công việc (đắt hơn nhưng chuyên sâu). **Đánh giá nhân viên (appraisal)** giúp quyết định lương thưởng, đào tạo, thăng tiến. **Sa thải vì dôi dư (redundancy)** là do vị trí không còn cần thiết; **sa thải kỷ luật (dismissal)** là do lỗi của cá nhân nhân viên.

2.4 Organisation structure

2.4.1 Hierarchy, chain of command and span of control

An organisation chart is a diagram showing the formal structure of an organisation: who reports to whom, and how authority flows.

Hierarchy — the number of levels of management/authority between the top and bottom of the organisation.

Chain of command — the line of authority running from the most senior manager down through each level to the shop floor, along which instructions pass.

Span of control — the number of subordinates who report directly to one manager.

Wide vs narrow span of control, delayering

A **wide span of control** (many subordinates per manager) is associated with a **flat** structure (few hierarchical levels): cheaper (fewer managers), faster communication, more delegation and autonomy for staff — but each manager can give less individual attention/supervision, which requires a well-trained, capable workforce.

A **narrow span of control** (few subordinates per manager) is associated with a **tall** structure (many hierarchical levels): closer supervision and tighter control — but more expensive (more managers), slower decision-making and communication (messages pass through more layers, risking distortion), and can limit staff autonomy.

Delayering is the removal of one or more layers of management from the hierarchy (often to cut costs and speed up communication). It widens the span of control of the managers remaining above the removed layer, and typically empowers (and adds workload to) the staff who previously reported to the removed layer.

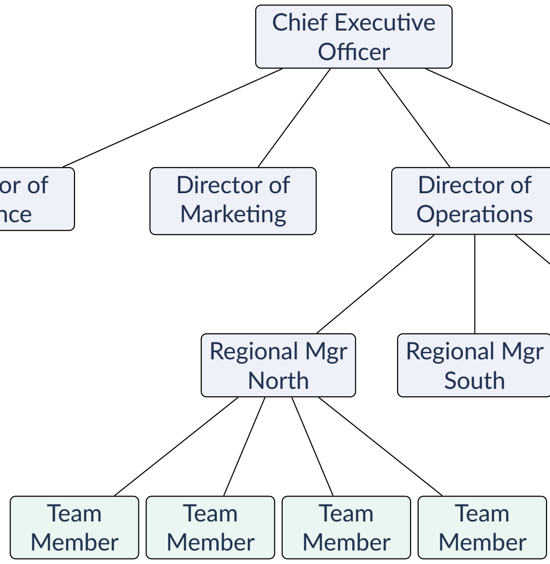


Figure 2.3: A sample organisation chart: the CEO has a span of control of 4; the Director of Operations has a span of control of 3; Regional Manager North has a span of control of 4. There are four levels in this chain of command.

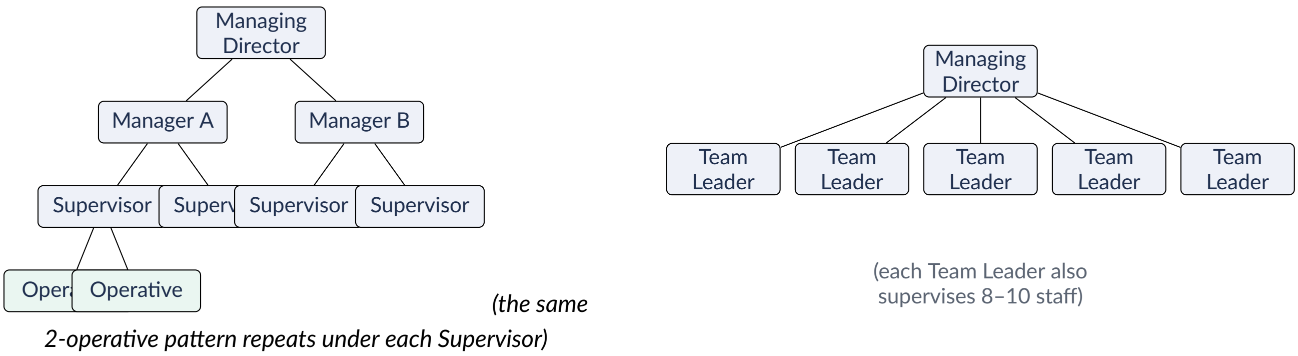


Figure 2.4: Tall structure (left) — four hierarchical levels, narrow span of control of 2 at each level — versus flat structure (right) — two hierarchical levels shown, wide span of control.

Management cost of tall vs flat structures

A company employs 48 shop-floor operatives and is choosing between two structures to manage them.
Option A — Tall (span of control of 4 at each level): team leaders needed $= 48 \div 4 = 12$; supervisors needed to manage those team leaders $= 12 \div 4 = 3$; one senior manager oversees the 3 supervisors. Total managerial posts $= 12 + 3 + 1 = 16$, across three layers of management.
Option B — Flat (span of control of 12 at each level): team leaders needed $= 48 \div 12 = 4$; one manager oversees the 4 team leaders. Total managerial posts $= 4 + 1 = 5$, across two layers of management.
Cost comparison (assuming an average management salary of \$45,000/year at every level, for simplicity): Option A costs $16 \times \$45{,}000 = \$720{,}000$ per year in management salaries; Option B costs $5 \times \$45{,}000 = \$225{,}000$ per year. The flatter structure saves $\$720{,}000 - \$225{,}000 = \$495{,}000$ per year in management salary costs — the core financial argument for delayering — although this saving must be weighed against the risk of reduced supervision quality and heavier individual managerial workloads.

Working out how many management layers are needed

A firm employs 500 shop-floor staff and wants no manager to have a span of control wider than 8, at any level.
Step 1 — first layer of supervisors: $500 \div 8 = 62.5$, rounded up to **63** supervisors (you cannot have a fraction of a supervisor, and rounding down would leave some staff unsupervised).
Step 2 — second layer of managers, overseeing the supervisors: $63 \div 8 = 7.875$, rounded up to **8** managers.
Step 3 — top layer: $8 \div 8 = 1$ director can oversee all 8 managers directly.
Conclusion: the firm needs three layers of management (63 supervisors, 8 managers, 1 director) $= 72$ managerial posts in total, on top of the 500 shop-floor staff, to keep every span of control at or below 8. Relaxing the maximum span of control to, say, 15 would sharply reduce the number of layers and managerial posts required — illustrating directly why a wider span of control produces a flatter, leaner (and cheaper to manage) structure.

	Tall structure (narrow span)	Flat structure (wide span)
Number of layers	Many	Few
Management cost	Higher (more managerial salaries)	Lower
Supervision	Close, detailed	Limited; needs capable staff
Communication speed	Slower (more layers to pass through)	Faster
Promotion opportunities	More (more layers to climb)	Fewer
Staff autonomy	Lower	Higher (more delegation)

Table 2.5: Tall vs flat structures: a quick-revision comparison

2.4.2 Bases of departmentalisation

Beyond the number of layers and the span of control, organisations must also decide *how* to group their staff into departments in the first place.

Ways of organising departments

- **Functional structure** — staff are grouped by the specialist activity they perform (e.g. Marketing, Finance, Operations, HR). *Advantage:* clear specialisation and career paths within a function. *Disadvantage:* departments can become "silos" that communicate poorly with one another and lose sight of the overall customer/product.
- **Product-based structure** — staff are grouped around a particular product or brand (e.g. separate divisions for each product line in a large consumer-goods firm), each often containing its own marketing, finance and operations staff. *Advantage:* clear accountability for each product's performance. *Disadvantage:* duplicates specialist functions across divisions, raising costs.
- **Geographical structure** — staff are grouped by the region they serve (e.g. Europe, Asia-Pacific, Americas divisions). *Advantage:* allows each division to respond to local tastes, regulation and competition. *Disadvantage:* can duplicate resources and weaken a single global brand identity.
- **Customer-based structure** — staff are grouped by the type of customer served (e.g. corporate clients vs. retail/individual clients in a bank). *Advantage:* tailors service to each customer segment's specific needs. *Disadvantage:* may duplicate back-office functions across customer groups.

Matching a business to a base of departmentalisation

Case 1: A single-country office-supplies wholesaler organises its 40 staff into Purchasing, Sales, Finance and Warehouse teams.
Case 2: A global consumer-electronics firm organises its 40,000 staff into a North America division, a Europe division and an Asia-Pacific division, each with its own marketing and finance staff.
Analysis: Case 1 uses a **functional structure** — appropriate for a single-site business of modest size, where specialisation by activity is more useful than splitting by region or product. Case 2 uses a **geographical structure** — appropriate given its huge scale and need to respond to very different consumer tastes, currencies and regulations in each world region; a purely functional structure would leave one global Marketing department trying, unrealistically, to understand every regional market equally well.

Large multinational organisations frequently combine more than one base at once — for example, a global structure built primarily around geographical regions, with a functional structure (Finance, HR, Operations) repeated within each region.

2.4.3 Centralisation vs decentralisation

Centralisation is the concentration of decision-making authority at the top of the organisation (e.g. head office); **decentralisation** is the delegation of decision-making authority down to lower levels or local units (e.g. regional branches, individual store managers).

Centralisation vs decentralisation — a short case

A fast-food franchisor is deciding whether pricing should be set centrally at head office for every outlet, or left to individual franchisees to reflect local competition.
Case for centralisation: a single national price list is simpler to communicate, protects consistent brand image, and strengthens the firm's bargaining power when negotiating bulk-purchase deals with suppliers.
Case for decentralisation: local franchisees can react quickly to a competitor's price cut in their own town, and feel more motivated and trusted running "their" business.
Recommended approach: many franchise businesses adopt a hybrid — head office sets a recommended price band, within which local managers have limited discretion to respond to local conditions, balancing brand consistency against local responsiveness.

Factors that push a firm towards greater decentralisation: rapid geographic growth (head office cannot know every local market in detail); a need for fast local responses to competitors or customers; a well-trained, trustworthy management team capable of taking good decisions unsupervised; and a desire to motivate junior managers by giving them real authority (consistent with Herzberg's motivators and McGregor's Theory Y).

Factors that push a firm towards greater centralisation: a need for tight, consistent quality/cost control across every site; economies of scale in purchasing/negotiating that are only available if decisions are made once, centrally; a less experienced or newly-formed management team; and a strong desire to protect a single, consistent brand image.

Quantifying the case for centralised purchasing

A retail chain of 40 stores currently allows each store manager to negotiate stationery and packaging supply contracts locally, at an average cost of $8,000 per store per year. Head office proposes centralising all purchasing into a single national contract, which its buying team

estimates could negotiate a 12% volume discount, at the cost of employing one additional central buyer at a salary of $38,000 per year.
Step 1 — current total cost: $40 \times \$8{,}000 = \$320{,}000$ per year.
Step 2 — discounted cost under centralisation: $\$320{,}000 \times (1 - 0.12) = \$320{,}000 \times 0.88 = \$281{,}600$.
Step 3 — net saving: $(\$320{,}000 - \$281{,}600) - \$38{,}000 = \$38{,}400 - \$38{,}000 = \$400$ saved per year.
Conclusion: the financial case for centralising purchasing here is marginal — a saving of only $400 per year once the cost of the new central buyer is included — so head office would also need to weigh non-financial factors (consistency of supply quality, reduced administrative burden on store managers) before deciding, rather than relying on cost alone.

2.4.4 Delegation, authority and accountability

These three related terms are frequently confused and are worth defining precisely.

> **Delegation** — a manager passing down the authority to make a specific decision or complete a specific task to a subordinate, while the manager retains ultimate accountability for the outcome.
>
> **Authority** — the officially recognised right to make a decision or give an instruction, usually attached to a role/job title (formal organisation).
>
> **Accountability (responsibility)** — being answerable for the outcome of a decision or task; critically, a manager who delegates a task can transfer the *authority* to carry it out, but cannot transfer away their own ultimate *accountability* for the result — if a delegated task goes badly, the delegating manager remains answerable to their own superiors.

Effective delegation (clear instructions, adequate authority and resources, and a supportive but not overbearing level of monitoring) is closely linked to Herzberg's motivators and to Theory Y assumptions about staff; poor delegation — vague instructions, no real authority granted, or constant interference — undermines motivation and wastes the time savings delegation is meant to create.

2.4.5 Formal and informal organisation

The **formal organisation** is the official structure shown on the organisation chart — defined job roles, reporting lines and communication channels. The **informal organisation** is the unofficial network of relationships, friendships and communication that exists alongside it (e.g. two employees from different departments who share information over lunch). The informal organisation can speed up communication and build morale, but can also spread rumour/inaccurate information and undermine formal lines of authority.
A2 EXTENSION: **Matrix structure.** A matrix structure organises staff along two dimensions simultaneously: a traditional functional department (e.g. Finance, Marketing, Engineering) *and* a cross-functional project or product team, so that an employee can report to both a functional manager and a project manager at the same time.
Advantage: flexible allocation of specialist staff across several projects at once, and strong cross-functional knowledge sharing. **Disadvantage:** dual reporting lines can create conflicting instructions and priorities, slower decisions (as both managers may need to agree), and unclear accountability if a project fails.

2.4.6 Managing resistance to organisational change

Any significant structural change — delayering, a new matrix structure, greater centralisation — tends to meet some employee resistance, and successful implementation depends as much on managing that resistance as on designing the "correct" new structure.

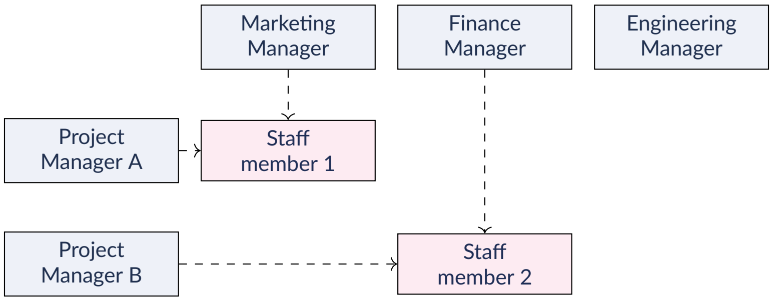


Figure 2.5: A matrix structure: staff members report to both a functional manager and a project manager

Common reasons employees resist change: fear of the unknown (uncertainty over job security or new duties); a perceived threat to status, pay or influence; a breach of the psychological contract if change is imposed without consultation; poor or unclear communication about why the change is happening; and simple habit/comfort with existing ways of working.

Ways management can reduce resistance: communicate the reasons for change clearly and early; consult and involve staff in planning the change (a democratic approach, consistent with Herzberg's motivators); provide training so staff feel competent in new roles; phase the change in gradually rather than all at once; and identify and support any staff whose roles are most affected.

2.4.7 Stakeholder effects of restructuring

Changing an organisation's structure — delayering, widening spans of control, moving from a functional to a matrix structure, or centralising decision-making — rarely affects only the organisation chart on paper; it affects real stakeholder groups in different, sometimes conflicting, ways.

- **Employees who remain** may gain wider responsibility and autonomy (a Herzberg motivator) but also face heavier workloads and job insecurity ("survivor syndrome").
- **Employees who are made redundant** lose income and status, though may receive redundancy pay; the manner of the process (fair consultation vs abrupt announcement) strongly affects the firm's reputation as an employer.
- **Managers** may see their span of control widen sharply, reducing the time available for strategic tasks and increasing reliance on delegation and trust in subordinates.
- **Shareholders/owners** typically welcome restructuring that credibly reduces costs (e.g. management salary savings from delayering, as shown earlier), provided it does not damage output quality or customer service in the process.
- **Customers** may notice faster or slower service depending on whether the change improves decision-making speed (e.g. more local decentralised authority) or degrades it (e.g. overloaded managers unable to respond to problems).

VN GIẢI THÍCH TIẾNG VIỆT

Sơ đồ tổ chức thể hiện **hệ thống cấp bậc** (số tầng quản lý), **chuỗi mệnh lệnh** (đường truyền quyền lực từ trên xuống) và **tầm kiểm soát** (số nhân viên báo cáo trực tiếp cho một quản lý). Tầm kiểm soát rộng → cơ cấu phẳng (ít tầng, tiết kiệm chi phí quản lý nhưng giám sát lỏng hơn); tầm kiểm soát hẹp → cơ cấu cao tầng (nhiều tầng, giám sát chặt nhưng tốn kém, truyền tin chậm). **Giảm tầng quản lý (delayering)** giúp tiết kiệm chi phí nhưng làm tăng khối lượng công việc của quản lý còn lại. **Tập trung hoá** là quyết định do trụ sở chính đưa ra; **phân quyền** là chuyển quyền quyết định xuống cấp thấp hơn/địa phương. **Cơ cấu ma trận** (A2) kết hợp bộ phận chức năng với đội dự án — linh hoạt nhưng nhân viên có thể phải báo cáo cho hai cấp trên cùng lúc, dễ xung đột chỉ đạo.

(!) Lỗi thường gặp: Nhiều học sinh nhầm *delayering* (giảm tầng quản lý) với *downsizing/redundancy* (cắt giảm tổng số nhân sự nói chung). Delayering chỉ loại bỏ MỘT (hoặc vài) TẦNG quản lý cụ thể trong sơ đồ tổ chức — nó có thể đi kèm sa thải, nhưng bản chất là thay đổi cấu trúc số tầng, không đơn thuần là giảm biên chế toàn công ty.

(!) Lỗi thường gặp: Đừng nhầm lẫn *yếu tố duy trì (hygiene factor)* với *yếu tố tạo động lực (motivator)* trong lý thuyết Herzberg: lương và điều kiện làm việc tốt chỉ NGĂN sự bất mãn, KHÔNG tự động tạo ra động lực làm việc tích cực. Tương tự, *uỷ quyền (delegation)* — trao quyền quyết định thực sự — khác với *tham khảo ý kiến (consultation)* — chỉ hỏi ý kiến trước khi nhà quản lý tự quyết định; đề bài Cambridge thường kiểm tra chính xác sự khác biệt này.

2.5 Employee relations and communication

2.5.1 Methods and barriers to communication

Effective internal communication is essential for coordinating activity, motivating staff (Herzberg's hygiene factors include relationships and communication with management) and avoiding costly errors.

Communication classifications

- **Formal communication** — follows the official chain of command (memos, official meetings, appraisal reports). **Informal communication** — unofficial exchanges (the "grapevine"), which can travel fast but may distort information.
- **One-way communication** — flows in a single direction with no immediate feedback (e.g. a company-wide announcement); fast, but the sender cannot check the message was understood. **Two-way communication** — allows feedback and clarification (e.g. a team meeting, a one-to-one appraisal); slower, but far more likely to be correctly understood and to build engagement.

Common barriers to effective communication:

- **Noise** — any physical or psychological distraction that interferes with the message (e.g. a busy factory floor).
- **Jargon** — technical or specialist language not understood by the receiver.
- **Information overload** — too much information sent at once, causing key points to be missed.
- **Long chain of command** — each additional layer a message passes through creates a chance for it to be delayed, filtered, or reinterpreted (sometimes called "Chinese whispers").

2.5.2 Grievance and disciplinary procedures

Well-run organisations set out clear, fair procedures in advance for handling problems, rather than reacting inconsistently case by case.

Channel	Speed	Feedback	Cost	Best used for
Face-to-face meeting	Slow to arrange	Immediate, two-way	Low direct cost, high time cost	Sensitive, complex, or negotiable matters (e.g. appraisal, grievance)
Telephone / video call	Fast	Immediate, two-way	Low	Urgent matters needing quick clarification across distance
E-mail / intranet post	Fast	Delayed, asynchronous	Very low	Routine updates, records that need to be kept in writing
Notice board / memo	Fast to post, slow to reach everyone	None (one-way)	Very low	Simple, non-urgent, general announcements

Table 2.6: Comparing common internal communication channels

Grievance vs disciplinary procedures

A grievance procedure is followed when an *employee* has a complaint about their treatment (e.g. unfair treatment by a colleague, unsafe conditions, disputed pay). A typical sequence: raise the concern informally with the immediate line manager → if unresolved, submit a formal written grievance to HR → a formal hearing is held with the right to be accompanied by a colleague or union representative → a right of appeal to a more senior manager if the employee is unsatisfied with the outcome.

A disciplinary procedure is followed when the *employer* has a concern about an employee's conduct or performance. A typical sequence: informal verbal warning → formal written warning → final written warning → dismissal, with the employee entitled at each formal stage to a hearing, representation, and a right of appeal. Following a fair, documented procedure is what distinguishes a (lawful) dismissal from an unfair dismissal.

2.5.3 Employee participation

Beyond trade unions, many firms use direct participation schemes to give employees a voice in decisions that affect them, which can improve motivation (a genuine Herzberg motivator through added responsibility, and consistent with McGregor's Theory Y) even where no union is present.

- **Quality circles** — small groups of employees who meet regularly to identify and solve work-related problems (e.g. quality or efficiency issues) in their own area, then present recommendations to management.
- **Suggestion schemes** — a formal channel (e.g. a suggestion box or online portal), sometimes with financial rewards, through which any employee can propose improvements.
- **Works councils / employee representative committees** — elected employee representatives meet regularly with management to be consulted on (though not usually to decide) matters such as restructuring, redundancy plans or major policy changes.
- **Worker/employee directors** — in some countries and firms, employee representatives sit formally on the board of directors, giving staff a direct voice at the highest level of decision-making.

A2 EXTENSION: Trade unions and collective bargaining. A trade union is an organisation of employees formed to protect and advance their collective interests (pay, working conditions, job security). Where an employer grants *trade union recognition*, it agrees to negotiate formally with the union — rather than with individual employees — on matters such as annual pay settlements; this process is called **collective bargaining**. If negotiations reach a deadlock, both sides typically first seek conciliation or arbitration through an independent third party; only as a last resort might the union ballot its members and call **industrial action** to increase pressure on management. From the employer's perspective, recognising a union can simplify negotiation (one representative body instead of many individuals) but may also reduce management's freedom to set pay and conditions unilaterally.

Forms of industrial action, roughly from least to most disruptive:

- **Work-to-rule** — staff perform only the exact minimum required by their contract, refusing all flexibility (e.g. no unpaid overtime), which slows operations without a full stoppage.
- **Go-slow** — staff deliberately work at a reduced pace while remaining at their posts.
- **Overtime ban** — staff refuse to work any hours beyond their contracted hours, reducing output where overtime is normally relied upon.
- **Strike** — staff withdraw their labour entirely for an agreed period; the most disruptive and visible form of industrial action, usually used only after other forms have failed to bring about a settlement, since it causes the union's own members to lose pay as well as costing the employer output.

VN GIẢI THÍCH TIẾNG VIỆT

Giao tiếp trong tổ chức có thể là **chính thức** (theo đúng chuỗi mệnh lệnh) hoặc **không chính thức** (mạng lưới tin đồn); **một chiều** (nhanh nhưng không kiểm tra được người nhận có hiểu đúng không) hoặc **hai chiều** (chậm hơn nhưng chính xác và tạo sự gắn kết hơn). Rào cản giao tiếp thường gặp: tiếng ồn, thuật ngữ chuyên môn khó hiểu, quá tải thông tin, và chuỗi mệnh lệnh quá dài khiến thông điệp bị bóp méo qua từng tầng. **Thủ tục khiếu nại (grievance)** áp dụng khi nhân viên không hài lòng về cách đối xử; **thủ tục kỷ luật (disciplinary)** áp dụng khi công ty không hài lòng về hành vi/hiệu suất của nhân viên — cả hai đều cần các bước rõ ràng và quyền kháng cáo. **Sự tham gia của nhân viên** có thể qua nhóm chất lượng (quality circles), hộp thư góp ý, hội đồng lao động, hoặc đại diện nhân viên trong hội đồng quản trị. **Công đoàn (trade union)** — kiến thức mở rộng A2 — đại diện thương lượng tập thể (collective bargaining) với người sử dụng lao động về lương và điều kiện làm việc; nếu đàm phán thất bại, đình công (industrial action) là biện pháp cuối cùng sau khi đã thử hoà giải/trọng tài.

2.5.4 A synoptic case: bringing People in Organisations together

Real exam case studies rarely test one theory in isolation; they typically require several People in Organisations concepts to be applied to the same scenario together.

Synoptic case — restructuring a growing firm

TexPro Ltd began as a single-site textile exporter with 60 staff, managed personally by its founder in a very autocratic way. Rapid growth over five years has taken headcount to 450 staff across three countries. Labour turnover has risen to 22%, exit interviews cite "no say in decisions" and "no clear career path" as common reasons for leaving, and the founder — still trying to approve every decision personally — is increasingly a bottleneck.

Applying the theory:

- **Leadership:** the founder's continued autocratic, "tells" style (Tannenbaum–Schmidt) may have suited a 60-person start-up (power culture, Handy) but is now mismatched to a larger, more professional workforce — situational leadership would recommend shifting towards consultation and delegation as the organisation and its managers mature.
- **Motivation:** exit interview comments map directly onto Herzberg — "no say in decisions"

points to a lack of genuine motivators (responsibility, involvement), while ”no clear career path” points to an unmet esteem/advancement need (Maslow). Pay alone is unlikely to fix a 22% turnover rate if these underlying causes are not addressed.

- **Organisation structure:** continuing to route every decision through one founder is only sustainable with an extremely narrow effective span of control at the top; as the firm has grown to 450 staff across three countries, a functional structure run entirely centrally is no longer appropriate — a geographical divisional structure with genuine decentralised authority to country managers would relieve the bottleneck and better fit local market conditions in each country.
- **HRM:** workforce planning appears to have been reactive rather than planned (growth from 60 to 450 with no matching change in structure or management style); a proper skills-gap analysis, a redesigned appraisal system linked to a visible promotion path, and a review of pay/reward alongside the structural change would all form part of a coherent HR response.

Conclusion: treating labour turnover as a pay problem alone would likely fail, because the underlying causes span leadership style, motivation theory, and organisational structure simultaneously — illustrating why Cambridge case-study questions often reward candidates who draw connections across topics rather than answering from a single theory in isolation.

Formulae recap for this unit:

- Labour turnover rate $= \dfrac{\text{staff leaving in the period}}{\text{average staff employed}} \times 100$
- Staffing gap $=$ forecast labour demand $-$ forecast internal labour supply
- Payback period (training or any investment) $= \dfrac{\text{cost of investment}}{\text{extra annual benefit generated}}$
- Number of posts needed at a given layer $= \left\lceil \dfrac{\text{staff at the layer below}}{\text{maximum span of control}} \right\rceil$ (always round up)
- Vroom: Motivation $=$ Expectancy $\times$ Instrumentality $\times$ Valence

2.6 Practice bank

Bài tập luyện tập

Which of the following is *not* one of Fayol's five functions of management?

(A) Planning
(B) Commanding
(C) Marketing
(D) Controlling

Lời giải chi tiết

Answer: (C) Marketing. Fayol's five functions are Planning, Organising, Commanding, Co-ordinating and Controlling. Marketing is a business function/department, not one of Fayol's management functions.

Bài tập luyện tập

A new call-centre manager announces her decisions to the team and expects immediate compliance, without discussion, because of strict regulatory compliance deadlines. Identify her position on the Tannenbaum–Schmidt continuum and comment on the appropriateness of this approach.

Lời giải chi tiết

This sits at the extreme "tells" end of the continuum — an **autocratic** style, where the manager retains all decision-making authority and simply announces the decision. Given the time pressure of regulatory deadlines and (implicitly) a need for standardised, error-free compliance, this can be appropriate in the short term. However, if used permanently with an experienced team it risks demotivation (Herzberg: denies staff genuine involvement/responsibility) and higher staff turnover; the manager should consider moving towards "sells" or "consults" once the immediate deadline pressure eases.

Bài tập luyện tập

A hospital's senior surgical team is led with a highly hands-off, laissez-faire style by the head of department. Justify why this style may be appropriate here, and identify one risk.

Lời giải chi tiết

Laissez-faire suits this context because surgeons are highly qualified, experienced professionals who need clinical autonomy to make rapid, expert judgements without waiting for a non-specialist's approval; close supervision would add little value and could slow critical decisions. The main risk is a lack of coordination or consistency across the team — without any shared protocols, individual surgeons might follow inconsistent procedures, so most hospitals combine laissez-faire leadership on clinical judgement with strict shared protocols/checklists for safety-critical routines (e.g. surgical checklists), rather than pure laissez-faire in every respect.

Bài tập luyện tập

A CEO personally negotiates the terms of a company merger with a rival firm. Under Mintzberg's classification, which broad category of managerial role is she performing?

(A) Interpersonal
(B) Informational
(C) Decisional
(D) Operational

Lời giải chi tiết

Answer: (C) Decisional. The negotiator role is one of Mintzberg's three decisional roles (alongside entrepreneur, disturbance handler and resource allocator). "Operational" is not one of Mintzberg's three categories (interpersonal, informational, decisional).

Bài tập luyện tập

A newly-hired graduate trainee has strong enthusiasm but very little relevant experience. According to situational leadership, which style should the manager use initially, and why?

Lời giải chi tiết

The manager should initially use a more directive, "telling" style with close task guidance. Although the trainee's commitment/motivation is high, their competence (skill and experience) is low, so situational leadership recommends a style with high task direction; as the trainee's competence grows through experience, the manager should progressively shift towards coaching, then supporting, and eventually delegating.

Bài tập luyện tập

A small creative consultancy is run with almost no hierarchy: each named expert consultant works autonomously, and the firm essentially exists to support the individuals' professional practice. Which Handy culture type does this best describe?

(A) Power culture
(B) Role culture
(C) Task culture
(D) Person culture

Lời giải chi tiết

Answer: (D) Person culture. In a person culture, individuals are the central resource and the organisation exists mainly to serve them, with minimal hierarchy — typical of professional partnerships (e.g. barristers' chambers, small consultancies). A task culture also uses flexible teams, but is organised around completing shared projects rather than around serving named individuals.

Bài tập luyện tập

An employee is worried that with the company's sales declining sharply, redundancies are being planned in her department. Which level of Maslow's hierarchy of needs is most directly threatened?

(A) Physiological
(B) Safety
(C) Social
(D) Esteem

Lời giải chi tiết

Answer: (B) Safety. Fear of losing one's job threatens job security, which sits at the safety level of Maslow's hierarchy (alongside safe working conditions and a stable income), not the more basic physiological level (food, water, shelter) directly.

Bài tập luyện tập

A firm employed an average of 160 staff over the year; 24 employees left during that period. Calculate the labour turnover rate, and suggest one Herzberg-based recommendation to reduce it.

Lời giải chi tiết

Calculation: $\frac{24}{160} \times 100 = 15\%$.
Recommendation: a 15% turnover rate suggests active dissatisfaction, not merely an absence of hygiene factors. The firm should first check hygiene factors (pay competitiveness, working conditions, job security, management relationships) to remove sources of dissatisfaction, but — per Herzberg — fixing hygiene alone will not create loyalty. The firm should also introduce genuine motivators such as job enrichment, clearer promotion/career paths, and recognition schemes, since these are what Herzberg identifies as the drivers of real commitment and reduced desire to leave.

Bài tập luyện tập

A key criticism of Taylor's scientific management is that it:

(A) ignores financial incentives entirely

(B) assumes workers are motivated by money alone

(C) recommends broad, varied job roles

(D) rejects the use of time-and-motion study

Lời giải chi tiết

Answer: (B). Taylor assumed workers were motivated almost exclusively by pay, ignoring social and psychological needs (later highlighted by Mayo, Maslow and Herzberg). His approach is based heavily on financial incentives (piece rate) and time-and-motion study, and recommends narrow, repetitive task specialisation rather than broad, varied roles — so (A), (C) and (D) are each the opposite of Taylor's actual position.

Bài tập luyện tập

A production supervisor closely monitors every task performed by staff, enforces strict rules, and assumes employees will avoid work whenever they are not directly supervised. Identify the McGregor assumption being applied and state one likely consequence.

Lời giải chi tiết

This reflects a **Theory X** assumption — that workers inherently dislike work and must be closely controlled and directed. A likely consequence is a self-fulfilling prophecy: constant close supervision and lack of trust can itself lower staff motivation and initiative (consistent with Herzberg — denying staff responsibility removes a key motivator), while also being costly in supervisory time and limiting the firm's ability to benefit from employees' own ideas.

Bài tập luyện tập

A worker on a modified piece-rate scheme produces 400 units in a week at $0.75 per unit, and receives a flat weekly bonus of $25 for exceeding a 350-unit target. Calculate her total weekly pay.

Lời giải chi tiết

Step 1: piece-rate pay $= 400 \times \$0.75 = \$300$.
Step 2: $400 > 350$, so the $25 bonus applies.
Step 3: total pay $= \$300 + \$25 = \$325$.

Bài tập luyện tập

An employee believes that, however hard she works, her line manager is biased and will never give her a good appraisal rating (i.e. she perceives very low expectancy that effort will lead to strong performance being recognised). Using Vroom's expectancy theory, explain what will happen to her overall motivation, even if the reward on offer for a good rating is highly valued.

Lời giải chi tiết

Because Motivation $=$ Expectancy $\times$ Instrumentality $\times$ Valence is a multiplicative relationship, a near-zero expectancy (effort will not translate into a good outcome, in her view) drags the overall motivation score towards zero regardless of how high instrumentality or valence are individually. In other words, no matter how attractive the reward (high valence), if she does not believe effort will actually lead to a good appraisal (low expectancy), her motivation to put in extra effort will remain low.

Bài tập luyện tập

A firm needs to fill a new Senior Marketing Manager post that specifically requires fresh market perspective and up-to-date digital-marketing skills not currently held by any internal candidate. Discuss internal versus external recruitment for this post and recommend a choice.

Lời giải chi tiết

Internal recruitment: cheaper and faster, and the candidate's reliability is already known, but is unlikely to bring the fresh perspective or new digital skill set the role explicitly requires, and may simply promote existing thinking.
External recruitment: draws on a wider talent pool with the specific digital-marketing expertise needed, and brings in fresh external perspective, but is more expensive, slower, and carries greater risk since the true fit/ability of an external hire is harder to verify in advance.
Recommendation: given that the post explicitly requires skills and perspectives not currently available internally, external recruitment is the more suitable choice here, despite its higher cost and the longer induction period it will require.

Bài tập luyện tập

A recruitment document states: "Applicants must hold a professional accounting qualification and have at least 5 years' managerial experience." This is best described as part of the:

(A) job description
(B) person specification
(C) employment contract
(D) redundancy notice

Lời giải chi tiết

Answer: (B) person specification. This describes the qualifications and experience required of the ideal *candidate*, which is the defining feature of a person specification, as opposed to a job description (which describes the duties of the *post* itself).

Bài tập luyện tập

A bank needs to recruit 20 graduate trainees for a fast-track leadership programme from over 800 applicants. Recommend a selection method beyond a single interview, and justify your choice.

Lời giải chi tiết

An **assessment centre** is recommended: candidates are put through a combination of group exercises, in-tray exercises, psychometric/aptitude tests and panel interviews, typically over one to two days. This allows several trained assessors to observe candidates' actual behaviour under realistic pressure across multiple exercises, giving a more reliable and valid prediction of future performance than a single interview (which is vulnerable to interviewer bias and only assesses how a candidate presents in one setting). Given the scale (800 applicants) and the long-term investment in a leadership programme, the higher cost and time commitment of an assessment centre is justified.

Bài tập luyện tập

A firm spends \$36,000 training 10 employees. Daily output per employee rises from 60 to 66 units after training, and each unit generates \$4 of contribution. The firm operates 240 working days per year. Calculate the payback period of the training investment, in months.

Lời giải chi tiết

Step 1 — extra output per employee/day: $66 - 60 = 6$ units.
Step 2 — extra contribution per employee/day: $6 \times \$4 = \$24$.
Step 3 — extra annual contribution, 10 employees: $10 \times \$24 \times 240 = \$57{,}600$.
Step 4 — payback period: $\dfrac{\$36{,}000}{\$57{,}600} = 0.625$ years $= 0.625 \times 12 = 7.5$ months.
Conclusion: the training investment is repaid in 7.5 months.

Bài tập luyện tập

A hotel chain forecasts it will need 150 qualified housekeeping staff in 12 months to support a new wing. It currently employs 130 such staff. Over the next 12 months it expects 15 staff to leave, 5 to be promoted out of the role, and 10 trainees to qualify into the role. Calculate the staffing gap and state one way the firm could close it.

Lời giải chi tiết

Step 1 — internal supply forecast: $130 - 15 - 5 + 10 = 120.$
Step 2 — staffing gap: $150 - 120 = 30$ (a shortfall of 30 staff).
Closing the gap: the firm could recruit externally (30 new hires), accelerate/expand its trainee programme, offer overtime to existing staff, or use temporary/agency staff while permanent recruitment takes place.

Bài tập luyện tập

A firm currently relies solely on top-down appraisal by each employee's direct line manager. HR proposes moving to 360-degree appraisal instead. Give one advantage and one disadvantage of this change.

Lời giải chi tiết

Advantage: 360-degree appraisal combines feedback from managers, peers, subordinates and (sometimes) customers, giving a more rounded and less biased picture of performance than relying on one manager's judgement alone, and can surface development needs a single manager might miss.
Disadvantage: it is considerably more time-consuming and costly to administer than single-manager appraisal, and is vulnerable to collusion (colleagues rating each other generously) or to conflict if critical feedback from peers is delivered or received poorly.

Bài tập luyện tập

A firm removes an entire layer of middle (regional) management to cut costs. Analyse the likely effects on (a) the directors immediately above that layer and (b) the team leaders immediately below it.

Lời giải chi tiết

(a) Directors above: their span of control widens sharply, since they must now directly manage all the team leaders who previously reported to the removed regional managers; this increases their workload and can leave less time for strategic planning, and risks a decline in the quality of supervision if the directors cannot give each team leader sufficient attention.
(b) Team leaders below: they may gain greater autonomy and responsibility (a genuine Herzberg motivator, since they now have more direct authority), but may also feel less supported without an immediate regional manager to turn to, face unclear reporting lines during the transition, and see reduced promotion prospects since there is now one fewer layer to be promoted into. Surviving staff may also experience insecurity ("survivor syndrome") after seeing colleagues made redundant.

Bài tập luyện tập

Which of the following would most likely allow a manager to widen their span of control safely?

(A) Highly complex, non-routine tasks

(B) A workforce with limited experience

(C) Well-trained, experienced subordinates

(D) A frequent need for close personal supervision

Lời giải chi tiết

Answer: (C). A well-trained, experienced and capable workforce needs less individual guidance, allowing one manager to effectively oversee more subordinates. Complex/non-routine tasks, inexperienced staff, and a frequent need for close supervision would all instead require a *narrower* span of control.

Bài tập luyện tập

A fast-food franchisor must decide whether pricing decisions should be set centrally at head office or left to individual franchise owners to reflect local competitive conditions. Discuss one benefit of each approach and recommend a policy.

Lời giải chi tiết

Centralised pricing: ensures consistent brand image and pricing nationally, and strengthens head office's negotiating power with suppliers through economies of scale, but responds slowly to a sudden local competitor price war.
Decentralised pricing: allows local franchise owners to respond quickly to local demand and competition, and increases their motivation and sense of ownership, but risks inconsistent branding and can undermine national marketing/pricing campaigns.
Recommendation: a hybrid policy — a centrally-set recommended price band with limited local flexibility within it — typically balances consistency against local responsiveness better than either extreme.

Bài tập luyện tập

A construction company organises staff into permanent functional departments (Engineering, Finance, Procurement) but also temporarily assigns them to specific building-project teams, each led by a project manager, for the duration of a project. (a) Identify this organisational structure. (b) State one advantage and one disadvantage of it.

Lời giải chi tiết

(a) This is a **matrix structure** — staff report to both a functional manager and a project manager simultaneously.
(b) Advantage: specialist staff and skills can be flexibly reallocated across multiple projects as needed, and cross-functional collaboration and knowledge-sharing between departments is encouraged. **Disadvantage:** dual reporting lines can create conflicting instructions and unclear priorities between the functional manager and the project manager, slowing decision-making and potentially causing interpersonal conflict.

Bài tập luyện tập

The unofficial network of friendships and communication that exists alongside a company's official organisation chart is known as the:

(A) formal organisation
(B) matrix structure
(C) informal organisation
(D) span of control

Lời giải chi tiết

Answer: (C) informal organisation. It operates in parallel with, but separately from, the officially designed formal organisation shown on the organisation chart.

Bài tập luyện tập

A 2,000-employee manufacturer finds that instructions issued from head office are frequently misunderstood by shop-floor workers by the time they arrive. Identify two likely barriers to communication in this situation and suggest one solution for each.

Lời giải chi tiết

Barrier 1 — long chain of command: with many layers between head office and the shop floor, each layer may summarise, reinterpret or delay the message, distorting it by the time it arrives (sometimes called the "Chinese whispers" effect). *Solution:* shorten the chain (delayer) or use a direct channel that bypasses intermediate layers, such as a company-wide e-mail bulletin, intranet posting, or video message straight from head office.
Barrier 2 — technical jargon: language used by head office managers may not be understood by shop-floor staff. *Solution:* simplify the language used, provide visual/pictorial instructions where possible, and have local supervisors brief staff in terms adapted to their specific role.

Bài tập luyện tập

At a manufacturing plant, the recognised trade union and management are negotiating the annual pay settlement through collective bargaining. Explain what "trade union recognition" means, and outline the likely next step if negotiations reach a deadlock.

Lời giải chi tiết

Trade union recognition means the employer has formally agreed to negotiate pay and working conditions with the trade union as the collective representative of employees, rather than negotiating individually with each employee.
If negotiations deadlock: both sides would typically first seek conciliation or arbitration through an independent third party to try to reach a compromise. Only if this fails would the union, as a last resort, ballot its members and potentially call industrial action (such as a strike, overtime ban, or work-to-rule) to increase pressure on management to improve its offer.

Bài tập luyện tập

An employee is dismissed because their specific job role no longer exists, following the introduction of new automated machinery that performs their previous tasks. This is best classified as:

(A) unfair dismissal
(B) redundancy
(C) constructive dismissal
(D) summary dismissal

Lời giải chi tiết

Answer: (B) redundancy. The role itself has become unnecessary due to automation — this is not a judgement on the individual employee's conduct or capability, which is the defining feature of redundancy as opposed to dismissal.

Bài tập luyện tập

A production-line worker has received three verbal complaints about persistent lateness. Her manager wants to move towards dismissal if the behaviour continues. Outline the correct disciplinary steps the manager should follow before any dismissal, and explain why skipping these steps is risky for the firm.

Lời giải chi tiết

Correct steps: an informal verbal warning (if this has not already been clearly documented) → a formal written warning setting out the issue and the improvement expected → a final written warning if lateness continues, with a clear deadline for improvement → only then, if there is still no improvement, dismissal — with the employee entitled at each formal stage to a hearing, the right to be accompanied by a colleague or representative, and a right of appeal.
Why skipping steps is risky: dismissing the worker without following a fair, documented procedure could be ruled an **unfair dismissal**, exposing the firm to legal costs, compensation claims, and reputational damage, and undermining trust among the rest of the workforce that disciplinary action will be applied fairly and consistently.

Bài tập luyện tập

A manufacturing firm introduces small groups of shop-floor employees who meet weekly to identify causes of product defects in their own section and present solutions to management, without any change to formal job titles or pay. This initiative is best described as:

(A) a trade union branch

(B) a quality circle

(C) a matrix structure

(D) a disciplinary procedure

Lời giải chi tiết

Answer: (B) a quality circle. This is a small group of employees meeting voluntarily to identify and solve work-related problems in their own area before feeding recommendations up to management — a direct employee-participation scheme, distinct from a trade union (which represents employees in negotiation with management, typically over pay and conditions rather than technical problem-solving) or a matrix structure (a reporting-line arrangement, not a problem-solving forum).

Marketing

Mục tiêu Unit: Lập kế hoạch marketing và mối liên hệ với mục tiêu doanh nghiệp; nghiên cứu thị trường (sơ cấp/thứ cấp, chọn mẫu, cỡ mẫu), phân khúc và định vị thị trường (market mapping); marketing mix đầy đủ 4P (sản phẩm — vòng đời sản phẩm PLC, ma trận Boston, thương hiệu; giá — cost-plus, thâm nhập, hớt váng; phân phối — kênh trực tiếp/gián tiếp; xúc tiến — ATL/BTL, mô hình AIDA); độ co giãn của cầu theo giá (PED), theo thu nhập (YED) và co giãn chéo (XED); dự báo bán hàng bằng trung bình trượt; marketing quốc tế và marketing kỹ thuật số (nội dung A2 mở rộng).

3.1 Marketing planning

Marketing is the management function that identifies, anticipates and satisfies customer requirements profitably. It is far more than advertising: marketing begins with understanding what customers want and ends with a coordinated set of decisions (the marketing mix) designed to deliver that value while meeting the objectives of the business.

3.1.1 Market orientation versus product/asset-led approach

Two starting points for marketing

A **market-oriented** business starts with the customer: it researches what customers want or need, and only then designs, produces and prices a product to match that identified demand. Market orientation reduces the risk of launching a product nobody wants, but research itself costs money and time, and by the time a product reaches the market, customer tastes may already have shifted.

A **product-orientated** (or **asset-led**) approach starts instead with what the business is already good at making — its existing assets, technology, expertise or patents — and focuses on improving and selling that product, with market research playing a smaller role. This approach exploits genuine core strengths and can drive innovation that customers did not know they wanted (a strategy sometimes called *asset-led marketing*), but risks producing something the market does not actually want, especially in fast-changing or highly competitive markets.

VN GIẢI THÍCH TIẾNG VIỆT

Định hướng thị trường (market-oriented): xuất phát từ nhu cầu khách hàng — nghiên cứu trước, sản xuất sau; giảm rủi ro ra sản phẩm không ai cần nhưng tốn chi phí nghiên cứu và có thể chậm so với thị hiếu thay đổi. **Định hướng sản phẩm/tài sản (asset-led)**: xuất phát từ thế mạnh sẵn có của doanh nghiệp (công nghệ, bằng sáng chế, chuyên môn) — tận dụng tốt năng lực cốt lõi và có thể tạo ra đổi mới đột phá, nhưng rủi ro là sản phẩm không khớp nhu cầu thị trường.

3.1.2 Marketing objectives and the planning hierarchy

Marketing does not operate in isolation — it exists to help the whole business achieve its purpose. **Corporate objectives** (e.g. "increase overall profitability by 15% over three years") are set first, at board level. **Marketing objectives** are then derived from them and must be **SMART**: **S**pecific,

Measurable, **A**chievable, **R**elevant and **T**ime-bound — for example, ”increase market share from 8% to 12% within 18 months” or ”achieve a 20% brand-awareness score among 18–25 year-olds within one year.” A **marketing strategy** is the medium-to-long-term plan for hitting a marketing objective (e.g. ”grow market share through a new value-priced product line targeted at price-sensitive segments”), and the **marketing mix** (product, price, place, promotion) contains the day-to-day tactical decisions that implement that strategy.

Corporate objectives
overall long-term aims of the whole business

↓

Marketing objectives
SMART targets for the marketing function

↓

Marketing strategy
the medium/long-term plan to reach those objectives

↓

Marketing mix (4 Ps)
product, price, place, promotion — the day-to-day tactics

The marketing planning hierarchy: each level narrows down and operationalises the level above it. A marketing mix decision that does not trace back to a marketing objective (and ultimately a corporate objective) has lost its purpose.

> **GIẢI THÍCH TIẾNG VIỆT**
> VN
> Hệ thống kế hoạch marketing đi từ trên xuống: **mục tiêu doanh nghiệp** (dài hạn, toàn công ty) → **mục tiêu marketing** (theo nguyên tắc SMART — Cụ thể, Đo lường được, Khả thi, Liên quan, Có thời hạn) → **chiến lược marketing** (kế hoạch trung/dài hạn) → **marketing mix 4P** (quyết định chiến thuật hàng ngày). Mọi quyết định 4P nên truy ngược được về một mục tiêu marketing cụ thể.

3.1.3 Marketing budget and the marketing audit

The **marketing budget** is the sum of money allocated to fund the marketing plan over a period — covering research, advertising, sales-promotion costs, digital-marketing spend and the sales force. Budgets are usually set as a percentage of forecast sales revenue, matched to competitors’ spending, or built up from the estimated cost of each planned activity. A budget that is too small can leave good marketing objectives unachievable; one that is too generous wastes shareholders’ funds that could have been invested elsewhere, so the marketing budget itself is a strategic decision, not a formality.

Before setting new objectives, many firms conduct a **marketing audit**: a systematic review of the firm’s current marketing position — its products, pricing, distribution, promotion, market share and the external environment (competitors, economic conditions, consumer trends) — often summarised in a **SWOT analysis** (Strengths, Weaknesses, Opportunities, Threats). The audit provides the evidence base from which realistic, SMART marketing objectives can then be set.

> **Marketing plan — typical contents**: (1) marketing objectives; (2) market research findings (segment sizes, competitor analysis); (3) marketing strategy (target segment(s) and positioning); (4) the marketing mix required to deliver that strategy; (5) the marketing budget; (6) a timescale and method for monitoring/evaluating results against the original objectives.

VN GIẢI THÍCH TIẾNG VIỆT

Ngân sách marketing là số tiền được phân bổ để thực hiện kế hoạch marketing — quá ít sẽ không đạt được mục tiêu, quá nhiều sẽ lãng phí nguồn lực. **Kiểm toán marketing (marketing audit)** là bước rà soát vị thế marketing hiện tại (thường qua phân tích SWOT) trước khi đặt mục tiêu mới, giúp mục tiêu SMART có cơ sở thực tế.

3.2 Market research and segmentation

3.2.1 Primary and secondary research

Market research is the systematic gathering, recording and analysis of data about customers, competitors and the market, undertaken to reduce the risk of poor marketing decisions.

	Primary (field) research	**Secondary (desk) research**
Definition	New data collected first-hand for a specific purpose (surveys, interviews, focus groups, observation, test marketing)	Data that already exists, originally collected for another purpose (government statistics, trade journals, competitor reports, published market reports, own past sales records)
Advantages	Directly relevant to the firm's exact question; up to date; can be kept confidential from rivals	Usually far cheaper and quicker to obtain; useful for an initial overview before committing to expensive fieldwork
Disadvantages	Expensive and time-consuming; requires expertise to design (poor questions bias results); sample may not represent the whole market	May be out of date, collected for a different purpose (so only partly relevant), and is often available to competitors too

VN GIẢI THÍCH TIẾNG VIỆT

Nghiên cứu sơ cấp (primary): tự thu thập dữ liệu mới (khảo sát, phỏng vấn, quan sát) — sát với câu hỏi cụ thể của doanh nghiệp nhưng tốn kém, mất thời gian. **Nghiên cứu thứ cấp (secondary)**: dùng dữ liệu có sẵn (báo cáo ngành, thống kê chính phủ) — rẻ và nhanh hơn nhưng có thể lỗi thời hoặc không hoàn toàn phù hợp mục đích, và đối thủ cũng có thể tiếp cận được.

3.2.2 Sampling methods, sample size and reliability

Since surveying an entire market is rarely feasible, researchers survey a **sample** intended to represent the wider population.

Random sampling — every member of the population has an equal chance of selection (e.g. computer-generated random selection from a customer database); simple and unbiased in principle, but by chance may still fail to represent a key sub-group.
Quota sampling — the population is divided into groups (e.g. by age or gender) and researchers fill a fixed quota of respondents from each group, using their own judgement to find people who fit; quick and cheap, but not statistically random, so open to interviewer bias.
Stratified sampling — the population is divided into groups (strata) and a genuinely random sample is then drawn from each group *in proportion to its size* in the population; combines representativeness with statistical randomness, but requires more time and accurate data on how large each group actually is.

A critical trade-off in designing any survey is **sample size versus cost and accuracy**. A larger sample is generally more reliable — it is less likely to be skewed by a few unusual respondents and gives a more accurate picture of the whole target market — but it costs more money, takes longer to collect and analyse, and shows diminishing returns to accuracy beyond a certain size. A very small, cheap sample can be collected quickly but risks producing a misleading result if, purely by chance, it fails to reflect the wider population (e.g. surveying 20 people outside one supermarket on one morning about a national product). Firms must judge how much accuracy the decision at hand actually requires: a small pilot survey may be enough to test a minor packaging change, while a decision to invest $50 million in a new product line justifies a much larger, more expensive and more statistically reliable sample.

VN **GIẢI THÍCH TIẾNG VIỆT**

Ba phương pháp chọn mẫu: **ngẫu nhiên** (mọi người có cơ hội được chọn như nhau), **theo hạn ngạch** (chia nhóm rồi lấy đủ số lượng theo phán đoán, nhanh nhưng dễ thiên lệch), **phân tầng** (chia nhóm rồi lấy mẫu ngẫu nhiên theo đúng tỷ lệ mỗi nhóm — vừa đại diện vừa ngẫu nhiên nhưng tốn thời gian hơn). Đánh đổi quan trọng: **cỡ mẫu lớn hơn** → đáng tin cậy hơn nhưng chi phí và thời gian cao hơn; doanh nghiệp cần cân nhắc mức độ chính xác cần thiết cho từng quyết định.

3.2.3 Market segmentation and targeting

Market segmentation is the process of dividing a broad market into distinct sub-groups (segments) of consumers who share similar characteristics or needs.

Demographic — age, gender, income, family size, occupation, ethnicity, religion.
Geographic — region, country, climate, urban vs rural.
Psychographic — lifestyle, social class, personality, values and attitudes.
Behavioural — usage rate, brand loyalty, benefits sought, purchase occasion (e.g. ”occasional users” vs ”heavy users”).

Once segments are identified, a firm chooses a **targeting** strategy: **mass (undifferentiated) marketing** aims a single marketing mix at the whole market, ignoring segment differences (lower cost, but risks appealing to nobody strongly); **differentiated marketing** designs a separate marketing mix for each of several chosen segments (better matches diverse needs, but raises production and marketing costs); and **niche (concentrated) marketing** targets one small, specific segment intensively with a tailored mix (allows deep expertise and strong customer loyalty in that niche, but limits total sales volume and leaves the firm vulnerable if that one segment declines).

Market share and segment share

A national biscuit market generates total annual sales of $250 million. Firm A's total biscuit sales are $45 million. Within the "premium biscuits" segment, worth $80 million in total, Firm A's premium-biscuit sales are $32 million.

- Firm A's overall market share $= \frac{45}{250} \times 100\% = 18\%$.
- Firm A's share of the premium segment $= \frac{32}{80} \times 100\% = 40\%$.

Firm A holds a modest 18% share of the whole market but is clearly the dominant player (40% share) within the premium segment — a classic sign of a firm pursuing a concentrated/niche strategy within a wider market rather than trying to compete across every segment.

GIẢI THÍCH TIẾNG VIỆT

VN Phân khúc thị trường theo 4 tiêu chí: **nhân khẩu học** (tuổi, giới tính, thu nhập), **địa lý** (vùng miền), **tâm lý** (lối sống, tầng lớp xã hội), **hành vi** (mức độ sử dụng, lòng trung thành). Chiến lược nhắm mục tiêu: **marketing đại trà** (một mix cho cả thị trường — rẻ nhưng khó chinh phục ai thực sự), **marketing phân biệt** (mix riêng cho từng phân khúc — tốn kém hơn nhưng phù hợp hơn), **marketing ngách** (tập trung một phân khúc nhỏ — chuyên sâu nhưng doanh số giới hạn và rủi ro nếu phân khúc đó suy giảm).

3.2.4 Evaluating segmentation, targeting and positioning

Segmenting a market is not costless: identifying segments accurately requires market research spending, and once a firm commits to a targeting strategy it usually has to commit resources (product variants, separate promotional campaigns, sometimes separate distribution) to serve each chosen segment properly. A firm must therefore judge whether each candidate segment is large enough, distinct enough in its needs, and accessible enough (reachable through some identifiable channel or medium) to justify a tailored marketing mix. Segments defined too narrowly may be too small to be profitable once the extra cost of differentiation is included; segments defined too broadly may not actually behave as a single coherent group, undermining the whole rationale for targeting them separately. Positioning — the place a brand occupies in customers' minds relative to competitors, typically visualised on a market map — should follow directly from the chosen target segment(s): a firm targeting a price-sensitive mass-market segment should be positioned (and priced) very differently from one targeting a status-conscious premium segment, and inconsistency between the two (e.g. a "premium" positioning claim backed by a mass-market price and packaging) tends to confuse customers and weaken the brand.

GIẢI THÍCH TIẾNG VIỆT

VN Phân khúc thị trường tốn chi phí nghiên cứu và đòi hỏi nguồn lực riêng cho từng phân khúc được chọn, nên doanh nghiệp cần đánh giá: phân khúc có đủ lớn để có lãi không, có thực sự khác biệt về nhu cầu không, và có thể tiếp cận được không (qua kênh truyền thông/phân phối cụ thể). **Định vị (positioning)** — vị trí thương hiệu trong tâm trí khách hàng so với đối thủ — cần nhất quán với phân khúc mục tiêu đã chọn; sự mâu thuẫn (ví dụ tự nhận "cao cấp" nhưng giá và bao bì lại đại trà) sẽ làm khách hàng bối rối và làm yếu thương hiệu.

3.2.5 Quantitative analysis of survey data

Raw survey responses are often summarised using a **mean (weighted average)** calculated from a frequency table, which condenses many individual responses into a single comparable figure.

Calculating a mean customer-satisfaction rating

A café asks 50 customers to rate their visit on a scale of 1 (very poor) to 5 (excellent). The results are:

Rating	1	2	3	4	5
Number of customers	2	5	13	20	10

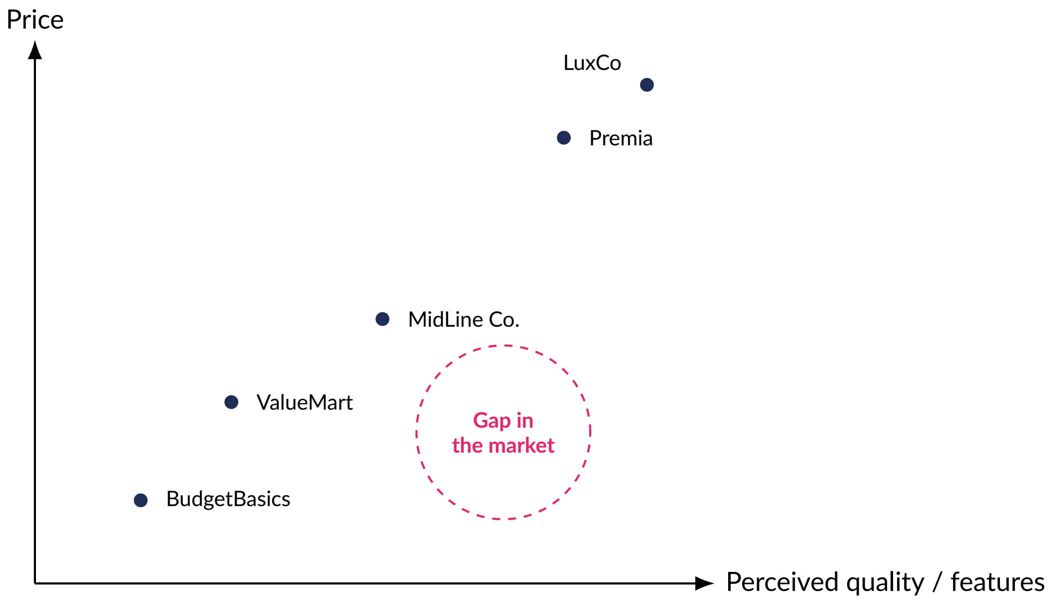
Total respondents $= 2+5+13+20+10 = 50$ (checks against the known sample size).
Weighted sum of ratings $= (1\times2)+(2\times5)+(3\times13)+(4\times20)+(5\times10) = 2+10+39+80+50 = 181$.
Mean rating $= \dfrac{181}{50} = 3.62$.
An average rating of 3.62 out of 5 tells the café far more at a glance than the 50 raw responses — for example, it can be compared directly against last year's mean rating, or against a rival café's mean rating, to judge whether satisfaction is improving.

GIẢI THÍCH TIẾNG VIỆT

VN Điểm trung bình có trọng số = tổng (giá trị × tần suất) chia cho tổng số quan sát. Đây là cách nén một bảng khảo sát nhiều dòng thành một con số duy nhất, dễ so sánh theo thời gian hoặc với đối thủ.

3.2.6 Market mapping

A **market map** (positioning map) plots competing brands or products on two axes representing characteristics important to customers (commonly price and quality, but also, for example, formal/informal or traditional/modern). Market mapping helps a firm see how it and its rivals are currently perceived, and can reveal a **gap in the market** — a combination of characteristics that customers might value but that no existing brand currently offers.



A market map for a snack-food category. LuxCo and Premia occupy the high-price/high-quality corner, while BudgetBasics and ValueMart compete on low price with modest quality. The circled area — high perceived quality at a moderate price — is not currently served by any established brand, and represents a potential gap in the market for a new entrant.

Interpreting a market map

Using the map above, a new entrant is considering two options: (a) launch a mid-quality product priced identically to MidLine Co., or (b) launch a higher-quality product priced below Premia but above MidLine Co., filling the circled gap. Option (a) means competing head-on in an already-crowded part of the map, where the new entrant has no clear point of difference and would likely have to compete mainly on price. Option (b) targets an unserved combination of benefits (better quality than customers expect for that price band), giving the new entrant a distinctive market position without directly imitating an existing rival — generally the stronger strategic choice, provided the firm can genuinely deliver that higher perceived quality profitably at the target price.

GIẢI THÍCH TIẾNG VIỆT

VN Bản đồ định vị thị trường (market map) đặt các thương hiệu cạnh tranh lên hai trục (thường là giá và chất lượng) để thấy vị trí hiện tại của từng thương hiệu, từ đó phát hiện **khoảng trống thị trường (gap in the market)** — tổ hợp đặc điểm khách hàng có thể muốn nhưng chưa thương hiệu nào đáp ứng.

3.2.7 Limitations of market research overall

However carefully it is designed, market research reduces the risk of a poor marketing decision — it does not eliminate it. Consumer tastes can change between the time research is conducted and the time a product actually reaches the market, so even accurate research can be effectively out of date by launch. Qualitative research (exploring attitudes, motivations and lifestyle through methods such as focus groups or open-ended interviews) can reveal rich insight into *why* customers behave as they do, but is inherently more subjective and harder to generalise reliably to the whole market than quantitative data (numerical data such as sales figures or survey ratings, which is easier to analyse statistically but reveals less about underlying motivation). Genuinely novel, never-seen-before products are especially hard to research well, since customers who have never encountered anything similar often struggle to say clearly how they would respond to it, which is one reason some highly innovative products are tested through small-scale, real-world **test marketing** (launching in one limited area first) rather than through surveys alone. Finally, research itself always costs money and management time, so a firm must judge, for every research decision, whether the expected improvement in decision quality is actually worth what the research costs to obtain.

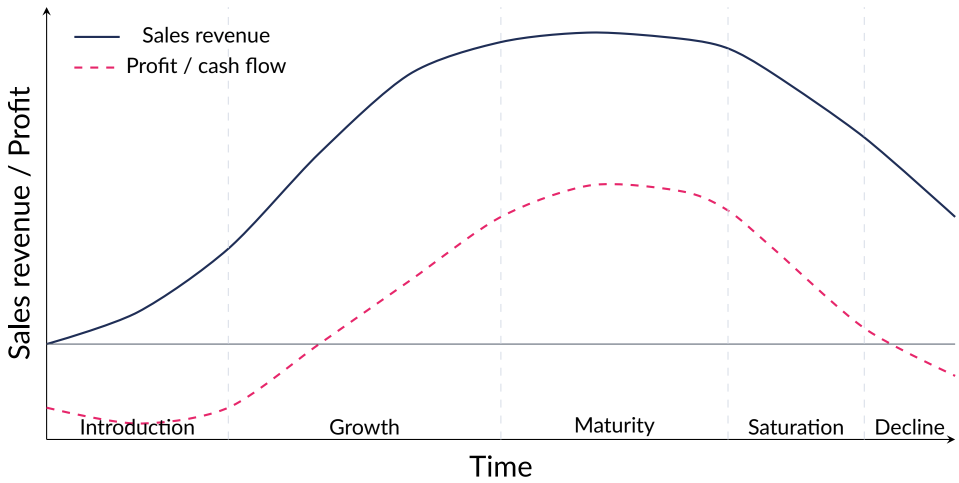
GIẢI THÍCH TIẾNG VIỆT

VN Nghiên cứu thị trường **giảm** rủi ro chứ không loại bỏ hoàn toàn rủi ro: thị hiếu có thể thay đổi trước khi sản phẩm ra mắt; dữ liệu **định tính** (thái độ, động cơ) sâu sắc nhưng chủ quan hơn dữ liệu **định lượng** (số liệu) vốn dễ phân tích thống kê hơn nhưng ít giải thích được "tại sao"; sản phẩm hoàn toàn mới rất khó nghiên cứu vì khách hàng chưa từng trải nghiệm điều tương tự (nên đôi khi cần **thử nghiệm thị trường** ở quy mô nhỏ); và bản thân nghiên cứu luôn tốn chi phí, nên cần cân nhắc lợi ích so với chi phí bỏ ra.

3.3 The marketing mix: Product

3.3.1 The product life cycle

The **product life cycle (PLC)** models how a typical product's sales revenue (and associated profit or cash flow) change over time, through five stages.



The product life cycle. Sales revenue (solid) rises through Introduction and Growth, plateaus through Maturity and Saturation, then falls in Decline. Profit/cash flow (dashed) is negative in Introduction (heavy launch costs against low sales), turns positive during Growth, peaks around late Growth/early Maturity, and falls away — potentially turning negative again — in Decline.

Introduction — product just launched; sales low and growing slowly; heavy promotional spending and development costs mean the product usually makes a loss.
Growth — sales rise rapidly as awareness spreads and early adopters are joined by the mass market; the product typically becomes profitable; competitors begin to enter.
Maturity — sales growth slows and levels off; the market is saturated with competitors; profit is typically at its highest as promotional spending can be reduced relative to sales.
Saturation — sales are flat or barely growing; the market is fully served and heavily competitive, often on price.
Decline — sales fall as customer tastes change or new substitute products emerge; profit shrinks and may turn negative, and firms must decide whether to withdraw the product.

To avoid decline, firms use **extension strategies** — actions taken (usually late in Maturity or in Saturation) to prolong a product's life and boost sales again without launching an entirely new product. Common extension strategies include: finding new markets or export markets for an existing product; modifying the product (new flavours, sizes, colours or features); repositioning the brand to appeal to a different segment; new packaging or design; and price adjustments or new promotional campaigns to reawaken interest. A successful extension strategy pushes the sales curve back upward, effectively restarting a new (smaller) growth phase rather than allowing the product to slide into decline.

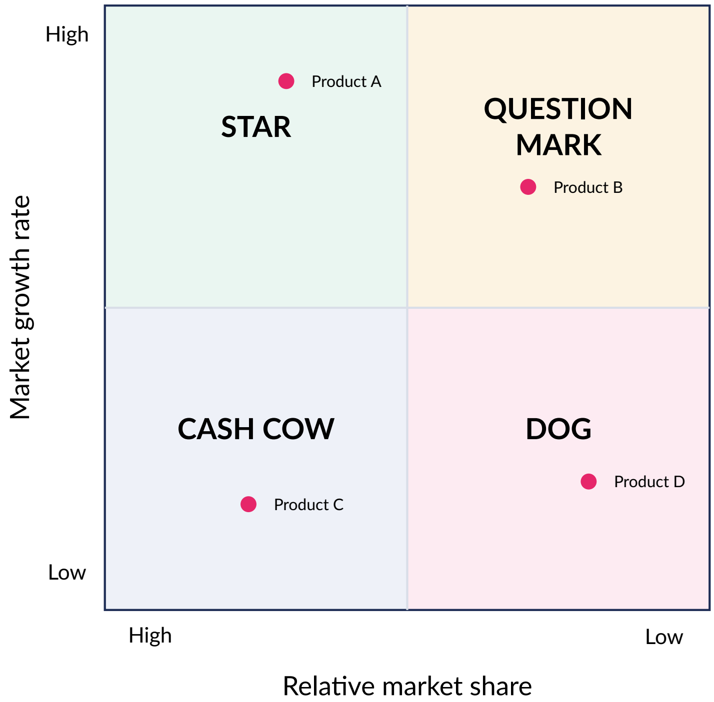
VN **GIẢI THÍCH TIẾNG VIỆT**

Vòng đời sản phẩm (PLC) gồm 5 giai đoạn: **Giới thiệu** (lỗ, chi phí ra mắt cao), **Tăng trưởng** (doanh số tăng nhanh, bắt đầu có lãi), **Trưởng thành** (tăng trưởng chậm lại, lợi nhuận cao nhất), **Bão hòa** (doanh số đi ngang, cạnh tranh gay gắt), **Suy thoái** (doanh số giảm). **Chiến lược kéo dài vòng đời** (extension strategies): tìm thị trường mới, cải tiến sản phẩm, tái định vị thương hiệu, đổi bao bì, khuyến mãi mới — nhằm đẩy đường doanh số đi lên trở lại thay vì để sản phẩm rơi vào suy thoái.

The PLC is a useful planning model but has real limits. Not every product follows this exact five-stage shape or timing: some products (certain fashion items, novelty products) can cycle through the entire curve in months, while others (some long-established household staples) can remain in an extended maturity/saturation stage for decades without ever visibly declining. The model also cannot reliably predict, in advance, exactly how long any one stage will last or precisely when the next stage will begin — it describes a pattern observed *after the fact* more reliably than it forecasts one stage-change in advance. A further risk is that the model can become self-fulfilling: if managers conclude a product has entered Decline and cut its marketing budget and shelf space accordingly, that withdrawal of support can itself cause the very sales fall that "confirms" the diagnosis, even where a well-designed extension strategy might otherwise have kept the product healthy.

3.3.2 The Boston Matrix and product portfolio management

Most firms sell more than one product. The **Boston Consulting Group (BCG) Matrix** classifies each product in a firm's **product portfolio** on two dimensions — market growth rate and relative market share — to guide investment decisions across the whole range.



The Boston (BCG) Matrix, with four illustrative products from one firm's portfolio plotted onto it.

> **Star** — high market share in a high-growth market: often needs continued heavy investment to defend its position, but has strong potential to become a future Cash Cow as the market matures.
> **Question Mark (Problem Child)** — low market share in a high-growth market: high potential, but uncertain — the firm must decide whether to invest heavily to try to build it into a Star, or withdraw it.
> **Cash Cow** — high market share in a low-growth (mature) market: needs relatively little further investment and generates strong, reliable cash flow.
> **Dog** — low market share in a low-growth market: generates little cash and ties up management time and resources; usually a candidate for withdrawal or divestment, unless it plays a strategic role (e.g. completing a product range).

The Boston Matrix is most powerful as a tool for **portfolio balance**: an ideal portfolio is not simply "all Stars," because Stars typically require heavy reinvestment. Instead, the surplus cash generated by **Cash Cows** is used to fund the continued investment that **Question Marks** and **Stars** need to grow, while **Dogs** are reviewed for withdrawal so resources are not wasted on low-return products. A firm with only Dogs and Cash Cows, and no Question Marks being nurtured, has no obvious source of future growth once its current Cash Cows mature into Dogs; a firm with only Question Marks and Stars, and no Cash Cow to fund them, may lack the cash to sustain that investment.

VN **GIẢI THÍCH TIẾNG VIỆT**

Ma trận Boston (BCG) phân loại sản phẩm theo 2 trục: tốc độ tăng trưởng thị trường và thị phần tương đối. **Ngôi sao (Star)**: thị phần cao, thị trường tăng trưởng nhanh — cần đầu tư tiếp. **Dấu hỏi (Question Mark)**: thị phần thấp, thị trường tăng trưởng nhanh — cần quyết định đầu tư thêm hay rút lui. **Bò sữa (Cash Cow)**: thị phần cao, thị trường tăng trưởng chậm — tạo dòng tiền ổn định, ít cần đầu tư thêm. **Chó (Dog)**: thị phần thấp, tăng trưởng chậm — thường nên rút khỏi thị trường. Nguyên tắc quản trị danh mục: dùng dòng tiền từ Bò sữa để nuôi Dấu hỏi và Ngôi sao, đồng thời loại bỏ dần các sản phẩm Dog.

The matrix is a useful starting point for portfolio discussion, but has notable limitations. **Market growth rate** and **relative market share** are not always straightforward to measure precisely in practice — defining exactly what counts as "the market" (broadly or narrowly) can shift a product from one quadrant to another. The matrix also considers only two dimensions and ignores other factors that genuinely affect a product's strategic value, such as how well it fits the firm's existing brand, expertise or supply chain, or whether it serves a strategic purpose (e.g. completing a product range, or blocking a competitor) beyond its own cash generation. Finally, "Dog" status is a description of current market growth and share, not necessarily a reliable prediction of the product's future — a mature, low-growth market can sometimes still be defended profitably for years with minimal investment, so an automatic decision to withdraw every Dog without further analysis can be premature.

VN **GIẢI THÍCH TIẾNG VIỆT**

Ma trận Boston là công cụ hữu ích nhưng có giới hạn: khó đo lường chính xác "tốc độ tăng trưởng" và "thị phần tương đối" (định nghĩa thị trường rộng hay hẹp có thể thay đổi phân loại sản phẩm); ma trận chỉ xét 2 trục và bỏ qua các yếu tố khác (sự phù hợp với thương hiệu, chuỗi cung ứng, vai trò chiến lược); và việc phân loại "Dog" không hẳn dự đoán chính xác tương lai sản phẩm, nên không nên tự động rút lui mọi sản phẩm Dog mà chưa phân tích kỹ thêm.

3.3.3 Branding and packaging

A **brand** is a name, symbol or design that distinguishes a firm's product from its competitors' in the customer's mind. Strong branding builds **brand loyalty** (customers repeatedly choose the brand over cheaper or equally good alternatives) and **brand equity/value** — the extra financial value a business has purely because of the reputation and recognition attached to its brand name, over and above the value of its physical assets. High brand equity allows a firm to charge a premium price, launch new products under the existing brand name more cheaply and successfully (**brand extension**), and gives some protection against price competition, since loyal customers are less sensitive to a rival's price cut. Building brand equity, however, requires sustained investment in quality, consistency and promotion over many years, and a single serious quality failure or scandal can damage it very quickly.

Packaging performs several roles beyond simply containing and protecting the product: it communicates brand identity at the point of sale (colour, logo, typography), provides required information (ingredients, safety warnings, usage instructions), and can itself be a competitive differentiator (resealable packaging, portion-sized packs, eco-friendly materials that appeal to environmentally-conscious segments).

VN **GIẢI THÍCH TIẾNG VIỆT**

Thương hiệu (brand) tạo ra **lòng trung thành** và **giá trị thương hiệu (brand equity)** — phần giá trị tăng thêm chỉ vì danh tiếng, giúp doanh nghiệp định giá cao hơn, mở rộng thương hiệu sang sản phẩm mới dễ dàng hơn, và giảm nhạy cảm của khách hàng với giá của đối thủ. **Bao bì** không chỉ bảo vệ sản phẩm mà còn truyền tải bản sắc thương hiệu, cung cấp thông tin bắt buộc, và có thể là điểm khác biệt cạnh tranh.

3.3.4 Product line and product mix decisions

Beyond managing a single item, most firms manage a whole **product line** (a group of closely related products, e.g. a shampoo brand's range of variants for different hair types) within a wider **product mix** (the complete set of product lines the firm sells). Two dimensions matter here: the **width** of the product mix (how many different product lines the firm offers) and the **depth** of each line (how many variants exist within it). Widening the mix (entering new, only loosely related product lines) can spread risk across different markets, but may dilute management focus and brand identity; deepening a line (adding more variants of an existing product) can capture more of a single market's customers (e.g. customers who want a smaller, larger, or scented version) but risks **cannibalisation** — the new variant taking sales from the firm's own existing product rather than from competitors, so total company sales rise by less than the new variant's own sales figure would suggest. Portfolio decisions of this kind connect directly back to the Boston Matrix: a firm reviewing its product mix is essentially deciding which lines to widen (invest in Question Marks/Stars) and which to prune (withdraw Dogs).

> GIẢI THÍCH TIẾNG VIỆT
> VN
> **Dòng sản phẩm (product line)**: nhóm sản phẩm liên quan chặt chẽ; **danh mục sản phẩm (product mix)**: toàn bộ các dòng sản phẩm doanh nghiệp kinh doanh. **Chiều rộng** = số dòng sản phẩm; **chiều sâu** = số biến thể trong một dòng. Thêm biến thể mới có thể gây ra **hiện tượng ăn thịt lẫn nhau (cannibalisation)** — sản phẩm mới lấy khách của chính sản phẩm cũ của công ty thay vì của đối thủ.

3.4 The marketing mix: Price

Cost-plus pricing — calculate the total cost per unit, then add a fixed percentage markup to set the price. Simple and guarantees a profit margin on every unit sold (provided the volume assumed in the cost calculation is actually achieved), but ignores what competitors charge and what customers are actually willing to pay.

Penetration pricing — set a deliberately low price when launching a new product, to build market share and sales volume quickly, then often raise the price once a loyal customer base is established. Useful for entering a competitive market or where economies of scale from high volume are valuable, but sacrifices early profit margin and can make later price rises unpopular with customers.

Price skimming — set a deliberately high price when launching an innovative, novel product with few or no substitutes, to maximise revenue from customers willing to pay a premium to be early adopters, then gradually lower the price as competitors enter and the novelty fades. Maximises early profit and can help recover high development costs quickly, but the high initial price invites competitors to enter and copy the product, and limits early sales volume.

Competitive (market-based) pricing — set price mainly by reference to what rivals charge for similar products, appropriate in markets with many similar competing products (e.g. petrol, generic groceries).

Psychological pricing — set price just below a round number (e.g. \$9.99 rather than \$10.00) because customers tend to perceive it as significantly cheaper than the true price difference would suggest.

Cost-plus pricing

A furniture maker calculates that each chair costs \$18 in materials and direct labour (variable cost), plus an allocated share of factory overheads of \$7 per unit (fixed cost), giving a total unit cost of $25. The firm applies a standard markup of 40% on cost.

$$\text{Selling price} = \$25 \times (1 + 40\%) = \$25 \times 1.40 = \$35.$$

Profit per unit $= \$35 - \$25 = \$10$. As a check, markup on cost $= \frac{10}{25} \times 100\% = 40\%$ (matches the target), while profit *margin* on the selling price is only $\frac{10}{35} \times 100\% \approx 28.6\%$ — a smaller percentage, because it is measured against the higher selling price rather than the lower cost.

(!) Lỗi thường gặp: Markup (profit as a percentage of *cost*) and margin (profit as a percentage of *selling price*) are not the same number, even though both describe the same $10 profit in the example above (40% markup vs. roughly 28.6% margin). A frequent exam error is to compute one and label it the other, or to assume "a 40% markup" means "40% of the selling price is profit."

Penetration versus skimming: a two-period comparison

A firm is launching a new smartphone and compares two pricing strategies over the product's first two periods on sale.

Strategy	Period 1	Period 2	Total revenue
Skimming: price ($)	800	500	
Skimming: units sold	5,000	12,000	
Skimming: revenue ($)	4,000,000	6,000,000	**10,000,000**
Penetration: price ($)	400	450	
Penetration: units sold	15,000	18,000	
Penetration: revenue ($)	6,000,000	8,100,000	**14,100,000**

In this illustration, penetration pricing generates more total revenue over the two periods because the very low launch price wins a much larger volume of early customers, and the price can still be raised later once the brand is established. Skimming earns a high margin per unit from early adopters but on far fewer units, and its Period-2 price cut (in response to new competitors) is doing most of the volume-building work only after rivals have already entered. Neither strategy is universally "better" — skimming suits a genuinely novel product with a technological lead and high development costs to recover quickly; penetration suits a firm entering a market with existing substitutes, prioritising market share and scale over early margin.

VN GIẢI THÍCH TIẾNG VIỆT

Định giá cộng chi phí (cost-plus): lấy chi phí đơn vị cộng thêm phần trăm lợi nhuận mong muốn — đơn giản nhưng bỏ qua đối thủ và mức sẵn lòng chi trả của khách hàng. **Định giá thâm nhập (penetration)**: giá thấp khi ra mắt để nhanh chóng chiếm thị phần, sau đó có thể tăng giá. **Định giá hớt váng (skimming)**: giá cao khi ra mắt sản phẩm mới lạ để thu lợi nhuận từ khách hàng sẵn sàng trả giá cao, sau đó giảm dần khi đối thủ xuất hiện. **Định giá cạnh tranh**: dựa theo giá đối thủ. **Định giá tâm lý**: đặt giá thấp hơn một mốc tròn ($9.99 thay vì $10) để khách hàng cảm nhận rẻ hơn thực tế.

3.4.1 Choosing between pricing strategies

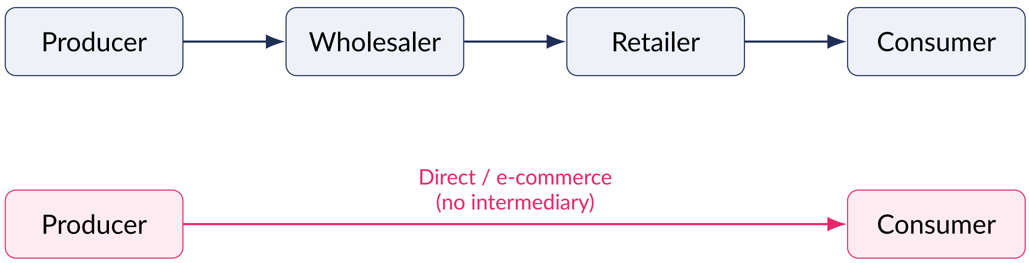
No single pricing strategy is correct for every situation; the appropriate choice depends on several interacting factors: the firm's **marketing objectives** (building market share quickly points toward penetration; maximising short-run profit from a genuine innovation points toward skimming); the **competitive structure** of the market (many close substitutes push a firm toward competitive pricing, since customers can easily switch if the price is out of line); the degree of **product differentiation** the firm has achieved (a strongly differentiated, branded product can sustain cost-plus or premium pricing that a generic, undifferentiated product could not); and, as Section 5 develops in full, the **price elasticity of demand** the firm faces — a firm whose product has been made more price-inelastic through branding and differentiation has considerably more freedom to set a profit-maximising price without losing large volumes of customers.

Competitive pricing among close substitutes

Three petrol stations on the same road sell an almost identical, undifferentiated product (unleaded petrol). Station 1 prices at $1.50 per litre, Station 2 at $1.52, and Station 3 at $1.65. Because petrol is close to a perfect substitute between stations located near each other, Station 3's noticeably higher price is likely to cause a large loss of volume to the two cheaper rivals (i.e. demand between these near-identical suppliers is highly price elastic), unless Station 3 can point to some other genuine difference (location convenience, loyalty scheme, forecourt shop). This illustrates why, in markets with many close substitutes, firms typically cluster their prices tightly around the competitive market rate rather than setting price independently from a cost-plus calculation.

3.5 The marketing mix: Place

Place covers the decisions a firm makes about how its product physically reaches the final customer — its **distribution channel(s)**.



Indirect distribution through intermediaries (top row) versus direct distribution straight from producer to consumer, for example via a company website or a factory outlet store (bottom row).

Indirect distribution (through one or more intermediaries — wholesalers, who buy in bulk from producers and break it down into smaller quantities for retailers, and/or retailers, who sell directly to the final consumer) gives a producer wide market coverage without having to build its own retail network, but each intermediary takes a margin, reducing the producer's own profit per unit, and the producer loses some direct control over how the product is displayed, priced and sold.
Direct distribution (producer to consumer, e.g. company-owned shops, direct mail order, or e-commerce/company websites) lets the producer keep the full margin and retain full control of the customer relationship and brand presentation, but the producer must invest in and manage its own logistics, website, payment and delivery systems, and may struggle to achieve the same breadth of market coverage as an established retail network.

The choice of channel depends on: the **nature of the product** (highly perishable goods such as fresh produce need short, fast channels close to the point of sale; complex or high-value goods such as industrial machinery or luxury cars often suit direct selling with specialist sales support); the **market coverage** required (a mass-market convenience product needs to be available almost everywhere, favouring wholesalers/retailers, while a specialist or luxury product may deliberately use a narrower, more exclusive set of outlets); and the **cost** of each channel relative to the producer's resources and desired profit margin.

VN GIẢI THÍCH TIẾNG VIỆT

Kênh phân phối gián tiếp (qua nhà bán buôn/bán lẻ): phủ sóng thị trường rộng nhưng mất một phần lợi nhuận cho trung gian và giảm quyền kiểm soát. **Kênh phân phối trực tiếp** (bán thẳng từ nhà sản xuất đến người tiêu dùng, ví dụ website hoặc cửa hàng riêng): giữ toàn bộ lợi nhuận và kiểm soát tốt hơn nhưng phải tự đầu tư logistics. Lựa chọn kênh phụ thuộc vào: **đặc tính sản phẩm** (dễ hỏng cần kênh ngắn), **độ phủ thị trường** cần thiết, và **chi phí** của từng kênh.

Many firms today do not choose only one channel but operate **multiple channels simultaneously** (sometimes called **multichannel** or, where the channels are deliberately integrated into one seamless customer experience, **omni-channel** distribution) — for example, selling through a physical retail network, a company website, and third-party online marketplaces all at once. This widens overall market coverage and lets customers choose the channel that suits them, but requires careful management to avoid **channel conflict**, where, for example, a producer's own direct-to-consumer website undercuts the price offered by its own independent retailers, damaging the retailer relationship that the firm still depends on for wider market coverage.

3.6 The marketing mix: Promotion

Promotion is the set of tools a business uses to communicate with, inform and persuade its target customers. **Above-the-line (ATL)** promotion is paid-for media advertising placed through an independent media owner (television, print, radio, online display advertising) whose content and placement the advertiser pays for but does not control editorially. **Below-the-line (BTL)** promotion covers all other promotional activities under the firm's own direct control (sales promotions, direct mail, in-store displays, sponsorship, personal selling).

Element	What it is	Typical use-case
Advertising (ATL)	Paid, non-personal promotion via mass media (TV, radio, print, online display)	Building broad brand awareness for a mass-market product
Sales promotion (BTL)	Short-term incentives — discounts, coupons, "buy-one-get-one-free," loyalty points	Boosting short-term sales volume, e.g. to clear excess stock or counter a rival's launch
Personal selling (BTL)	Face-to-face (or one-to-one) persuasion by a sales representative	High-value, complex or business-to-business products (industrial equipment, insurance)
Public relations, PR (BTL)	Managing the organisation's public image — press releases, events, sponsorship, crisis management	Building/protecting corporate reputation; launching a product with editorial media coverage rather than paid ads
Direct marketing (BTL)	Communicating straight to identified individual customers — direct mail, email, telemarketing	Targeting an existing customer database with personalised offers
Digital/social media marketing	Websites, search engines, social media platforms, influencer marketing, targeted online ads	Precisely targeting narrow segments at relatively low cost, and enabling two-way engagement with customers

VN GIẢI THÍCH TIẾNG VIỆT

ATL (above-the-line): quảng cáo trả phí qua truyền thông đại chúng (TV, báo, radio). **BTL (below-the-line)**: các hoạt động xúc tiến khác do doanh nghiệp trực tiếp kiểm soát (khuyến mãi, bán hàng cá nhân, PR, marketing trực tiếp). Xúc tiến kỹ thuật số (digital/social media) ngày càng quan trọng vì nhắm mục tiêu chính xác với chi phí thấp hơn.

Factors influencing the choice of promotional mix: the **marketing budget** available (mass-media advertising is usually far more expensive than digital or direct marketing, so smaller firms often rely more heavily on the cheaper elements); the **target audience** (a narrow, easily-identified business-to-business audience is usually reached more efficiently through personal selling and direct marketing than mass advertising, while a broad consumer market may need mass-media reach); the **nature of the product** (complex, high-value or technical products often need personal selling to explain and reassure, while simple, low-value, frequently-bought products rely more on advertising and sales promotion to prompt repeat purchase); and **legal/regulatory restrictions**, since many countries restrict or ban certain advertising for specific product categories (e.g. tobacco advertising restrictions, or rules limiting advertising aimed at children), which can rule out some promotional-mix elements regardless of the firm's preference or budget.

VN GIẢI THÍCH TIẾNG VIỆT

Lựa chọn phối hợp xúc tiến phụ thuộc vào: **ngân sách marketing** (quảng cáo đại chúng thường đắt hơn nhiều so với marketing trực tiếp/kỹ thuật số), **đối tượng mục tiêu** (khách hàng doanh nghiệp hẹp phù hợp bán hàng cá nhân; thị trường đại chúng cần quảng cáo diện rộng), **đặc tính sản phẩm** (sản phẩm phức tạp/giá trị cao cần bán hàng cá nhân để giải thích), và **quy định pháp luật** (nhiều quốc gia hạn chế quảng cáo một số sản phẩm như thuốc lá hoặc quảng cáo hướng đến trẻ em).

3.6.1 Push and pull promotional strategies

Promotion can also be classified by *who* it targets first. A **push strategy** directs promotional effort at intermediaries in the distribution channel (wholesalers, retailers) — for example, trade discounts, incentives for retailers to give the product prominent shelf space, or a personal-selling effort aimed at buyers for a retail chain — to "push" the product through the channel toward the final consumer. A **pull strategy** directs promotion straight at final consumers (mass advertising, social media campaigns) so that consumer demand itself "pulls" the product through the channel, as retailers respond to customers actively asking for it. Firms with a strong existing brand and consumer following often rely more on pull strategies, since retailers are keen to stock a product customers already want; new or lesser-known firms without that consumer pull often need a push strategy first, persuading retailers to give the product shelf space before consumer demand has been built at all. Many real campaigns blend both approaches simultaneously.

VN GIẢI THÍCH TIẾNG VIỆT

Chiến lược đẩy (push): xúc tiến hướng vào trung gian phân phối (nhà bán buôn/bán lẻ) để "đẩy" sản phẩm qua kênh phân phối đến người tiêu dùng cuối. **Chiến lược kéo (pull)**: xúc tiến hướng thẳng vào người tiêu dùng cuối để họ chủ động yêu cầu sản phẩm, "kéo" sản phẩm qua kênh phân phối. Thương hiệu mạnh thường dùng pull; thương hiệu mới thường cần push trước để có chỗ trưng bày.

A2 EXTENSION: The AIDA model. A widely used framework for designing an effective promotional campaign is **AIDA**: a campaign must first capture **Attention**, then build **Interest** in the product's features and benefits, then create **Desire** (making the customer want the product specifically, often by appealing to emotion or self-image), and finally prompt **Action** (an actual purchase, sign-up or click), typically supported by a clear call to action.

Mapping a campaign onto AIDA

A sportswear brand launches a new running-shoe campaign. Stage 1: a striking outdoor billboard and a short, visually dramatic online video are placed to stop people mid-scroll (**Attention**). Stage 2: a longer online advert and website page explain the shoe's cushioning technology and how it reduces injury risk (**Interest**). Stage 3: the campaign features a well-known athlete describing how the shoe transformed their training, and reviews from ordinary runners, to make the target customer personally want that same experience (**Desire**). Stage 4: a limited-time launch discount code and a prominent "Buy now" button on the website convert that desire into a completed sale (**Action**). A campaign that generates plenty of Attention and Interest but no clear route to Action (e.g. no obvious way to purchase, or no urgency) will typically under-perform even if the earlier stages worked well.

3.7 Price and income elasticity of demand

Price elasticity of demand (PED) measures the responsiveness of quantity demanded to a change in price:

$$PED = \frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}$$

PED is normally negative (demand curves slope downward), so economists usually discuss its *magnitude* (absolute value). If $|PED| > 1$, demand is **price elastic** (quantity demanded changes proportionally more than price); if $|PED| < 1$, demand is **price inelastic** (quantity demanded changes proportionally less than price); if $|PED| = 1$, demand is **unitary elastic**.

Pricing rule: if demand is **inelastic**, *raising* price increases total revenue (the small fall in quantity is outweighed by the higher price per unit), while *lowering* price reduces total revenue. If demand is **elastic**, *lowering* price increases total revenue (the large rise in quantity outweighs the lower price per unit), while *raising* price reduces total revenue.

PED for cinema tickets

A cinema raises its standard ticket price from $10 to $12 (a rise of $2 on $10, i.e. $+20\%$). Weekly ticket sales fall from 1,000 to 850 (a fall of 150 on 1,000, i.e. -15%).

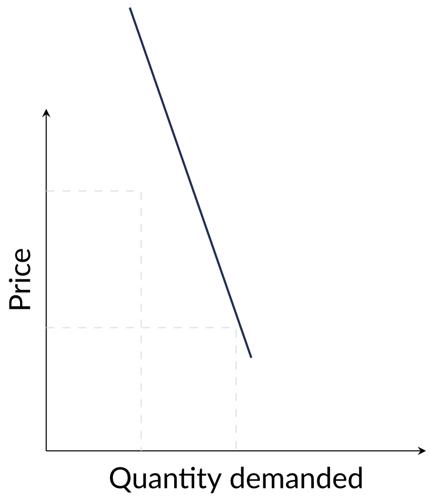
$$PED = \frac{-15\%}{+20\%} = -0.75$$

$|PED| = 0.75 < 1$, so demand is **price inelastic**. Revenue before the price rise $= \$10 \times 1{,}000 = \$10{,}000$. Revenue after the price rise $= \$12 \times 850 = \$10{,}200$. As predicted by the pricing rule, raising price when demand is inelastic *increased* total revenue, from $10,000 to $10,200.

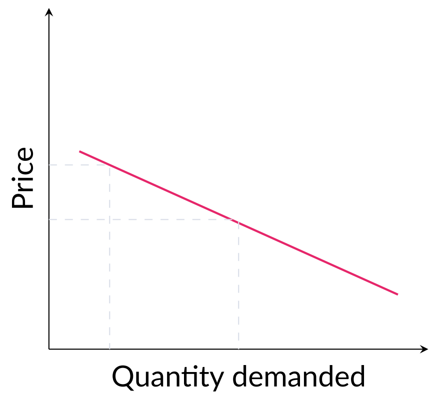
Factors affecting the magnitude of PED: **number and closeness of substitutes** — the more close substitutes a product has, the more elastic its demand, since customers can easily switch away in response to a price rise (branding and differentiation work precisely by reducing the number of substitutes the customer perceives, which is why Section 6 links differentiation directly back to PED); **necessity versus luxury** — necessities (e.g. staple foods, basic utilities) tend to have inelastic demand, since customers must keep buying them even as price rises, while luxuries tend to be more elastic; **proportion of income spent on the good** — a good that absorbs a large share of a customer's income (e.g. a car) tends to have more elastic demand than a good that absorbs a tiny share (e.g. salt), since a price rise on the former is far more noticeable in the household budget; **time period** — demand is typically more inelastic in the short run (habits and existing contracts are hard to change quickly) and becomes more elastic over a longer time period, as customers have time to find and switch to alternatives; and **addictiveness/habit-forming nature** of the product (e.g. tobacco, certain medicines), which tends to make demand more inelastic regardless of price.

VN GIẢI THÍCH TIẾNG VIỆT

Độ co giãn của cầu theo giá (PED) phụ thuộc vào: **số lượng và mức độ gần gũi của hàng thay thế** (càng nhiều hàng thay thế, cầu càng co giãn — đây là lý do xây dựng thương hiệu/khác biệt hóa giúp giảm co giãn), **hàng thiết yếu hay xa xỉ** (thiết yếu thường kém co giãn hơn), **tỷ trọng thu nhập chi cho hàng hóa đó** (tỷ trọng càng lớn, cầu càng co giãn), **khoảng thời gian xem xét** (ngắn hạn thường kém co giãn hơn dài hạn, vì khách hàng cần thời gian để tìm sản phẩm thay thế), và **tính gây nghiện/thói quen** của sản phẩm (làm cầu kém co giãn hơn).



Inelastic demand — a steep curve: a large % change in price (here roughly halving the price) causes only a small % change in quantity demanded.



Elastic demand — a flat curve: only a small % change in price causes a large % change in quantity demanded.

VN **GIẢI THÍCH TIẾNG VIỆT**

PED = %thay đổi lượng cầu ÷ %thay đổi giá. $|PED| > 1$: co giãn (elastic — đường cầu thoải/phẳng); $|PED| < 1$: kém co giãn (inelastic — đường cầu dốc/gần thẳng đứng). **Quy tắc định giá**: cầu kém co giãn → **tăng giá** làm doanh thu tăng; cầu co giãn → **giảm giá** làm doanh thu tăng.

Income elasticity of demand (YED) measures the responsiveness of demand to a change in consumer income:

$$YED = \frac{\%\text{ change in quantity demanded}}{\%\text{ change in income}}$$

YED value	Type of good	Interpretation
$YED > 1$	Luxury / superior good	Demand rises *more than proportionally* as income rises; sales highly sensitive to the economic cycle
$0 < YED < 1$	Necessity (normal good)	Demand rises *less than proportionally* as income rises; relatively stable sales through the economic cycle
$YED < 0$	Inferior good	Demand *falls* as income rises (consumers switch to higher-quality alternatives they can now afford)

Calculating YED

National average income rises by 8%. Over the same period, demand for a premium organic food range rises by 12%.

$$YED = \frac{+12\%}{+8\%} = 1.5$$

Since $YED = 1.5 > 1$ and positive, organic food is behaving as a **luxury (superior) good** for this population: demand is rising more than proportionally as incomes rise, so sales of this range would be expected to fall disproportionately hard in a recession.

VN GIẢI THÍCH TIẾNG VIỆT

YED = %thay đổi lượng cầu ÷ %thay đổi thu nhập. $YED > 1$: hàng xa xỉ (cầu tăng nhanh hơn thu nhập); $0 < YED < 1$: hàng thiết yếu (cầu tăng chậm hơn thu nhập); $YED < 0$: hàng thứ cấp (cầu giảm khi thu nhập tăng).

A2 EXTENSION: Cross elasticity of demand (XED). XED measures how the demand for one good responds to a change in the *price of a different good*:

$$XED = \frac{\text{\% change in quantity demanded of good A}}{\text{\% change in price of good B}}$$

A **positive** XED means the two goods are **substitutes** (a price rise for good B pushes customers toward good A instead). A **negative** XED means the two goods are **complements** (goods normally bought/used together, so a price rise for good B, which reduces its own quantity demanded, drags down demand for good A too). The larger the magnitude of XED, the stronger that substitute or complement relationship.

Calculating XED

The price of tea rises by 10%. Over the same period, demand for coffee (a substitute drink) rises by 4%.

$$XED = \frac{+4\%}{+10\%} = +0.4$$

XED is positive, confirming tea and coffee are **substitutes**: as tea becomes relatively more expensive, some consumers switch to coffee instead, raising coffee's demand.

(!) Lỗi thường gặp: Students frequently mix up the sign conventions across the three elasticities. PED is (almost always) **negative** by the law of demand, so its magnitude, not its sign, indicates elastic/inelastic. YED and XED, by contrast, carry meaningful signs: a negative YED signals an *inferior* good, and a negative XED signals a *complement* — these are not "errors" to be dropped, they are the entire point of the calculation, and dropping the sign turns a correct classification into a wrong one.

(!) Lỗi thường gặp: "A price rise always increases revenue" is false in general — it is only true when demand is price **inelastic**. If demand is elastic, a price rise actually *reduces* total revenue, because the resulting fall in quantity demanded is proportionally larger than the price increase. Always check (or calculate) the elasticity of demand before assuming which direction a price change will move revenue.

3.8 Marketing strategy

3.8.1 Niche versus mass marketing, and differentiation

A firm pursuing **niche marketing** focuses on a small, tightly defined segment, tailoring its whole marketing mix to that group's specific needs. Advantages include the ability to charge premium prices (less direct price competition), build deep customer loyalty and expertise, and avoid head-on competition with large mass-market rivals; disadvantages include a limited total sales ceiling and high vulnerability if that one niche declines or a larger rival decides to enter it. A firm pursuing **mass marketing** targets the broad market with a largely standardised mix, benefiting from economies of scale and a much larger potential customer base, but risking being squeezed between more focused niche competitors on one side and other mass-market rivals on the other, since a standardised offer rarely matches any single group's needs perfectly.

Product differentiation — making a product distinct from competitors' through genuine features, quality, branding or customer service — is a central strategic tool for reducing price elasticity of demand: the more customers perceive a product as unique (with few close substitutes), the less sensitive their demand is to a price change, allowing the firm greater pricing power and higher, more stable profit margins. This is the strategic logic that connects branding (Section 3) directly back to elasticity of demand (Section 5): building loyalty is, in economic terms, an attempt to make demand more price-inelastic.

VN GIẢI THÍCH TIẾNG VIỆT

Marketing ngách (niche): tập trung phân khúc nhỏ, có thể định giá cao, xây dựng lòng trung thành sâu nhưng doanh số giới hạn và rủi ro khi phân khúc suy giảm. **Marketing đại trà (mass)**: hưởng lợi từ quy mô nhưng dễ bị các đối thủ ngách "gặm" từng phần. **Khác biệt hóa sản phẩm** giúp giảm độ co giãn của cầu theo giá — khách hàng cảm nhận sản phẩm càng độc đáo thì càng ít nhạy cảm với thay đổi giá, cho phép doanh nghiệp định giá cao hơn ổn định hơn.

3.8.2 Sales forecasting

A2 EXTENSION: Accurate sales forecasts help a firm plan production, staffing, cash flow and marketing spend. A time series of past sales data can be broken down into several components, most importantly: the **trend** (the underlying long-term direction of sales, once random fluctuations and seasonal effects are stripped out) and **seasonal variation** (regular, predictable fluctuations linked to the time of year, e.g. higher toy sales every December). A **moving average** is the standard technique for extracting the trend from raw data that contains seasonal variation.

A 4-quarter centred moving average

A retailer's quarterly sales (units, '000) over two years are:

Quarter	Y1 Q1	Y1 Q2	Y1 Q3	Y1 Q4	Y2 Q1	Y2 Q2	Y2 Q3	Y2 Q4
Sales	40	52	68	44	46	58	74	50

Because sales are quarterly, a **4-point moving average** is used, and because 4 is an even number, each raw moving average sits *between* two quarters, so a further step (**centring** — averaging each pair of adjacent 4-point totals) is needed to align the trend value with an actual quarter.

$$\text{MA}_1(\text{Y1 Q1–Q4}) = \frac{40+52+68+44}{4} = 51$$

$$\text{MA}_2(\text{Y1 Q2–Y2 Q1}) = \frac{52+68+44+46}{4} = 52.5$$

$$\text{MA}_3(\text{Y1 Q3–Y2 Q2}) = \frac{68+44+46+58}{4} = 54$$

$$\text{MA}_4(\text{Y1 Q4–Y2 Q3}) = \frac{44+46+58+74}{4} = 55.5$$

$$\text{MA}_5(\text{Y2 Q1–Q4}) = \frac{46+58+74+50}{4} = 57$$

Centring (averaging each adjacent pair) aligns a trend value with Y1 Q3 through Y2 Q2:

$$\text{CMA(Y1 Q3)} = \frac{51+52.5}{2} = 51.75, \quad \text{CMA(Y1 Q4)} = \frac{52.5+54}{2} = 53.25,$$

$$\text{CMA(Y2 Q1)} = \frac{54+55.5}{2} = 54.75, \quad \text{CMA(Y2 Q2)} = \frac{55.5+57}{2} = 56.25.$$

The centred trend rises by a constant 1.5 ('000 units) every quarter (51.75, 53.25, 54.75, 56.25), revealing a smooth, steady underlying growth trend even though the raw sales figures swing up and down each quarter (Q3 is consistently the strongest quarter, Q4 the weakest — a recognisable seasonal pattern). The firm can now forecast a future quarter by projecting the trend forward and then re-adding the typical seasonal variation for that quarter.

VN GIẢI THÍCH TIẾNG VIỆT

Trung bình trượt (moving average) tách **xu hướng (trend)** ra khỏi **biến động thời vụ (seasonal variation)** trong dữ liệu bán hàng. Với dữ liệu theo quý (4 điểm/năm — số chẵn), cần thêm bước **căn giữa (centring)**: lấy trung bình của hai trung bình trượt liền kề để giá trị xu hướng khớp đúng với một quý cụ thể.

(!) Lỗi thường gặp: When the moving-average "window" covers an even number of periods (e.g. 4 quarters or 12 months), a common error is to stop after computing the raw moving averages and treat them as the trend. Because an even-length window's average falls *between* two time periods, it must be **centred** (the average of two adjacent raw moving averages) before it can be matched to a specific period and compared against the actual sales figure for that period.

Moving-average forecasting has its own limitations, which any recommendation based on it should acknowledge. The technique assumes the pattern observed in past data (the rate of trend growth, and the size and direction of each period's seasonal variation) will continue largely unchanged into the future; a sudden shock — a new competitor entering, an economic recession, a change in consumer tastes, or a regulatory change — can make a forecast based purely on extrapolating the historical trend seriously wrong very quickly. The technique also "loses" data points at each end of the series (a 4-point centred moving average cannot be calculated for the first one-and-a-half periods or the last one-and-a-half periods of the data set), and requires a reasonably long, stable run of past data to identify a seasonal pattern reliably in the first place — a newly-launched product with only a few months of sales history does not yet have enough data for the technique to be applied with much confidence.

VN GIẢI THÍCH TIẾNG VIỆT

Dự báo bằng trung bình trượt giả định mô hình quá khứ (xu hướng, biến động thời vụ) sẽ tiếp tục trong tương lai — một cú sốc bất ngờ (đối thủ mới, suy thoái, thay đổi thị hiếu, thay đổi luật) có thể khiến dự báo sai lệch nhanh chóng. Kỹ thuật này cũng "mất" một số điểm dữ liệu ở hai đầu chuỗi số liệu, và cần đủ dữ liệu quá khứ ổn định để xác định được mô hình thời vụ đáng tin cậy.

3.8.3 International marketing

A2 EXTENSION: As firms expand into foreign markets, they must choose between **standardisation** — using an identical (or near-identical) marketing mix across all countries — and **adaptation** — tailoring the marketing mix to each country's language, culture, laws, income levels and consumer tastes.

> **Standardisation**: lower costs (one set of advertisements, one product design, economies of scale in production), a single consistent global brand image, and faster roll-out to new markets. Risk: may fail to meet local tastes, cultural norms, legal requirements (e.g. labelling laws) or income levels, potentially alienating local customers.
> **Adaptation**: better matches local customer needs, cultural sensitivities and purchasing power, increasing the chance of success in each specific market. Risk: significantly higher cost (separate research, product variants, advertising and packaging per market) and a more fragmented, less globally consistent brand image.

Many multinational firms in practice use a hybrid approach — a standardised core brand identity and product, with selective local adaptation of elements such as flavour, language, price point or specific promotional messaging, balancing the cost savings of standardisation against the market fit of adaptation.

> VN GIẢI THÍCH TIẾNG VIỆT
> **Chuẩn hóa (standardisation)**: dùng một mix marketing giống nhau ở mọi quốc gia — tiết kiệm chi phí, hình ảnh thương hiệu nhất quán, nhưng có thể không hợp thị hiếu địa phương. **Bản địa hóa (adaptation)**: điều chỉnh theo từng thị trường — phù hợp hơn nhưng tốn kém hơn nhiều. Nhiều tập đoàn đa quốc gia kết hợp cả hai (giữ thương hiệu lõi, điều chỉnh một số yếu tố).

3.8.4 Digital marketing and e-commerce

A2 EXTENSION: The growth of the internet has reshaped both Place and Promotion. On the **Place** side, e-commerce (direct online selling through a company website or third-party online marketplace) allows even small firms to reach a national or global customer base without opening physical stores, cutting out traditional wholesaler/retailer intermediaries and their margins, though it requires investment in a reliable website, secure payment processing and a delivery/logistics network. On the **Promotion** side, **search engine marketing** (paid search adverts and search-engine optimisation, so a firm's website appears prominently in search results) and **social media marketing** (organic posts, paid targeted advertising and influencer partnerships on platforms customers already use) allow highly targeted, measurable and often lower-cost promotion compared with traditional mass-media advertising, and enable two-way engagement (customers can comment, share and review) rather than one-way broadcast communication.

> VN GIẢI THÍCH TIẾNG VIỆT
> Internet đã thay đổi cả **Place** (bán hàng trực tuyến/e-commerce giúp tiếp cận khách hàng toàn cầu, bỏ qua trung gian truyền thống) và **Promotion** (marketing qua công cụ tìm kiếm và mạng xã hội — nhắm mục tiêu chính xác hơn, chi phí thấp hơn, và cho phép tương tác hai chiều với khách hàng thay vì chỉ truyền thông một chiều).

3.8.5 Marketing mix consistency

The four elements of the marketing mix should never be decided in isolation — each element must reinforce, not undermine, the others, and all four must be consistent with the firm's chosen segment, target and positioning. A product positioned as premium and exclusive (Product: high-quality materials, sophisticated design) needs a price that supports that image (Price: high, using skimming or premium pricing rather than penetration or aggressive psychological discounting), a distribution channel that protects the premium image (Place: a small number of carefully selected, high-quality outlets or a direct flagship store, rather than mass discount retailers), and promotion that reinforces exclusivity (Promotion: PR and image-building advertising rather than mass sales promotions and price-based discount campaigns). A firm that gets one element badly out of step with the rest — for example, an aggressively discounted "buy-one-get-one-free" promotion for a brand trying to build a premium, exclusive image — risks confusing customers and undoing the very positioning the other three elements were built to create. Examiners frequently reward answers that explicitly test this kind of internal consistency across the 4 Ps, rather than treating each P as a separate, unconnected decision.

VN **GIẢI THÍCH TIẾNG VIỆT**

Bốn thành tố của marketing mix phải **nhất quán với nhau** và với phân khúc/định vị đã chọn. Ví dụ sản phẩm định vị cao cấp cần: giá cao (hớt váng/cao cấp), kênh phân phối chọn lọc, và xúc tiến xây dựng hình ảnh (PR) thay vì khuyến mãi giảm giá ồ ạt — nếu một thành tố "lệch pha" so với ba thành tố còn lại, hình ảnh thương hiệu sẽ bị phá vỡ.

Practice bank

Bài tập luyện tập

Which statement best distinguishes a market-oriented approach from a product/asset-led approach?

(A) A market-oriented firm researches customer needs before developing a product

(B) A product/asset-led firm never uses market research

(C) A market-oriented firm always launches products faster

(D) A product/asset-led firm always has lower launch costs

Lời giải chi tiết

Answer: A. Market orientation means research and identification of customer needs come *first*, driving product development; an asset-led approach starts from the firm's existing strengths/technology instead (option B is too extreme — asset-led firms can still use some research; C and D are not generally true of either approach).

Bài tập luyện tập

A firm sets the marketing objective: "Improve our marketing." Assess whether this is a SMART objective, and rewrite it so that it is.

Lời giải chi tiết

"Improve our marketing" is *not* SMART: it is not Specific (improve what, exactly?), not Measurable (no numerical target), and not Time-bound (no deadline), though it may be broadly Relevant and Achievable in principle. A SMART rewrite: "Increase online sales revenue from 20% to 35% of total revenue within the next 12 months." This version specifies exactly what is being measured (online sales as a share of total revenue), gives a numerical starting point and target (Specific and Measurable), sets a clear deadline (Time-bound), and — provided it is realistic given the firm's resources — is Achievable and Relevant to a corporate objective of overall growth.

Bài tập luyện tập

A firm downloads a government report on national consumer spending trends to help plan a new product launch. Is this primary or secondary research, and what is one limitation of using it for this purpose?

Lời giải chi tiết

This is **secondary research**: the data already existed, collected by government statisticians for a general purpose, not specifically for this firm's product launch. Limitation: the report may not address the firm's specific target segment or exact product category, and may already be somewhat out of date by the time it is published and used, reducing its precision for this particular launch decision (the firm may still need supplementary primary research to fill these gaps).

Bài tập luyện tập

A cosmetics firm wants to survey customers about a new product idea and knows that its customer base is 65% women aged 18–34, 25% women aged 35–54 and 10% men of all ages. Recommend and justify an appropriate sampling method.

Lời giải chi tiết

Stratified sampling is most appropriate. The firm already knows the proportions of each key group (65%/25%/10%) within its customer base, so it can divide the sampling frame into these three strata and then draw a genuinely random sample from *within* each stratum, in the same 65%/25%/10% proportions as the population. This ensures the final sample accurately reflects the customer base's composition (unlike simple random sampling, which could by chance under-represent the smaller 10% male group) while still preserving genuine randomness within each group (unlike quota sampling, which relies on interviewer judgement and is more open to bias).

Bài tập luyện tập

The total UK biscuit market is worth \$600 million a year. Company Y's biscuit sales are \$90 million. Calculate Company Y's market share.

Lời giải chi tiết

Market share $= \dfrac{90}{600} \times 100\% = 15\%$.

Bài tập luyện tập

Within the "premium biscuits" segment (worth \$150 million in total), Company Y's premium-biscuit sales are \$45 million. Calculate Company Y's share of this segment, and comment on what the difference between this figure and the firm's 15% overall market share (from the previous question) suggests about its strategy.

Lời giải chi tiết

Segment share $= \dfrac{45}{150} \times 100\% = 30\%$. Company Y holds double the market share within the premium segment (30%) compared with its overall market share (15%), suggesting the firm is disproportionately strong in — and likely deliberately focused on — the premium end of the market rather than competing evenly across all price/quality tiers, consistent with a differentiated or niche strategy targeting higher-value customers.

Bài tập luyện tập

A restaurant surveys 40 diners on a 1–5 satisfaction scale, obtaining: rating 1: 1 diner; rating 2: 4 diners; rating 3: 10 diners; rating 4: 17 diners; rating 5: 8 diners. Calculate the mean satisfaction rating.

Lời giải chi tiết

Check total respondents: $1 + 4 + 10 + 17 + 8 = 40$. Weighted sum $= (1 \times 1) + (2 \times 4) + (3 \times 10) + (4 \times 17) + (5 \times 8) = 1 + 8 + 30 + 68 + 40 = 147$. Mean $= \frac{147}{40} = 3.675$ (approximately 3.68 out of 5).

Bài tập luyện tập

A market map for a chain of coffee shops plots price (vertical axis) against store atmosphere/-experience (horizontal axis). Most existing chains cluster in either "low price, basic atmosphere" or "high price, premium atmosphere." Explain, using the concept of a market map, how a new entrant might identify a viable market position.

Lời giải chi tiết

A market map reveals how existing brands are currently positioned on the two chosen dimensions. If most existing chains cluster into only two corners (low price/basic, and high price/premium), the middle of the map — a "mid-price, above-average atmosphere" position — may be an unoccupied **gap in the market**: a combination of price and experience that no major chain currently offers, but that some customers (who find basic chains too plain and premium chains too expensive) might value. A new entrant could use this gap to define its own distinct position, rather than competing head-on against an already-established rival occupying the exact same spot on the map.

Bài tập luyện tập

A product's sales are rising rapidly, it has just become profitable for the first time, and several new competitors are entering the market. Which stage of the product life cycle is this?

(A) Introduction
(B) Growth
(C) Maturity
(D) Decline

Lời giải chi tiết

Answer: B, Growth. Rapidly rising sales, the transition to profitability, and the arrival of new competitors are the defining features of the Growth stage — Introduction has low sales and losses, Maturity has slowing (not rapid) growth, and Decline has falling sales.

Bài tập luyện tập

A soft-drink brand has seen flat sales for three years and a slow decline over the last twelve months, as younger consumers switch to newer, "healthier-image" drinks. Recommend an extension strategy for this brand, with justification.

Lời giải chi tiết

A suitable extension strategy is **product modification combined with repositioning**: for example, launching a reduced-sugar or zero-sugar variant under the same established brand name, alongside a repositioned promotional campaign (new packaging design, updated advertising) that speaks directly to the "healthier-image" concerns driving younger consumers away. This works because it keeps the value of the existing, recognised brand name (avoiding the cost and risk of a completely new product launch) while directly addressing the specific reason sales are declining (the health-image gap versus newer rivals) — a straightforward price cut, by contrast, would not fix the underlying image problem and could simply signal the brand is struggling, while a new market/export strategy does nothing to address the domestic decline described here.

Bài tập luyện tập

A firm's product portfolio is assessed as follows: Product W has a high share of a fast-growing market; Product X has a low share of a fast-growing market; Product Y has a high share of a slow-growing, mature market; Product Z has a low share of a slow-growing market. Classify each product on the Boston Matrix, and recommend a strategy for Product X.

Lời giải chi tiết

Product W: **Star** (high share, high growth). Product X: **Question Mark** (low share, high growth). Product Y: **Cash Cow** (high share, low growth). Product Z: **Dog** (low share, low growth).

Recommendation for Product X: because it sits in a fast-growing market, it has genuine potential to become a future Star if its market share can be built up — but this requires further investment (in promotion, distribution or product development) that the firm must decide whether to commit. The firm's Cash Cow (Product Y) is well placed to fund exactly this investment, since it generates strong, low-risk cash flow without needing much further spending itself. If, however, the firm judges Product X unlikely to gain share even with more investment (e.g. because of an entrenched, much larger rival), withdrawing it may be the better use of scarce resources rather than continuing to fund an uncertain "problem child."

Bài tập luyện tập

Explain, using the concept of brand equity, why an established brand can often charge a higher price than an near-identical unbranded (generic) product of the same physical quality.

Lời giải chi tiết

Brand equity is the extra value a business commands purely because of the reputation, trust and recognition attached to its brand name, separate from the physical characteristics of the product itself. Customers who trust an established brand's consistency and quality (built up over years of experience or advertising) perceive lower risk in buying it compared with an unfamiliar generic alternative, and are often willing to pay a premium for that reduced risk and the social/psychological value of the brand itself (status, familiarity, loyalty). This is why two physically near-identical products — one branded, one generic — can sell at very different prices even though the underlying product quality is similar.

Bài tập luyện tập

A manufacturer calculates a unit cost of $40 per item ($30 variable cost plus $10 allocated fixed cost) and wants to apply a 25% markup on cost. Calculate the selling price, the profit per unit, and the resulting profit margin (as a % of the selling price).

Lời giải chi tiết

Selling price $= \$40 \times (1 + 25\%) = \$40 \times 1.25 = \$50$. Profit per unit $= \$50 - \$40 = \$10$. Profit margin (on selling price) $= \frac{10}{50} \times 100\% = 20\%$ — smaller than the 25% markup figure, because margin is measured against the higher selling price rather than the lower cost base.

Bài tập luyện tập

A start-up is launching a genuinely new type of wireless earphone with patented noise-cancelling technology that no rival currently matches. Recommend penetration or skimming pricing, with justification, and note one risk of your recommended strategy.

Lời giải chi tiết

Price skimming is the more appropriate recommendation. The product is genuinely novel with a protected technological advantage (a patent), meaning there are currently no close substitutes — early adopters willing to pay a premium to own the newest technology can be charged a high initial price, allowing the firm to recover its development costs quickly and maximise revenue from the least price-sensitive customers before competition emerges. **Risk**: the high initial price and visible success of the product will attract well-resourced rivals to develop competing (even if not patent-infringing) alternatives, and the firm must be ready to lower its price as the patent's practical protection weakens over time or as substitute products emerge, or it will lose volume rapidly once alternatives appear.

Bài tập luyện tập

A supermarket prices a product at $4.99 instead of $5.00. Which pricing strategy is this, and what is the psychological reasoning behind it?

(A) Price skimming
(B) Psychological pricing
(C) Competitive pricing
(D) Cost-plus pricing

Lời giải chi tiết

Answer: B, Psychological pricing. Pricing just below a round number ($4.99 rather than $5.00) exploits the tendency of customers to mentally process the price as "$4-something" rather than rounding it up, so it is perceived as meaningfully cheaper than the one-cent actual difference would suggest.

Bài tập luyện tập

Recommend a distribution channel (direct or indirect, with reasoning) for: (a) a local farm selling fresh strawberries; (b) a manufacturer of custom-built industrial machinery sold to large factories internationally.

Lời giải chi tiết

(a) Fresh strawberries: a short, largely **direct or minimally indirect** channel is appropriate (farm shop, local farmers' market, or direct sale to a single local retailer) — the product is highly perishable, so it must move from producer to consumer as quickly as possible, and a long chain through multiple wholesalers before reaching a retailer would risk the product spoiling before sale.
(b) Custom industrial machinery: a **direct** channel is appropriate — each sale is high-value, complex, and typically requires technical specification, negotiation and after-sales support best delivered by the manufacturer's own specialist sales engineers dealing straight with the buyer, rather than through a general wholesaler/retailer network which would add cost and remove the necessary technical expertise from the sales process.

Bài tập luyện tập

Classify each of the following as above-the-line (ATL) or below-the-line (BTL) promotion: (i) a national television advertisement; (ii) a "20% off this week only" in-store discount; (iii) a face-to-face product demonstration by a sales representative.

Lời giải chi tiết

(i) **ATL** — paid media advertising placed through an independent broadcaster. (ii) **BTL** — a sales promotion, directly controlled by the firm rather than bought as media space. (iii) **BTL** — personal selling, again directly controlled and delivered by the firm's own staff rather than purchased media.

Bài tập luyện tập

A firm is launching a new energy drink aimed at university students. Recommend an appropriate combination of promotional-mix elements for the launch, with justification for each element chosen.

Lời giải chi tiết

A suitable combination: **social media/digital marketing** (students are a heavily online, socially-networked segment, so targeted social media adverts and influencer partnerships reach them efficiently and cheaply compared with traditional mass media); **sales promotion** such as free sample giveaways at campus events or a "buy one get one free" launch offer (encourages first-time trial of an unfamiliar new product, which is often the biggest barrier for a launch); and limited **sponsorship/PR** (e.g. sponsoring a university sports event or society) to build credibility and visibility within the specific target community. Mass television advertising would likely be a poor use of a limited launch budget here, since it is expensive and much less precisely targeted at this specific, narrow demographic than digital and campus-based promotion.

Bài tập luyện tập

A charity runs an advertising campaign: Stage 1 features a shocking, attention-grabbing image in public transport adverts; Stage 2 provides statistics and a short documentary-style video explaining the cause; Stage 3 shares personal testimonies designed to create an emotional connection; Stage 4 includes a QR code and text-donation number on every advert. Map each stage onto the AIDA model.

Lời giải chi tiết

Stage 1 (shocking image) = **Attention** (stops the audience and makes them notice the advert at all). Stage 2 (statistics/documentary) = **Interest** (provides factual substance once attention is captured). Stage 3 (personal testimonies) = **Desire** (creates an emotional, personal motivation to help this specific cause). Stage 4 (QR code/text-donation number) = **Action** (provides an immediate, low-friction way to convert that motivation into an actual donation).

Bài tập luyện tập

A firm calculates that the price elasticity of demand for its product is $PED = -0.4$. To increase total revenue, should the firm raise or lower its price?

(A) Raise price, since demand is inelastic

(B) Lower price, since demand is inelastic

(C) Raise price, since demand is elastic

(D) Cannot be determined from the information given

Lời giải chi tiết

Answer: A. $|PED| = 0.4 < 1$, so demand is price **inelastic**. Under the pricing rule, when demand is inelastic, raising price increases total revenue (the proportionally smaller fall in quantity demanded is outweighed by the higher price per unit sold).

Bài tập luyện tập

An airline cuts its fare on a particular route from \$300 to \$240. Passenger numbers per flight rise from 200 to 280. Calculate the PED, classify demand as elastic or inelastic, and calculate the change in total revenue.

Lời giải chi tiết

% change in price $= \dfrac{240-300}{300} \times 100\% = -20\%$. % change in quantity demanded $= \dfrac{280-200}{200} \times 100\% = +40\%$.

$$PED = \frac{+40\%}{-20\%} = -2.0$$

$|PED| = 2.0 > 1$, so demand is **price elastic**. Revenue before $= \$300 \times 200 = \$60{,}000$. Revenue after $= \$240 \times 280 = \$67{,}200$. Revenue **increased** by \$7,200 (a rise of 12%), consistent with the pricing rule: cutting price when demand is elastic raises total revenue.

Bài tập luyện tập

National income falls by 4%. Over the same period, demand for a discount clothing retailer's products rises by 6%. Calculate the YED and classify the type of good.

Lời giải chi tiết

$$YED = \frac{+6\%}{-4\%} = -1.5$$

YED is negative, so this is an **inferior good**: as incomes fall, demand for this discount retailer's products actually rises (consumers trading down from more expensive alternatives). The magnitude, $|YED| = 1.5 > 1$, shows demand is also strongly (income-elastically) responsive to the change in income.

Bài tập luyện tập

The price of digital cameras falls by 15%. Over the same period, demand for memory cards rises by 6%. Calculate the XED and classify the relationship between the two goods.

Lời giải chi tiết

$$XED = \frac{+6\%}{-15\%} = -0.4$$

XED is negative, so digital cameras and memory cards are **complements**: as cameras become cheaper (raising the quantity of cameras demanded), demand for memory cards — normally bought and used together with cameras — rises too, even though its own price has not changed.

Bài tập luyện tập

A small independent bakery competes in a town alongside a large national supermarket chain that also sells bread. Recommend whether the bakery should pursue a niche or a mass-marketing strategy, with justification.

Lời giải chi tiết

A **niche strategy** is strongly recommended. The bakery cannot match the supermarket chain's economies of scale, buying power or low prices, so competing head-on with a mass-marketing approach (trying to serve the whole local bread market on price) would likely fail. Instead, the bakery should target a specific, well-defined segment the supermarket serves poorly — for example, customers who value freshly baked, artisan or specialist bread (sourdough, gluten-free, custom cakes) and are willing to pay a premium for quality and personal service. This allows the bakery to build strong local loyalty and charge higher margins within its chosen niche, rather than being squeezed on price in a market it cannot realistically dominate.

Bài tập luyện tập

A retailer records monthly sales (units) over seven months: M1 $= 120$; M2 $= 135$; M3 $= 150$; M4 $= 141$; M5 $= 168$; M6 $= 159$; M7 $= 168$. Calculate a 3-point moving average for each month it can be computed, and comment on the underlying trend.

Lời giải chi tiết

$$\text{MA(M2)} = \frac{120+135+150}{3} = \frac{405}{3} = 135 \qquad \text{MA(M3)} = \frac{135+150+141}{3} = \frac{426}{3} = 142$$

$$\text{MA(M4)} = \frac{150+141+168}{3} = \frac{459}{3} = 153 \qquad \text{MA(M5)} = \frac{141+168+159}{3} = \frac{468}{3} = 156$$

$$\text{MA(M6)} = \frac{168+159+168}{3} = \frac{495}{3} = 165$$

A 3-point (odd-length) moving average needs no further centring, since each average already aligns with the middle month of its own window. The resulting trend values (135, 142, 153, 156, 165) rise steadily month by month, confirming an underlying upward trend in sales even though the raw monthly figures fluctuate up and down from one month to the next.

Bài tập luyện tập

A fast-food chain based in one country is planning to expand into two new overseas markets with very different average incomes, food cultures and religious dietary practices from its home market. Advise the firm on whether to standardise or adapt its marketing mix, with justification.

Lời giải chi tiết

Given genuinely large differences in income, food culture and religious dietary practice, a significant degree of **adaptation** is advisable, at least for the **product** element (e.g. adjusting menu items to respect religious dietary rules and local taste preferences) and **price** (adjusting price points to match local purchasing power, since a price set for the home market may be unaffordable or, conversely, too cheap relative to local expectations). However, the firm can still **standardise** core brand elements — its logo, overall restaurant design, service standards and core brand values — to preserve global brand recognition and control costs. This hybrid approach captures much of the cost-saving benefit of standardisation while addressing the specific risks (cultural offence, poor product-market fit, mispriced offer) that a fully standardised strategy would create in markets this different from the home market.

Bài tập luyện tập

A traditional furniture retailer that has always sold exclusively through a chain of physical showrooms is losing sales to online-only rivals. Recommend how the firm might use digital marketing and e-commerce to respond, addressing both Place and Promotion.

Lời giải chi tiết

Place: the firm should launch a direct e-commerce website (and/or list on established online marketplaces) allowing customers to browse and buy without visiting a showroom, cutting delivery lead times and widening its potential market beyond the towns where it has a physical showroom, while possibly retaining a smaller number of showrooms as "experience centres" where customers can still see and test higher-value items before ordering online. **Promotion**: the firm should invest in **search engine marketing** (so it appears when customers search for furniture online) and **social media marketing** (visually showcasing products on platforms suited to home/lifestyle content, and using targeted advertising to reach specific segments such as first-time home buyers), shifting some budget away from traditional above-the-line advertising toward more measurable, precisely targeted digital promotion. Together these changes let the firm compete more directly with online-only rivals on convenience and reach, while still leveraging its existing reputation and showroom expertise as a point of difference.

Bài tập luyện tập

A firm currently sells one mid-range product to the whole national market using a single, undifferentiated marketing mix. Sales have plateaued and a market research report shows the market actually contains three distinct segments with different needs and different levels of price sensitivity. Recommend a targeting strategy, and outline one risk of the change.

Lời giải chi tiết

The firm should move from **undifferentiated (mass) marketing** toward **differentiated marketing**: developing a distinct marketing mix (potentially distinct product variants, price points and promotional messages) for each of the three identified segments, rather than continuing to offer one compromise product that fully satisfies none of them. This should allow the firm to better meet each segment's specific needs, likely growing total sales and allowing higher prices in less price-sensitive segments. **Risk**: developing and marketing three separate offers raises production, research and promotional costs considerably compared with the current single-mix approach, and if any one segment turns out to be too small to be profitable once these extra costs are included, the change could reduce overall profitability rather than improve it — the firm should therefore verify each segment's size and profit potential (via further market research) before committing fully to a differentiated strategy.

Bài tập luyện tập

A newly-founded firm with no existing brand recognition is trying to get a large supermarket chain to stock its new snack product. Which type of promotional strategy — push or pull — should it prioritise at this stage, and why?

(A) Pull strategy, since consumers already want the product

(B) Push strategy, aimed at persuading the retailer to stock it

(C) Above-the-line advertising only

(D) Psychological pricing

Lời giải chi tiết

Answer: B, a push strategy. With no existing brand recognition, there is no consumer "pull" yet driving retailers to stock the product — the firm must first persuade the supermarket chain itself (through trade discounts, retailer incentives or direct personal selling to the retailer's buyers) to give the product shelf space at all. Only once the product is available in stores, and ideally once some consumer awareness/demand has been built through promotion aimed at final customers, does a pull strategy become effective.

Bài tập luyện tập

A soft-drink company adds a new "zero-sugar" variant to its existing best-selling cola line. Post-launch data shows total company cola sales (both variants combined) rose by only 4%, even though the new zero-sugar variant alone sold enough to represent 15% of total cola sales. Explain what is likely happening here, using an appropriate business term.

Lời giải chi tiết

This is a case of **cannibalisation**: much of the new zero-sugar variant's 15% share of sales appears to have been drawn from existing customers switching away from the original cola (which they would previously have bought anyway), rather than from genuinely new customers or sales taken from rival brands. If cannibalisation were low, total company cola sales should have risen by close to the new variant's own sales; because total sales only rose by 4% while the new variant alone accounts for 15% of sales, the large majority of the new variant's volume has simply substituted for the original product's own sales rather than adding fully new revenue.

Bài tập luyện tập

A firm is deciding how large a sample to use for a survey ahead of a small packaging-colour change (low risk, low cost to reverse) versus ahead of a decision to invest $40 million in an entirely new product line (high risk, hard to reverse). Explain how the appropriate sample size should differ between these two decisions.

Lời giải chi tiết

Sample size should reflect the cost of getting the decision wrong, balanced against the cost of the research itself. For the low-risk packaging-colour change, a smaller, cheaper, faster sample is appropriate: even if the sample is not perfectly representative, the cost of a wrong decision is small and easily reversed, so spending heavily on a large, highly accurate sample would not be a good use of the research budget. For the $40 million new product line decision, a much larger, more carefully stratified sample is justified: the financial risk of proceeding on the basis of an unrepresentative small sample is far higher, and the extra cost and time of a larger, more reliable survey is easily justified relative to the scale of money and reputation at stake in the investment decision.

Bài tập luyện tập

A jewellery brand markets itself as an ultra-exclusive luxury label (Product: hand-finished pieces, premium materials; Price: very high, skimming-style pricing; Place: a handful of flagship boutiques in major capital cities only). The marketing team proposes running a ”50% off, this weekend only” sales-promotion campaign across social media to boost quarterly sales. Assess this proposal using the concept of marketing mix consistency.

Lời giải chi tiết

The proposed promotion is **inconsistent** with the rest of the established marketing mix and is likely to damage the brand rather than help it. The brand's Product, Price and Place decisions have all been built around an image of exclusivity and premium quality — a high price signals rarity and status, and highly selective distribution reinforces the impression that the brand is not for the mass market. A mass-market-style ”50% off, this weekend only” discount promotion, widely broadcast on social media, sends the opposite signal: it suggests the product is not really worth its usual price, undermines the exclusivity that justifies the premium price for existing loyal customers, and could alienate the very customers the brand depends on, even if it does generate a short-term sales spike. A more consistent alternative — if the firm needs to boost near-term sales — would be a BTL approach that preserves exclusivity, such as an invitation-only preview event or a small, personally-communicated offer to existing high-value clients, rather than an open, mass, discount-led promotion.

Bài tập luyện tập

Table salt has very few close substitutes and absorbs a tiny fraction of a typical household's income. A particular model of imported sports car has several close rival models and absorbs a very large fraction of the buyer's income. Explain, using the factors that determine PED, which of these two goods is likely to have the more price-elastic demand.

Lời giải chi tiết

The imported sports car is likely to have the far more **price-elastic** demand. Two of the key determinants of PED both point the same way here: (1) **number of substitutes** — the sports car has several close rival models, so a price rise makes it easy for a buyer to switch to a similarly-appealing alternative, whereas table salt has essentially no meaningful substitute in most diets; and (2) **proportion of income spent** — the sports car absorbs a large share of the buyer's income, so a price rise is highly noticeable and likely to change buying behaviour, whereas salt absorbs such a tiny share of income that even a large percentage price rise is barely noticed in the household budget. Table salt, by contrast, is a near-textbook example of highly **inelastic** demand.

Bài tập luyện tập

A firm withdraws a product as soon as its sales stop growing, reasoning that "the product life cycle shows it has now entered Decline." Assess this reasoning.

Lời giải chi tiết

This reasoning is questionable, for two connected reasons drawn from the limitations of the PLC model. First, a pause in sales growth is at least as consistent with the product having reached **Maturity** or **Saturation** (where growth naturally slows or flattens but sales, and often profit, can remain healthy for a long period) as with genuine **Decline** — the PLC model does not reliably distinguish these stages in advance, only after a sustained sales fall is already visible. Second, withdrawing marketing support and shelf space *because* the firm has assumed Decline can make the assumption **self-fulfilling**: cutting promotional spend and distribution for a product that was actually only in a stable Maturity/Saturation stage will itself cause the sales fall that then appears to "confirm" the original diagnosis. A more robust approach would be to investigate *why* growth has stopped (market saturation versus a genuine shift away from the product) and consider extension strategies before concluding withdrawal is the right response.

Bài tập luyện tập

A firm is about to spend $25 million developing a genuinely new type of home appliance that does not resemble anything currently on the market. The marketing director suggests relying entirely on a large-scale consumer survey (secondary questions asked to 2,000 people about how much they would like and pay for the concept, described only in words). Assess the limitations of this research approach for this particular decision.

Lời giải chi tiết

A large consumer survey is a reasonable starting point but has real limits for a genuinely novel product described only in words. Customers who have never encountered anything similar often find it very difficult to accurately predict their own future reaction to, or willingness to pay for, a product they cannot see, touch or try — stated intentions in this kind of survey can differ substantially from actual future buying behaviour. A stronger approach would supplement the survey with **test marketing** (launching the appliance in a small, limited real-world area first, or providing working prototypes to a sample of real households) to observe genuine behaviour rather than only stated intentions, before committing the full $25 million based on hypothetical responses alone. The scale of the investment here (very high, hard to reverse) also justifies this extra research cost, consistent with the general principle that sample size and research rigour should rise with the cost of getting the decision wrong.

Bài tập luyện tập

A luxury travel company notices that during a period when national average income rose by 6%, demand for its overseas holiday packages rose by 15%, while over the same period a rival budget coach-tour operator serving low-income travellers saw its demand fall by 5%. Calculate the YED for each company's product, classify each good, and explain why the two firms would be affected very differently by an economic downturn.

Lời giải chi tiết

Luxury travel company: $YED = \dfrac{+15\%}{+6\%} = 2.5$. Since $YED > 1$ and positive, overseas holiday packages are a **luxury (superior) good**, strongly income elastic.

Budget coach-tour operator: $YED = \dfrac{-5\%}{+6\%} \approx -0.83$. Since $YED < 0$, budget coach tours are behaving as an **inferior good** for this population — as incomes rose, some former customers "traded up" to more comfortable/desirable alternatives.

In an economic **downturn** (falling incomes), the effect on the two firms would reverse in opposite directions: the luxury travel company, with $YED = 2.5$, would expect a sharp, disproportionate *fall* in demand (luxury holidays are exactly the kind of spending households cut first when incomes fall), while the budget coach-tour operator, with negative YED, might actually see demand *rise* as budget-conscious customers trade back down from options they can no longer afford — illustrating why relying on YED estimates matters directly for sales forecasting and risk management across the economic cycle.

Operations Management

Mục tiêu Unit: Lập kế hoạch vận hành và các phương pháp sản xuất (job, batch, flow) cùng quyết định outsourcing/make-or-buy; đo lường công suất sử dụng và quản lý tồn kho (kể cả Economic Order Quantity — mức A2); quyết định địa điểm sản xuất bằng weighted factor rating và break-even location analysis (mức A2); quản lý chất lượng (quality control, quality assurance, TQM, chi phí chất lượng, Six Sigma, benchmarking); quản lý dự án bằng sơ đồ mạng và phân tích đường găng (critical path analysis, CPA); đổi mới công nghệ trong vận hành (mức A2).

4.1 Operations planning and production methods

4.1.1 Job, batch, and flow (mass) production

Every producer must choose **how** to organise the transformation of inputs into outputs. Three classic methods sit along a spectrum from fully customised, one-off output to fully standardised, continuous output.

Ba phương pháp sản xuất

Job production makes a single, unique product to a customer's specification, start to finish, before moving to the next job (e.g. a bespoke wedding dress, a hand-built superyacht, a civil engineering project). **Batch production** makes a limited quantity (a "batch") of one product, then switches the equipment over to make a batch of a different product (e.g. a bakery's morning batch of sourdough, then a batch of croissants; a printer running one book title, then another). **Flow (mass) production** runs a continuous, standardised line producing identical units in very high volume (e.g. a car assembly line, a bottling plant, an oil refinery).

VN GIẢI THÍCH TIẾNG VIỆT

Job production là sản xuất từng sản phẩm đơn lẻ, theo yêu cầu riêng của khách hàng, hoàn thành xong sản phẩm này mới chuyển sang sản phẩm khác (ví dụ váy cưới đặt may riêng, du thuyền đóng thủ công). **Batch production** là sản xuất theo từng lô hàng loạt nhỏ của một sản phẩm, sau đó chuyển đổi dây chuyền để sản xuất lô của sản phẩm khác (ví dụ tiệm bánh làm một mẻ bánh mì rồi chuyển sang mẻ bánh sừng bò). **Flow (mass) production** là sản xuất liên tục trên dây chuyền tiêu chuẩn hoá với sản lượng rất lớn, các sản phẩm giống hệt nhau (ví dụ dây chuyền lắp ráp ô tô, nhà máy đóng chai).

4.1.2 Comparing the three production methods

The choice between job, batch, and flow production depends on the trade-off between customisation (which customers may pay a premium for) and the cost savings and speed that come from standardisation and scale.

Feature	Job production	Batch production	Flow production
Unit cost	High (little scale economy)	Medium (some scale economy per batch)	Low (large scale economies)
Flexibility	Very high — fully bespoke	Medium — can switch batches, but changeover takes time	Low — line is set up for one standardised product
Capital intensity	Low — general-purpose tools, skilled labour	Medium — some specialised equipment	High — heavy automation and dedicated machinery
Worker motivation	Often high — worker sees the whole product and takes pride in craftsmanship	Medium — some variety between batches, but repetitive within a batch	Often low — narrow, repetitive tasks risk alienation (though cell production and job enrichment can offset this)
Typical example	Wedding dress, shipbuilding, architect-designed house	Bakery, book printing run, furniture maker's order	Car assembly line, soft-drink bottling, oil refining

GIẢI THÍCH TIẾNG VIỆT

VN

Bảng so sánh cho thấy quy luật đánh đổi: càng **tiêu chuẩn hoá** (flow production) thì chi phí đơn vị càng thấp nhờ lợi thế quy mô, nhưng tính linh hoạt càng giảm và công nhân dễ cảm thấy nhàm chán vì công việc lặp đi lặp lại. Ngược lại, job production linh hoạt tối đa, phù hợp sản phẩm cao cấp/đặt riêng, nhưng chi phí đơn vị cao vì không tận dụng được lợi thế quy mô.

4.1.3 Production method and the product life cycle

The choice of production method is rarely fixed forever — it often shifts as a product moves through its **life cycle**. A brand-new product is typically launched using job or small-batch production, since demand is uncertain, volumes are low, and the design may still be refined based on early customer feedback. As the product moves into growth and maturity and demand becomes large and predictable, firms often switch toward batch or even flow production to capture economies of scale and reduce unit cost, provided the product has become standardised enough to justify dedicated equipment. In decline, firms may switch back toward smaller batch runs (or job production for a shrinking niche market) as volumes fall and dedicated flow-production equipment is no longer justified.

GIẢI THÍCH TIẾNG VIỆT

VN

Phương pháp sản xuất thường thay đổi theo **vòng đời sản phẩm**: giai đoạn giới thiệu (introduction) thường dùng job/batch production vì nhu cầu còn thấp và chưa chắc chắn, thiết kế có thể còn điều chỉnh; khi bước vào giai đoạn tăng trưởng/bão hoà (growth/maturity), nhu cầu lớn và ổn định hơn nên chuyển sang batch hoặc flow production để tận dụng lợi thế quy mô; khi sản phẩm suy thoái (decline), sản lượng giảm nên có thể quay lại quy mô batch nhỏ hơn.

4.1.4 Lean production: JIT, JIC, kaizen, and cell production

Lean production is a philosophy of minimising all forms of waste (excess inventory, waiting time, defective output, unnecessary movement) while maximising value to the customer.

Just-in-time (JIT): components and materials arrive from suppliers *exactly when needed* on the production line, and finished goods are made only in response to actual customer orders — inventory is kept close to zero. **Just-in-case (JIC)**: the traditional approach of holding buffer stocks of raw materials, work-in-progress, and finished goods as insurance against uncertain demand or unreliable supply. **Kaizen (continuous improvement)**: small, incremental improvements suggested and implemented continuously by the workforce itself, rather than one large top-down overhaul. **Cell production**: the production line is broken into self-contained "cells," each staffed by a small team responsible for completing a significant chunk of the product (or a whole product), rather than a single repetitive task — intended to increase motivation, quality ownership, and flexibility versus a rigid flow line.

VN GIẢI THÍCH TIẾNG VIỆT

JIT nghĩa là nguyên vật liệu chỉ được giao đến **đúng lúc cần dùng**, và chỉ sản xuất khi có đơn hàng thực tế — gần như không giữ tồn kho, giúp giảm chi phí lưu kho và vốn lưu động bị ứ đọng, nhưng rủi ro là chuỗi cung ứng gián đoạn (ví dụ nhà cung cấp giao trễ) có thể làm ngừng cả dây chuyền ngay lập tức. **JIC** là cách truyền thống: giữ một lượng tồn kho đệm (buffer stock) để phòng ngừa rủi ro nhu cầu tăng đột biến hoặc nhà cung cấp giao hàng không ổn định — an toàn hơn nhưng tốn chi phí lưu kho. **Kaizen** là triết lý cải tiến liên tục từng bước nhỏ, do chính người lao động đề xuất. **Cell production** là chia dây chuyền thành các "tổ/nhóm" nhỏ, mỗi nhóm chịu trách nhiệm hoàn thành một phần lớn (hoặc toàn bộ) sản phẩm, thay vì mỗi công nhân chỉ lặp lại một thao tác nhỏ — giúp tăng động lực và chất lượng.

(!) Lỗi thường gặp: Just-in-time reduces *holding* costs but increases *supply-chain risk* — it does not eliminate cost, it shifts the trade-off. A firm using JIT is far more exposed to a single supplier failure, a port closure, or a sudden demand spike than a firm holding buffer stock under JIC. Do not describe JIT as simply "cheaper" without acknowledging this risk.

4.1.5 Flexible workforce: multi-skilling

Lean and cell-based production usually rely on a **multi-skilled workforce** — employees trained to perform several different tasks rather than one narrow, repetitive job. A multi-skilled team can be reorganised quickly to cover for absent colleagues, to rebalance workload if one part of a cell falls behind, and to switch a batch line over to a different product without waiting for a specialist. This flexibility supports both JIT (workers can be redeployed the moment a bottleneck appears) and quality assurance (workers who understand the whole process, not just one step, are better placed to spot and correct problems before they are passed on). The trade-off is a higher training cost and, in some cases, a period of lower productivity while workers are still learning tasks beyond their original specialism.

VN GIẢI THÍCH TIẾNG VIỆT

Lực lượng lao động **đa kỹ năng (multi-skilling)** — công nhân được đào tạo để làm được nhiều công việc khác nhau thay vì chỉ lặp lại một thao tác — giúp doanh nghiệp linh hoạt điều chuyển nhân sự khi có người nghỉ, khi một công đoạn bị tắc nghẽn, hoặc khi cần chuyển đổi dây chuyền sang sản phẩm khác (hỗ trợ tốt cho JIT và cell production). Đánh đổi là chi phí đào tạo cao hơn và có thể giảm năng suất tạm thời trong giai đoạn công nhân còn đang học kỹ năng mới.

4.1.6 Outsourcing, insourcing, and subcontracting

Firms rarely make every component or service themselves. **Outsourcing** means paying an external, independent firm to carry out a business activity (production of a component, IT support, payroll) that could otherwise be done in-house. **Insourcing** means using the firm's own spare capacity or setting up an internal department to carry out an activity rather than buying it in. **Subcontracting** is a specific form of outsourcing in which an external firm is contracted to complete part of a larger order or project (common in construction and manufacturing when a firm's own capacity is temporarily exceeded).

Advantages of outsourcing: may be cheaper than in-house production (the specialist supplier has its own economies of scale); frees the firm to focus on its **core competence**; gives access to expertise or technology the firm does not have; converts fixed costs into variable costs, adding flexibility as demand changes. **Disadvantages of outsourcing:** loss of direct control over quality, delivery times, and working conditions; risk to confidentiality of designs or processes; dependency on a supplier whose failure could halt the firm's own output; possible reputational/PR damage if outsourcing is associated with job losses or poor conditions at the supplier. **Insourcing**, by contrast, keeps control and confidentiality in-house and can use existing spare capacity, but requires the firm to already have (or invest in) the necessary skills, equipment, and capacity.

VN GIẢI THÍCH TIẾNG VIỆT

Outsourcing là thuê một doanh nghiệp bên ngoài thực hiện một hoạt động (ví dụ sản xuất linh kiện, IT, kế toán lương) mà đáng lẽ công ty có thể tự làm. **Insourcing** là tận dụng năng lực dư thừa nội bộ hoặc lập bộ phận riêng để tự thực hiện. **Subcontracting** là một dạng outsourcing khi thuê bên ngoài làm một phần của đơn hàng/dự án lớn hơn (thường gặp khi năng lực sản xuất của công ty tạm thời không đủ). Ưu điểm outsourcing: có thể rẻ hơn, giúp công ty tập trung vào năng lực cốt lõi, tiếp cận chuyên môn/kỹ thuật mới, tăng tính linh hoạt. Nhược điểm: mất quyền kiểm soát chất lượng/tiến độ, rủi ro rò rỉ bí mật thiết kế, phụ thuộc vào nhà cung cấp, và có thể ảnh hưởng hình ảnh thương hiệu nếu gắn với mất việc làm.

4.1.7 The make-or-buy decision

A **make-or-buy** (outsourcing) decision compares the total cost of producing a component in-house against the total cost of buying it from an outside supplier, at the expected volume of output.

Ví dụ mẫu · Worked example: make-or-buy decision

A firm needs **20,000** units of a component per year. Producing in-house requires dedicated tooling with a fixed cost of \$54,000 per year, plus a variable cost of \$6.00 per unit. An external supplier has quoted a fully-inclusive price of \$7.50 per unit, with no fixed cost to the firm.

Step 1 — total cost at the expected volume (20,000 units).

$$\text{In-house: } 54{,}000 + 6.00(20{,}000) = 54{,}000 + 120{,}000 = \$174{,}000 \qquad (\text{avg } \$8.70/\text{unit})$$

$$\text{Outsource: } 7.50(20{,}000) = \$150{,}000 \qquad (\text{avg } \$7.50/\text{unit})$$

At 20,000 units, outsourcing saves the firm \$24,000 per year.

Step 2 — find the break-even (indifference) volume, where the two options cost the same:

$$54{,}000 + 6.00Q = 7.50Q \;\Rightarrow\; 54{,}000 = 1.50Q \;\Rightarrow\; Q = 36{,}000 \text{ units.}$$

Conclusion: because current demand (20,000) is *below* the break-even volume (36,000), outsourcing is the cheaper option. In-house production would only become the cheaper choice if annual demand grew beyond 36,000 units — at that point the fixed tooling cost is spread thinly enough that the lower variable cost per unit in-house (\$6.00 vs. \$7.50) outweighs it.

VN GIẢI THÍCH TIẾNG VIỆT

Quyết định make-or-buy so sánh tổng chi phí sản xuất trong nội bộ (chi phí cố định của thiết bị chuyên dụng cộng chi phí biến đổi mỗi đơn vị) với tổng chi phí mua ngoài (thường chỉ có chi phí biến đổi, không có chi phí cố định) tại mức sản lượng dự kiến. Điểm mấu chốt là tìm **sản lượng hoà vốn** giữa hai phương án: dưới điểm đó, mua ngoài rẻ hơn (vì chưa phân bổ đủ chi phí cố định); trên điểm đó, tự sản xuất rẻ hơn (vì chi phí biến đổi thấp hơn được nhân với số lượng lớn).

4.2 Capacity utilisation and inventory management

4.2.1 Measuring capacity utilisation

$$\textbf{Capacity utilisation (\%)} = \frac{\text{Actual level of output}}{\text{Maximum possible output}} \times 100$$

High utilisation spreads fixed costs over more units (lower unit fixed cost, higher profit margin) but leaves no slack to cope with breakdowns, absenteeism, or a sudden rush order, and can lead to strain on machinery and staff. **Low utilisation** means fixed costs are spread over fewer units (higher unit fixed cost, weaker margins) and may signal overinvestment or falling demand — but it retains flexibility to accept unexpected orders.

VN GIẢI THÍCH TIẾNG VIỆT

Công suất sử dụng (capacity utilisation) = (Sản lượng thực tế / Sản lượng tối đa có thể) × 100%. Khi tỉ lệ này **cao**, chi phí cố định được "rải" trên nhiều đơn vị hơn nên chi phí cố định/đơn vị giảm, lợi nhuận biên tốt hơn — nhưng doanh nghiệp mất đi khoảng đệm để xử lý sự cố hoặc đơn hàng đột xuất. Khi tỉ lệ này **thấp**, chi phí cố định/đơn vị tăng lên, cho thấy có thể đang đầu tư dư thừa công suất hoặc nhu cầu đang giảm.

Ví dụ mẫu · Worked example

A factory has a maximum monthly capacity of 50,000 units and currently produces 35,000 units per month. Monthly fixed costs are $200,000.

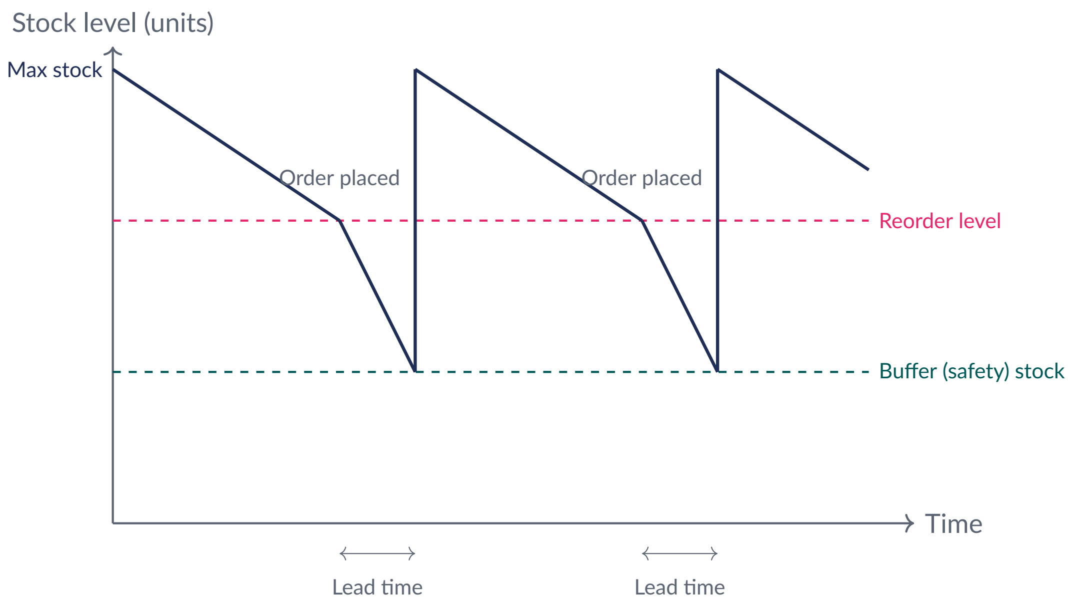
$$\text{Capacity utilisation} = \frac{35{,}000}{50{,}000} \times 100 = 70\%$$

Unit fixed cost at current output: $200{,}000/35{,}000 = \$5.71$/unit. If output rose to full capacity (50,000 units), unit fixed cost would fall to $200{,}000/50{,}000 = \$4.00$/unit — a saving of $1.71 per unit (about 30%) simply from spreading the same fixed costs over more units, with no change in the fixed cost itself.

4.2.2 Stock control: buffer stock, reorder level, and lead time

Inventory (stock) must be controlled so that production never runs out of materials, while not tying up excessive working capital in stock sitting idle in a warehouse.

Buffer (safety) stock: the minimum stock level a firm aims to hold at all times, as a cushion against unexpectedly high demand or a late delivery. **Reorder level**: the stock level at which a new order is triggered — set high enough that, even while the order is in transit, stock does not fall below buffer stock. **Lead time**: the time between placing an order and the stock physically arriving. **Reorder quantity**: the amount ordered each time (see EOQ below).



The sawtooth stock-control diagram: stock is used up at a steady rate until it hits the reorder level, an order is placed, usage continues through the lead time until stock reaches (ideally just touches) buffer stock, then delivery arrives and stock jumps back up.

VN **GIẢI THÍCH TIẾNG VIỆT**

Biểu đồ răng cưa (sawtooth) minh hoạ chu trình tồn kho: khi mức tồn kho giảm dần (do tiêu thụ) chạm **reorder level**, doanh nghiệp đặt hàng mới; trong **lead time** (thời gian chờ giao hàng), tồn kho vẫn tiếp tục giảm cho đến khi (lý tưởng) chỉ chạm đúng **buffer stock** — mức tồn kho tối thiểu để phòng ngừa rủi ro — thì hàng mới về, tồn kho tăng vọt trở lại và chu kỳ lặp lại.

4.2.3 ABC inventory classification

A firm holding thousands of different stock lines cannot afford to apply the same tight, closely-monitored control to every single item. **ABC inventory classification** applies the Pareto (80/20) principle to stock control: items are ranked by their annual value (usage volume × unit cost) and split into three categories.

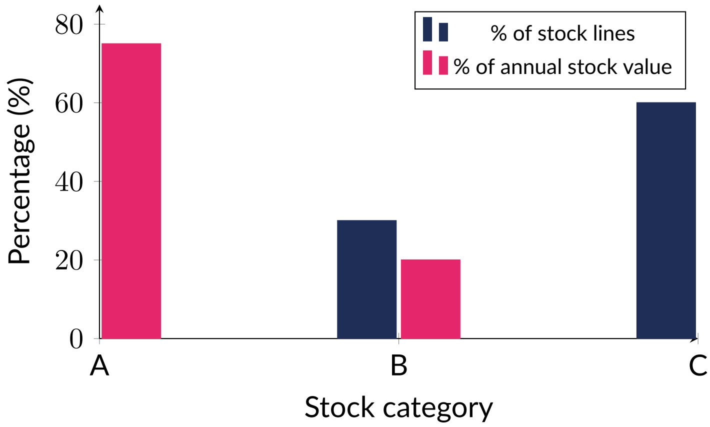
Category A: a small percentage of stock lines (often around 10–20%) that account for the large majority of total stock value (often 70–80%) — these receive tight control: frequent review, accurate record-keeping, and close monitoring of reorder levels (often supported by JIT-style ordering). **Category B**: a moderate share of items and value, receiving a moderate level of control. **Category C**: the large majority of stock lines (often 50–60%) accounting for only a small share of value (often 5%) — these receive looser, less frequent control (e.g. simple periodic review), since the cost of tightly monitoring them would outweigh the benefit.

Ví dụ mẫu · Worked example: ABC classification

A distribution firm holds 500 stock lines, classified as follows.

Category	Number of lines	% of stock lines	% of annual stock value
A	50	10%	75%
B	150	30%	20%
C	300	60%	5%

Although Category A contains only 10% of the firm's stock lines, it represents 75% of total stock value, so management effort (accurate demand forecasting, frequent stock counts, careful EOQ/reorder-level calculations) should be concentrated there. Category C, despite being 60% of all stock lines, represents only 5% of value, so a simpler control system (e.g. ordering a large buffer infrequently, with only occasional stock counts) is a reasonable, cost-effective approach for these items.



Category A holds few stock lines but the large majority of stock value; Category C is the reverse — many low-value lines.

VN **GIẢI THÍCH TIẾNG VIỆT**

Phân loại tồn kho ABC áp dụng nguyên lý Pareto (80/20) vào quản lý kho: **Nhóm A** chiếm tỉ lệ nhỏ số mặt hàng nhưng chiếm phần lớn giá trị tồn kho → cần kiểm soát chặt chẽ (theo dõi thường xuyên, tính EOQ/reorder level cẩn thận). **Nhóm C** chiếm phần lớn số mặt hàng nhưng chỉ chiếm giá trị nhỏ → chỉ cần kiểm soát đơn giản, ít tốn công sức hơn, vì chi phí giám sát chặt sẽ vượt quá lợi ích mang lại.

4.2.4 Economic order quantity (EOQ)

A2 EXTENSION: ordering stock too frequently in small quantities keeps holding costs low but pushes up total ordering costs (paperwork, delivery charges, set-up); ordering rarely in large quantities keeps ordering costs low but pushes up holding costs (storage, insurance, capital tied up, obsolescence risk). The **economic order quantity (EOQ)** is the order size that minimises the *combined* total of these two costs.

$$\text{EOQ} = \sqrt{\frac{2DC_o}{C_h}}$$

where D = annual demand (units/year), C_o = ordering cost per order (\$), C_h = holding cost per unit per year (\$).

Ví dụ mẫu · Worked example: EOQ

A firm has annual demand $D = 10{,}000$ units, an ordering cost of $C_o = \$50$ per order, and a holding cost of $C_h = \$4$ per unit per year.

$$\text{EOQ} = \sqrt{\frac{2(10{,}000)(50)}{4}} = \sqrt{\frac{1{,}000{,}000}{4}} = \sqrt{250{,}000} = 500 \text{ units.}$$

The firm should therefore order 500 units at a time. Number of orders per year $= D/\text{EOQ} = 10{,}000/500 = 20$ orders, i.e. roughly one order every $365/20 \approx 18$ days.

VN
GIẢI THÍCH TIẾNG VIỆT

EOQ (sản lượng đặt hàng tối ưu) là số lượng đặt hàng mỗi lần giúp **tối thiểu hoá tổng chi phí đặt hàng và chi phí lưu kho cộng lại** — không phải chỉ tối thiểu một loại chi phí riêng lẻ. Công thức: EOQ $= \sqrt{2DC_o/C_h}$, với D là nhu cầu hàng năm, C_o là chi phí mỗi lần đặt hàng, C_h là chi phí lưu kho mỗi đơn vị mỗi năm.

(!) Lỗi thường gặp: EOQ minimises the *sum* of ordering and holding costs — it is neither the order quantity that minimises holding cost alone (which would push toward ordering as often as possible, in tiny quantities) nor the one that minimises ordering cost alone (which would push toward one giant order per year). Do not treat EOQ as "the smallest possible order" or "the largest possible order."

4.2.5 EOQ and quantity discounts

A2 EXTENSION: suppliers often offer a lower unit price if the buyer orders in bulk. Because the EOQ formula only minimises ordering + holding costs, it can give the wrong answer once the *purchase price itself* changes with order size — the full decision must compare **total annual cost** (purchase price + ordering cost + holding cost) at the EOQ against the total annual cost at the discounted order quantity.

Ví dụ mẫu · Worked example: EOQ with a quantity discount

Using the EOQ example above ($D = 10{,}000$, $C_o = \$50$, $C_h = \$4$, EOQ $= 500$ units, unit price \$10.00), suppose the supplier offers a reduced price of \$9.50/unit for orders of 750 units or more.

Total annual cost at EOQ (500 units, price \$10.00):

$$\underbrace{10.00(10{,}000)}_{\text{purchase}} + \underbrace{\tfrac{10{,}000}{500}(50)}_{\text{ordering}} + \underbrace{\tfrac{500}{2}(4)}_{\text{holding}} = 100{,}000 + 1{,}000 + 1{,}000 = \$102{,}000.$$

Total annual cost at the discount quantity (750 units, price \$9.50):

$$9.50(10{,}000) + \tfrac{10{,}000}{750}(50) + \tfrac{750}{2}(4) = 95{,}000 + 666.67 + 1{,}500 = \$97{,}166.67.$$

Conclusion: ordering 750 units at a time (above the EOQ of 500) saves $102{,}000 - 97{,}166.67 \approx \$4{,}833$ per year — the \$5,000 saved on the purchase price ($\$0.50 \times 10{,}000$) far outweighs the small increase in holding cost, even after accounting for lower ordering costs at the larger quantity. The firm should accept the discount and order above its calculated EOQ.

VN
GIẢI THÍCH TIẾNG VIỆT

Khi nhà cung cấp chiết khấu giá cho đơn hàng lớn, công thức EOQ đơn thuần (chỉ tối thiểu hoá chi phí đặt hàng + lưu kho) có thể không còn là lựa chọn tốt nhất, vì nó bỏ qua sự thay đổi của **giá mua**. Cần so sánh **tổng chi phí hàng năm** (giá mua + chi phí đặt hàng + chi phí lưu kho) giữa mức EOQ và mức số lượng được chiết khấu; nếu khoản tiết kiệm từ giá mua lớn hơn phần tăng thêm của chi phí lưu kho/đặt hàng, doanh nghiệp nên đặt hàng nhiều hơn EOQ để hưởng chiết khấu.

4.2.6 Responding to a capacity shortfall

When forecast demand exceeds current maximum capacity, a firm must choose how to close the gap. The main options are **overtime** (pay existing staff extra to work longer hours), **a new shift** (hire additional staff to run an extra shift), **subcontracting** (pay another firm to produce the shortfall), and **capital investment** (buy new machinery/premises to permanently raise maximum capacity).

Ví dụ mẫu · Worked example: capacity shortfall

A factory's maximum capacity is 144,000 units/year; it currently produces 129,600 units/year (utilisation $= 129{,}600/144{,}000 \times 100 = 90\%$). A new sales forecast predicts demand of 162,000 units/year — a shortfall of $162{,}000 - 144{,}000 = 18{,}000$ units beyond maximum capacity.

Option	Extra cost, year 1 (18,000 units)	Extra permanent capacity	Comment
Overtime	$18{,}000 \times \$10 = \$180{,}000$	None	Cheapest short-run fix; no new fixed commitment; risk of staff fatigue/quality dip
New shift	$\$150{,}000$ fixed $+ 18{,}000 \times \$7 = \$126{,}000 = \$276{,}000$	$+40{,}000$ units/year	Costlier now, but leaves large spare capacity for further growth
Capital investment	$\$500{,}000$ capital $+ 18{,}000 \times \$5 = \$90{,}000 = \$590{,}000$	$+50{,}000$ units/year	Highest year-1 cost, but lowest unit variable cost thereafter ($5) and largest permanent capacity gain

Recommendation: if the demand rise looks temporary, overtime is the cheapest response. If demand is expected to keep growing, the new shift or the capital investment pay off over a longer horizon through lower per-unit costs and greater spare capacity — the initial outlay is recovered across many future years of output.

GIẢI THÍCH TIẾNG VIỆT

VN Khi nhu cầu dự báo vượt quá công suất tối đa hiện tại, doanh nghiệp có 4 lựa chọn chính: làm thêm giờ (overtime — rẻ trong ngắn hạn, không cam kết chi phí cố định mới, nhưng dễ gây mệt mỏi/giảm chất lượng), tăng ca mới (new shift — chi phí cao hơn nhưng tạo thêm công suất dư cho tăng trưởng), thuê gia công ngoài (subcontracting), hoặc đầu tư vốn (capital investment — chi phí ban đầu lớn nhất nhưng chi phí biến đổi/đơn vị thấp nhất về sau và tăng công suất vĩnh viễn). Lựa chọn phụ thuộc vào việc nhu cầu tăng là **tạm thời** hay **lâu dài**.

A special case of capacity planning is **seasonal demand**, where the shortfall is predictable and repeats every year rather than being a one-off surprise.

Ví dụ mẫu · Worked example: seasonal capacity planning

An ice-cream producer has year-round capacity of 40,000 litres/month but faces summer demand of 58,000 litres/month for three months, then returns to around 30,000 litres/month for the rest of the year. Building permanent capacity for 58,000 litres/month (an $800,000 capital investment) would leave large amounts of expensive capacity idle for nine months of the year — worsening capacity utilisation and unit fixed costs outside summer. Hiring temporary seasonal staff and running extra shifts only during the three peak months (estimated extra cost $60,000 for the whole season) avoids committing to permanent capacity that is not needed most of the year, at the cost of needing to recruit and train temporary staff quickly each summer. **Conclusion:** where a shortfall is seasonal rather than a sign of sustained underlying growth, a temporary response (overtime, temporary contracts, subcontracting for the peak months only) is usually more cost-effective than permanent capital investment.

GIẢI THÍCH TIẾNG VIỆT

VN

Khi thiếu hụt công suất mang tính **thời vụ** (theo mùa, lặp lại hàng năm) chứ không phải do nhu cầu tăng trưởng bền vững, đầu tư công suất cố định cho cả năm (ví dụ mua thêm máy móc) sẽ khiến công suất dư thừa phần lớn thời gian trong năm, làm giảm hiệu quả sử dụng công suất và tăng chi phí cố định/đơn vị ngoài mùa cao điểm. Giải pháp linh hoạt hơn — thuê lao động thời vụ, tăng ca chỉ trong mùa cao điểm — thường tiết kiệm chi phí hơn cho loại thiếu hụt mang tính chu kỳ này.

4.3 Location decisions

A2 EXTENSION: deciding where to site a factory, office, or store is a long-term, largely irreversible decision, so firms weigh both qualitative judgement and quantitative techniques.

4.3.1 Qualitative location factors

Key qualitative factors include: **labour availability and cost** (is there a suitably skilled workforce nearby, and at what wage?); **proximity to market** (reduces distribution cost and delivery time, important for perishable or bulky/heavy products); **proximity to suppliers/raw materials** (reduces input transport cost, important for resource-based industries); **infrastructure** (roads, ports, airports, broadband — affects both inbound and outbound logistics); **government incentives** (grants, tax breaks, or planning support to locate in a particular region, e.g. an assisted area or free-trade zone); and **planning regulations/land cost** (availability and price of suitable land, environmental restrictions).

GIẢI THÍCH TIẾNG VIỆT

VN

Các yếu tố định tính khi chọn địa điểm gồm: nguồn lao động sẵn có và chi phí lao động; khoảng cách tới thị trường tiêu thụ (giảm chi phí và thời gian phân phối); khoảng cách tới nhà cung cấp/nguyên liệu; cơ sở hạ tầng (đường sá, cảng biển, sân bay); ưu đãi của chính phủ (trợ cấp, miễn giảm thuế); và quy định quy hoạch/giá đất. Các yếu tố này thường được kết hợp với các kỹ thuật định lượng để ra quyết định cuối cùng.

An increasingly important qualitative factor is **environmental/sustainability impact**: firms increasingly weigh the carbon footprint of transporting goods over long distances, local environmental regulation, and stakeholder (investor, customer, and community) expectations around sustainable practice, alongside the traditional cost-based factors above. A location decision is also largely **irreversible** in the short run — once a factory is built or a long lease signed, reversing the decision is costly, so firms typically weigh these factors carefully against long-term demand forecasts rather than short-term cost savings alone.

GIẢI THÍCH TIẾNG VIỆT

VN

Một yếu tố định tính ngày càng quan trọng là **tác động môi trường/tính bền vững**: dấu chân carbon khi vận chuyển hàng hoá đường dài, quy định môi trường tại địa phương, và kỳ vọng của các bên liên quan (nhà đầu tư, khách hàng, cộng đồng) về thực hành bền vững. Quyết định địa điểm cũng phần lớn **không thể đảo ngược** trong ngắn hạn — một khi đã xây nhà máy hoặc ký hợp đồng thuê dài hạn, việc thay đổi sẽ rất tốn kém, nên cần cân nhắc kỹ dựa trên dự báo nhu cầu dài hạn.

4.3.2 Weighted factor rating

This technique forces a structured comparison between candidate sites: each relevant factor is given a **weight** reflecting its importance (weights sum to 100), each candidate site is **scored** on each factor (e.g. out of 10), and the weight × score for each factor is summed to give a total weighted score per site — the highest total is recommended.

Ví dụ mẫu · Worked example: weighted factor rating

A retailer is comparing two candidate sites for a new distribution centre, scoring each factor out of 10.

Factor	Weight (%)	A score	A weighted	B score	B weighted
Labour cost	25	7	175	9	225
Proximity to market	20	8	160	5	100
Infrastructure	20	6	120	8	160
Government incentives	15	9	135	4	60
Availability of skilled labour	20	5	100	8	160
Total	100		**690**		**705**

Site B scores higher overall (705 vs. 690), so it is recommended — even though Site A scored better on proximity to market and government incentives, Site B's advantages in labour cost, infrastructure, and skilled-labour availability (which together carry a heavier combined weight) outweigh them.

VN **GIẢI THÍCH TIẾNG VIỆT**

Weighted factor rating: liệt kê các yếu tố quan trọng, gán **trọng số** (%) cho mỗi yếu tố theo mức độ quan trọng (tổng trọng số = 100), **chấm điểm** từng địa điểm ứng viên theo từng yếu tố, nhân điểm với trọng số rồi cộng lại để ra **tổng điểm có trọng số**; địa điểm có tổng điểm cao nhất được chọn. Kỹ thuật này giúp lượng hoá một quyết định vốn mang nhiều yếu tố định tính.

4.3.3 Location cost (break-even) analysis

This technique compares the **total cost** of operating at each candidate location at a given output level, using the familiar relationship $TC = FC + (VC \times Q)$, where FC is fixed cost, VC is variable cost per unit, and Q is output.

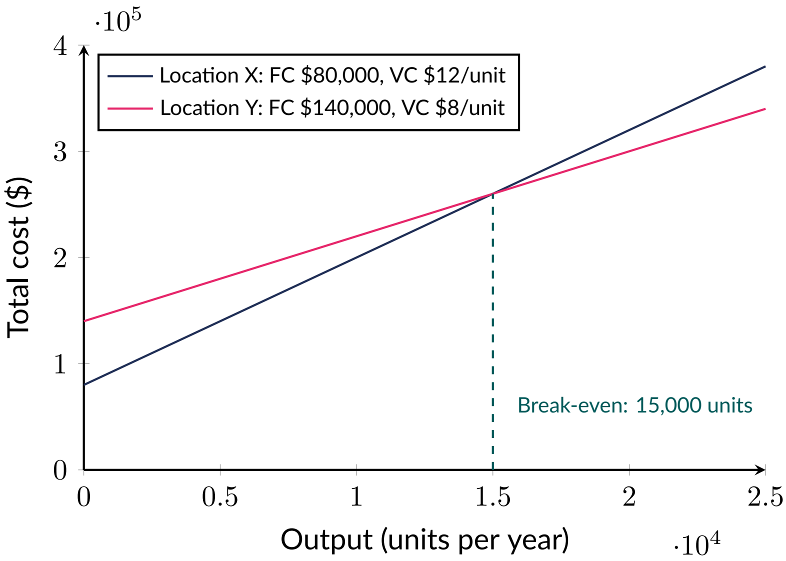
Ví dụ mẫu · Worked example: location break-even analysis

Location X has fixed costs of $80,000/year and a variable cost of $12/unit. Location Y has higher fixed costs of $140,000/year but a lower variable cost of $8/unit.

Break-even (indifference) output, where $TC_X = TC_Y$:

$$80{,}000 + 12Q = 140{,}000 + 8Q \;\Rightarrow\; 4Q = 60{,}000 \;\Rightarrow\; Q = 15{,}000 \text{ units.}$$

Below 15,000 units/year, Location X (lower fixed cost) is cheaper; above 15,000 units/year, Location Y (lower variable cost) is cheaper. Check at $Q = 20{,}000$: $TC_X = 80{,}000 + 12(20{,}000) = \$320{,}000$; $TC_Y = 140{,}000 + 8(20{,}000) = \$300{,}000$ — Y is cheaper, as expected above the break-even point.



Location cost analysis: below 15,000 units Location X's lower fixed cost dominates; above 15,000 units Location Y's lower variable cost dominates.

GIẢI THÍCH TIẾNG VIỆT

VN

Location break-even (cost) analysis so sánh tổng chi phí của các địa điểm ứng viên theo công thức $TC = FC + VC \times Q$. Địa điểm có **chi phí cố định thấp hơn** sẽ rẻ hơn ở mức sản lượng **thấp**; địa điểm có **chi phí biến đổi thấp hơn** sẽ rẻ hơn ở mức sản lượng **cao** (vượt qua điểm hoà vốn giữa hai đường tổng chi phí). Doanh nghiệp cần ước tính sản lượng dự kiến để biết nên chọn địa điểm nào.

4.3.4 Location decisions in a global context

A2 EXTENSION: many multinational firms consider locating production **overseas**. **Offshoring** (relocating production to another country, often to cut costs) can bring much lower labour costs, lighter regulation, and access to new markets, but adds longer and less certain supply chains, exchange-rate risk on costs and revenues earned in different currencies, cultural and language barriers in managing an overseas workforce, and potential reputational risk if overseas working conditions attract media or consumer criticism. In recent years some firms have pursued **reshoring** (moving production back to the firm's home country), driven by rising wages in previously low-cost countries, the growing importance of short, reliable supply chains (highlighted by disruptions such as shipping delays or port closures), and automation reducing the labour-cost advantage of offshore locations (since a highly automated line needs relatively few workers wherever it is built).

GIẢI THÍCH TIẾNG VIỆT

VN

Offshoring (chuyển sản xuất ra nước ngoài) giúp tận dụng chi phí lao động thấp hơn, quy định lỏng lẻo hơn, và tiếp cận thị trường mới, nhưng chuỗi cung ứng dài và rủi ro hơn, rủi ro tỷ giá, rào cản văn hoá/ngôn ngữ, và rủi ro hình ảnh thương hiệu nếu điều kiện lao động ở nước ngoài bị chỉ trích. **Reshoring** (đưa sản xuất quay về nước) gần đây được thúc đẩy bởi chi phí lao động tăng ở các nước từng có chi phí thấp, nhu cầu chuỗi cung ứng ngắn và ổn định hơn, và tự động hoá làm giảm lợi thế chi phí lao động của các địa điểm nước ngoài.

4.4 Quality management

4.4.1 Quality control, quality assurance, and total quality management

Quality control (QC): inspecting output (often at the end of the production process, or at key checkpoints) to identify and remove defective items before they reach the customer — a largely reactive, inspection-based approach. **Quality assurance (QA)**: a set of standardised procedures and checks built into *every stage* of the production process, so that quality is designed in and monitored throughout, aiming to prevent defects rather than merely catch them at the end. **Total quality management (TQM)**: a company-wide culture in which *every employee*, at every stage, takes personal responsibility for quality — often supported by **quality circles** (small groups of workers who meet regularly to identify and solve quality problems) and **kaizen** (continuous incremental improvement).

VN GIẢI THÍCH TIẾNG VIỆT

Quality control (QC): kiểm tra sản phẩm (thường ở cuối dây chuyền) để loại bỏ sản phẩm lỗi trước khi đến tay khách hàng — mang tính **thụ động, phát hiện lỗi sau khi đã xảy ra**. **Quality assurance (QA)**: xây dựng quy trình kiểm soát chất lượng ở **mọi công đoạn** sản xuất, nhằm **ngăn ngừa** lỗi xảy ra ngay từ đầu chứ không chỉ bắt lỗi ở cuối. **TQM (Total Quality Management)**: văn hoá toàn công ty, trong đó **mọi nhân viên** đều chịu trách nhiệm về chất lượng ở vị trí của mình, thường có sự hỗ trợ của các **quality circles** (nhóm nhỏ công nhân họp định kỳ để tìm và giải quyết vấn đề chất lượng) và kaizen.

(!) Lỗi thường gặp: Quality control happens *after* output is produced (inspection); quality assurance is built *into* the process at every stage (prevention); TQM is the broadest term — a whole-company *culture* of which QA-style prevention is a part. Do not use the three terms interchangeably in an exam answer — examiners reward precise distinctions between them.

In practice, TQM is often driven at grassroots level by **quality circles**: small groups of employees (often 5–10) from the same work area who meet regularly (e.g. weekly) to identify quality problems in their own area, investigate root causes, and propose solutions to management. Because the members are the people who actually carry out the process, they are often better placed than outside managers to spot practical causes of defects and to suggest workable fixes; successful proposals are typically implemented as small **kaizen** improvements rather than large, disruptive projects.

VN GIẢI THÍCH TIẾNG VIỆT

Quality circles là các nhóm nhỏ nhân viên (thường 5–10 người) cùng khu vực làm việc, họp định kỳ (ví dụ hàng tuần) để tìm ra vấn đề chất lượng, phân tích nguyên nhân gốc rễ và đề xuất giải pháp lên cấp quản lý. Vì chính họ là người trực tiếp thực hiện quy trình, họ thường nhận ra nguyên nhân thực tế của lỗi tốt hơn quản lý cấp trên; các đề xuất thành công thường được triển khai như những cải tiến kaizen nhỏ, thay vì một dự án lớn gây xáo trộn.

4.4.2 The cost of quality

The **total cost of quality** is the sum of four categories: two incurred to *prevent* defects (prevention, appraisal) and two incurred because defects still *occurred* (internal failure, external failure).

Prevention costs: spending to stop defects occurring in the first place (staff training, quality planning, supplier vetting). **Appraisal costs**: spending to check output/processes for defects (inspection, testing, equipment calibration). **Internal failure costs**: the cost of defects caught *before* reaching the customer (scrapped materials, rework). **External failure costs**: the cost of defects that reach the customer (warranty claims, product recalls, lost goodwill/reputation) — typically the most expensive category, since it can also damage brand reputation and future sales.

Ví dụ mẫu · Worked example: cost of quality

A manufacturer's quality-related costs for the year are recorded below.

Category	Item	Cost ($)
Prevention	Staff training	15,000
	Quality planning	8,000
	Subtotal	*23,000*
Appraisal	Inspection & testing	12,000
	Equipment calibration	5,000
	Subtotal	*17,000*
Internal failure	Scrapped materials	9,000
	Rework	6,000
	Subtotal	*15,000*
External failure	Warranty claims	20,000
	Product recalls	18,000
	Lost goodwill (estimated)	10,000
	Subtotal	*48,000*
Total cost of quality		**103,000**

External failure costs are $48,000, or $48{,}000/103{,}000 \times 100 \approx 46.6\%$ of the total — by far the largest share — while prevention is only $23{,}000/103{,}000 \times 100 \approx 22.3\%$. This imbalance suggests the firm is under-investing in preventing defects and paying a much larger price when defects reach customers; spending more on prevention and appraisal (a deliberate strategy of many TQM programmes) is likely to reduce the far costlier failure categories over time.

VN **GIẢI THÍCH TIẾNG VIỆT**

Tổng chi phí chất lượng gồm 4 nhóm: **prevention** (ngăn ngừa lỗi), **appraisal** (kiểm tra/thẩm định), **internal failure** (lỗi phát hiện nội bộ trước khi đến khách hàng), **external failure** (lỗi khách hàng phát hiện — thường tốn kém nhất vì ảnh hưởng uy tín thương hiệu). Nếu chi phí external failure chiếm tỉ trọng quá lớn so với prevention, đó là dấu hiệu công ty nên đầu tư nhiều hơn vào phòng ngừa để giảm chi phí tổng thể về lâu dài.

4.4.3 Six Sigma and benchmarking

A2 EXTENSION: **Six Sigma** is a highly data-driven quality methodology that sets an extremely demanding target of no more than 3.4 defects per million opportunities, using statistical analysis to identify and eliminate the root causes of variation in a process, rather than simply inspecting output afterwards. **Benchmarking** means comparing a firm's own processes, products, or performance metrics against the recognised best performer (inside or outside the industry) for that activity, then adapting the best practice identified to close the gap — a widely used technique for setting demanding, externally-validated quality standards rather than relying only on internal targets.

VN GIẢI THÍCH TIẾNG VIỆT

Six Sigma là phương pháp quản lý chất lượng dựa trên phân tích dữ liệu thống kê, đặt mục tiêu cực kỳ khắt khe (tối đa 3.4 lỗi trên một triệu cơ hội lỗi), tập trung tìm và loại bỏ **nguyên nhân gốc rễ** gây ra sự biến động trong quy trình, thay vì chỉ kiểm tra sản phẩm sau khi hoàn thành. **Benchmarking** là so sánh quy trình/sản phẩm của doanh nghiệp với đối thủ (hoặc doanh nghiệp) làm tốt nhất trong lĩnh vực đó, rồi học hỏi và áp dụng thực hành tốt nhất để thu hẹp khoảng cách — giúp đặt ra tiêu chuẩn chất lượng khách quan, không chỉ dựa vào mục tiêu nội bộ.

4.4.4 Quality standards and accreditation

Many industries rely on externally-verified **quality standards**, of which **ISO 9000** is the best known — an internationally recognised family of standards for quality management systems, awarded after independent audit confirms a firm has documented, consistent processes for controlling and improving quality. Accreditation is often used as a marketing tool (a signal of reliability to customers who cannot easily inspect the firm's internal processes themselves) and, in many B2B and government-contract markets, is a minimum requirement simply to be considered as a supplier. The cost of gaining and maintaining accreditation (audit fees, documentation, staff time) is itself a **prevention**-category cost of quality, incurred in the hope of reducing far larger internal and external failure costs later.

VN GIẢI THÍCH TIẾNG VIỆT

ISO 9000 là bộ tiêu chuẩn quốc tế về hệ thống quản lý chất lượng, được cấp sau khi kiểm toán độc lập xác nhận doanh nghiệp có quy trình kiểm soát và cải tiến chất lượng được ghi chép rõ ràng, nhất quán. Đạt chứng nhận này thường được dùng như công cụ marketing (tín hiệu uy tín với khách hàng) và ở nhiều thị trường B2B/hợp đồng chính phủ, đây là điều kiện tối thiểu để được xem xét làm nhà cung cấp. Chi phí đạt và duy trì chứng nhận thuộc nhóm chi phí **prevention** trong chi phí chất lượng.

4.5 Project management: critical path analysis (CPA)

4.5.1 Key terms and the logic of network analysis

A **network diagram** represents a project as a set of **activities** (arrows, each with a duration) connecting **events/nodes** (numbered circles marking the start/finish of activities).

Earliest start time (EST) of an activity: the earliest time it can begin, found by a **forward pass** through the network (adding durations along each path from the start; where paths converge, take the *largest* value, since *all* preceding activities must finish first). **Latest start time (LST)** of an activity: the latest time it can begin without delaying the whole project, found by a **backward pass** from the project's end (subtracting durations; where paths converge working backwards, take the *smallest* value, since the activity must be ready in time for *every* activity that follows it). **Total float** of an activity = LST − EST: the amount of time an activity could be delayed without delaying the overall project. The **critical path** is the sequence of activities with **zero float** running from the start event to the end event — it is the *longest* path through the network, and it determines the minimum possible project duration.

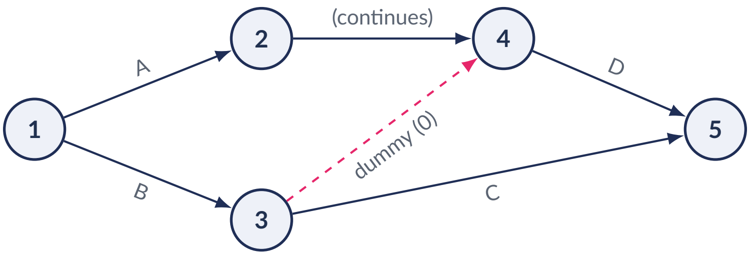
VN GIẢI THÍCH TIẾNG VIỆT

EST (thời điểm bắt đầu sớm nhất) tính bằng **forward pass**: cộng dồn thời lượng các hoạt động từ sự kiện bắt đầu; tại điểm các nhánh hội tụ, lấy giá trị **lớn nhất** (vì phải chờ tất cả các hoạt động trước đó hoàn thành). **LST** (thời điểm bắt đầu muộn nhất) tính bằng **backward pass** từ sự kiện kết thúc dự án: trừ dần thời lượng; tại điểm hội tụ khi tính lùi, lấy giá trị **nhỏ nhất**. **Total float** = LST − EST: khoảng thời gian một hoạt động có thể trễ mà không làm trễ toàn bộ dự án. **Đường găng (critical path)** là chuỗi hoạt động có float $= 0$, và đây là đường **dài nhất** qua sơ đồ mạng — nó quyết định thời gian hoàn thành tối thiểu của cả dự án.

4.5.2 Dummy activities in network diagrams

Sometimes the logical dependencies between activities cannot be drawn correctly using ordinary arrows alone. A **dummy activity** — drawn as a dashed arrow with **zero duration** — is inserted purely to preserve the correct logic of the network, without representing any real task or consuming any time or resources.

> Dummy activities are typically needed in two situations: (1) when two or more activities would otherwise need to share *both* the same start event and the same end event (network diagrams require that any two activities are uniquely identified by their start and end events); (2) when one activity depends on *part* of what a previous activity produced, but a following activity depends on the *full* set of preceding activities, so a direct link would incorrectly show one activity depending on something it does not actually need to wait for.



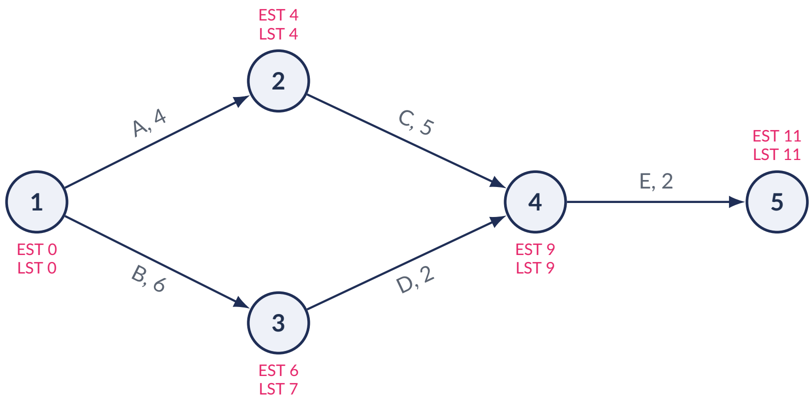
A dummy activity (dashed, zero duration) from event 3 to event 4 forces activity D to wait for *both* A and B to finish, while activity C (from event 3 directly to event 5) still depends only on B — without the dummy, this distinction could not be drawn correctly.

> VN **GIẢI THÍCH TIẾNG VIỆT**
> **Dummy activity** là mũi tên nét đứt với **thời lượng bằng 0**, chỉ dùng để giữ đúng logic phụ thuộc giữa các hoạt động trên sơ đồ mạng, không đại diện cho công việc thật và không tốn thời gian/nguồn lực. Cần dùng dummy khi: (1) hai hoạt động khác nhau có cùng sự kiện bắt đầu *và* cùng sự kiện kết thúc (mỗi hoạt động phải được xác định duy nhất bởi cặp sự kiện đầu-cuối); (2) một hoạt động chỉ phụ thuộc vào *một phần* kết quả của hoạt động trước, trong khi hoạt động khác lại phụ thuộc vào *toàn bộ* — nếu nối trực tiếp sẽ vô tình tạo ra một quan hệ phụ thuộc sai.

4.5.3 Worked network 1: forward and backward pass

Ví dụ mẫu · Worked example: network 1

The diagram below shows five events (1–5) and five activities (A–E).



Forward pass: $\text{EST}_1 = 0$. $\text{EST}_2 = \text{EST}_1 + 4 = 4$. $\text{EST}_3 = \text{EST}_1 + 6 = 6$. $\text{EST}_4 = \max(\text{EST}_2 + 5, \text{EST}_3 + 2) = \max(9, 8) = 9$. $\text{EST}_5 = \text{EST}_4 + 2 = 11$. **Project duration** $= 11$.

Backward pass: $\text{LST}_5 = 11$. $\text{LST}_4 = 11 - 2 = 9$. $\text{LST}_3 = 9 - 2 = 7$. $\text{LST}_2 = 9 - 5 = 4$. $\text{LST}_1 = \min(4 - 4, 7 - 6) = \min(0, 1) = 0$. (Check: $\text{LST}_1 = \text{EST}_1 = 0$, confirming the pass is correct.)

Float and critical path:

Activity	Duration	EST	LST	Total float	Critical?
A (1→2)	4	0	0	0	Yes
B (1→3)	6	0	1	1	No
C (2→4)	5	4	4	0	Yes
D (3→4)	2	6	7	1	No
E (4→5)	2	9	9	0	Yes

The **critical path is A–C–E** (duration $4 + 5 + 2 = 11$, matching the project duration). Activities B and D each have 1 day of total float — they could each be delayed by up to 1 day without delaying the project, though a delay used up on B also reduces the float available to D (both share the parallel path through node 3).

VN **GIẢI THÍCH TIẾNG VIỆT**

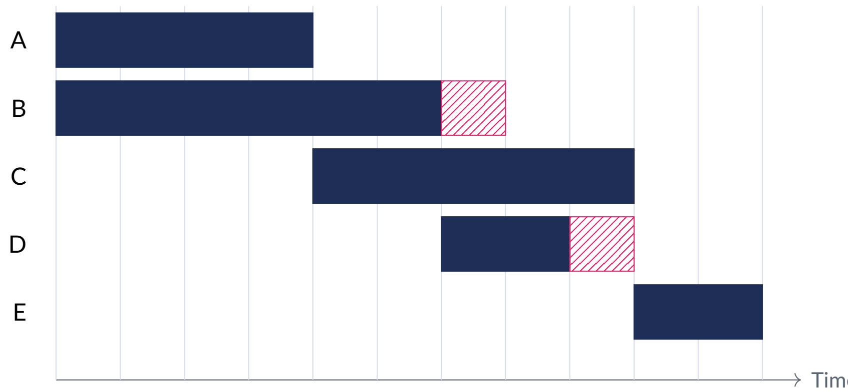
Trong ví dụ trên, forward pass cho EST tại từng nút bằng cách cộng dồn (lấy giá trị lớn nhất khi hội tụ), backward pass cho LST bằng cách trừ dần từ nút cuối (lấy giá trị nhỏ nhất khi hội tụ khi tính lùi). Total float mỗi hoạt động = LST (tại nút cuối của hoạt động) − thời lượng − EST (tại nút đầu của hoạt động); hoạt động có float $= 0$ nằm trên đường găng A–C–E, thời gian dự án tối thiểu là 11 (đơn vị thời gian).

(!) Lỗi thường gặp: The critical path is the *longest* path through the network (not the shortest) — it is the sequence of activities that cannot be delayed without delaying the whole project, precisely *because* every other path reaches the end event sooner and has spare float. A common error is to look for the path with the fewest activities or the smallest total duration; always compare the *durations* of every path from start to finish and select the largest.

(!) Lỗi thường gặp: Total float belongs to an **activity** (the time it could be delayed without delaying the project), not to a node/event. When two or more non-critical activities lie on the *same* parallel path (e.g. B then D above), the float is often **shared** between them — using up all of B's float on a delay leaves zero float for D, even though D's own float figure (calculated in isolation) was greater than zero.

4.5.4 Gantt charts: scheduling activities over time

A **Gantt chart** displays the same project as a network diagram, but as a set of horizontal bars against a time axis, making the schedule easier for non-specialists to read at a glance and easier to use for day-to-day scheduling of staff and equipment. Each bar normally starts at the activity's EST and runs for its duration; where an activity has float, this is often shown as a lighter or hatched extension of the bar, out to its latest finish time.



Gantt chart for Worked network 1: solid bars show each activity's duration from its EST; hatched bars show available total float. A and C and E (no hatching) are the critical activities.

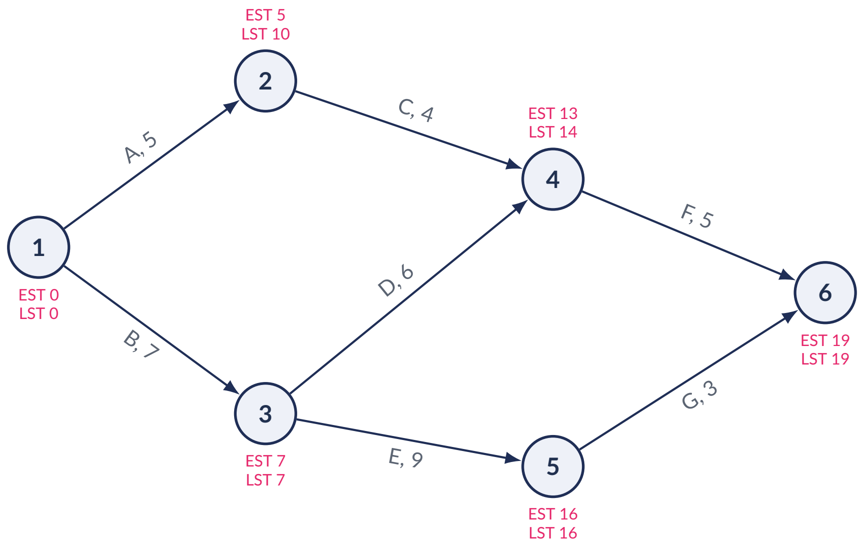
VN GIẢI THÍCH TIẾNG VIỆT

Biểu đồ Gantt trình bày cùng một dự án như sơ đồ mạng, nhưng dưới dạng các thanh ngang theo trục thời gian — dễ đọc hơn cho người không chuyên và tiện dùng để lên lịch nhân sự/thiết bị hàng ngày. Mỗi thanh thường bắt đầu tại EST và kéo dài bằng thời lượng hoạt động; phần **float** (nếu có) thường được vẽ bằng thanh nhạt màu/có hoạ tiết nối dài đến thời điểm hoàn thành muộn nhất. Trong ví dụ trên (dựa trên sơ đồ mạng 1), các hoạt động A, C, E không có phần float — đây chính là đường găng.

4.5.5 Worked network 2: a larger project

Ví dụ mẫu · Worked example: network 2 (larger project)

The network below has six events (1–6) and seven activities (A–G).



Forward pass: $\text{EST}_1 = 0$; $\text{EST}_2 = 0 + 5 = 5$; $\text{EST}_3 = 0 + 7 = 7$; $\text{EST}_4 = \max(5 + 4,\ 7 + 6) = \max(9, 13) = 13$; $\text{EST}_5 = 7 + 9 = 16$; $\text{EST}_6 = \max(13 + 5,\ 16 + 3) = \max(18, 19) = 19$. **Project duration** $= 19$.

Backward pass: $\text{LST}_6 = 19$; $\text{LST}_5 = 19 - 3 = 16$; $\text{LST}_4 = 19 - 5 = 14$; $\text{LST}_3 = \min(14 - 6,\ 16 - 9) = \min(8, 7) = 7$; $\text{LST}_2 = 14 - 4 = 10$; $\text{LST}_1 = \min(10 - 5,\ 7 - 7) = \min(5, 0) = 0$. (Check: $\text{LST}_1 = \text{EST}_1 = 0$.)

Activity	Duration	EST	LST	Total float	Critical?
A (1→2)	5	0	5	5	No
B (1→3)	7	0	0	0	Yes
C (2→4)	4	5	10	5	No
D (3→4)	6	7	8	1	No
E (3→5)	9	7	7	0	Yes
F (4→6)	5	13	14	1	No
G (5→6)	3	16	16	0	Yes

The **critical path is B–E–G** (duration $7 + 9 + 3 = 19$, matching the project duration of 19). Note that A and C, although on the same non-critical branch, both carry a large float of 5 — but that float is shared: delaying A by up to 5 does not delay the project, but doing so leaves zero float for C.

GIẢI THÍCH TIẾNG VIỆT

VN

Sơ đồ mạng lớn hơn (6 nút, 7 hoạt động) áp dụng đúng quy trình forward pass/backward pass như ví dụ trước, chỉ có nhiều nhánh hội tụ hơn (tại nút 4 và nút 6). Đường găng ở đây là B–E–G với tổng thời lượng 19, và bảng kết quả EST/LST/float giúp trình bày rõ ràng, dễ kiểm tra lại từng hoạt động.

4.5.6 Free float and crashing the network

A2 EXTENSION: total float (LST − EST) tells us how much an activity could be delayed without delaying the *whole project*, but it does not tell us whether that delay would disturb any other activity. **Free float** answers a narrower question: how much can an activity be delayed without delaying the *earliest start of the next activity*?

$$\text{Free float of an activity} = \text{EST(head node)} - \text{EST(tail node)} - \text{duration}.$$

Free float is always less than or equal to total float. **Crashing** a network means deliberately shortening the duration of one or more activities (by adding extra labour, overtime, or resources, usually at extra cost) in order to shorten the overall project duration — but this only shortens the project if the crashed activity lies on the **critical path**; spending money to shorten a non-critical activity wastes resources, since the project's completion date is unaffected until that activity's float is used up and it becomes critical itself.

Ví dụ mẫu · Worked example: free float

Using Worked network 2 above (EST values: node 1 $= 0$, node 2 $= 5$, node 3 $= 7$, node 4 $= 13$, node 5 $= 16$, node 6 $= 19$):

Activity A (1→2, duration 5): free float $=$ EST$_2$ $-$ EST$_1$ $-5 = 5 - 0 - 5 = 0$. Even though A's *total* float is 5 (calculated earlier), its *free* float is 0 — any delay to A at all will push back the earliest possible start of activity C, because node 2's recorded EST of 5 is exactly when A finishes with no spare gap.
Activity C (2→4, duration 4): free float $=$ EST$_4$ $-$ EST$_2$ $-4 = 13 - 5 - 4 = 4$. C's total float was 5, so here free float (4) is 1 day less than total float — C could be delayed up to 4 days without disturbing the earliest start of activity F at node 4 (whose EST of 13 is actually set by activity D, not C), but the 5th day of C's total float could only be used if D is not itself delayed.

VN GIẢI THÍCH TIẾNG VIỆT

Total float cho biết một hoạt động có thể trễ bao nhiêu mà không làm trễ **toàn bộ dự án**; **free float** (chỉ ở mức A2) cho biết hoạt động đó có thể trễ bao nhiêu mà không ảnh hưởng đến thời điểm bắt đầu sớm nhất của hoạt động **kế tiếp**. Free float luôn $\leq$ total float. **Crashing** là rút ngắn thời lượng một hoạt động (thường tốn thêm chi phí) để rút ngắn thời gian cả dự án — nhưng chỉ có tác dụng nếu hoạt động đó nằm trên **đường găng**; rút ngắn một hoạt động không găng chỉ lãng phí chi phí vì không đổi được ngày hoàn thành dự án.

4.5.7 Using CPA in practice

Beyond simply calculating a project's minimum duration, critical path analysis is used by project managers for **resource scheduling** (staff and equipment can often be moved, within limits, from an activity with float onto a critical activity that is at risk of running late, without delaying the whole project), for identifying **which activities need close monitoring** (critical activities, with zero float, must be watched most closely since any delay to them delays the entire project — whereas activities with generous float can absorb minor delays), and for **informing decisions about where slack exists** (float tells a manager exactly how much flexibility is available on each non-critical activity, useful when negotiating deadlines with suppliers or reallocating a delayed team).

VN GIẢI THÍCH TIẾNG VIỆT

CPA không chỉ dùng để tính thời gian hoàn thành tối thiểu của dự án, mà còn giúp nhà quản lý: (1) **phân bổ nguồn lực** — có thể chuyển nhân sự/thiết bị từ hoạt động có float sang hoạt động găng đang có nguy cơ trễ; (2) **xác định hoạt động cần giám sát chặt** — các hoạt động găng (float $= 0$) phải được theo dõi sát vì bất kỳ trễ nào cũng làm trễ cả dự án; (3) **biết rõ khoảng "đệm" (slack)** ở đâu để linh hoạt đàm phán thời hạn với nhà cung cấp hoặc điều chuyển đội ngũ khi cần.

4.6 Innovation and technology in operations

A2 EXTENSION: **Automation and robotics** replace manual labour with machinery/software on the production line, typically lowering unit variable cost and improving consistency of quality at high volumes, but requiring large upfront capital investment and often reducing the number of production jobs (with knock-on effects for staff morale, retraining needs, and local employment). **Research and development (R&D) investment** is a key driver of competitiveness: it can generate new or improved products, more efficient processes, and patented technology that competitors cannot easily copy — though R&D spending is risky (many projects fail) and its benefits are often realised only after a long time lag. **Computer-aided design (CAD)** allows products to be designed and tested (e.g. for stress, fit, or aerodynamics) on screen before a physical prototype is built, cutting development time and cost; **computer-aided manufacture (CAM)** uses computer-controlled machinery to turn a CAD design directly into a finished or component part, improving precision and consistency and allowing rapid switching between product specifications (particularly valuable in batch production).

GIẢI THÍCH TIẾNG VIỆT

VN **Tự động hoá/robot hoá** thay thế lao động thủ công bằng máy móc/phần mềm, thường giúp giảm chi phí biến đổi/đơn vị và tăng tính ổn định của chất lượng ở sản lượng lớn, nhưng đòi hỏi vốn đầu tư ban đầu lớn và thường làm giảm số lượng việc làm sản xuất. **Đầu tư R&D (nghiên cứu & phát triển)** là động lực quan trọng cho năng lực cạnh tranh — tạo ra sản phẩm/quy trình mới mà đối thủ khó sao chép — nhưng rủi ro cao và thường mất nhiều thời gian mới thấy hiệu quả. **CAD (thiết kế có sự hỗ trợ của máy tính)** cho phép thiết kế và kiểm tra sản phẩm trên máy tính trước khi làm mẫu thật, tiết kiệm thời gian và chi phí; **CAM (sản xuất có sự hỗ trợ của máy tính)** dùng máy móc điều khiển bằng máy tính để biến bản thiết kế CAD thành sản phẩm/linh kiện thật, tăng độ chính xác và cho phép chuyển đổi nhanh giữa các mẫu sản phẩm (đặc biệt hữu ích trong batch production).

A related development is the **flexible manufacturing system (FMS)**: a group of computer-controlled machines (often combined with CAD/CAM) that can be reprogrammed quickly to switch between different product specifications with minimal changeover time or manual resetting. An FMS lets a firm capture some of flow production's cost efficiency while retaining much of batch production's flexibility to vary output — narrowing the traditional trade-off between customisation and unit cost described earlier in this unit. **Additive manufacturing (3D printing)** builds a product layer by layer directly from a digital design, which is especially useful for rapid prototyping (testing a design cheaply before committing to expensive tooling for mass production) and for producing small quantities of complex or customised parts on demand, though it generally remains slower and more expensive per unit than conventional mass-production methods at very high volumes.

GIẢI THÍCH TIẾNG VIỆT

VN **Hệ thống sản xuất linh hoạt (FMS)** là nhóm máy móc điều khiển bằng máy tính (thường kết hợp CAD/CAM), có thể lập trình lại nhanh chóng để chuyển đổi giữa các mẫu sản phẩm khác nhau với thời gian chuyển đổi tối thiểu — giúp doanh nghiệp vừa tận dụng được hiệu quả chi phí của flow production, vừa giữ được tính linh hoạt gần với batch production. **Công nghệ in 3D (additive manufacturing)** tạo sản phẩm theo từng lớp trực tiếp từ bản thiết kế số, đặc biệt hữu ích để làm mẫu thử nhanh (rapid prototyping) hoặc sản xuất số lượng nhỏ các chi tiết phức tạp/tuỳ chỉnh theo yêu cầu, dù thường vẫn chậm và tốn kém hơn trên mỗi đơn vị so với sản xuất hàng loạt ở quy mô rất lớn.

4.7 Practice bank

Bài tập luyện tập

A furniture workshop makes one hand-carved dining table at a time, fully to the customer's specification, before starting the next order. Which production method is this?

(A) Job production
(B) Batch production
(C) Flow production
(D) Cell production

Lời giải chi tiết

(A). Producing a single, unique unit to a specific customer's order, start to finish, before beginning the next, is the definition of job production.

Bài tập luyện tập

An artisan chocolate maker is deciding between (i) making each box of chocolates entirely to individual customer order, or (ii) making batches of 200 identical boxes of a set selection, then switching moulds to make a batch of a different selection. Using the job/batch/flow comparison framework, advise the business, giving one advantage and one drawback of each option.

Lời giải chi tiết

Job production (option i): advantage — can charge a premium for full customisation, likely to build strong customer loyalty for special occasions; drawback — high unit cost (skilled labour time per box, no economies of scale), limiting output volume and profit per hour worked. **Batch production (option ii):** advantage — lower unit cost than job production because ingredients and moulds are used across 200 units at once (some economies of scale), while still offering some product variety between batches; drawback — less able to meet a highly specific individual order, and changeover time between batches (cleaning moulds, resetting recipes) is lost production time. **Recommendation:** batch production suits a growing artisan business better once it has a core range of popular selections, since it balances variety with lower unit costs; job production can be retained as a premium, made-to-order option for special occasions (e.g. weddings) at a higher price.

Bài tập luyện tập

A firm needs 15,000 units of a component per year. In-house production requires fixed tooling costs of \$36,000/year plus a variable cost of \$4.00/unit. An outside supplier quotes \$6.50/unit, fully inclusive. (a) Calculate the total cost of each option at 15,000 units. (b) Find the break-even volume. (c) Recommend an option, with reasons.

Lời giải chi tiết

(a) In-house: $36{,}000 + 4.00(15{,}000) = 36{,}000 + 60{,}000 = \$96{,}000$ (avg \$6.40/unit). Outsource: $6.50(15{,}000) = \$97{,}500$ (avg \$6.50/unit).
(b) Break-even: $36{,}000 + 4.00Q = 6.50Q \Rightarrow 36{,}000 = 2.50Q \Rightarrow Q = 14{,}400$ units.
(c) Since current demand (15,000) is *above* the break-even volume (14,400), in-house production is the cheaper option (by \$1,500/year at this volume) — the firm's lower variable cost per unit now outweighs its fixed tooling cost. In-house would only be recommended against if

demand fell back below 14,400 units.

Bài tập luyện tập

A furniture manufacturer is considering switching from just-in-case (JIC) stock management to just-in-time (JIT). Advise the business, giving at least one benefit and one risk of the switch, and state a recommendation.

Lời giải chi tiết

Benefits of JIT: releases working capital currently tied up in raw-timber and component inventory, freeing cash for other uses; reduces warehousing/storage costs and the risk of stock becoming obsolete or damaged in storage; can improve cash flow since materials are paid for closer to when the finished furniture is sold.
Risks of JIT: furniture manufacturing often depends on specific timber, fabric, or hardware from a small number of suppliers — any delay (e.g. a delayed timber shipment) could halt production immediately, since there is no buffer stock to fall back on; JIT also requires very reliable, closely coordinated suppliers and precise demand forecasting, which can be harder for made-to-order or seasonal furniture lines.
Recommendation: a partial move (holding a smaller buffer of the most critical, hardest-to-source materials under JIC, while moving standard/commodity components to JIT) balances the working-capital benefits of JIT against the manufacturer's exposure to supply disruption.

Bài tập luyện tập

Which of the following best describes just-in-time (JIT) production?

(A) Holding large buffer stocks to protect against late deliveries

(B) Producing only in response to actual customer orders, with materials arriving exactly when needed

(C) Producing a single, unique item to a customer's exact specification

(D) Inspecting finished output at the very end of the production line to catch defects

Lời giải chi tiết

(B). (A) describes JIC; (C) describes job production; (D) describes quality control, not JIT.

Bài tập luyện tập

A theme park has a maximum daily capacity of 8,000 visitors and currently receives 6,000 visitors/day. Daily fixed operating costs are $40,000. (a) Calculate capacity utilisation. (b) Calculate the fixed cost per visitor. (c) Identify one risk of trying to push utilisation toward 100% and one risk of utilisation remaining low.

Lời giải chi tiết

(a) $6{,}000/8{,}000 \times 100 = 75\%$.
(b) $40{,}000/6{,}000 = \$6.67$/visitor.
(c) **Risk of pushing toward 100%:** on peak days this can cause overcrowding, longer queues, safety/health-and-safety concerns, and no slack to cope with a ride breakdown or staff shortage — potentially harming the visitor experience and the park's reputation. **Risk of low utili-**

sation persisting (e.g. off-peak/low season): fixed costs are spread over fewer visitors, raising the fixed cost per visitor and squeezing profit margins; persistently low utilisation may also signal that the park has overinvested in capacity relative to demand.

Bài tập luyện tập

A hotel has a capacity of 3,000 room-nights per month and currently sells 2,100 room-nights per month. Monthly fixed costs are $180,000. (a) Calculate current capacity utilisation and the fixed cost per room-night. (b) Recalculate the fixed cost per room-night if occupancy rose to 90% of capacity. (c) Comment on the change.

Lời giải chi tiết

(a) Utilisation $= 2{,}100/3{,}000 \times 100 = 70\%$. Fixed cost/room-night $= 180{,}000/2{,}100 = \$85.71$.
(b) At 90%: $0.90 \times 3{,}000 = 2{,}700$ room-nights. Fixed cost/room-night $= 180{,}000/2{,}700 = \$66.67$.
(c) Raising occupancy from 70% to 90% cuts the fixed cost per room-night by $\$85.71 - \$66.67 = \$19.04$ (about 22%), because the same fixed costs (staff, building, utilities) are spread over considerably more room-nights sold — improving profit margin per room-night with no change to total fixed costs.

Bài tập luyện tập

A firm has annual demand of $D = 9{,}000$ units, an ordering cost of $C_o = \$40$ per order, and a holding cost of $C_h = \$8$ per unit per year. (a) Calculate the EOQ. (b) Calculate the number of orders placed per year.

Lời giải chi tiết

(a) EOQ $= \sqrt{2(9{,}000)(40)/8} = \sqrt{720{,}000/8} = \sqrt{90{,}000} = 300$ units.
(b) Orders per year $= D/\text{EOQ} = 9{,}000/300 = 30$ orders (roughly one every $365/30 \approx 12$ days).

Bài tập luyện tập

A restaurant kitchen has a normal capacity of 100 covers per night; weekend demand rises to 130 covers per night, a shortfall of 30 covers. Paying kitchen staff overtime costs an extra $15/cover; subcontracting the extra covers to a partner catering firm costs $18/cover. (a) Calculate the extra cost per night of each option. (b) Recommend an option, noting one non-cost factor.

Lời giải chi tiết

(a) Overtime: $30 \times \$15 = \$450$/night. Subcontracting: $30 \times \$18 = \$540$/night.
(b) Overtime is $90/night cheaper, so is the better option on cost alone. However, overtime relies on existing staff working longer hours on already-busy weekend shifts, risking fatigue, errors, and falling service quality — subcontracting, while costlier, keeps the in-house kitchen team's workload manageable and could be reconsidered if overtime starts harming food quality or staff retention.

Bài tập luyện tập

In a stock-control (sawtooth) diagram, the **reorder level** is best described as:

(A) The minimum stock level a firm aims never to fall below

(B) The stock level at which a new order is placed

(C) The maximum stock level immediately after a delivery arrives

(D) The time taken between placing an order and it arriving

Lời giải chi tiết

(B). (A) describes buffer/safety stock; (C) describes maximum stock level; (D) describes lead time.

Bài tập luyện tập

A firm is comparing three candidate sites (P, Q, R) for a new call centre using weighted factor rating. Factors and weights: cost of land (30), access to transport links (25), local labour supply (25), government grants (20). Scores (out of 10):

Site P: land 6, transport 8, labour 7, grants 5. Site Q: land 8, transport 6, labour 5, grants 9. Site R: land 5, transport 9, labour 9, grants 4.

Calculate the weighted total for each site and recommend one.

Lời giải chi tiết

Site P: $30(6) + 25(8) + 25(7) + 20(5) = 180 + 200 + 175 + 100 = 655$.
Site Q: $30(8) + 25(6) + 25(5) + 20(9) = 240 + 150 + 125 + 180 = 695$.
Site R: $30(5) + 25(9) + 25(9) + 20(4) = 150 + 225 + 225 + 80 = 680$.
Site Q has the highest weighted total (695), so it is recommended, despite scoring lowest of the three on transport links and labour supply — its strong scores on land cost and government grants (both heavily weighted) outweigh those weaknesses.

Bài tập luyện tập

Location M has fixed costs of $100,000/year and a variable cost of $14/unit. Location N has fixed costs of $160,000/year and a variable cost of $8/unit. (a) Find the break-even output between the two locations. (b) If planned annual output is 15,000 units, which location is cheaper, and by how much?

Lời giải chi tiết

(a) $100{,}000 + 14Q = 160{,}000 + 8Q \Rightarrow 6Q = 60{,}000 \Rightarrow Q = 10{,}000$ units.
(b) At $Q = 15{,}000$ (above the break-even output): $TC_M = 100{,}000 + 14(15{,}000) = 100{,}000 + 210{,}000 = \$310{,}000$. $TC_N = 160{,}000 + 8(15{,}000) = 160{,}000 + 120{,}000 = \$280{,}000$. Location N is cheaper by $\$310{,}000 - \$280{,}000 = \$30{,}000$, as expected above the break-even output where the lower variable cost location wins.

Bài tập luyện tập

Which of the following is **not** typically considered a qualitative location factor?

(A) Proximity to the target market

(B) Government grants and incentives

(C) The break-even output between two candidate sites

(D) Availability of infrastructure such as ports and roads

Lời giải chi tiết

(C). The break-even output between two sites is calculated from quantitative cost data (fixed and variable costs), not a qualitative judgement — it belongs to location cost (break-even) analysis, a quantitative technique.

Bài tập luyện tập

A firm's quality-related costs for the year are: staff training \$10,000; supplier audits \$4,000; inspection \$9,000; testing equipment \$3,000; scrap \$7,000; rework \$5,000; returns/refunds \$16,000; product recall costs \$11,000. (a) Classify each cost into prevention, appraisal, internal failure, or external failure, and find each subtotal. (b) Calculate the total cost of quality. (c) Comment on the balance between categories.

Lời giải chi tiết

(a) Prevention: training \$10,000 + supplier audits \$4,000 = \$14,000. Appraisal: inspection \$9,000 + testing equipment \$3,000 = \$12,000. Internal failure: scrap \$7,000 + rework \$5,000 = \$12,000. External failure: returns/refunds \$16,000 + recalls \$11,000 = \$27,000.
(b) Total $= 14{,}000 + 12{,}000 + 12{,}000 + 27{,}000 = \$65{,}000$.
(c) External failure (\$27,000, $\approx 41.5\%$ of total) is the largest single category, considerably more than prevention (\$14,000, $\approx 21.5\%$). As in the worked example, this pattern suggests the firm could benefit from shifting some spending toward prevention (e.g. more staff training, tighter supplier audits) to reduce the larger, costlier external failures over time.

Bài tập luyện tập

A company inspects every finished product just before it leaves the factory, removing any defective units before they are shipped to customers. Which term best describes this approach?

(A) Quality assurance

(B) Total quality management

(C) Quality control

(D) Benchmarking

Lời giải chi tiết

(C). Inspecting finished output at the end of the process to catch and remove defects is the classic definition of quality control (QC) — a reactive, inspection-based approach, unlike QA (built into every stage) or TQM (a whole-company culture).

Bài tập luyện tập

Explain, using the idea of the cost of quality, why benchmarking against a best-in-class competitor might reduce a firm's total quality costs over time, even though benchmarking itself has a cost.

Lời giải chi tiết

Benchmarking involves studying the processes of the best-performing firm in an activity and adapting that best practice — this is itself a form of prevention/appraisal spending. If it succeeds in raising the firm's own process standards, it should reduce the number of defects reaching production and, especially, reaching customers. Because internal and (above all) external failure costs are usually far larger than prevention/appraisal costs (as in the cost-of-quality worked example, where external failure was the largest category), a relatively modest increase in prevention-type spending on benchmarking can generate a much larger fall in internal and external failure costs, reducing the *total* cost of quality even though one component (prevention) has risen.

Bài tập luyện tập

Under Six Sigma, the target defect rate is approximately:

(A) 3.4 defects per 100 units

(B) 34 defects per 1,000 units

(C) 3.4 defects per million opportunities

(D) Zero defects, with no numerical target

Lời giải chi tiết

(C). Six Sigma's defining, highly demanding statistical target is no more than 3.4 defects per million opportunities — far stricter than a simple percentage-based target.

Bài tập luyện tập

A project has the following activities. Draw the implied network logic and calculate the EST, LST, and total float for every activity, then state the critical path and the minimum project duration.

Activity	Immediately follows	Duration (days)
A (event 1→2)	Start	6
B (event 1→3)	Start	4
C (event 2→4)	A	5
D (event 3→4)	B	3
E (event 3→5)	B	8
F (event 4→5)	C, D	6

Lời giải chi tiết

Forward pass: $\text{EST}_1 = 0$; $\text{EST}_2 = 0{+}6 = 6$; $\text{EST}_3 = 0{+}4 = 4$; $\text{EST}_4 = \max(\text{EST}_2{+}5, \text{EST}_3{+}3) = \max(11, 7) = 11$; $\text{EST}_5 = \max(\text{EST}_3 + 8, \text{EST}_4 + 6) = \max(12, 17) = 17$. **Project duration** $= 17$ **days.**

Backward pass: $\text{LST}_5 = 17$; $\text{LST}_4 = 17 - 6 = 11$; $\text{LST}_3 = \min(11 - 3,\ 17 - 8) = \min(8, 9) = 8$; $\text{LST}_2 = 11 - 5 = 6$; $\text{LST}_1 = \min(6 - 6,\ 8 - 4) = \min(0, 4) = 0$.

Activity	Duration	EST	LST	Total float	Critical?
A (1→2)	6	0	0	0	Yes
B (1→3)	4	0	4	4	No
C (2→4)	5	6	6	0	Yes
D (3→4)	3	4	8	4	No
E (3→5)	8	4	9	5	No
F (4→5)	6	11	11	0	Yes

Critical path: A–C–F (duration $6 + 5 + 6 = 17$, matching the project duration).

Bài tập luyện tập

Total float for an activity is best defined as:

(A) The total time the whole project could be delayed

(B) The amount of time an activity could be delayed without delaying the overall project

(C) The difference between the durations of the two longest paths in the network

(D) The number of activities that must be completed before this one can start

Lời giải chi tiết

(B). Total float = LST − EST for that specific activity, representing the spare time available on that activity before it starts affecting the project's completion date.

Bài tập luyện tập

A student calculates that Path 1 through a network takes 14 days and Path 2 takes 19 days, and concludes that Path 1 must be the critical path because "it uses fewer resources and finishes its own activities sooner." Explain why this reasoning is incorrect, and state which path is actually critical.

Lời giải chi tiết

The critical path is defined as the **longest** path from the start event to the end event, because the project as a whole cannot finish until *every* path (including the longest one) has been completed — a shorter path simply finishes early and then has spare float, it does not determine the project's overall duration. Here, Path 2 (19 days) is the critical path, and the project's minimum duration is 19 days, not 14; Path 1's activities collectively have $19 - 14 = 5$ days of float to share between them.

Bài tập luyện tập

A manufacturer's factory has a maximum capacity of 144,000 units/year and currently produces 129,600 units/year. Forecast demand rises to 162,000 units/year. Using the figures from the worked capacity-shortfall example (overtime \$180,000; new shift \$276,000 with $+40{,}000$ permanent capacity; capital investment \$590,000 with $+50{,}000$ permanent capacity), recommend an option for a firm that expects demand to keep growing strongly over the next five years, giving one reason.

Lời giải chi tiết

If demand is expected to keep growing over several years (not just a one-off spike), the **capital investment** option is the strongest choice, despite its much higher year-1 cost ($590,000). It permanently raises maximum capacity by 50,000 units/year (the largest gain of the three options) and reduces the variable cost per additional unit to $5 (lower than overtime's $10 and the new shift's $7), so the extra upfront cost is recovered over the following years through cheaper output and headroom to meet further demand growth without needing another capacity decision soon. Overtime, by contrast, adds no permanent capacity at all and would need to be repeated (at $10/unit) every year demand stays high, making it the weaker long-run choice even though it is cheapest in year 1.

Bài tập luyện tập

A firm currently operates at 95% capacity utilisation, which management describes internally as ideal because "fixed costs per unit are minimised." Identify and explain one risk of operating this close to full capacity that the statement ignores.

Lời giải chi tiết

Operating at 95% utilisation leaves very little spare capacity (slack) to absorb machine breakdowns, staff absence, unexpected rush orders, or maintenance downtime — any disruption is likely to cause missed delivery deadlines or lost sales, since there is almost no buffer to make up lost output elsewhere. It may also increase strain on machinery (raising breakdown risk) and on staff (raising fatigue and potentially reducing quality), so while unit fixed costs are indeed minimised, this must be weighed against the higher operational risk of running with almost no spare capacity.

Bài tập luyện tập

A project has seven activities across six events, as follows.

Activity	Path	Duration (weeks)
A	1→2	5
B	1→3	3
D	2→4	6
E	3→4	5
F	3→5	7
G	4→6	4
H	5→6	3

Calculate the EST, LST, and total float for every activity, and state the critical path and minimum project duration.

Lời giải chi tiết

Forward pass: $\text{EST}_1 = 0$; $\text{EST}_2 = 5$; $\text{EST}_3 = 3$; $\text{EST}_4 = \max(\text{EST}_2+6, \text{EST}_3+5) = \max(11, 8) = 11$; $\text{EST}_5 = \text{EST}_3 + 7 = 10$; $\text{EST}_6 = \max(\text{EST}_4 + 4, \text{EST}_5 + 3) = \max(15, 13) = 15$. **Project duration** $= 15$ **weeks.**

Backward pass: $\text{LST}_6 = 15$; $\text{LST}_5 = 15 - 3 = 12$; $\text{LST}_4 = 15 - 4 = 11$; $\text{LST}_3 = \min(11 - 5,\ 12 - 7) = \min(6, 5) = 5$; $\text{LST}_2 = 11 - 6 = 5$; $\text{LST}_1 = \min(5 - 5,\ 5 - 3) = \min(0, 2) = 0$.

Activity	Duration	EST	LST	Total float	Critical?
A (1→2)	5	0	0	0	Yes
B (1→3)	3	0	2	2	No
D (2→4)	6	5	5	0	Yes
E (3→4)	5	3	6	3	No
F (3→5)	7	3	5	2	No
G (4→6)	4	11	11	0	Yes
H (5→6)	3	10	12	2	No

Critical path: A–D–G (duration $5 + 6 + 4 = 15$, matching the project duration of 15 weeks).

Bài tập luyện tập

A firm is deciding whether robotics/automation would improve its competitiveness. Which of the following is a genuine **drawback** of automating a production line?

(A) Unit variable costs typically fall at high output volumes

(B) Consistency and precision of output usually improve

(C) A large upfront capital cost is required, and production jobs are often reduced

(D) Output can usually be produced with less variation between units

Lời giải chi tiết

(C). Options (A), (B), and (D) are all typical *benefits* of automation. The genuine drawback is the large capital investment required and the potential reduction in the workforce, with associated retraining, redundancy, and morale costs.

Bài tập luyện tập

A pharmaceutical firm increases its R&D budget substantially over several years. Explain how this investment could improve the firm's long-run competitiveness, and identify one risk associated with the decision.

Lời giải chi tiết

Higher R&D spending increases the chance of developing new or improved products (e.g. new drug formulations) or more efficient production processes, potentially protected by patents that stop competitors from copying them for a period — this can support premium pricing, higher market share, and a stronger long-run competitive position. The risk is that R&D is inherently uncertain: many research projects fail to produce a commercially viable outcome, the money spent is often irrecoverable (a sunk cost), and any successful breakthrough may take years to reach the market, so the investment reduces short-run profit and cash flow with no guarantee of a future payoff.

Bài tập luyện tập

A firm's maximum capacity is 12,000 units/month at a variable cost of \$6/unit; monthly fixed costs are \$54,000. Current output is 9,600 units/month. (a) Calculate current capacity utilisation. (b) If demand rises to 13,800 units/month, calculate the shortfall beyond maximum capacity. (c) Given overtime costs an extra \$4/unit above normal variable cost for the shortfall units, calculate the extra cost of using overtime to meet the full shortfall.

Lời giải chi tiết

(a) Utilisation $= 9{,}600/12{,}000 \times 100 = 80\%$.
(b) Shortfall $= 13{,}800 - 12{,}000 = 1{,}800$ units beyond maximum capacity.
(c) Extra overtime cost $= 1{,}800 \times \$4 = \$7{,}200$/month, on top of the normal variable cost already incurred on those units.

Bài tập luyện tập

A wholesaler holds 1,000 stock lines. Category A contains 120 lines and represents 70% of total stock value; Category C contains 600 lines and represents 8% of total stock value. (a) Calculate the percentage of stock lines each category represents. (b) Explain why Category A should receive tighter stock control than Category C.

Lời giải chi tiết

(a) Category A: $120/1{,}000 \times 100 = 12\%$ of stock lines. Category C: $600/1{,}000 \times 100 = 60\%$ of stock lines. (Category B, by difference, is the remaining $1{,}000 - 120 - 600 = 280$ lines, i.e. 28% of lines, representing the remaining $100 - 70 - 8 = 22\%$ of value.)
(b) Category A represents only 12% of stock lines but 70% of total stock value, so an error, stock-out, or overstocking in this category has a much larger financial impact than the same error in Category C (60% of lines but only 8% of value). It is cost-effective to concentrate scarce management time — frequent counts, careful EOQ/reorder-level calculations, close supplier relationships — on the small number of high-value Category A lines, while Category C can be controlled more loosely (e.g. ordered in bulk infrequently) since the potential loss from an error there is small.

Bài tập luyện tập

In Worked network 2 (Section on project management), activity D (3→4, duration 6) has EST$_3 = 7$ and EST$_4 = 13$. Calculate the free float of activity D, and compare it with its total float of 1 (calculated earlier). Explain what the comparison shows.

Lời giải chi tiết

Free float of D = EST$_4$−EST$_3$ $- 6 = 13 - 7 - 6 = 0$. Its total float was 1 (LST$_4$−EST$_3$ $- 6 = 14 - 7 - 6 = 1$). Since free float (0) is less than total float (1), activity D has no room at all to be delayed without pushing back the earliest possible start of the activities following node 4 (specifically F) — even though D's *total* float of 1 suggested some spare time exists somewhere in the project overall. This illustrates why free float is the more cautious, activity-specific measure: it should be used when checking whether a delay to one particular activity is safe without needing to check the knock-on effect on every later activity.

Bài tập luyện tập

A firm has annual demand $D = 6{,}000$ units, ordering cost $C_o = \$60$, holding cost $C_h = \$5$/unit/year, and a normal unit price of \$8.00. Its EOQ is $\sqrt{2(6{,}000)(60)/5} = \sqrt{144{,}000} = 379.5 \approx 380$ units. A supplier offers \$7.60/unit for orders of 600 units or more. (a) Calculate total annual cost (purchase + ordering + holding) at the EOQ (use 380 units, price \$8.00). (b) Calculate total annual cost at 600 units (price \$7.60). (c) Recommend an order quantity.

Lời giải chi tiết

(a) At 380 units: purchase $= 8.00(6{,}000) = 48{,}000$; ordering $= \frac{6{,}000}{380}(60) \approx 947.4$; holding $= \frac{380}{2}(5) = 950$. Total $\approx 48{,}000 + 947.4 + 950 = \$49{,}897.4$.
(b) At 600 units: purchase $= 7.60(6{,}000) = 45{,}600$; ordering $= \frac{6{,}000}{600}(60) = 10(60) = 600$; holding $= \frac{600}{2}(5) = 1{,}500$. Total $= 45{,}600 + 600 + 1{,}500 = \$47{,}700$.
(c) Ordering 600 units at a time costs $49{,}897.4 - 47{,}700 \approx \$2{,}197$ less per year than ordering at the EOQ, because the price discount ($0.40 \times 6{,}000 = \$2,400$ saved) more than covers the extra holding cost minus the ordering-cost saving. The firm should accept the discount and order 600 units at a time.

Bài tập luyện tập

Which of the following is a genuine risk of **offshoring** production to a lower-cost country, rather than a benefit?

(A) Lower unit labour costs

(B) Longer, less certain supply chains and exchange-rate exposure

(C) Access to a new overseas market

(D) Potentially lighter regulation

Lời giải chi tiết

(B). Options (A), (C), and (D) are typical benefits offered by offshoring; the genuine risk is the longer and less predictable supply chain this creates, together with exposure to exchange-rate movements on costs and revenues in a foreign currency.

Bài tập luyện tập

On a Gantt chart, the hatched (or lighter-shaded) extension of an activity's bar, running past the end of its actual duration, represents:

(A) The activity's total float

(B) A second, unrelated activity

(C) The activity's original EST

(D) An error in the schedule that must be corrected

Lời giải chi tiết

(A). The hatched extension shows how much longer the activity could run (or how much later it could start) before it begins to threaten the project's overall completion date — i.e. its total float, exactly as total float is shown numerically in a CPA results table.

Bài tập luyện tập

Explain, with reference to the definition of a dummy activity, why a network diagram might need a dummy activity between two events even though the dummy itself represents no real work.

Lời giải chi tiết

A dummy activity (drawn as a dashed, zero-duration arrow) is needed purely to preserve correct **logical dependency** in the diagram, in two typical situations: first, network-diagram rules require every activity to be uniquely identified by its start and end events, so if two genuinely different activities would otherwise share exactly the same start event *and* the same end event, a dummy is inserted to separate them onto distinct paths; second, if one following activity depends on only part of what has gone before while another following activity depends on the complete set of preceding activities, a dummy correctly forces the second activity to wait for everything without also forcing the first activity to wait unnecessarily. Removing the dummy in either case would either break the diagram's uniqueness rule or silently create an incorrect dependency, potentially giving a wrong critical path.

Bài tập luyện tập

A factory's quality circle (5 machine operators) meets weekly and identifies that a specific machine setting is the root cause of 60% of scrapped units. Explain how this finding is likely to be acted upon under a TQM culture, and identify which cost-of-quality category the quality circle's own time represents.

Lời giải chi tiết

Under a TQM culture, the quality circle would raise the finding with management and, since employees closest to the process are trusted to identify practical fixes, the proposed correction (e.g. adjusting or recalibrating the machine setting) would typically be trialled and, if it reduces scrap, rolled out as a small **kaizen** improvement rather than needing a large separate improvement project. The time employees spend in the quality circle meeting and investigating the cause is a **prevention** cost (it is spent trying to stop defects occurring, before any output is produced or inspected) — the hoped-for benefit is a fall in the much larger **internal failure** cost currently being incurred through scrapped units.

Bài tập luyện tập

A small manufacturer of customised metal parts is considering investing in a flexible manufacturing system (FMS) rather than continuing with conventional batch production on general-purpose machines. Give one advantage and one drawback of making this investment.

Lời giải chi tiết

Advantage: an FMS can switch between different customer specifications with far less changeover time and manual resetting than conventional batch production, allowing the firm to serve a wider range of custom orders at a lower unit cost and faster turnaround than before, narrowing the usual gap between the flexibility of small-batch/job work and the cost efficiency of larger-scale production. **Drawback:** FMS equipment requires a large upfront capital investment and specialist staff to program and maintain it; unless the firm has (or can win) enough demand and variety of orders to keep the system well utilised, the high fixed cost of the investment may not be justified, and unit costs could even rise if the machinery runs at low capacity utilisation.

Bài tập luyện tập

A start-up furniture company is launching a new product line. It must (i) choose a production method, (ii) choose a factory location, and (iii) plan the launch project's timeline. Given that the product range will include both bespoke, made-to-order pieces and a standard catalogue of best-sellers, briefly recommend an approach for each of the three decisions, linking your answer to concepts covered in this unit.

Lời giải chi tiết

(i) Production method: a mixed approach is appropriate — **batch production** for the standard catalogue range (captures some economies of scale while still allowing variety between batches of different designs), combined with **job production** for bespoke, made-to-order commissions (justifying a price premium for full customisation). A pure flow-production line would be unsuitable, since neither the bespoke nor the catalogue range is produced in the very high, standardised volumes flow production requires.
(ii) Location: use **weighted factor rating** to compare candidate sites on factors such as availability of skilled woodworking labour, cost and availability of timber supply (proximity to suppliers), and transport links to the target market, then confirm the choice with a **location break-even (cost) analysis** once realistic fixed and variable cost estimates are available for the shortlisted sites and expected output volume.
(iii) Project timeline: use **critical path analysis** to plan the sequence of launch activities (workshop fit-out, staff recruitment/training, sourcing initial timber stock, building the catalogue-range prototype, marketing launch), identifying the critical path so management knows exactly which activities cannot slip without delaying the launch date, and where float exists to reallocate resources if a critical activity is at risk of running late.

Finance and Accounting

Mục tiêu Unit: Nguồn vốn nội bộ và bên ngoài, ngắn hạn và dài hạn (matching principle); dự báo dòng tiền và lập ngân sách, kể cả zero-based budgeting (mức A2); phân loại chi phí, contribution và phân tích điểm hoà vốn kể cả độ nhạy khi chi phí/giá thay đổi; báo cáo tài chính (income statement, statement of financial position) và chu kỳ vốn lưu động (mức A2); phân tích tỷ số về khả năng sinh lời, thanh khoản, đòn bẩy tài chính, hiệu quả hoạt động và cổ tức (mức A2); thẩm định đầu tư bằng payback, ARR, NPV (mức A2) và IRR (mức A2).

5.1 Sources of finance

5.1.1 Internal finance

Internal finance is money raised from within the business itself, without approaching an outside lender or investor.

Retained profit: profit from previous years that has not been distributed to shareholders as dividends, kept back and reinvested in the business. **Sale of assets**: raising cash by selling unneeded non-current assets (surplus land, an old machine, an unused building), including sale-and-leaseback, where an asset is sold to a finance company and immediately leased back for continued use. **Reducing working capital**: tightening control of inventory, chasing up trade receivables faster, or delaying payments to trade payables (within agreed terms) to free up cash tied up in day-to-day operations.

GIẢI THÍCH TIẾNG VIỆT

VN

Vốn nội bộ là nguồn vốn huy động từ chính nội tại doanh nghiệp, không cần vay hay gọi vốn từ bên ngoài. **Lợi nhuận giữ lại** là lợi nhuận các năm trước chưa chia cổ tức, được giữ lại để tái đầu tư. **Bán tài sản** là bán các tài sản cố định không còn cần thiết để thu tiền mặt, kể cả hình thức *sale-and-leaseback* (bán tài sản cho công ty tài chính rồi thuê lại để tiếp tục sử dụng). **Giảm vốn lưu động** là siết chặt quản lý tồn kho, thu hồi công nợ phải thu nhanh hơn, hoặc trì hoãn thanh toán công nợ phải trả (trong hạn cho phép) để giải phóng tiền mặt đang bị ứ đọng trong hoạt động hàng ngày.

Internal finance has no interest cost and does not dilute ownership or increase gearing, but it is limited by the amount of profit or spare assets the firm actually has — a start-up or a loss-making firm typically has little or none available.

5.1.2 External finance: short term

Short-term external finance is normally repayable within one year and is used to fund working-capital needs (a temporary cash-flow gap, seasonal stock build-up) rather than permanent, long-lived assets.

Bank overdraft: an agreement letting a firm's current account go into deficit up to an agreed limit; interest is charged only on the amount actually overdrawn, on a daily basis, and the bank can in principle demand repayment at short notice. **Trade credit**: buying goods or materials from a supplier now and paying an agreed number of days later (e.g. "net 60 days"); effectively an interest-free loan from the supplier, but paying late beyond agreed terms damages the relationship and may forfeit early-payment discounts. **Debt factoring**: selling trade receivables (unpaid invoices) to a factoring company at a discount in exchange for immediate cash, transferring the task (and risk/cost) of collection to the factor.

GIẢI THÍCH TIẾNG VIỆT

VN

Thấu chi (overdraft) là thoả thuận cho phép tài khoản của doanh nghiệp bị âm đến một hạn mức nhất định; lãi chỉ tính trên phần thực sự bị âm, tính theo ngày, và ngân hàng có thể yêu cầu hoàn trả trong thời gian ngắn. **Tín dụng thương mại (trade credit)** là mua hàng/nguyên liệu ngay nhưng trả tiền sau một số ngày thoả thuận — thực chất là một khoản vay không lãi suất từ nhà cung cấp, nhưng trả trễ hơn thời hạn sẽ ảnh hưởng quan hệ đối tác và mất chiết khấu thanh toán sớm. **Bao thanh toán (debt factoring)** là bán các khoản phải thu (hoá đơn chưa thu tiền) cho công ty bao thanh toán với một khoản chiết khấu để nhận tiền mặt ngay, chuyển công việc (và rủi ro/chi phí) thu hồi công nợ sang bên factor.

5.1.3 External finance: long term

Long-term external finance typically has a repayment term of more than one year and is used to fund permanent or long-lived investment: new premises, machinery, an acquisition, or long-term expansion.

Bank loan / debentures: a fixed sum borrowed for an agreed term at an agreed rate of interest, repaid according to a schedule (debentures are a formal, often tradeable, long-term loan instrument, sometimes secured against specific assets). **Share issue**: selling new ordinary shares in exchange for cash — a **rights issue** offers new shares to *existing* shareholders (usually at a discount to the market price, in proportion to their current holding); a **new (public) issue** offers shares to new investors, e.g. via a stock-market flotation. **Venture capital / business angels**: specialist investors (often a fund, or a wealthy individual) who provide capital — usually to high-risk, high-growth start-ups that cannot yet access bank loans or public markets — typically in exchange for equity and a role in strategic decisions. **Leasing**: renting the use of an asset (machinery, vehicles, premises) from a leasing company for regular payments, rather than buying it outright; the leasing company retains ownership and legal/maintenance responsibility (under an operating lease). **Government grants**: funding from a government or public body, often to support investment in a deprived region, green technology, or job creation; frequently does not need to be repaid, though usually comes with conditions attached.

GIẢI THÍCH TIẾNG VIỆT

VN

Vay ngân hàng / trái phiếu doanh nghiệp (debentures) là khoản vay có kỳ hạn dài với lãi suất và lịch trả nợ đã thoả thuận trước (debenture là công cụ vay dài hạn chính thức, có thể được giao dịch, đôi khi được bảo đảm bằng tài sản cụ thể). **Phát hành cổ phiếu**: *rights issue* chào bán cổ phiếu mới cho cổ đông *hiện hữu* (thường với giá chiết khấu, theo tỉ lệ sở hữu hiện tại); *new/public issue* chào bán cổ phiếu cho nhà đầu tư mới, ví dụ khi niêm yết lần đầu. **Vốn mạo hiểm / nhà đầu tư thiên thần** là các quỹ hoặc cá nhân chuyên đầu tư vào start-up rủi ro cao, tăng trưởng nhanh, chưa thể tiếp cận vay ngân hàng hay thị trường vốn đại chúng — đổi lại họ nhận cổ phần và thường tham gia vào quyết định chiến lược. **Thuê tài chính/thuê hoạt động (leasing)** là thuê quyền sử dụng tài sản thay vì mua đứt; công ty cho thuê vẫn giữ quyền sở hữu và trách nhiệm bảo trì (đối với operating lease). **Trợ cấp chính phủ** thường không phải hoàn trả nhưng thường đi kèm điều kiện ràng buộc.

Ví dụ mẫu · Worked example: leasing versus buying a delivery van

A firm needs a delivery van for 4 years. **Buying outright** costs $24,000 cash today; the van is expected to be resold for $4,800 at the end of Year 4. **Leasing** an equivalent van costs $400 per month for 48 months, with the van returned to the leasing company at the end of the term.

Net cost of buying $= \$24{,}000 - \$4{,}800 = \$19{,}200$ Total cost of leasing $= \$400 \times 48 = \$19{,}200$

The two options cost *exactly the same* over the 4 years — so the decision cannot be settled by the total cost figure alone. **Buying** requires the full $24,000 in cash immediately (tying up working capital that could be used elsewhere) and exposes the firm to the risk that the van's actual resale value in 4 years turns out lower than the $4,800 estimated. **Leasing** spreads the cost evenly as a predictable monthly outflow, avoids tying up a lump sum of cash, and shifts the resale-value risk to the leasing company — but the firm never owns the asset, and the leasing company (not the firm) decides on any future replacement or upgrade.

VN **GIẢI THÍCH TIẾNG VIỆT**

Ví dụ trên cho thấy tổng chi phí mua đứt ($24,000 trừ giá trị thu hồi $4,800 = $19,200) và tổng chi phí thuê tài chính ($400/tháng × 48 tháng = $19,200) có thể bằng nhau — vì vậy quyết định không thể chỉ dựa vào tổng chi phí. **Mua đứt** cần chi ngay một khoản tiền lớn (ảnh hưởng vốn lưu động) và chịu rủi ro giá trị thu hồi thực tế có thể thấp hơn dự kiến. **Thuê** dàn trải chi phí đều đặn, không cần vốn lớn ban đầu, và chuyển rủi ro giá trị thu hồi sang bên cho thuê — nhưng doanh nghiệp sẽ không bao giờ sở hữu tài sản.

5.1.4 Comparing sources of finance

The table below summarises the main trade-offs a finance manager must weigh for each source.

Source	Term	Cost / interest	Effect on control	Effect on gearing	Best use-case
Retained profit	Internal	None (opportunity cost only)	None — no dilution	None (reduces need for debt)	Ongoing reinvestment; profitable, established firms
Sale of assets	Internal	None; may lose future use of the asset	None	None	Raising one-off cash from surplus/unused assets
Reducing working capital	Internal	None; may strain supplier relations	None	None	Short-term cash-flow tightening
Overdraft	Short	Interest on daily overdrawn balance (variable, can be high)	None	Slightly raises gearing while drawn	Covering a temporary cash-flow gap
Trade credit	Short	Effectively free if paid on time	None	None recorded as debt	Everyday purchases of stock/materials
Debt factoring	Short	Discount/fee taken by the factor	None	None	Firms with slow-paying customers needing cash now
Bank loan / debentures	Long	Fixed or variable interest over the term	None, but loan covenants may restrict decisions	Raises gearing (fixed interest obligation)	Buying a specific long-lived asset with a known cost
Share issue	Long	No interest; dividends are discretionary	Dilutes existing owners' % control (unless pro-rata rights issue)	Lowers gearing (adds equity, no fixed interest)	Large-scale, permanent expansion; deleveraging
Venture capital / business angels	Long	No interest; investor takes equity + say in strategy	Significant dilution + loss of some autonomy	Lowers gearing	High-risk, high-growth start-ups without loan access
Leasing	Long	Regular lease payments, often higher total cost than buying outright	None	Off-balance-sheet effect varies by lease type	Equipment/vehicles that date quickly or are needed short-term
Government grants	Long	Usually none to repay, but conditions attached	None	None	Investment in a priority region/technology/sector

GIẢI THÍCH TIẾNG VIỆT

VN Bảng trên cho thấy **không có nguồn vốn nào "tốt nhất tuyệt đối"** — mỗi nguồn có sự đánh đổi khác nhau giữa chi phí, quyền kiểm soát, và ảnh hưởng lên đòn bẩy tài chính (gearing). Vốn nội bộ và tín dụng thương mại rẻ nhất nhưng có giới hạn về quy mô; vay nợ (loan/debenture) không làm loãng quyền sở hữu nhưng làm tăng gearing và có nghĩa vụ trả lãi cố định bất kể lợi nhuận; phát hành cổ phiếu làm giảm gearing nhưng pha loãng quyền sở hữu của cổ đông hiện hữu.

5.1.5 Rights issues in practice

When a company raises cash through a **rights issue**, existing shareholders are offered new shares in proportion to their current holding (e.g. "1-for-4" means one new share for every four already held), usually priced at a discount to the current market price to encourage take-up. Once the new shares are issued, the market price should settle at a **theoretical ex-rights price (TERP)** — a weighted average of the old market price and the new (discounted) issue price.

$$\textbf{TERP} = \frac{(\text{Old shares} \times \text{Old market price}) + (\text{New shares} \times \text{Issue price})}{\text{Total shares after the issue}}$$

Ví dụ mẫu · Worked example: a rights issue and TERP

A company has **1,000,000** shares in issue, currently trading at **$5.00**. It launches a **1-for-4** rights issue at a discounted price of **$4.00** per new share.

$$\text{New shares issued} = \frac{1{,}000{,}000}{4} = 250{,}000 \qquad \text{Cash raised} = 250{,}000 \times \$4.00 = \$1{,}000{,}000$$

$$\text{Total shares after the issue} = 1{,}000{,}000 + 250{,}000 = 1{,}250{,}000$$

$$\text{TERP} = \frac{(1{,}000{,}000 \times 5.00) + (250{,}000 \times 4.00)}{1{,}250{,}000} = \frac{5{,}000{,}000 + 1{,}000{,}000}{1{,}250{,}000} = \frac{6{,}000{,}000}{1{,}250{,}000} = \$4.80$$

The company raises $1,000,000 in new cash, and the share price is expected to settle at $4.80 — below the old $5.00 price (reflecting the discount and the larger number of shares now outstanding), but above the $4.00 issue price. A shareholder who takes up their full entitlement suffers no dilution of their percentage ownership; one who does not take up the offer is diluted, though rights themselves can usually be sold on to compensate for this.

VN GIẢI THÍCH TIẾNG VIỆT

Rights issue chào bán cổ phiếu mới cho cổ đông hiện hữu theo tỉ lệ sở hữu hiện tại (ví dụ "1 đổi 4" là 1 cổ phiếu mới cho mỗi 4 cổ phiếu đang nắm giữ), thường với giá chiết khấu so với thị giá để khuyến khích cổ đông tham gia mua. Sau khi phát hành, thị giá dự kiến điều chỉnh về **giá lý thuyết sau quyền (TERP)** — bình quân gia quyền giữa thị giá cũ và giá phát hành mới (thấp hơn). Cổ đông mua đủ theo quyền của mình sẽ không bị pha loãng tỉ lệ sở hữu; cổ đông không tham gia sẽ bị pha loãng.

5.1.6 The matching principle and choosing a source of finance

The **matching principle**: the term of the finance should match the term of the need it funds. A short-term need (a seasonal stock build-up, a temporary cash gap before a customer pays) should be financed short-term (overdraft, trade credit); a long-term need (a new factory, machinery with a 10-year life) should be financed long-term (loan, share issue, leasing). Financing a long-term asset with short-term finance (e.g. an overdraft) risks the lender demanding repayment before the asset has generated enough cash to repay it.

Other factors affecting the choice of finance: the *amount* needed (small amounts may not justify the fixed costs of a share issue); the *purpose* (an asset that can be used as security supports a secured loan at a lower rate); the *cost* (compare total interest/dividend cost); the desired degree of *control* (a sole trader unwilling to dilute ownership will avoid share issues); the firm's existing *gearing* (an already highly-geared firm is a higher risk to lenders and may be forced toward equity finance); the firm's *legal form* (only a company can issue shares; a sole trader cannot); and the state of the *economy* (interest rates affect the relative cost of debt versus equity).

VN GIẢI THÍCH TIẾNG VIỆT

Nguyên tắc phù hợp (matching principle): kỳ hạn của nguồn vốn nên tương ứng với kỳ hạn của nhu cầu sử dụng vốn — nhu cầu ngắn hạn dùng vốn ngắn hạn, nhu cầu dài hạn dùng vốn dài hạn. Tài trợ tài sản dài hạn bằng vốn ngắn hạn (ví dụ overdraft) rất rủi ro vì ngân hàng có thể đòi hoàn trả trước khi tài sản kịp tạo đủ dòng tiền để trả nợ. Ngoài ra, lựa chọn nguồn vốn còn phụ thuộc vào số tiền cần, mục đích sử dụng, chi phí, mức độ muốn giữ quyền kiểm soát, mức gearing hiện tại, loại hình pháp lý doanh nghiệp, và bối cảnh lãi suất trên thị trường.

Ví dụ mẫu · Worked example: cost of a term loan

A company borrows $150,000 for 4 years at a simple interest rate of 6% per year, to be repaid as one lump sum (principal plus all interest) at the end of the term.

$$\text{Total interest} = \$150{,}000 \times 0.06 \times 4 = \$36{,}000$$

$$\text{Total repayment} = \$150{,}000 + \$36{,}000 = \$186{,}000$$

So borrowing $150,000 ultimately costs the firm $36,000 in interest — 24% of the sum originally borrowed — over the 4-year term, in addition to repaying the $150,000 principal.

Ví dụ mẫu · Worked example: ownership dilution from a share issue

A private company has **1,000,000** ordinary shares in issue. A founding shareholder owns **300,000** shares.

$$\text{Founder's stake before the issue} = \frac{300{,}000}{1{,}000{,}000} \times 100 = 30\%$$

To raise expansion capital, the company makes a **new issue** of **250,000** additional shares to outside investors (the founder does not buy any of the new shares).

$$\text{New total shares in issue} = 1{,}000{,}000 + 250{,}000 = 1{,}250{,}000$$

$$\text{Founder's stake after the issue} = \frac{300{,}000}{1{,}250{,}000} \times 100 = 24\%$$

The founder's percentage ownership falls from 30% to 24% — a **dilution of 6 percentage points** — even though the founder still owns exactly the same *number* of shares. This is the direct numerical cost of raising capital through a new share issue rather than debt: no interest is paid, but existing owners' proportional control and claim on future profits/dividends is reduced. A **rights issue** to existing shareholders in proportion to their holding would let the founder maintain the same 30% stake, provided the founder takes up their full entitlement.

(!) Lỗi thường gặp: A profitable, fast-growing firm can still fail from a **cash-flow** shortage — profit (an accounting measure, recorded when a sale is invoiced) is not the same as cash in the bank (which depends on *when* customers actually pay and *when* the firm must pay its own bills). This is exactly why matching the term of finance to the term of the need matters: a firm can be profitable on paper for the whole year and still need short-term finance (overdraft, factoring) to bridge a temporary cash gap.

5.2 Financial forecasting and budgets

5.2.1 Cash flow forecasts

A **cash flow forecast** predicts the timing and amount of cash inflows and outflows over a future period, so that a firm can identify in advance any month in which it may run short of cash and arrange finance (e.g. an overdraft) before the shortfall actually occurs.

Cash inflows: cash received, e.g. cash sales, receipts from credit customers, loan receipts, sale of assets. **Cash outflows**: cash paid out, e.g. payments to suppliers, wages, rent, loan repayments, tax. **Net cash flow** = total inflows − total outflows for the period. **Closing balance** = opening balance + net cash flow; this closing balance becomes next period's opening balance.

VN GIẢI THÍCH TIẾNG VIỆT

Dự báo dòng tiền (cash flow forecast) dự đoán thời điểm và số tiền của các khoản thu và chi trong tương lai, giúp doanh nghiệp phát hiện trước tháng nào có thể thiếu hụt tiền mặt để chủ động thu xếp nguồn vốn (ví dụ overdraft) trước khi thực sự xảy ra thiếu hụt. **Dòng tiền ròng** = tổng thu − tổng chi trong kỳ; **số dư cuối kỳ** = số dư đầu kỳ + dòng tiền ròng, và số dư cuối kỳ này trở thành số dư đầu kỳ của kỳ tiếp theo.

Ví dụ mẫu · Worked example: a four-month cash flow forecast

A small retailer prepares the following forecast for January–April, starting with an opening cash balance of $10,000 in January.

	Jan ($)	Feb ($)	Mar ($)	Apr ($)
Opening balance	10,000	5,000	−7,000	5,000
Total cash inflows	40,000	38,000	52,000	48,000
Total cash outflows	45,000	50,000	40,000	42,000
Net cash flow	−5,000	−12,000	12,000	6,000
Closing balance	**5,000**	**−7,000**	**5,000**	**11,000**

Each month's closing balance = opening balance + net cash flow, and becomes next month's opening balance (e.g. Jan's closing $5,000 is Feb's opening $5,000). **February is a problem month**: a net outflow of $12,000 pushes the closing balance to −$7,000 — the business would run out of cash and be unable to pay its bills unless action is taken. Because the shortfall is temporary (March and April both show positive net cash flow, restoring a healthy balance), it is best addressed with **short-term** finance matched to a short-term need: arranging an overdraft facility (of at least $7,000) in advance of February, negotiating longer payment terms with suppliers that month, or bringing forward some February cash inflows (e.g. chasing credit customers, offering an early-payment discount) rather than seeking a long-term loan for what is only a temporary dip.

5.2.2 Budgets: purpose and types

A **budget** is a financial plan, expressed in numbers, for a future period, setting targets for revenue, costs, or cash flow for a department or the whole firm.

Purposes of budgeting: *planning* (forces managers to think ahead and set clear, quantified targets); *control* (actual results are compared against the budget so problems are spotted and corrected quickly); *coordination* (aligns the plans of different departments, e.g. production budgeted in line with the sales budget); *motivation* (a budget can act as a target for a manager or team to work toward, especially if linked to delegated budget-holder responsibility).

VN GIẢI THÍCH TIẾNG VIỆT

Ngân sách (budget) là kế hoạch tài chính bằng số cho một kỳ tương lai, đặt ra chỉ tiêu về doanh thu, chi phí, hoặc dòng tiền cho một bộ phận hay toàn doanh nghiệp. Mục đích lập ngân sách: **lập kế hoạch** (buộc nhà quản lý phải tính toán trước và đặt mục tiêu rõ ràng); **kiểm soát** (so sánh kết quả thực tế với ngân sách để phát hiện và xử lý vấn đề kịp thời); **phối hợp** (đồng bộ kế hoạch giữa các bộ phận); **tạo động lực** (ngân sách trở thành mục tiêu phấn đấu, đặc biệt khi giao quyền quản lý ngân sách cho từng bộ phận).

A2 EXTENSION: **Incremental budgeting** sets next period's budget by taking the current period's budget/actual figures and adding a small percentage increase (e.g. for expected inflation or growth) — quick and simple, but it can build in and perpetuate any past inefficiency or waste without ever questioning whether the spending is still justified. **Zero-based budgeting (ZBB)** instead requires every budget line to be justified completely from a base of zero each period, as if the activity were being funded for the first time — this forces a genuine review of whether spending is still needed and can eliminate waste, but it is far more time-consuming to prepare and can create uncertainty/anxiety among managers whose budget lines must be re-justified every cycle.

GIẢI THÍCH TIẾNG VIỆT

VN

Incremental budgeting lập ngân sách kỳ tới dựa trên ngân sách/kết quả thực tế kỳ hiện tại rồi cộng thêm một tỉ lệ tăng nhỏ — đơn giản, nhanh, nhưng có thể duy trì sự lãng phí có sẵn từ trước mà không ai đặt câu hỏi liệu khoản chi đó còn cần thiết không. **Zero-based budgeting (ZBB)** yêu cầu mọi khoản mục ngân sách phải được biện minh lại từ con số 0 mỗi kỳ, như thể mới tài trợ lần đầu — buộc phải rà soát thực chất xem khoản chi có còn cần thiết không, giúp loại bỏ lãng phí, nhưng tốn nhiều thời gian chuẩn bị hơn và có thể gây áp lực/lo lắng cho các quản lý phải biện minh lại ngân sách mỗi kỳ.

5.2.3 Variance analysis

Once actual results are known, they are compared against the budget to calculate a **variance** — the difference between budgeted and actual figures.

Favourable variance (F): actual results are better than budgeted (e.g. revenue higher than budgeted, or a cost lower than budgeted) — it improves profit. **Adverse variance (A)**: actual results are worse than budgeted (e.g. revenue lower than budgeted, or a cost higher than budgeted) — it reduces profit. For a *revenue* line, actual $>$ budget is favourable; for a *cost* line, actual $<$ budget is favourable (the opposite direction).

GIẢI THÍCH TIẾNG VIỆT

VN

Chênh lệch ngân sách (variance) là khác biệt giữa số liệu ngân sách và số liệu thực tế. **Chênh lệch thuận lợi (favourable)** là khi kết quả thực tế tốt hơn ngân sách (doanh thu thực tế cao hơn, hoặc chi phí thực tế thấp hơn) — làm tăng lợi nhuận. **Chênh lệch bất lợi (adverse)** là khi kết quả thực tế kém hơn ngân sách — làm giảm lợi nhuận. Lưu ý chiều ngược nhau: với dòng doanh thu, thực tế cao hơn ngân sách là thuận lợi; với dòng chi phí, thực tế *thấp hơn* ngân sách mới là thuận lợi.

Ví dụ mẫu · Worked example: sales and cost variances

Budgeted sales revenue for the month was $120,000; actual sales revenue was $126,000. Budgeted cost of sales was $70,000; actual cost of sales was $74,000.

$$\text{Sales variance} = 126{,}000 - 120{,}000 = +\$6{,}000 \textbf{ (favourable)}$$

$$\text{Cost of sales variance} = 74{,}000 - 70{,}000 = \$4{,}000 \textbf{ (adverse)} \text{ (cost overshot budget)}$$

Net effect on profit: $+\$6{,}000 - \$4{,}000 = +\$2{,}000$ — despite the adverse cost variance, the stronger-than-budgeted sales performance means the month's profit still beat budget overall by $2,000.

Ví dụ mẫu · Worked example: materials and labour variances

To produce 15,000 units, direct materials were budgeted at $45,000 but actually cost $42,000; direct labour was budgeted at $36,000 but actually cost $39,500.

$$\text{Materials variance} = 45{,}000 - 42{,}000 = \$3{,}000 \textbf{ (favourable)}$$

$$\text{Labour variance} = 39{,}500 - 36{,}000 = \$3{,}500 \textbf{ (adverse)}$$

Possible causes: the favourable materials variance could reflect a cheaper supplier, a bulk-purchase discount, or lower wastage on the line than budgeted; the adverse labour variance could reflect overtime paid to hit a rush order, an unbudgeted pay rise, or lower-than-expected labour efficiency (more hours needed per unit than planned). A manager should investigate *why* each variance occurred before deciding whether it is likely to recur, since a favourable variance caused by a one-off discount will not repeat next period, while one caused by a genuinely better supplier relationship should.

5.3 Costs and break-even analysis

5.3.1 Classifying costs

Fixed costs: do not change with the level of output in the short run (rent, salaried staff, insurance, loan interest) — the firm pays them even at zero output. **Variable costs**: change directly and proportionally with the level of output (raw materials, piece-rate labour, packaging) — zero output means zero variable cost. **Semi-variable costs**: contain both a fixed element and a variable element (e.g. a fixed landline rental plus a variable charge per call; a salesperson's fixed salary plus commission per unit sold). **Total cost** = total fixed cost + total variable cost. **Average (unit) cost** = total cost ÷ output.

GIẢI THÍCH TIẾNG VIỆT

VN

Chi phí cố định (fixed costs) không thay đổi theo sản lượng trong ngắn hạn (tiền thuê, lương nhân viên cố định, bảo hiểm) — vẫn phải trả dù sản lượng bằng 0. **Chi phí biến đổi (variable costs)** thay đổi tỉ lệ thuận với sản lượng (nguyên vật liệu, lương khoán sản phẩm) — sản lượng bằng 0 thì chi phí biến đổi bằng 0. **Chi phí bán biến đổi (semi-variable)** có cả phần cố định và phần biến đổi. **Tổng chi phí** = tổng chi phí cố định + tổng chi phí biến đổi; **chi phí trung bình/đơn vị** = tổng chi phí ÷ sản lượng.

Ví dụ mẫu · Worked example: average fixed and variable cost as output rises

A firm has fixed costs of $80,000 per period and a variable cost of $12 per unit.

Output	Total cost ($)	Avg fixed cost/unit ($)	Avg variable cost/unit ($)
2,000	$80{,}000 + 24{,}000 = 104{,}000$	$80{,}000/2{,}000 = 40.00$	12.00
4,000	$80{,}000 + 48{,}000 = 128{,}000$	$80{,}000/4{,}000 = 20.00$	12.00
8,000	$80{,}000 + 96{,}000 = 176{,}000$	$80{,}000/8{,}000 = 10.00$	12.00

As output rises, **average variable cost per unit stays constant** ($12.00) — this is exactly why contribution per unit is a stable, reliable figure to build break-even analysis on. **Average fixed cost per unit falls continuously** as the same $80,000 is spread over more units (from $40.00 at 2,000 units to $10.00 at 8,000 units) — this is the arithmetic behind why higher capacity utilisation improves unit economics.

5.3.2 Contribution

Contribution per unit = selling price per unit − variable cost per unit. It is called "contribution" because each unit sold first contributes toward covering the firm's fixed costs; only once total contribution equals total fixed costs (the break-even point) does further contribution become profit. **Total contribution** = contribution per unit × quantity sold = Sales revenue − Total variable cost.

Break-even analysis is built on *contribution*, not on full (absorption) unit cost, because fixed costs do not change with output: dividing total fixed cost by output to get a "full cost per unit" produces a unit cost that itself changes every time output changes, which cannot be used to find a single break-even output. Using contribution instead isolates the genuinely variable cost per unit (which stays constant regardless of volume) and asks a cleaner question: how many units must be sold before total contribution has paid off the fixed costs?

VN GIẢI THÍCH TIẾNG VIỆT

Contribution/đơn vị = giá bán/đơn vị − chi phí biến đổi/đơn vị. Gọi là "contribution" (đóng góp) vì mỗi sản phẩm bán ra trước tiên đóng góp để bù đắp chi phí cố định; chỉ khi tổng contribution bằng tổng chi phí cố định (điểm hoà vốn) thì phần contribution tiếp theo mới trở thành lợi nhuận. Phân tích hoà vốn dùng contribution thay vì chi phí đầy đủ/đơn vị (full/absorption cost) vì chi phí cố định không đổi theo sản lượng — nếu chia chi phí cố định cho sản lượng để ra "chi phí đầy đủ/đơn vị" thì con số này sẽ thay đổi mỗi khi sản lượng thay đổi, không thể dùng để tìm một điểm hoà vốn cố định.

5.3.3 Break-even output, margin of safety, and target profit

$$\textbf{Break-even output} = \frac{\text{Total fixed costs}}{\text{Contribution per unit}}$$

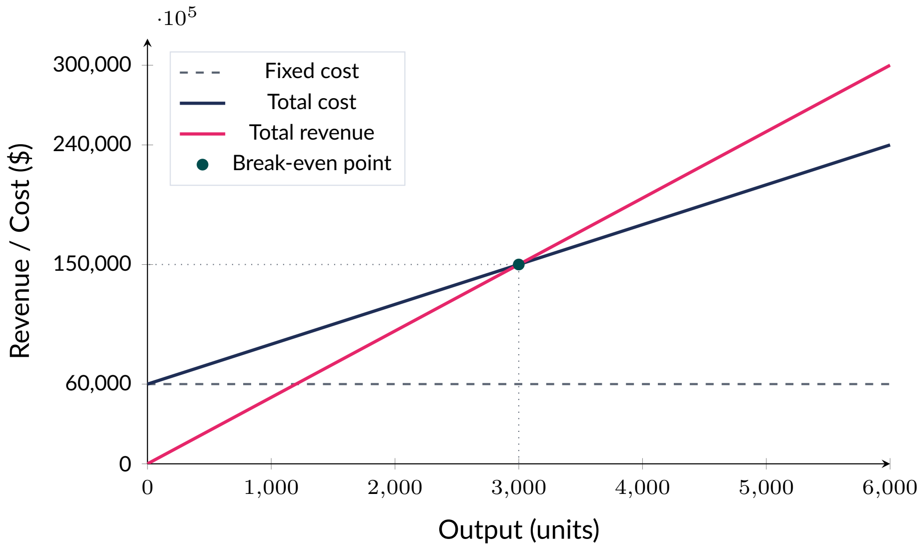
$$\textbf{Margin of safety} = \text{Actual (or budgeted) output} - \text{Break-even output}$$

$$\textbf{Output for a target profit} = \frac{\text{Total fixed costs} + \text{Target profit}}{\text{Contribution per unit}}$$

Below break-even output the firm makes a loss; above it, the firm makes a profit; the margin of safety measures how far output can fall before the firm slips back into loss.

VN GIẢI THÍCH TIẾNG VIỆT

Sản lượng hoà vốn = Tổng chi phí cố định ÷ Contribution/đơn vị. **Biên độ an toàn (margin of safety)** = Sản lượng thực tế (hoặc dự kiến) − Sản lượng hoà vốn — cho biết sản lượng có thể giảm bao nhiêu trước khi doanh nghiệp quay lại lỗ. **Sản lượng để đạt lợi nhuận mục tiêu** = (Tổng chi phí cố định + Lợi nhuận mục tiêu) ÷ Contribution/đơn vị.



Break-even chart: the fixed-cost line is flat; the total-cost line starts at fixed cost and rises with variable cost per unit; the total-revenue line starts at zero and rises with selling price per unit. The break-even point is where total revenue meets total cost.

Ví dụ mẫu · Worked example: break-even, margin of safety, target profit

A firm has fixed costs of $60,000 per period, sells its product at $50/unit, and incurs a variable cost of $30/unit.

$$\text{Contribution per unit} = 50 - 30 = \$20$$

$$\text{Break-even output} = \frac{60{,}000}{20} = 3{,}000 \text{ units}$$

If the firm expects to sell 5,000 units this period:

$$\text{Margin of safety} = 5{,}000 - 3{,}000 = 2{,}000 \text{ units } (40\% \text{ of expected output})$$

If the firm sets a target profit of $30,000 for the period:

$$\text{Target output} = \frac{60{,}000 + 30{,}000}{20} = \frac{90{,}000}{20} = 4{,}500 \text{ units}$$

The firm must sell 4,500 units (1,500 more than break-even) to earn exactly $30,000 profit; at the expected 5,000 units, profit would be $(5{,}000 - 3{,}000) \times 20 = \$40{,}000$, comfortably above the $30,000 target.

5.3.4 Sensitivity of break-even to cost and price changes

Because break-even output depends on both fixed costs and contribution per unit, any change in fixed costs, selling price, or variable cost per unit shifts the break-even point — this sensitivity is important for decision-making, since it shows how exposed a firm's break-even position is to cost inflation or competitive pricing pressure.

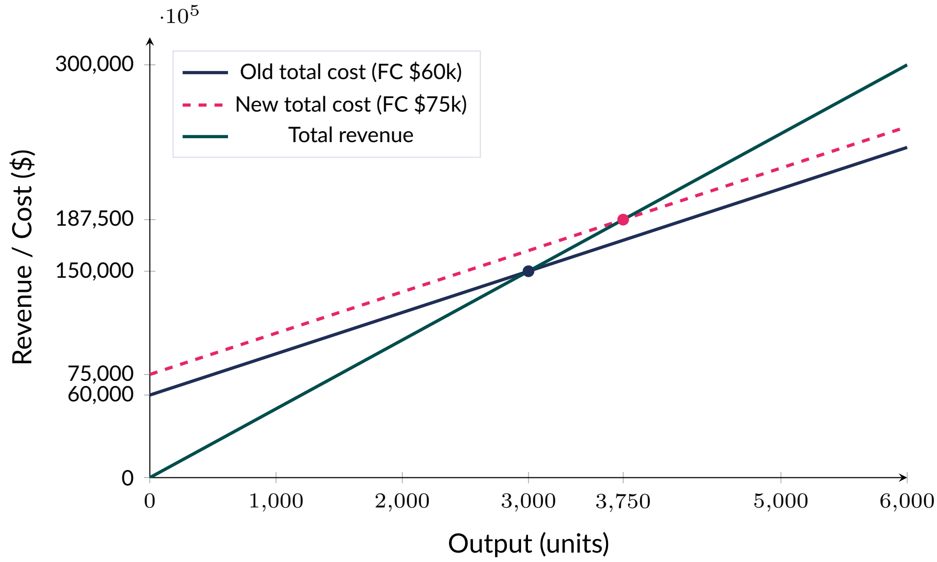
Ví dụ mẫu · Worked example: break-even after a rent increase

Continuing the previous example (SP $50/unit, VC $30/unit, contribution $20/unit, original fixed costs $60,000, break-even 3,000 units, expected output 5,000 units), suppose the landlord raises annual rent, pushing total fixed costs up by $15,000, to **$75,000**. Selling price and variable cost per unit are unchanged.

$$\text{New break-even output} = \frac{75{,}000}{20} = 3{,}750 \text{ units}$$

$$\text{New margin of safety (at 5,000 units)} = 5{,}000 - 3{,}750 = 1{,}250 \text{ units}$$

Before vs. after: break-even rises from 3,000 to 3,750 units (+750 units, +25%), and the margin of safety shrinks from 2,000 to 1,250 units (a 37.5% reduction in the safety cushion), even though expected sales of 5,000 units have not changed at all. The firm is now considerably more exposed to any unexpected fall in sales, purely because of the higher fixed cost base.



Before vs. after: a rise in fixed costs shifts the whole total-cost line upward in parallel (same slope, higher intercept), pushing the break-even point to the right along the unchanged revenue line.

GIẢI THÍCH TIẾNG VIỆT VN

Khi chi phí cố định tăng (ví dụ tiền thuê tăng), toàn bộ đường tổng chi phí (total cost) dịch chuyển **song song lên trên** (độ dốc không đổi vì chi phí biến đổi/đơn vị không đổi, chỉ có điểm cắt trục tung tăng), khiến điểm hoà vốn dịch sang phải (cần bán nhiều sản phẩm hơn mới hoà vốn) và biên độ an toàn bị thu hẹp lại — dù sản lượng dự kiến bán ra không đổi. Tương tự, nếu doanh nghiệp phải giảm giá bán do áp lực cạnh tranh, contribution/đơn vị giảm, điểm hoà vốn cũng tăng lên.

(!) Lỗi thường gặp: Margin of safety must be interpreted **relative to expected output**, not as a stand-alone number — 1,250 units of margin of safety is very comfortable if expected output is 10,000 units, but leaves almost no cushion if expected output is only 1,500 units. Always compare the margin of safety (in units, or as a % of expected output) against how confident the firm can be in its sales forecast.

5.4 Financial statements

5.4.1 Purpose and users of financial statements

Financial statements are the formal, standardised record of a firm's financial performance (**income statement**) and financial position (**statement of financial position**) over/at a point in time. They are used by shareholders (to judge management's performance and future dividends), lenders (to assess creditworthiness before lending), suppliers (to assess whether the firm can pay its bills), managers (to plan and control the business), employees (job security, pay negotiations), and the tax authority.

VN **GIẢI THÍCH TIẾNG VIỆT**

Báo cáo tài chính là hồ sơ chính thức, chuẩn hoá về kết quả hoạt động (báo cáo kết quả kinh doanh — income statement) và tình hình tài chính (bảng cân đối kế toán — statement of financial position) của doanh nghiệp. Được sử dụng bởi cổ đông, người cho vay, nhà cung cấp, nhà quản lý, người lao động và cơ quan thuế để đánh giá hiệu quả hoạt động, khả năng trả nợ và ra quyết định.

5.4.2 The income statement

Revenue − **Cost of goods sold (COGS)** = **Gross profit**. **Gross profit** − **Operating expenses** = **Operating profit**. **Operating profit** − **Finance costs (interest)** = **Profit before tax**. **Profit before tax** − **Taxation** = **Profit for the year** (available to pay dividends or retain).

The illustrative statements below, for **Meridian Retail plc**, are used as the running dataset for every worked ratio example in Section 5.5.

Meridian Retail plc — Income statement for the year ended 31 December 2025

	$
Revenue	500,000
Cost of goods sold	(300,000)
Gross profit	**200,000**
Operating expenses (distribution + administration)	(140,000)
Operating profit	**60,000**
Finance costs (interest on long-term loan)	(10,000)
Profit before tax	**50,000**
Taxation (20%)	(10,000)
Profit for the year	**40,000**

VN **GIẢI THÍCH TIẾNG VIỆT**

Doanh thu − **Giá vốn hàng bán** = **Lợi nhuận gộp**. **Lợi nhuận gộp** − **Chi phí hoạt động** = **Lợi nhuận hoạt động**. **Lợi nhuận hoạt động** − **Chi phí lãi vay** = **Lợi nhuận trước thuế**. **Lợi nhuận trước thuế** − **Thuế** = **Lợi nhuận sau thuế/trong năm** (dùng để chia cổ tức hoặc giữ lại tái đầu tư).

Depreciation is the systematic allocation of the cost of a non-current asset (machinery, vehicles, equipment) over its useful life, recorded as an expense within operating expenses each year. Depreciation reduces reported profit, but it is a **non-cash expense**: no cash actually leaves the business when depreciation is recorded — the cash outflow happened earlier, when the asset was originally purchased. This is why depreciation is added back to profit when preparing a cash flow statement, and why a firm can show a healthy operating cash position even in a year when depreciation charges are large.

VN **GIẢI THÍCH TIẾNG VIỆT**

Khấu hao (depreciation) là việc phân bổ có hệ thống giá trị của tài sản cố định (máy móc, xe cộ) qua vòng đời sử dụng, được ghi nhận là một khoản chi phí trong chi phí hoạt động mỗi năm. Khấu hao làm giảm lợi nhuận báo cáo nhưng là **chi phí phi tiền mặt** — không có dòng tiền thực sự chi ra khi ghi nhận khấu hao (dòng tiền đã chi ra từ trước, khi mua tài sản). Đây là lý do khấu hao được cộng ngược lại (add back) vào lợi nhuận khi lập báo cáo lưu chuyển tiền tệ.

5.4.3 The statement of financial position

The accounting equation: **Total assets** $=$ **Total liabilities** $+$ **Total equity**. **Non-current assets**: expected to be used for more than one year (property, plant, equipment). **Current assets**: expected to be turned into cash within one year (inventory, trade receivables, cash). **Current liabilities**: due for payment within one year (trade payables, overdraft). **Non-current liabilities**: due after more than one year (long-term bank loan, debentures). **Equity**: share capital plus retained earnings — the owners' residual claim on the business.

Meridian Retail plc — Statement of financial position at 31 December 2025

	$	**$**
Non-current assets (property, plant & equipment)		330,000
Current assets:		
Inventory	60,000	
Trade receivables	50,000	
Cash and cash equivalents	10,000	
Total current assets		**120,000**
Total assets		**450,000**
Current liabilities:		
Trade payables	40,000	
Overdraft	10,000	
Total current liabilities		**50,000**
Non-current liabilities:		
Bank loan (long-term)		100,000
Total liabilities		**150,000**
Ordinary share capital (200,000 shares of $1 nominal)		200,000
Retained earnings		100,000
Total equity		**300,000**
Total equity and liabilities		**450,000**

Total assets ($450,000) exactly equal total liabilities plus total equity ($150,000 + $300,000 = $450,000), confirming the statement balances.

GIẢI THÍCH TIẾNG VIỆT

VN

Phương trình kế toán: **Tổng tài sản** = **Tổng nợ phải trả** + **Tổng vốn chủ sở hữu**. **Tài sản dài hạn** dùng trên một năm; **tài sản ngắn hạn** dự kiến chuyển thành tiền mặt trong vòng một năm; **nợ ngắn hạn** đến hạn trong một năm; **nợ dài hạn** đến hạn sau hơn một năm; **vốn chủ sở hữu** là phần vốn cổ phần cộng lợi nhuận giữ lại — phần tài sản thuộc về chủ sở hữu sau khi trừ hết nợ phải trả.

Working capital $=$ current assets $-$ current liabilities $= 120{,}000 - 50{,}000 = \$70{,}000$ for Meridian Retail — the cash (or near-cash) cushion available to fund day-to-day trading once short-term obligations are covered.

5.4.4 Working capital cycle (A2 extension)

A2 EXTENSION: the **working capital cycle** (also called the **cash conversion cycle**) measures how many days pass, on average, between paying cash out for inventory and receiving cash in from customers.

$$\text{Inventory days} = \frac{\text{Inventory}}{\text{Cost of goods sold}} \times 365 \qquad \text{Receivables days} = \frac{\text{Trade receivables}}{\text{Revenue}} \times 365$$

$$\text{Payables days} = \frac{\text{Trade payables}}{\text{Cost of goods sold}} \times 365$$

$$\textbf{Cash conversion cycle} = \text{Inventory days} + \text{Receivables days} - \text{Payables days}$$

A **shorter** cycle is generally better: cash is tied up for less time, easing pressure on working capital and reducing the need for short-term finance.

Ví dụ mẫu · Worked example: the working capital cycle

Using Meridian Retail's figures (COGS $300,000; Revenue $500,000; Inventory $60,000; Trade receivables $50,000; Trade payables $40,000):

$$\text{Inventory days} = \frac{60{,}000}{300{,}000} \times 365 = 73.0 \text{ days}$$

$$\text{Receivables days} = \frac{50{,}000}{500{,}000} \times 365 = 36.5 \text{ days}$$

$$\text{Payables days} = \frac{40{,}000}{300{,}000} \times 365 = 48.7 \text{ days}$$

$$\textbf{Cash conversion cycle} = 73.0 + 36.5 - 48.7 = \textbf{60.8 days}$$

Meridian's cash is tied up in the trading cycle (in stock, then in outstanding customer invoices, less the credit it gets from its own suppliers) for roughly 61 days on average before it converts back into cash. Meridian could shorten this cycle by selling inventory faster, collecting receivables sooner, or negotiating longer payment terms with its own suppliers (though the last must be balanced against maintaining good supplier relationships).

GIẢI THÍCH TIẾNG VIỆT

VN Chu kỳ vốn lưu động (working capital cycle / cash conversion cycle) đo số ngày trung bình từ khi chi tiền mua hàng tồn kho đến khi thu được tiền từ khách hàng: = số ngày tồn kho + số ngày phải thu − số ngày phải trả. Chu kỳ **càng ngắn càng tốt** vì tiền mặt bị ứ đọng trong ít thời gian hơn, giảm áp lực lên vốn lưu động và giảm nhu cầu vay vốn ngắn hạn.

5.5 Ratio analysis

5.5.1 Profitability ratios

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Revenue}} \times 100 \qquad \text{Operating profit margin} = \frac{\text{Operating profit}}{\text{Revenue}} \times 100$$

$$\text{Profit margin (net)} = \frac{\text{Profit for the year}}{\text{Revenue}} \times 100 \qquad \text{ROCE} = \frac{\text{Operating profit}}{\text{Capital employed}} \times 100$$

where **Capital employed** = Total equity + Non-current liabilities. ROCE measures how efficiently the firm generates operating profit from *all* the long-term capital invested in it (both by owners and by long-term lenders) — it should be compared against the return available on lower-risk alternatives (e.g. a bank savings rate) and against competitors in the same industry.

5.5.2 Liquidity ratios

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \qquad \text{Acid test (quick) ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

A current ratio around **1.5–2.0:1** and an acid test around **1.0:1** are conventionally seen as comfortable benchmarks (these vary by industry). Too low risks being unable to pay short-term debts; *too high* can also be a concern, since it may signal excess cash or inventory not being put to productive use.

5.5.3 The gearing ratio

$$\text{Gearing ratio} = \frac{\text{Non-current liabilities}}{\text{Capital employed}} \times 100$$

A gearing ratio below **50%** is conventionally described as **low geared** (relies more on equity than debt; lower financial risk, but interest on debt is tax-deductible and equity holders may demand a higher return); above 50% is **high geared** (relies more on debt; higher financial risk from fixed interest obligations regardless of how profit performs, but avoids diluting ownership).

VN GIẢI THÍCH TIẾNG VIỆT

Biên lợi nhuận gộp = Lợi nhuận gộp/Doanh thu × 100. **Biên lợi nhuận hoạt động** = Lợi nhuận hoạt động/Doanh thu × 100. **Biên lợi nhuận ròng** = Lợi nhuận sau thuế/Doanh thu × 100. **ROCE** = Lợi nhuận hoạt động/Vốn sử dụng (vốn chủ sở hữu + nợ dài hạn) × 100 — đo hiệu quả sử dụng toàn bộ vốn dài hạn (cả vốn chủ và nợ) để tạo ra lợi nhuận hoạt động. **Current ratio** = Tài sản ngắn hạn/Nợ ngắn hạn (mức an toàn khoảng 1.5–2.0:1). **Acid test** = (Tài sản ngắn hạn − Tồn kho)/Nợ ngắn hạn (mức an toàn khoảng 1.0:1) — loại bỏ tồn kho vì đây là tài sản ngắn hạn kém thanh khoản nhất. **Gearing ratio** = Nợ dài hạn/Vốn sử dụng × 100 — dưới 50% là gearing thấp (rủi ro tài chính thấp hơn), trên 50% là gearing cao (rủi ro tài chính cao hơn do nghĩa vụ trả lãi cố định).

Ví dụ mẫu · Worked example: a full ratio analysis of Meridian Retail plc

Using the income statement and statement of financial position above (Revenue $500,000; Gross profit $200,000; Operating profit $60,000; Profit for the year $40,000; Current assets $120,000, of which Inventory $60,000; Current liabilities $50,000; Non-current liabilities $100,000; Total equity $300,000):

$$\text{Capital employed} = 300{,}000 + 100{,}000 = \$400{,}000$$

$$\text{Gross profit margin} = \frac{200{,}000}{500{,}000} \times 100 = 40\%$$

$$\text{Operating profit margin} = \frac{60{,}000}{500{,}000} \times 100 = 12\% \qquad \text{Profit margin (net)} = \frac{40{,}000}{500{,}000} \times 100 = 8\%$$

$$\text{ROCE} = \frac{60{,}000}{400{,}000} \times 100 = 15\% \qquad \text{Current ratio} = \frac{120{,}000}{50{,}000} = 2.4 : 1$$

$$\text{Acid test ratio} = \frac{60{,}000}{50{,}000} = 1.2 : 1$$

$$\text{Gearing ratio} = \frac{100{,}000}{400{,}000} \times 100 = 25\%$$

Interpretation: Meridian converts 40% of every dollar of sales into gross profit, and 15% of its long-term capital into operating profit (ROCE) — a healthy return if it beats the return available elsewhere. Both liquidity ratios sit above the conventional benchmarks (2.4:1 and 1.2:1), suggesting no immediate difficulty paying short-term debts; gearing at 25% is comfortably low-geared, meaning relatively little of Meridian's long-term capital carries a fixed interest obligation.

5.5.4 Efficiency ratios (A2 extension)

A2 EXTENSION: efficiency ratios measure how well a firm manages its working-capital assets.

$$\text{Inventory turnover (times)} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

$$\text{Trade receivables collection period} = \frac{\text{Trade receivables}}{\text{Revenue}} \times 365$$

A **higher** inventory turnover generally means inventory is sold and replaced more times per year (less cash tied up, lower risk of obsolescence); a **shorter** receivables collection period means the firm converts credit sales into cash more quickly.

Ví dụ mẫu · Worked example: inventory turnover and receivables collection period

For Meridian Retail, COGS $= \$300{,}000$ and closing inventory $= \$60{,}000$; assume opening inventory was also $60,000, so average inventory $= \$60{,}000$.

$$\text{Inventory turnover} = \frac{300{,}000}{60{,}000} = 5 \text{ times per year } \left(\text{i.e. every } \frac{365}{5} = 73 \text{ days}\right)$$

$$\text{Trade receivables collection period} = \frac{50{,}000}{500{,}000} \times 365 = 36.5 \text{ days}$$

Meridian turns over its entire inventory 5 times a year (about every 73 days) and, on average, takes 36.5 days to collect cash from credit customers after a sale — both figures are only meaningful once compared against Meridian's own results in previous years and against similar retailers in its industry.

5.5.5 Dividend ratios (A2 extension)

A2 EXTENSION: shareholders also assess a company through the return paid directly to them as dividends.

$$\text{Dividend per share (DPS)} = \frac{\text{Total dividends paid}}{\text{Number of shares in issue}}$$

$$\text{Dividend cover} = \frac{\text{Profit for the year}}{\text{Total dividends paid}} \qquad \text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100$$

Dividend cover shows how many times over the year's profit could have paid the dividend actually declared — a cover below 1 means the firm paid out more in dividends than it earned in profit that year (funded from reserves or borrowing), which is unsustainable long-term.

Ví dụ mẫu · Worked example: dividend per share, cover, and yield

Meridian Retail has 200,000 ordinary shares in issue (matching its $200,000 share capital at $1 nominal value each), pays total dividends of $20,000 for the year, and its shares currently trade at $2.00 each.

$$\text{Dividend per share} = \frac{20{,}000}{200{,}000} = \$0.10 \text{ per share}$$

$$\text{Dividend cover} = \frac{40{,}000}{20{,}000} = 2.0 \text{ times}$$

$$\text{Dividend yield} = \frac{0.10}{2.00} \times 100 = 5\%$$

Meridian pays out half of its $40,000 profit for the year as dividends (dividend cover of 2.0 times means profit could have covered the dividend twice over) and retains the other $20,000 for reinvestment; a shareholder buying at today's $2.00 market price earns a 5% cash dividend yield in addition to any future share-price growth.

5.5.6 Comparing ratios over time and between firms

A single ratio in isolation says very little — ratios only become useful when compared **inter-temporally** (the same firm's ratio over successive years, to spot a trend) and **inter-firm** (against direct competitors or an industry-average benchmark).

Ví dụ mẫu · Worked example: a two-year ROCE comparison

A company reports the following figures over two years:

	Year 1	Year 2
Operating profit	$50,000	$56,000
Capital employed	$250,000	$350,000

$$\text{ROCE Year 1} = \frac{50{,}000}{250{,}000} \times 100 = 20\% \qquad \text{ROCE Year 2} = \frac{56{,}000}{350{,}000} \times 100 = 16\%$$

Although *absolute* operating profit rose by $6,000 (12%) between the two years, **ROCE fell from 20% to 16%**, because capital employed grew even faster (by $100,000, or 40%) than operating profit did. This suggests the additional capital raised — perhaps a new loan or share issue that funded expansion — has not yet been deployed as efficiently as the firm's existing capital base; management (and outside analysts) should investigate whether the new assets are still ramping up toward full productivity, or whether the expansion was poor value, and should benchmark both years' ROCE against direct competitors before drawing a firm conclusion.

GIẢI THÍCH TIẾNG VIỆT

VN

Một tỉ số tài chính đơn lẻ tại một thời điểm gần như không có ý nghĩa nếu đứng một mình — chỉ có giá trị khi so sánh **theo thời gian** (cùng doanh nghiệp qua nhiều năm, để thấy xu hướng) và **giữa các doanh nghiệp** (so với đối thủ cạnh tranh hoặc mức trung bình ngành). Ví dụ trên cho thấy lợi nhuận tuyệt đối tăng nhưng ROCE lại giảm vì vốn sử dụng tăng nhanh hơn lợi nhuận — một dấu hiệu cần điều tra thêm về hiệu quả sử dụng vốn mới huy động.

5.5.7 Limitations of ratio analysis

Ratios must be read with caution: they are based on **historical** data (last year's results, which may not reflect current or future trading conditions); firms may use **different accounting policies** (e.g. straight-line versus reducing-balance depreciation, different inventory valuation methods), making direct comparisons between firms misleading unless policies are known to match; a statement of financial position is a snapshot at a **single point in time**, which can be unrepresentative for a seasonal business; some firms practise **window dressing** — legally arranging year-end transactions (e.g. delaying a large purchase, or collecting receivables early) purely to flatter a ratio at the balance-sheet date; and ratios say nothing about **qualitative** factors such as staff morale, brand strength, product quality, or the competence of management. Ratios are most useful as a starting point for further investigation, not as a final verdict on their own.

VN GIẢI THÍCH TIẾNG VIỆT

Tỉ số tài chính cần được đọc thận trọng: dựa trên số liệu **quá khứ** (chưa chắc phản ánh đúng tình hình hiện tại/tương lai); các doanh nghiệp có thể dùng **chính sách kế toán khác nhau** (phương pháp khấu hao, định giá tồn kho) khiến việc so sánh trực tiếp giữa các công ty không chính xác; bảng cân đối kế toán chỉ là ảnh chụp tại **một thời điểm**, có thể không đại diện cho doanh nghiệp có tính mùa vụ; một số doanh nghiệp thực hiện **window dressing** — sắp xếp giao dịch cuối năm hợp pháp chỉ để làm đẹp một tỉ số nào đó tại đúng ngày lập báo cáo; và tỉ số hoàn toàn không phản ánh các yếu tố **định tính** như tinh thần nhân viên, sức mạnh thương hiệu, chất lượng sản phẩm hay năng lực quản lý.

5.6 Investment appraisal

5.6.1 Payback period

Payback period: the time taken for the cumulative cash inflows from a project to equal the initial investment. **Advantages:** simple to calculate and communicate; favours projects that return cash quickly, reducing exposure to risk and easing pressure on liquidity. **Disadvantages:** ignores all cash flows occurring after payback is reached (so ignores overall profitability of the project); ignores the time value of money (a dollar received in Year 1 is treated identically to a dollar received in Year 4).

5.6.2 Accounting Rate of Return (ARR)

$$\textbf{ARR} = \frac{\text{Average annual profit}}{\text{Initial investment}} \times 100$$

$$\text{Average annual profit} = \frac{\text{Total net cash flow (or profit)} - \text{Initial investment}}{\text{Number of years}}$$

Advantages: considers the *whole* life of the project (unlike payback); expressed as a %, so easily compared against a target rate of return or against other investment opportunities. **Disadvantages:** still ignores the time value of money; based on accounting profit rather than cash, which can be distorted by accounting policy choices (e.g. depreciation method).

VN GIẢI THÍCH TIẾNG VIỆT

Payback period: thời gian để dòng tiền vào cộng dồn bằng đúng khoản đầu tư ban đầu — đơn giản, dễ hiểu, ưu tiên dự án thu hồi vốn nhanh (giảm rủi ro), nhưng bỏ qua toàn bộ dòng tiền sau khi đã hoàn vốn và bỏ qua giá trị thời gian của tiền. **ARR** = Lợi nhuận trung bình hàng năm $\div$ Đầu tư ban đầu $\times$ 100 — xem xét toàn bộ vòng đời dự án và dễ so sánh dưới dạng %, nhưng vẫn bỏ qua giá trị thời gian của tiền và dựa trên lợi nhuận kế toán (có thể bị ảnh hưởng bởi chính sách kế toán).

5.6.3 Net Present Value (NPV) — A2 extension

A2 EXTENSION: money received in the future is worth less than the same amount received today (it could otherwise be earning interest now) — **discounting** converts future cash flows into their equivalent value today (**present value**), using a **discount factor** for each year based on a chosen discount rate (the firm's cost of capital, or a target rate of return).

$$\text{Present value of a cash flow} = \text{Cash flow} \times \text{Discount factor}$$

$$\textbf{NPV} = \sum \text{Present values of all cash flows} - \text{Initial investment}$$

Decision rule: accept a project if NPV > 0 (it is expected to add value beyond the return already required by the discount rate used); reject if NPV < 0; if comparing mutually exclusive projects, prefer the one with the *higher* positive NPV. **Advantages:** accounts for the time value of money; considers all cash flows over the project's whole life; a positive NPV directly estimates the \$ value added to the firm. **Disadvantages:** more complex to calculate and explain to non-specialists; highly sensitive to the discount rate chosen, which itself is often an estimate; relies on cash flow forecasts that become less reliable further into the future.

GIẢI THÍCH TIẾNG VIỆT

VN

Vì tiền nhận được trong tương lai có giá trị thấp hơn cùng số tiền nhận ngay hôm nay (có thể đem đầu tư sinh lãi ngay), phương pháp **chiết khấu (discounting)** quy đổi dòng tiền tương lai về giá trị hiện tại (present value) bằng hệ số chiết khấu (discount factor) ứng với từng năm. **NPV** = Tổng giá trị hiện tại của tất cả dòng tiền $-$ Đầu tư ban đầu. **Quy tắc quyết định**: chấp nhận dự án nếu NPV > 0; từ chối nếu NPV < 0; nếu so sánh nhiều dự án loại trừ lẫn nhau, chọn dự án có NPV dương lớn hơn.

Ví dụ mẫu · Worked example: payback period and NPV — Project A

Project A requires an initial investment of **\$100,000** and is expected to generate the following net cash flows: Year 1 \$40,000; Year 2 \$40,000; Year 3 \$30,000; Year 4 \$20,000.

Payback period. Cumulative cash flow: Year 1 = \$40,000; Year 2 = \$80,000; Year 3 = \$110,000. Payback occurs during Year 3, once a further \$20,000 (of the \$30,000 received that year) has come in:

$$\text{Payback} = 2 \text{ years} + \frac{20{,}000}{30{,}000} \times 12 \text{ months} = 2 \text{ years} + 8 \text{ months}$$

ARR. Total cash flow over 4 years $= 40{,}000 + 40{,}000 + 30{,}000 + 20{,}000 = \$130{,}000$; total profit $= 130{,}000 - 100{,}000 = \$30{,}000$; average annual profit $= 30{,}000/4 = \$7{,}500$.

$$\text{ARR} = \frac{7{,}500}{100{,}000} \times 100 = 7.5\%$$

NPV at a 10% discount rate, using the given discount factors (Year 1: 0.909; Year 2: 0.826; Year 3: 0.751; Year 4: 0.683):

Year	Cash flow ($)	DF @ 10%	Present value ($)
1	40,000	0.909	36,360
2	40,000	0.826	33,040
3	30,000	0.751	22,530
4	20,000	0.683	13,660
		Total PV	**105,590**

$$\text{NPV} = 105{,}590 - 100{,}000 = +\$5{,}590$$

Since NPV > 0, Project A is expected to add $5,590 of value (in today's money) beyond the 10% return already required, so it should be **accepted**.

5.6.4 Internal Rate of Return (IRR) — A2 extension

A2 EXTENSION: the **Internal Rate of Return (IRR)** is the discount rate at which a project's NPV is exactly zero — the "break-even" cost of capital for that project. If a firm's actual cost of capital is below the IRR, the project has a positive NPV and should be accepted; if above, NPV is negative and it should be rejected.

Since NPV is rarely exactly zero at a whole-number discount rate available in the tables, IRR is normally estimated by **interpolation** between two discount rates: one giving a small positive NPV, one giving a small negative NPV.

$$\textbf{IRR} = \text{Lower rate} + \left[\frac{\text{NPV at lower rate}}{\text{NPV at lower rate} - \text{NPV at higher rate}}\right] \times (\text{Higher rate} - \text{Lower rate})$$

Ví dụ mẫu · Worked example: IRR by interpolation — Project A

Project A's NPV at 10% was already found above to be $+\$5{,}590$. Recalculating at a 15% discount rate, using discount factors Year 1: 0.870; Year 2: 0.756; Year 3: 0.658; Year 4: 0.572:

Year	Cash flow ($)	DF @ 15%	Present value ($)
1	40,000	0.870	34,800
2	40,000	0.756	30,240
3	30,000	0.658	19,740
4	20,000	0.572	11,440
		Total PV	**96,220**

$$\text{NPV at 15\%} = 96{,}220 - 100{,}000 = -\$3{,}780$$

Since NPV is positive at 10% and negative at 15%, the IRR lies between the two. Interpolating:

$$\text{IRR} = 10\% + \left[\frac{5{,}590}{5{,}590 - (-3{,}780)}\right] \times (15\% - 10\%) = 10\% + \left[\frac{5{,}590}{9{,}370}\right] \times 5\% = 10\% + 2.98\% \approx \textbf{13.0\%}$$

Project A's IRR is approximately 13.0% — the discount rate at which its NPV would be exactly zero. If the firm's actual cost of capital is below 13.0% (e.g. the 10% used earlier), the project has a positive NPV and is worth accepting; the further the cost of capital sits below the IRR, the larger the margin of safety in the appraisal.

GIẢI THÍCH TIẾNG VIỆT
VN
IRR là mức lãi suất chiết khấu mà tại đó NPV của dự án bằng đúng 0. Vì hiếm khi NPV bằng 0 chính xác ở một mức lãi suất chẵn có sẵn trong bảng hệ số chiết khấu, IRR thường được ước lượng bằng **phép nội suy (interpolation)** giữa hai mức lãi suất: một mức cho NPV dương nhỏ, một mức cho NPV âm nhỏ. Nếu chi phí sử dụng vốn thực tế của doanh nghiệp thấp hơn IRR, dự án có NPV dương và nên được chấp nhận; nếu cao hơn IRR, dự án có NPV âm và nên bị từ chối.

5.6.5 Qualitative factors in investment appraisal

No numerical technique captures everything relevant to an investment decision. Firms should also weigh: **risk** (how reliable are the cash flow forecasts, especially in later years — a forecast for Year 4 is inherently less certain than one for Year 1); **strategic fit** (does the project align with the firm's long-term objectives, brand, and existing capabilities, or does it pull management attention and resources away from the core business); **stakeholder impact** (effects on employees, e.g. redundancies from automation; on the local community, e.g. jobs created or lost; on the environment); and **reputational/ethical considerations** (a project with a strong NPV that involves, for example, relocating production overseas may damage brand image or invite criticism, offsetting some of its financial appeal). A well-reasoned investment decision uses NPV/IRR/payback/ARR as quantitative evidence, but sets it alongside this qualitative judgement.

GIẢI THÍCH TIẾNG VIỆT
VN
Không có phương pháp định lượng nào phản ánh được mọi khía cạnh của một quyết định đầu tư. Doanh nghiệp cũng cần cân nhắc: **rủi ro** (dự báo dòng tiền các năm sau thường kém tin cậy hơn năm đầu); **sự phù hợp chiến lược** (dự án có phù hợp với mục tiêu dài hạn, thương hiệu, năng lực hiện có của doanh nghiệp không); **tác động đến các bên liên quan** (người lao động, cộng đồng địa phương, môi trường); và **yếu tố đạo đức/uy tín thương hiệu** (một dự án có NPV tốt nhưng gây tranh cãi về đạo đức có thể làm giảm giá trị thương hiệu, bù trừ lại lợi ích tài chính).

5.6.6 Comparing investment appraisal methods: a two-project case study

No single method tells the whole story — payback highlights speed/liquidity/risk, ARR highlights overall accounting profitability, and NPV (and IRR) account properly for the time value of money. Consider two mutually exclusive projects, each requiring the same $100,000 initial investment:

	Project A	**Project B**
Initial investment	$100,000	$100,000
Year 1 cash flow	$40,000	$20,000
Year 2 cash flow	$40,000	$30,000
Year 3 cash flow	$30,000	$40,000
Year 4 cash flow	$20,000	$50,000
Payback period	**2 years 8 months**	**3 years ≈2.4 months**
ARR	**7.5%**	**10.0%**
NPV @ 10%	**+$5,590**	**+$7,150**

Project B's cash flows arrive later (back-loaded) but sum to a higher total ($140,000 vs. $130,000), giving it both a higher ARR (10.0% vs. 7.5%) and a higher NPV (+$7,150 vs. +$5,590; using the same discount factors as Project A: $20{,}000(0.909) + 30{,}000(0.826) + 40{,}000(0.751) + 50{,}000(0.683) = 18{,}180 + 24{,}780 + 30{,}040 + 34{,}150 = 107{,}150$, less the $100,000 investment). Project A, however, pays back faster (2 years 8 months vs. roughly 3 years 2 months), returning cash to the firm sooner and exposing it to less risk if conditions change.

Recommendation: on both ARR and NPV — the two methods that consider the project's entire life, and (for NPV) the timing of cash flows — Project B is superior, and NPV in particular is the theoretically preferred method since it directly measures value added in today's money. If the firm is not short of liquidity and can tolerate the extra 6 months to payback, **Project B** should be chosen. However, qualitative factors could reverse this: if the firm operates in a fast-changing market (technology risk, likely competitor entry, or its own liquidity is tight), the faster payback and lower risk of Project A may be preferred despite the lower NPV; the strategic fit of each project (e.g. which better matches the firm's existing capabilities, brand, or long-term direction) should also be weighed alongside the numbers.

VN GIẢI THÍCH TIẾNG VIỆT

Không có phương pháp thẩm định đầu tư nào kể hết câu chuyện: payback nhấn mạnh tốc độ thu hồi vốn/rủi ro/thanh khoản; ARR nhấn mạnh khả năng sinh lời kế toán toàn vòng đời dự án; NPV (và IRR) tính đúng giá trị thời gian của tiền. Trong ví dụ trên, Project B có ARR và NPV cao hơn (vì tổng dòng tiền lớn hơn) nhưng Project A hoàn vốn nhanh hơn. Quyết định cuối cùng cần cân nhắc thêm các yếu tố định tính như mức độ rủi ro doanh nghiệp có thể chấp nhận và sự phù hợp chiến lược (strategic fit) của từng dự án, chứ không chỉ dựa vào một con số duy nhất.

(!) Lỗi thường gặp: Two classic calculation traps: (1) when cash flows are **uneven** across years, payback cannot be found by simple division — cumulative cash flow must be tracked year by year, and only the *final, partial* year needs to be pro-rated (as in Project A above: 2 full years, then a fraction of Year 3). (2) **ROCE** must divide operating profit by **capital employed** (equity + non-current liabilities) — *not* by total assets, which would understate the true return by including current liabilities' contribution to funding the asset base.

5.7 Practice bank

Bài tập luyện tập

Which of the following is a source of **short-term external** finance?

(A) Debenture
(B) Bank overdraft
(C) New share issue
(D) Retained profit

Lời giải chi tiết

(B). A debenture (A) and a new share issue (C) are long-term external finance; retained profit (D) is internal finance. An overdraft is repayable on demand/short notice and is used to fund short-term working-capital needs.

Bài tập luyện tập

A company borrows \$80,000 for 3 years at a simple interest rate of 7% per year, repayable as one lump sum at the end of the term. Calculate (a) the total interest paid and (b) the total amount repaid.

Lời giải chi tiết

(a) Total interest $= 80{,}000 \times 0.07 \times 3 = \$16{,}800$.
(b) Total repayment $= 80{,}000 + 16{,}800 = \$96{,}800$.

Bài tập luyện tập

A company has 500,000 shares in issue. A founder owns 150,000 shares. The company makes a new issue of 100,000 shares to outside investors. Calculate the founder's percentage ownership before and after the issue, and the dilution in percentage points.

Lời giải chi tiết

Before: $150{,}000/500{,}000 \times 100 = 30\%$.
After: new total shares $= 500{,}000 + 100{,}000 = 600{,}000$; founder's stake $= 150{,}000/600{,}000 \times 100 = 25\%$.
Dilution $= 30\% - 25\% = 5$ percentage points — the founder still owns the same 150,000 shares, but now represents a smaller proportion of a larger company.

Bài tập luyện tập

A company has 800,000 shares in issue, currently trading at \$3.00. It launches a 1-for-5 rights issue at a discounted price of \$2.40 per new share. Calculate (a) the number of new shares issued, (b) the cash raised, and (c) the theoretical ex-rights price (TERP).

Lời giải chi tiết

(a) New shares $= 800{,}000/5 = 160{,}000$.
(b) Cash raised $= 160{,}000 \times 2.40 = \$384{,}000$.
(c) Total shares after the issue $= 800{,}000 + 160{,}000 = 960{,}000$.

$$\text{TERP} = \frac{(800{,}000 \times 3.00) + (160{,}000 \times 2.40)}{960{,}000} = \frac{2{,}400{,}000 + 384{,}000}{960{,}000} = \frac{2{,}784{,}000}{960{,}000} = \$2.90$$

Bài tập luyện tập

A retail chain wants to purchase a \$2 million warehouse with an expected useful life of 25 years. It is considering (i) a 3-month bank overdraft, or (ii) a 20-year commercial mortgage secured on the property, or (iii) a rights issue of new shares. Using the matching principle, recommend and justify the most appropriate source(s) of finance.

Lời giải chi tiết

An overdraft (i) is unsuitable: it is short-term, repayable/renewable at the bank's discretion, and financing a 25-year asset with 3-month finance breaches the matching principle — the bank could demand repayment long before the warehouse has generated enough cash to repay it, creating serious refinancing risk. Both the mortgage (ii) and the rights issue (iii) are long-term and satisfy the matching principle. **Recommendation:** a long-term secured mortgage (ii) is generally the more suitable core choice, since the warehouse itself can act as security (likely securing a lower interest rate than an unsecured loan) and it avoids diluting existing shareholders' ownership and control; a rights issue (iii) could be used to fund part of the purchase (reducing gearing/financial risk) if the firm's existing gearing is already high, at the cost of some dilution unless all shareholders take up their rights in full. A mix of the two is often the most robust real-world solution.

Bài tập luyện tập

A firm's cash flow forecast has some blanks. Opening balance for May is \$8,000. May: inflows \$45,000, net cash flow −\$3,000. June: inflows unknown, outflows \$40,000, net cash flow +\$10,000. July: opening \$15,000, inflows \$42,000, outflows \$51,000. August: opening balance carries from July's closing balance, inflows \$39,000, outflows \$33,000. Calculate: (a) May's outflows and closing balance; (b) June's inflows and closing balance; (c) July's net cash flow and closing balance; (d) August's closing balance.

Lời giải chi tiết

(a) May outflows = inflows − net cash flow = $45{,}000 - (-3{,}000) = \$48{,}000$. May closing $= 8{,}000 + (-3{,}000) = \$5{,}000$.
(b) June opening = May's closing = $\$5{,}000$. June inflows = outflows + net cash flow = $40{,}000 + 10{,}000 = \$50{,}000$. June closing $= 5{,}000 + 10{,}000 = \$15{,}000$ (matches the given July opening balance).
(c) July net cash flow $= 42{,}000 - 51{,}000 = -\$9{,}000$. July closing $= 15{,}000 + (-9{,}000) = \$6{,}000$.
(d) August opening = July's closing = $\$6{,}000$. August net cash flow $= 39{,}000 - 33{,}000 = +\$6{,}000$. August closing $= 6{,}000 + 6{,}000 = \$12{,}000$.

Bài tập luyện tập

Budgeted revenue for the month was \$300,000; actual revenue was \$285,000. Budgeted costs were \$180,000; actual costs were \$172,000. Calculate the revenue variance and the cost variance (stating favourable or adverse for each), and the net effect on profit.

Lời giải chi tiết

Revenue variance $= 285{,}000 - 300{,}000 = -\$15{,}000$ **(adverse)** — actual revenue fell short of budget.
Cost variance $= 172{,}000 - 180{,}000 = -\$8{,}000$, i.e. actual cost was \$8,000 *below* budget $= \$8{,}000$ **(favourable)**.
Net effect on profit $= -15{,}000 + 8{,}000 = -\$7{,}000$: despite the favourable cost control, the shortfall in revenue means the month's profit missed budget overall by \$7,000.

Bài tập luyện tập

To produce 12,000 units, direct materials were budgeted at \$60,000 but actually cost \$55,000; direct labour was budgeted at \$48,000 but actually cost \$50,400. Calculate each variance (stating favourable/adverse) and suggest one likely cause for each.

Lời giải chi tiết

Materials variance $= 60{,}000 - 55{,}000 = \$5{,}000$ **(favourable)** — possibly a cheaper supplier, bulk-purchase discount, or lower wastage than planned.
Labour variance $= 50{,}400 - 48{,}000 = \$2{,}400$ **(adverse)** — possibly unbudgeted overtime, a pay award, or lower labour efficiency than planned.

Bài tập luyện tập

Which of the following best describes zero-based budgeting?

(A) Taking last year's budget and adding a fixed % increase

(B) Justifying every budget line from a base of zero each period, regardless of the previous period's figures

(C) Setting a budget only for departments that made a loss last year

(D) Allowing each department to set its own budget with no head-office review

Lời giải chi tiết

(B). (A) describes incremental budgeting. Zero-based budgeting requires every line to be re-justified from zero each period, forcing a genuine review of whether the spending is still needed.

Bài tập luyện tập

A firm has fixed costs of \$45,000 per period, a selling price of \$25/unit, and a variable cost of \$15/unit. (a) Calculate the break-even output. (b) Calculate the output needed for a target profit of \$15,000. (c) If budgeted output is 6,500 units, calculate the margin of safety.

Lời giải chi tiết

Contribution per unit $= 25 - 15 = \$10$.
(a) Break-even $= 45{,}000/10 = 4{,}500$ units.
(b) Target output $= (45{,}000 + 15{,}000)/10 = 60{,}000/10 = 6{,}000$ units.
(c) Margin of safety $= 6{,}500 - 4{,}500 = 2{,}000$ units.

Bài tập luyện tập

Continuing the previous question (FC \$45,000, SP \$25/unit, VC \$15/unit, break-even 4,500 units, budgeted output 6,500 units), a competitor forces the firm to cut its selling price to \$21/unit, with variable cost unchanged at \$15/unit. (a) Calculate the new break-even output. (b) Calculate the new margin of safety at the same budgeted output of 6,500 units. (c) Comment on the firm's position.

Lời giải chi tiết

New contribution per unit $= 21 - 15 = \$6$.
(a) New break-even $= 45{,}000/6 = 7{,}500$ units.
(b) New margin of safety $= 6{,}500 - 7{,}500 = -1{,}000$ units.
(c) The margin of safety is now **negative**: at the budgeted output of 6,500 units, the firm would actually be operating *below* its new, higher break-even point (7,500 units) and would make a loss unless it can sell more than 6,500 units. The price cut has turned a previously profitable budgeted output into a loss-making one, illustrating how sensitive break-even is to a fall in contribution per unit.

Bài tập luyện tập

"Contribution per unit" is best defined as:

(A) Total revenue minus total cost

(B) Selling price per unit minus variable cost per unit

(C) Fixed cost divided by output

(D) Profit per unit after all costs

Lời giải chi tiết

(B). Contribution per unit is selling price minus variable cost per unit; it contributes first toward covering fixed costs, and only becomes profit once fixed costs are fully covered.

Bài tập luyện tập

A company reports: Revenue $650,000; Cost of goods sold $420,000; Operating expenses $150,000; Finance costs $12,000; Tax rate 20%. Calculate the gross profit, operating profit, profit before tax, taxation, and profit for the year.

Lời giải chi tiết

Gross profit $= 650{,}000 - 420{,}000 = \$230{,}000$.
Operating profit $= 230{,}000 - 150{,}000 = \$80{,}000$.
Profit before tax $= 80{,}000 - 12{,}000 = \$68{,}000$.
Taxation $= 68{,}000 \times 0.20 = \$13{,}600$.
Profit for the year $= 68{,}000 - 13{,}600 = \$54{,}400$.

Bài tập luyện tập

A statement of financial position shows: Non-current assets $280,000; Inventory $40,000; Trade receivables $35,000; Cash $20,000; Current liabilities $60,000; Non-current liabilities $90,000. Calculate (a) total assets, (b) total liabilities, and (c) total equity, and confirm the accounting equation balances.

Lời giải chi tiết

(a) Total current assets $= 40{,}000 + 35{,}000 + 20{,}000 = \$95{,}000$; total assets $= 280{,}000 + 95{,}000 = \$375{,}000$.
(b) Total liabilities $= 60{,}000 + 90{,}000 = \$150{,}000$.
(c) Total equity $= 375{,}000 - 150{,}000 = \$225{,}000$. Check: assets ($375,000) = liabilities ($150,000) + equity ($225,000) $= \$375{,}000$ — the statement balances.

Bài tập luyện tập

Explain why depreciation reduces a firm's reported profit for the year but does not reduce its cash balance in that same year.

Lời giải chi tiết

Depreciation is an accounting allocation of the original cost of a non-current asset spread over its useful life; it is charged as an expense in the income statement each year, which lowers reported profit. However, no cash actually leaves the business when depreciation is recorded — the real cash outflow occurred earlier, in the year the asset was originally purchased. Depreciation is therefore described as a **non-cash expense**, which is why it is added back to profit when preparing a statement of cash flows, and why a firm's cash position in a given year can be considerably healthier than its reported profit would suggest.

Bài tập luyện tập

A firm reports: Inventory \$50,000; Cost of goods sold \$250,000; Trade receivables \$45,000; Revenue \$450,000; Trade payables \$35,000. Calculate the inventory days, receivables days, payables days, and the cash conversion cycle.

Lời giải chi tiết

Inventory days $= (50{,}000/250{,}000) \times 365 = 0.20 \times 365 = 73.0$ days.
Receivables days $= (45{,}000/450{,}000) \times 365 = 0.10 \times 365 = 36.5$ days.
Payables days $= (35{,}000/250{,}000) \times 365 = 0.14 \times 365 = 51.1$ days.
Cash conversion cycle $= 73.0 + 36.5 - 51.1 =$ **58.4 days.**

Bài tập luyện tập

A firm has current assets of \$150,000, of which \$90,000 is inventory, and current liabilities of \$60,000. Calculate the current ratio and the acid test ratio, and explain what the gap between the two figures suggests about the firm's liquidity.

Lời giải chi tiết

Current ratio $= 150{,}000/60{,}000 = 2.5 : 1$.
Acid test ratio $= (150{,}000 - 90{,}000)/60{,}000 = 60{,}000/60{,}000 = 1.0 : 1$.
The large gap between 2.5:1 and 1.0:1 shows that 60% of the firm's current assets (\$90,000 of \$150,000) are tied up in inventory, which is the least liquid current asset — it must first be sold, and then the resulting receivable collected, before it becomes cash. The current ratio alone therefore overstates the firm's ability to meet its immediate short-term debts; the acid test (exactly at the 1.0:1 benchmark) gives a more cautious, realistic picture, and the firm should examine whether such a large inventory holding is genuinely needed or is slow-moving/at risk of obsolescence.

Bài tập luyện tập

A firm has an operating profit of \$54,000, total equity of \$300,000, and non-current liabilities of \$60,000. Calculate the capital employed and the ROCE.

Lời giải chi tiết

Capital employed $= 300{,}000 + 60{,}000 = \$360{,}000$.
ROCE $= 54{,}000/360{,}000 \times 100 = 15\%$.

Bài tập luyện tập

A company has non-current liabilities of \$120,000 and capital employed of \$400,000. Calculate its gearing ratio, and state what a gearing ratio of this size generally suggests about the firm's financial risk.

(A) 40%; high-geared, above the conventional 50% threshold

(B) 30%; low-geared, below the conventional 50% threshold

(C) 30%; high-geared, above the conventional 50% threshold

(D) 40%; low-geared, below the conventional 50% threshold

Lời giải chi tiết

(B). Gearing $= 120{,}000/400{,}000 \times 100 = 30\%$. Since 30% is below the conventional 50% benchmark, the firm is low-geared — it relies more on equity than on long-term debt, so it carries relatively low financial risk from fixed interest obligations, though it may face more dilution pressure if it needs to raise further equity.

Bài tập luyện tập

A company delays a large planned inventory purchase until just after its financial year-end, purely so that its current ratio and acid test ratio look stronger in the year-end statement of financial position. (a) Name this practice. (b) Explain one reason ratio analysis should be treated cautiously as a result.

Lời giải chi tiết

(a) This is **window dressing** — legally timing a transaction around the year-end purely to flatter a reported ratio.
(b) Because a statement of financial position is only a snapshot at a single date, a ratio calculated from it may not represent the firm's typical position across the rest of the year; readers of financial statements should be aware that year-end figures can be deliberately (though legally) arranged to look more favourable than the underlying, day-to-day financial position actually is.

Bài tập luyện tập

A firm's cost of goods sold is $360,000; opening inventory was $50,000 and closing inventory was $70,000. Calculate the average inventory and the inventory turnover (in times per year), and convert the turnover into an equivalent number of days.

Lời giải chi tiết

Average inventory $= (50{,}000 + 70{,}000)/2 = \$60{,}000$.
Inventory turnover $= 360{,}000/60{,}000 = 6$ times per year.
Equivalent days $= 365/6 \approx 60.8$ days — inventory is, on average, held for roughly 61 days before being sold.

Bài tập luyện tập

A firm's trade receivables are $60,000 and its annual revenue is $600,000. Calculate the trade receivables collection period in days.

Lời giải chi tiết

Collection period $= (60{,}000/600{,}000) \times 365 = 0.10 \times 365 = 36.5$ days.

Bài tập luyện tập

A company earns profit for the year of $80,000, pays total dividends of $32,000, has 400,000 shares in issue, and its shares trade at $1.60 each. Calculate the dividend per share, dividend cover, and dividend yield.

Lời giải chi tiết

Dividend per share $= 32{,}000/400{,}000 = \$0.08$.
Dividend cover $= 80{,}000/32{,}000 = 2.5$ times.
Dividend yield $= (0.08/1.60) \times 100 = 5\%$.

Bài tập luyện tập

A firm's operating profit and capital employed over two years were: Year 1 — operating profit \$50,000, capital employed \$250,000; Year 2 — operating profit \$56,000, capital employed \$350,000. Calculate ROCE for each year and comment on the trend.

Lời giải chi tiết

ROCE Year 1 $= 50{,}000/250{,}000 \times 100 = 20\%$.
ROCE Year 2 $= 56{,}000/350{,}000 \times 100 = 16\%$.
Although operating profit rose by \$6,000 (a 12% increase), capital employed rose even more sharply (by \$100,000, a 40% increase), so ROCE fell from 20% to 16%. This suggests the extra capital employed in Year 2 is not yet generating profit as efficiently as the firm's existing capital base — worth investigating whether new investment is still ramping up, and comparing against competitors' ROCE before concluding the firm's overall performance has worsened.

Bài tập luyện tập

A project requires an initial investment of \$120,000 and generates net cash flows of Year 1 \$30,000; Year 2 \$35,000; Year 3 \$45,000; Year 4 \$50,000. Calculate the payback period.

Lời giải chi tiết

Cumulative cash flow: Year 1 $= \$30{,}000$; Year 2 $= \$65{,}000$; Year 3 $= \$110{,}000$; Year 4 $= \$160{,}000$. Payback occurs during Year 4, once a further \$10,000 (of the \$50,000 received that year) has come in:

$$\text{Payback} = 3 \text{ years} + \frac{10{,}000}{50{,}000} \times 12 \text{ months} = 3 \text{ years } 2.4 \text{ months.}$$

Bài tập luyện tập

Using the same project as the previous question (initial investment \$120,000; cash flows \$30,000, \$35,000, \$45,000, \$50,000 over 4 years), calculate the ARR.

Lời giải chi tiết

Total cash flow $= 30{,}000 + 35{,}000 + 45{,}000 + 50{,}000 = \$160{,}000$. Total profit $= 160{,}000 - 120{,}000 = \$40{,}000$. Average annual profit $= 40{,}000/4 = \$10{,}000$.

$$\text{ARR} = \frac{10{,}000}{120{,}000} \times 100 = 8.33\%$$

Bài tập luyện tập

A project requires an initial investment of $90,000 and is expected to generate net cash flows of Year 1 $35,000; Year 2 $35,000; Year 3 $30,000. Using a 12% discount rate with discount factors 0.893 (Year 1), 0.797 (Year 2), and 0.712 (Year 3), calculate the NPV and state whether the project should be accepted.

Lời giải chi tiết

PV Year 1 $= 35{,}000 \times 0.893 = \$31{,}255$. PV Year 2 $= 35{,}000 \times 0.797 = \$27{,}895$. PV Year 3 $= 30{,}000 \times 0.712 = \$21{,}360$.
Total PV $= 31{,}255 + 27{,}895 + 21{,}360 = \$80{,}510$.

$$\text{NPV} = 80{,}510 - 90{,}000 = -\$9{,}490$$

Since NPV is negative, the project should be **rejected** — at a 12% discount rate, it destroys $9,490 of value in today's money rather than adding to it.

Bài tập luyện tập

A project has an NPV of $+\$12{,}000$ at an 8% discount rate and an NPV of $-\$6{,}000$ at a 14% discount rate. Estimate the project's IRR by interpolation.

Lời giải chi tiết

$$\text{IRR} = 8\% + \left[\frac{12{,}000}{12{,}000 - (-6{,}000)}\right] \times (14\% - 8\%) = 8\% + \left[\frac{12{,}000}{18{,}000}\right] \times 6\% = 8\% + 4\% = \mathbf{12\%}$$

The project's internal rate of return is approximately 12% — the discount rate at which its NPV would be exactly zero.

Bài tập luyện tập

Two mutually exclusive projects, X and Y, each require an initial investment of $150,000. Project X generates $50,000 per year for 4 years; Project Y generates Year 1 $20,000, Year 2 $40,000, Year 3 $60,000, Year 4 $80,000. Using a 10% discount rate (discount factors 0.909, 0.826, 0.751, 0.683 for Years 1–4), calculate the payback period, ARR, and NPV for each project, and recommend one, explaining your reasoning.

Lời giải chi tiết

Project X. Cumulative cash flow: Year 1 $50,000; Year 2 $100,000; Year 3 $150,000 — payback is exactly **3.0 years**. Total cash flow $= 4 \times 50{,}000 = \$200{,}000$; total profit $= 200{,}000 - 150{,}000 = \$50{,}000$; average annual profit $= \$12{,}500$; ARR $= 12{,}500/150{,}000 \times 100 = 8.33\%$. Sum of discount factors $= 0.909 + 0.826 + 0.751 + 0.683 = 3.169$; total PV $= 50{,}000 \times 3.169 = \$158{,}450$; NPV $= 158{,}450 - 150{,}000 = +\$8{,}450$.

Project Y. Cumulative cash flow: Year 1 $20,000; Year 2 $60,000; Year 3 $120,000; Year 4 $200,000 — payback occurs during Year 4, needing a further $30,000 of the $80,000 received: $3 + \frac{30{,}000}{80{,}000} \times 12 = 3$ years 4.5 months. Total cash flow $= 200{,}000$; total profit $= \$50{,}000$; average annual profit $= \$12{,}500$; ARR $= 8.33\%$ (identical to Project X, since ARR ignores the *timing* of cash flows). PV: $20{,}000(0.909) + 40{,}000(0.826) + 60{,}000(0.751) + 80{,}000(0.683) =$

$18{,}180 + 33{,}040 + 45{,}060 + 54{,}640 = \$150{,}920$; NPV $= 150{,}920 - 150{,}000 = +\$920$.

Recommendation: Project X is superior on every measure that accounts for the *timing* of cash flows — it pays back a full 4.5 months sooner and its NPV ($8,450) is over nine times larger than Project Y's ($920), even though both projects generate the identical $200,000 total cash flow and identical 8.33% ARR. This is because Project X's cash flows arrive earlier and evenly, while Project Y's are back-loaded into later years, which discounting penalises heavily. **Project X should be chosen**, both for its far stronger NPV (greater value added in today's money) and its faster payback (lower risk and quicker access to cash for reinvestment); this example shows clearly why ARR alone can mislead when two projects' cash flows are timed very differently.

Bài tập luyện tập

A firm is choosing between Project M, which has the higher NPV but involves relocating production overseas (risking job losses at home and possible reputational/media criticism), and Project N, which has a lower (but still positive) NPV and keeps production in-house, supporting local jobs. Using both quantitative and qualitative reasoning, discuss which project the firm should choose.

Lời giải chi tiết

Quantitative case for Project M: it generates the higher NPV, meaning it is expected to add more value in today's money terms than Project N, assuming both sets of cash flow forecasts are equally reliable.
Qualitative case for Project N: relocating production overseas (Project M) risks reputational damage and negative media/public reaction if associated with domestic job losses, which could depress sales or brand value in ways not captured in the NPV cash flow forecast; it may also carry additional risks not fully priced into the appraisal, such as unfamiliar overseas regulation, currency risk, or supply-chain disruption. Project N's lower NPV may be worth accepting if it better protects the firm's brand reputation, stakeholder relationships, and strategic fit with a firm that markets itself on local/ethical production.
Conclusion: there is no single "correct" answer — the firm should weigh how large the NPV gap actually is against how exposed its brand and stakeholder relationships are to the risks of Project M; if the NPV gap is small, the qualitative risks of Project M likely tip the decision toward Project N, whereas a very large NPV gap might justify Project M provided the reputational risk is actively managed (e.g. through a careful communications and community-support plan).

Bài tập luyện tập

Which investment appraisal method explicitly accounts for the time value of money?

(A) Payback period
(B) Accounting Rate of Return
(C) Net Present Value
(D) None of the three methods

Lời giải chi tiết

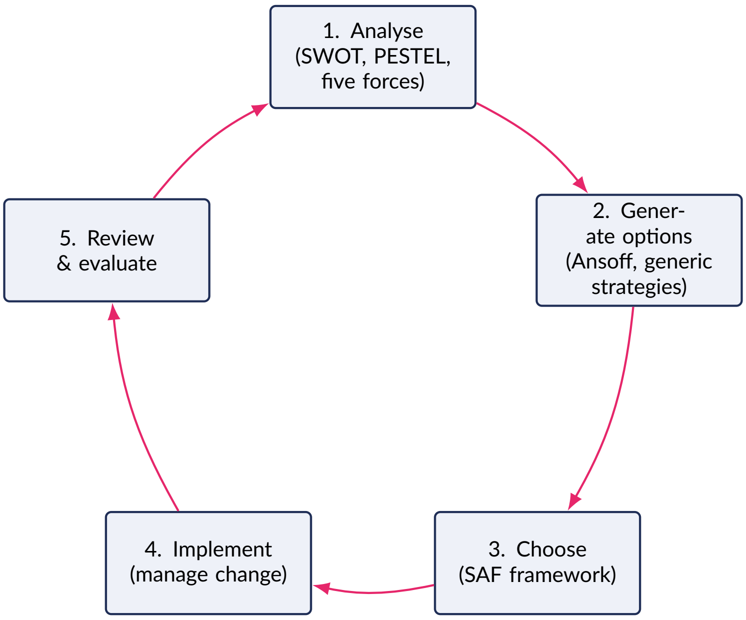
(C). Payback and ARR both treat a dollar of cash flow the same regardless of which year it is received. NPV discounts each year's cash flow by a discount factor that falls the further into the future it is received, directly building the time value of money into the calculation.

Ôn tập nhanh: matching principle — vốn ngắn hạn cho nhu cầu ngắn hạn, vốn dài hạn cho nhu cầu dài hạn. Contribution/đơn vị = giá bán − chi phí biến đổi/đơn vị; sản lượng hoà vốn = chi phí cố định ÷ contribution/đơn vị. ROCE dùng **vốn sử dụng** (vốn chủ + nợ dài hạn), không dùng tổng tài sản. Current ratio và acid test đo thanh khoản; gearing đo tỉ trọng nợ dài hạn trong vốn sử dụng. Payback và ARR bỏ qua giá trị thời gian của tiền; NPV và IRR (mức A2) có tính đến — NPV > 0 thì chấp nhận dự án; IRR là mức lãi suất chiết khấu làm NPV bằng 0, ước lượng bằng nội suy giữa hai mức lãi suất.

Strategic Management (A2)

Mục tiêu Unit: Phân tích chiến lược bằng SWOT, PESTEL và ma trận TOWS; mô hình 5 áp lực cạnh tranh của Porter và các chiến lược cạnh tranh chung (generic strategies); năng lực cốt lõi, tăng trưởng nội sinh so với M&A, và ba cấp độ chiến lược (corporate/business/functional); ma trận Ansoff kết hợp giá trị kỳ vọng; cây quyết định (decision trees) nhiều giai đoạn — bao gồm cây quyết định hai giai đoạn — và giới hạn của công cụ này; quản lý sự thay đổi (Lewin, force field analysis, mô hình Kotter) và đánh giá lựa chọn chiến lược bằng khung SAF (Suitability – Acceptability – Feasibility).

A2 EXTENSION: the whole of this unit builds on the AS foundations of Units 1–5 (Business and its Environment, People in Organisations, Marketing, Operations, Finance) with the strategic-analysis and decision-making content examined only in the A2 papers of 9609. Strategic management asks a single overarching question at three linked stages: *where are we now?* (strategic analysis), *where could we go, and which option is best?* (strategic choice), and *how do we get there?* (strategic implementation, including managing the change this requires).



The strategic planning cycle: each stage of this chapter (Sections 1–7) maps onto one stage of this cycle, which repeats continuously rather than running only once.

6.1 Strategic analysis: SWOT, PESTEL, and TOWS

6.1.1 Corporate strategy and the strategic planning process

Corporate strategy is the long-term plan of action, formulated by senior management, that sets the overall direction and scope of the whole organisation in order to achieve its corporate objectives and mission. Strategic planning is usually described as a cycle rather than a one-off event: (1) define the **mission and corporate objectives**; (2) carry out **strategic analysis** of the internal and external environment (SWOT, PESTEL, five forces); (3) generate and evaluate **strategic options** (Ansoff, generic strategies, SAF); (4) **implement** the chosen strategy, which often requires managing organisational change; (5) **review and evaluate** outcomes against the original objectives, feeding back into the next cycle of analysis.

Chu trình hoạch định chiến lược

> Corporate strategy is the organisation-wide plan for achieving its long-term mission and objectives. The planning process is cyclical: analyse the current position, generate and choose between strategic options, implement the choice (managing the change this involves), then review outcomes and feed the results back into the next round of analysis.

> VN GIẢI THÍCH TIẾNG VIỆT
> **Corporate strategy (chiến lược cấp tập đoàn)** là kế hoạch dài hạn do ban lãnh đạo cấp cao xây dựng nhằm xác định hướng đi và phạm vi hoạt động tổng thể của toàn bộ tổ chức để đạt được sứ mệnh và mục tiêu dài hạn. Quy trình hoạch định chiến lược mang tính **chu kỳ**: xác định sứ mệnh/mục tiêu → phân tích chiến lược (SWOT, PESTEL, 5 áp lực cạnh tranh) → xây dựng và lựa chọn phương án chiến lược (Ansoff, chiến lược cạnh tranh chung, khung SAF) → triển khai (thường đòi hỏi quản lý sự thay đổi) → đánh giá kết quả, từ đó quay lại vòng phân tích tiếp theo.

It is worth distinguishing three related terms that are often confused in exam answers. A **mission statement** is a broad, qualitative statement of the organisation's fundamental purpose and values (why it exists). **Corporate objectives** are more specific, usually quantified, medium/long-term targets that operationalise the mission (e.g. "increase global market share to 25% within five years"). **Corporate strategy** is the actual long-term plan of action chosen to achieve those objectives (e.g. market development into two new regions). A mission statement rarely changes; objectives are reviewed periodically; strategy may be revised more often still if it is not delivering progress toward the objectives.

> VN GIẢI THÍCH TIẾNG VIỆT
> Ba khái niệm dễ nhầm: **Mission statement (sứ mệnh)** — tuyên bố khái quát về lý do tồn tại và giá trị cốt lõi của tổ chức, ít thay đổi theo thời gian. **Corporate objectives (mục tiêu cấp tập đoàn)** — mục tiêu cụ thể hơn, thường có định lượng, để hiện thực hoá sứ mệnh (ví dụ "tăng thị phần toàn cầu lên 25% trong 5 năm"). **Corporate strategy (chiến lược)** — kế hoạch hành động cụ thể được chọn để đạt mục tiêu đó (ví dụ market development sang hai khu vực mới). Sứ mệnh hiếm khi đổi; mục tiêu được rà soát định kỳ; chiến lược có thể điều chỉnh thường xuyên hơn nếu không đạt tiến độ mong muốn.

6.1.2 SWOT analysis

SWOT analysis is a structured audit of a business's current strategic position, dividing factors into two dimensions: **internal** factors the firm itself controls (Strengths, Weaknesses) and **external** factors in the wider environment that the firm does not control but must respond to (Opportunities, Threats).

> **Strengths**: internal capabilities/resources that give the firm an advantage (e.g. strong brand, skilled workforce, patented technology, strong cash position). **Weaknesses**: internal limitations that put the firm at a disadvantage (e.g. outdated equipment, weak brand awareness, high staff turnover). **Opportunities**: favourable external trends or events the firm could exploit (e.g. a growing market segment, a new trade agreement, an emerging technology). **Threats**: unfavourable external trends or events that could harm the firm (e.g. a new competitor, adverse exchange-rate movements, tightening regulation).

VN GIẢI THÍCH TIẾNG VIỆT

SWOT phân tích vị thế chiến lược hiện tại của doanh nghiệp theo hai chiều: yếu tố **nội bộ** do chính doanh nghiệp kiểm soát (Strengths — điểm mạnh, Weaknesses — điểm yếu) và yếu tố **bên ngoài** nằm ngoài tầm kiểm soát nhưng doanh nghiệp phải ứng phó (Opportunities — cơ hội, Threats — thách thức). Nguyên tắc cốt lõi: **S và W luôn là nội bộ; O và T luôn là bên ngoài** — nhầm lẫn hai chiều này là lỗi phổ biến nhất khi làm bài SWOT.

(!) Lỗi thường gặp: S/W are always **internal** (about the firm itself); O/T are always **external** (about the wider environment). "Rising global commodity prices" is a Threat, never a Weakness — the firm does not control world commodity markets. "A strong, trusted brand" is a Strength, never an Opportunity — the brand is something the firm itself has built and controls. Always ask "does the firm control this?" before classifying a factor.

6.1.3 PESTEL analysis

While SWOT's O/T columns capture the external environment briefly, **PESTEL analysis** provides a systematic checklist of six categories of external factor, ensuring no major external influence is overlooked when scanning the environment.

Political: government stability, trade policy, taxation priorities. **Economic**: interest rates, exchange rates, inflation, economic growth/recession, unemployment. **Social**: demographic change, cultural attitudes, lifestyle trends, consumer tastes. **Technological**: automation, new production methods, e-commerce, digital disruption. **Environmental**: climate change, resource scarcity, sustainability/carbon-emission expectations, environmental regulation. **Legal**: employment law, consumer-protection law, health-and-safety law, competition law. PESTEL extends the older PEST framework by separating out Environmental and Legal factors as distinct categories in their own right.

VN GIẢI THÍCH TIẾNG VIỆT

PESTEL mở rộng mô hình PEST cũ (Political, Economic, Social, Technological) bằng cách tách riêng hai yếu tố **Environmental** (môi trường — biến đổi khí hậu, khan hiếm tài nguyên, quy định về khí thải/bền vững) và **Legal** (pháp lý — luật lao động, luật bảo vệ người tiêu dùng, luật cạnh tranh) thành các nhóm riêng biệt, giúp phân tích môi trường bên ngoài đầy đủ và có hệ thống hơn thay vì gộp chung vào Political như PEST.

Factor	Illustrative examples
Political	Government stability, trade tariffs/agreements, taxation priorities, degree of state intervention in industry.
Economic	Interest rates, exchange rates, inflation, the economic (business) cycle, unemployment, income distribution.
Social	Population/age structure, cultural attitudes, lifestyle and health trends, changing consumer tastes.
Technological	Automation and robotics, e-commerce platforms, data analytics, disruptive new production methods.
Environmental	Climate-change policy, resource/energy scarcity, carbon-emission targets, consumer demand for sustainability.
Legal	Employment law, consumer-protection law, health-and-safety law, competition (anti-monopoly) law.

Ví dụ mẫu · Worked example: SWOT of a supermarket launching online grocery delivery

A national supermarket chain, historically a bricks-and-mortar retailer, is deciding whether to launch a home grocery-delivery service.

Strengths (internal)	Weaknesses (internal)
Extensive existing store network, usable as local fulfilment points; established bulk-purchasing relationships with suppliers, keeping the cost base low.	Legacy IT and warehouse systems not designed for e-commerce order-picking; no in-house experience of last-mile delivery logistics or delivery-fleet management.
Opportunities (external)	**Threats (external)**
Sustained consumer shift toward online grocery shopping since the pandemic; possible partnership with established gig-economy delivery platforms.	Online-only grocery rivals already have mature, purpose-built delivery logistics; rising fuel and delivery-driver costs squeeze delivery margins.

GIẢI THÍCH TIẾNG VIỆT

VN

Ví dụ trên minh hoạ đúng nguyên tắc phân loại: hai cột trái (Strengths, Weaknesses) chỉ chứa yếu tố **nội bộ** của siêu thị (hệ thống cửa hàng, quan hệ nhà cung cấp, hệ thống IT, kinh nghiệm logistics); hai cột phải (Opportunities, Threats) chỉ chứa yếu tố **bên ngoài** (xu hướng tiêu dùng, đối thủ, chi phí nhiên liệu) mà siêu thị không kiểm soát được.

6.1.4 From analysis to action: the TOWS matrix

A SWOT audit alone only *lists* factors — it does not, by itself, generate strategic options. The **TOWS matrix** converts a completed SWOT into actual strategic actions by systematically combining each internal factor with each external factor.

SO strategies: use a Strength to exploit an Opportunity (the most attacking, "go for it" strategies). **WO strategies**: use an Opportunity to overcome or work around a Weakness (often via partnership or targeted investment). **ST strategies**: use a Strength to reduce exposure to a Threat (defensive use of existing advantages). **WT strategies**: minimise both Weaknesses and Threats simultaneously — typically the most defensive, risk-limiting strategies (e.g. a smaller pilot, retrenchment, or delay).

Ví dụ mẫu · Worked example: converting the supermarket's SWOT into a TOWS matrix

Using the SWOT above, four strategic options emerge:

	Opportunities	Threats
Strengths	**SO:** turn existing stores into local mini-fulfilment hubs, offering rapid click-and-collect and same-day delivery to meet growing online-grocery demand.	**ST:** use bulk-purchasing power to price online delivery competitively, undercutting online-only rivals' higher cost base despite their more mature logistics.
Weaknesses	**WO:** partner with an established gig-economy delivery platform to gain modern logistics and app capability quickly, without building in-house IT from scratch.	**WT:** limit the initial launch to click-and-collect only at a handful of pilot stores, containing exposure to rising delivery costs while IT and logistics weaknesses are still being addressed.

VN **GIẢI THÍCH TIẾNG VIỆT**

Ma trận **TOWS** biến một bản SWOT thuần mô tả thành các **hành động chiến lược** cụ thể bằng cách ghép từng yếu tố nội bộ với từng yếu tố bên ngoài: **SO** (dùng điểm mạnh nắm bắt cơ hội — tấn công mạnh nhất), **WO** (dùng cơ hội để khắc phục điểm yếu — thường qua hợp tác), **ST** (dùng điểm mạnh để giảm thiểu rủi ro từ thách thức — phòng thủ), **WT** (giảm thiểu đồng thời cả điểm yếu và thách thức — thận trọng/phòng thủ nhất, ví dụ triển khai thử nghiệm quy mô nhỏ).

6.2 Core competences, growth, and levels of strategy

6.2.1 Core competences and sustainable competitive advantage

A **core competence** (Prahalad and Hamel) is a bundle of skills, knowledge, or technology that (i) provides disproportionate value to the customer, (ii) is difficult for rivals to imitate or acquire, and (iii) can be leveraged across several different products or markets, rather than being tied to one single product. A core competence is a deeper, more durable source of **sustainable competitive advantage** than any single product, because rivals can copy a product far more easily than they can replicate the underlying capability that produced it.

> Examples of core competences: a consumer-electronics firm's expertise in miniaturising components, applied across phones, watches, and earbuds; a logistics firm's route-optimisation and delivery-network expertise, applied across parcels, groceries, and freight; a pharmaceutical firm's drug-discovery research capability, applied across many different therapeutic areas. A core competence is *not* simply any resource the firm happens to own (a factory, a cash balance, a delivery van) — it must be valuable, hard to imitate, and transferable across the business.

VN **GIẢI THÍCH TIẾNG VIỆT**

Core competence (năng lực cốt lõi) là tập hợp kỹ năng/công nghệ mang lại giá trị vượt trội cho khách hàng, khó bị đối thủ sao chép, và có thể áp dụng trên nhiều sản phẩm/thị trường khác nhau — ví dụ khả năng thu nhỏ linh kiện của một hãng điện tử áp dụng cho điện thoại, đồng hồ, tai nghe. Đây là nguồn **lợi thế cạnh tranh bền vững** sâu hơn nhiều so với một sản phẩm đơn lẻ, vì đối thủ sao chép sản phẩm dễ hơn nhiều so với sao chép năng lực cốt lõi tạo ra sản phẩm đó. Một tài sản đơn thuần (nhà xưởng, tiền mặt, xe tải) không phải là core competence nếu nó không đáp ứng cả ba tiêu chí trên.

Ví dụ mẫu · Worked example: is this a core competence?

A national delivery company is deciding which of its capabilities to highlight as a genuine core competence to underpin its next growth strategy. **Candidate 1 — its fleet of delivery vans:** valuable, but easily purchased or leased by any rival with sufficient capital, and not especially hard to imitate → *not* a core competence, merely a resource. **Candidate 2 — its proprietary route-optimisation software and driver-scheduling algorithm, built up over a decade and continuously refined using its own delivery data:** highly valuable (materially lowers cost per delivery and improves speed), very difficult for a new entrant to replicate quickly (it depends on years of accumulated proprietary data), and already successfully applied across parcels, same-day grocery delivery, and freight → this *is* a genuine core competence, satisfying all three Prahalad-and-Hamel criteria at once. **Conclusion:** the growth strategy should be built around leveraging Candidate 2 into further new services (e.g. a new same-day pharmacy-delivery line), not around simply expanding the van fleet, which any competitor could match.

VN GIẢI THÍCH TIẾNG VIỆT

Ví dụ: đội xe tải giao hàng chỉ là **tài nguyên (resource)** — đối thủ có vốn là mua/thuê được ngay, không khó sao chép. Ngược lại, phần mềm tối ưu tuyến đường và thuật toán lên lịch tài xế được xây dựng và tinh chỉnh qua nhiều năm bằng dữ liệu riêng của công ty là **core competence** thực sự: có giá trị lớn, rất khó sao chép nhanh, và đã áp dụng thành công trên nhiều dịch vụ khác nhau (bưu kiện, giao hàng tạp hoá trong ngày, vận tải hàng hoá). Chiến lược tăng trưởng nên xây dựng xung quanh năng lực cốt lõi thực sự này, chứ không phải chỉ đơn thuần mở rộng số lượng xe tải.

6.2.2 Organic growth versus growth by merger and acquisition

Firms pursuing corporate growth choose, broadly, between two routes. **Organic (internal) growth**: expanding using the firm's own resources and retained profit (opening new stores, developing new products in-house, entering new markets under its own brand). **Growth by merger or acquisition**: combining with, or buying, another existing firm — recalling from Unit 1 the main types of integration: **horizontal integration** (combining with a firm at the same stage of the same industry, e.g. two supermarket chains merging), **forward vertical integration** (combining with a firm closer to the final consumer, e.g. a manufacturer buying a retailer), **backward vertical integration** (combining with a firm closer to the source of supply, e.g. a manufacturer buying a raw-material supplier), and **conglomerate (lateral) integration** (combining with a firm in an unrelated industry, purely to diversify).

Organic growth — advantages: full control retained by existing management; no culture-clash or integration risk from combining two separate organisations; growth is funded from retained earnings, avoiding new acquisition debt. **Organic growth — drawbacks:** slower; does not immediately gain a competitor's existing customer base, brand, technology, or economies of scale. **M&A — advantages:** rapid increase in market share/scale; immediate access to an established customer base, brand, technology, patents, or distribution network; can eliminate a competitor at a stroke (horizontal) or secure control of supply/distribution (vertical). **M&A — drawbacks:** high upfront cost, often financed by debt; integration risk (clashing corporate cultures, IT systems, management structures); the acquired firm's true value/liabilities may be hard to assess before completion (due-diligence risk); regulatory (competition-authority) approval may be required and may be refused for horizontal deals that reduce competition too much.

VN GIẢI THÍCH TIẾNG VIỆT

Tăng trưởng nội sinh (organic growth) dùng nguồn lực và lợi nhuận giữ lại của chính doanh nghiệp — chậm hơn nhưng giữ toàn quyền kiểm soát, không có rủi ro xung đột văn hoá khi sáp nhập, không tạo thêm nợ. **Tăng trưởng qua M&A** nhanh hơn, có ngay khách hàng/thương hiệu/công nghệ của đối tác, nhưng chi phí ban đầu cao (thường vay nợ), rủi ro tích hợp (xung đột văn hoá, hệ thống IT), và có thể bị cơ quan quản lý cạnh tranh từ chối nếu làm giảm cạnh tranh quá mức (đặc biệt với horizontal integration). Ôn lại 4 loại integration từ Unit 1: **horizontal** (cùng ngành, cùng công đoạn), **forward vertical** (gần người tiêu dùng hơn), **backward vertical** (gần nguồn cung hơn), **conglomerate/lateral** (ngành không liên quan).

Ví dụ mẫu · Worked example: choosing between organic growth and acquisition

A regional coffee-shop chain with 40 outlets wants to expand into a neighbouring country where it currently has no presence or brand recognition. **Option A (organic):** open new company-owned outlets one at a time, building brand awareness from scratch. **Option B (acquisition):** buy an existing local coffee-shop chain of 25 outlets that already has an established customer base, trained staff, and supplier relationships in that country.

Option A avoids the acquisition cost and the risk of inheriting the target's existing problems (e.g. underperforming leases, an unfamiliar IT system, staff culture clashes), but is likely to take several years to build the brand recognition and outlet density that Option B delivers immediately. Option B is faster and de-risks local market knowledge (the acquired firm already understands local consumer tastes and supplier relationships), but requires a large upfront sum, likely partly debt-financed, and carries real integration risk if the two chains' operating systems, branding, or staff cultures do not mesh well. **Recommendation:** if the chain values speed and immediate local market knowledge over full control and values a lower financial-risk profile less, acquisition (Option B) is more appropriate; if it has abundant time, wants to preserve its exact brand identity and operating culture, and wants to avoid acquisition debt, organic growth (Option A) is more appropriate.

VN GIẢI THÍCH TIẾNG VIỆT

Ví dụ: chuỗi cà phê muốn mở rộng sang nước láng giềng. **Organic growth** — mở từng cửa hàng mới, tránh chi phí mua lại và rủi ro thừa hưởng vấn đề của công ty khác, nhưng mất nhiều thời gian để xây dựng độ nhận diện thương hiệu. **Acquisition** — mua lại chuỗi địa phương đã có sẵn khách hàng, nhân viên, quan hệ nhà cung cấp — nhanh hơn và giảm rủi ro về hiểu biết thị trường địa phương, nhưng chi phí lớn (thường vay nợ) và có rủi ro tích hợp nếu văn hoá/hệ thống vận hành hai bên không tương thích. Lựa chọn phụ thuộc vào việc doanh nghiệp ưu tiên tốc độ hay ưu tiên kiểm soát toàn quyền và tránh nợ vay.

6.2.3 Corporate, business, and functional-level strategy

Strategy is formulated at three distinct levels within a large organisation, each answering a different question.

Level	Defining question	Example (same conglomerate)
Corporate-level	What overall range of industries/markets should the whole organisation compete in?	The board sells the group's underperforming clothing-retail division and uses the proceeds to acquire a software firm.
Business-level (competitive)	How should a particular business unit compete for customers within its own specific market?	The retained software division chooses a **differentiation** strategy, competing on the most technically advanced product features.
Functional-level	How should a single department act to support the business-level strategy?	The software division's marketing department designs a premium-positioned advertising campaign that reinforces the differentiation strategy.

VN GIẢI THÍCH TIẾNG VIỆT

Ba cấp độ chiến lược: **Corporate-level** — quyết định phạm vi ngành/thị trường của toàn bộ tập đoàn (ví dụ bán mảng kinh doanh yếu kém, mua lại công ty mới). **Business-level (competitive)** — quyết định cách một đơn vị kinh doanh cụ thể cạnh tranh trong thị trường của nó (ví dụ chọn chiến lược differentiation — sẽ học ở phần Porter bên dưới). **Functional-level** — quyết định trong một phòng ban cụ thể (marketing, nhân sự, sản xuất...) nhằm hỗ trợ chiến lược cấp business phía trên. Ba cấp độ phải **nhất quán với nhau** — chiến lược functional phải phục vụ chiến lược business, và chiến lược business phải phục vụ định hướng corporate.

Ví dụ mẫu · Worked example: tracing the three levels through a hospitality group

A global hotel group's **corporate-level** decision is to exit the budget-hotel segment entirely and reinvest the proceeds into expanding its luxury-resort brand across three new countries. Within the retained luxury-resort brand, the **business-level** decision is to compete through differentiation — investing in signature architecture, exclusive spa partnerships, and highly personalised guest service that budget and mid-market rivals do not offer. Within that resort brand, the **functional-level** decisions that follow include: the HR department redesigning recruitment and training around a "bespoke guest experience" service culture; the marketing department building a premium content strategy around the signature architecture; and operations negotiating exclusive long-term contracts with luxury spa-brand partners. Each functional decision only makes sense *because* of the business-level differentiation strategy above it, which in turn only makes sense because of the corporate-level decision to concentrate resources in the luxury segment.

VN **GIẢI THÍCH TIẾNG VIỆT**

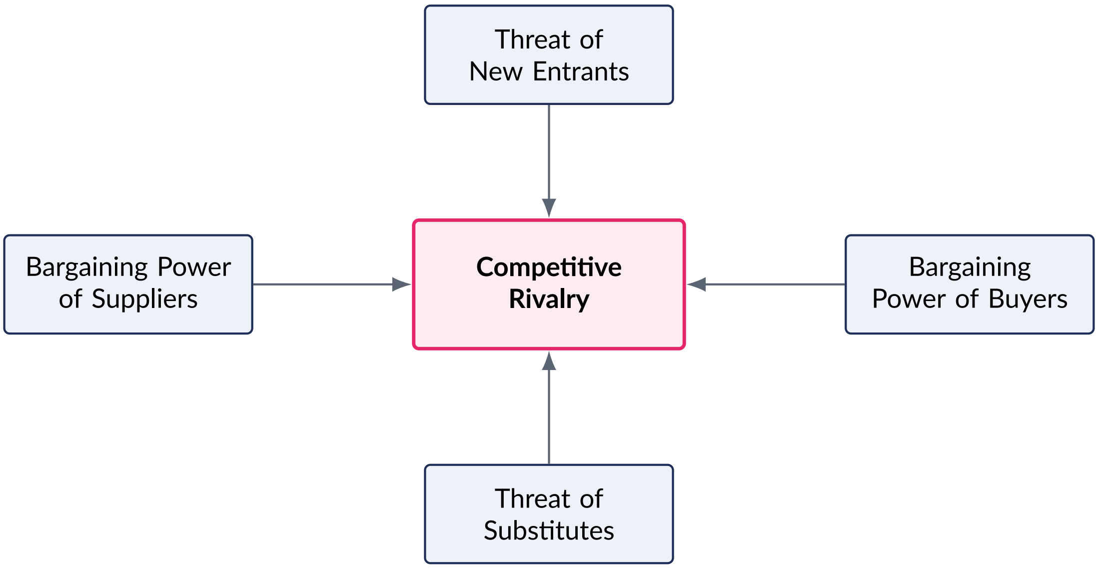
Ví dụ: quyết định **corporate-level** của một tập đoàn khách sạn là rút khỏi phân khúc bình dân và dồn nguồn lực mở rộng thương hiệu resort cao cấp sang 3 quốc gia mới. Quyết định **business-level** của thương hiệu resort là cạnh tranh bằng differentiation (kiến trúc đặc trưng, dịch vụ spa độc quyền, trải nghiệm cá nhân hoá). Các quyết định **functional-level** theo sau: HR xây dựng quy trình tuyển dụng/đào tạo theo văn hoá phục vụ cao cấp; marketing xây dựng chiến lược nội dung xoay quanh kiến trúc đặc trưng; vận hành đàm phán hợp đồng độc quyền với đối tác spa cao cấp. Mỗi quyết định functional chỉ hợp lý vì phục vụ chiến lược business phía trên, và chiến lược business đó chỉ hợp lý vì phục vụ định hướng corporate.

6.3 Porter's five forces and generic strategies

6.3.1 The five forces model

Michael Porter's **five forces** model analyses the underlying structural attractiveness (long-run profit potential) of an industry, independent of any single firm's own performance within it.

Threat of new entrants: how easily new competitors could enter the industry — high barriers to entry (large capital requirements, strong brand loyalty, patents, economies of scale already held by incumbents) keep this threat low. **Bargaining power of buyers**: how much leverage customers have to demand lower prices/higher quality — high when buyers are few/large, products are undifferentiated, or switching cost is low. **Bargaining power of suppliers**: how much leverage input suppliers have to raise prices/reduce quality — high when suppliers are few, inputs are essential and hard to substitute, or switching supplier is costly. **Threat of substitutes**: the risk that customers switch to a different product/service that satisfies the same underlying need. **Competitive rivalry**: the intensity of competition among existing firms already in the industry — high when there are many similar-sized competitors, low product differentiation, high fixed costs (pressuring firms to fight for volume), and high exit barriers (keeping weak firms in the market instead of leaving).



Porter's five forces: the intensity of rivalry among existing firms sits at the centre, shaped by pressure from all four surrounding forces.

VN **GIẢI THÍCH TIẾNG VIỆT**

Mô hình 5 áp lực cạnh tranh của Porter phân tích mức độ hấp dẫn (tiềm năng lợi nhuận dài hạn) của một ngành: **nguy cơ gia nhập mới** (rào cản gia nhập cao thì nguy cơ thấp), **quyền lực thương lượng của người mua**, **quyền lực thương lượng của nhà cung cấp**, **nguy cơ từ sản phẩm thay thế**, và **cường độ cạnh tranh nội bộ ngành** (ở trung tâm mô hình, chịu tác động từ cả 4 áp lực xung quanh). Ngành có cả 5 áp lực đều yếu là ngành hấp dẫn nhất về lợi nhuận tiềm năng.

6.3.2 Worked mini-case: applying the five forces to budget airlines

Ví dụ mẫu · Worked example: five forces in the budget airline industry

New entrants — moderate: aircraft leasing (rather than purchase) and the use of secondary airports lower the capital barrier somewhat, but establishing route networks, airport slots at major hubs, and safety/regulatory certification remain significant hurdles.
Buyer power — high: passengers can compare fares instantly via price-comparison websites, switching cost between airlines on the same route is close to zero, and demand is highly price-sensitive.
Supplier power — high: only two manufacturers (Boeing and Airbus) supply the vast majority of the world's commercial aircraft, and global jet-fuel prices are set on world commodity markets outside any single airline's control.
Threat of substitutes — moderate: rail and coach travel substitute strongly on short-haul domestic/regional routes and video-conferencing reduces some business travel, but substitutes are weak on longer international routes.
Competitive rivalry — very high: many budget carriers compete aggressively on price with thin margins, offer largely undifferentiated no-frills service, and face high fixed costs (aircraft, crew, gate slots) that push airlines to fill seats even at low fares; high exit barriers (aircraft lease commitments, redundancy costs) keep loss-making capacity in the market rather than exiting.
Conclusion: overall industry attractiveness is **low** — intense rivalry, powerful suppliers, and high buyer power squeeze margins from several directions simultaneously, consistent with the historically thin profit margins typical of the budget airline sector, even though moderate entry barriers offer incumbents some protection.

VN GIẢI THÍCH TIẾNG VIỆT

Áp dụng 5 áp lực vào ngành hàng không giá rẻ: gia nhập mới ở mức trung bình (thuê máy bay và dùng sân bay phụ giảm rào cản, nhưng vẫn cần giấy phép/slot); quyền lực người mua cao (dễ so sánh giá, chi phí chuyển đổi gần như bằng 0); quyền lực nhà cung cấp cao (chỉ có Boeing và Airbus, giá nhiên liệu toàn cầu ngoài tầm kiểm soát); sản phẩm thay thế ở mức trung bình (tàu hoả/xe khách cạnh tranh mạnh trên tuyến ngắn); cạnh tranh nội bộ rất cao (nhiều hãng cạnh tranh giá quyết liệt, chi phí cố định cao, rào cản rút lui cao). Kết luận: ngành này có mức độ hấp dẫn **thấp** vì lợi nhuận bị siết từ nhiều phía cùng lúc.

By contrast, applying the same framework to a very differently structured industry shows how much industry attractiveness can vary.

Ví dụ mẫu · Worked example: five forces in a regional piped water-supply utility

New entrants — very low: laying a competing network of water pipes across an entire region requires enormous capital investment and, in most countries, an exclusive regulatory licence — new entry is effectively blocked.
Buyer power — very low: households and firms in the region have no practical alternative supplier for piped water, so they cannot negotiate on price or threaten to switch.
Supplier power — low to moderate: pipes, treatment chemicals, and pumping equipment are available from several competing suppliers, giving the utility reasonable choice and negotiating power.
Threat of substitutes — low: bottled water is a substitute only for drinking, not for the vast majority of household and industrial water use (washing, sanitation, cooling, irrigation).
Rivalry — very low: the utility typically holds a regional monopoly (or near-monopoly) with no directly competing piped-water provider in its area.
Conclusion: overall industry attractiveness is **high** from a pure five-forces perspective — every force is weak, protecting the incumbent's pricing power and profitability — though in practice such utilities are usually subject to close price regulation precisely *because* the five forces would otherwise allow excessive, monopoly-level profits.

VN GIẢI THÍCH TIẾNG VIỆT

So sánh với ngành hàng không giá rẻ, ngành **cấp nước sạch khu vực** có cả 5 áp lực đều **yếu**: gia nhập mới gần như không thể (vốn đầu tư khổng lồ, cần giấy phép độc quyền), người mua không có lựa chọn thay thế nên quyền lực rất thấp, sản phẩm thay thế hầu như không có, và cạnh tranh nội bộ gần như bằng 0 do vị thế độc quyền khu vực. Về lý thuyết, đây là ngành **rất hấp dẫn** — nhưng chính vì vậy trong thực tế các ngành độc quyền tự nhiên như thế này thường bị chính phủ áp đặt quy định kiểm soát giá chặt chẽ để tránh lợi dụng vị thế độc quyền.

6.3.3 Generic strategies: cost leadership, differentiation, and focus

Having assessed the industry (five forces), a firm must choose *how* it intends to compete within it. Porter's **generic strategies** identify three broad routes to competitive advantage.

Cost leadership: become the lowest-cost producer in the industry (through economies of scale, efficient processes, tight cost control), allowing profitable prices below rivals' while still earning a margin. **Differentiation**: make the product distinctive in ways customers value (superior quality, design, brand, innovation, customer service) so that customers will pay a premium price rather than switch to a cheaper alternative. **Focus**: concentrate on a narrow market segment (a particular customer group, product niche, or geographic area) and serve it better than broad-based competitors can, using either a cost-focus or a differentiation-focus approach within that niche. **Stuck in the middle**: the risky position of a firm that commits fully to none of these three strategies — neither the cheapest, nor meaningfully differentiated, nor focused on a defensible niche — typically resulting in below-average profitability because it appeals fully to no clear group of customers.

Strategy	Main source of advantage	Main risk if pursued poorly
Cost leadership	Economies of scale, tight cost control, efficient processes across the whole broad market.	A rival cuts costs even further, or a disruptive new entrant undercuts on price using a fundamentally lower-cost model.
Differentiation	Superior, hard-to-copy features, brand, design, or service across the whole broad market.	Rivals eventually imitate the point of difference, or customers stop valuing it enough to keep paying the premium.
Focus	Deep knowledge of, and tailored service to, one narrow segment that broad-based rivals serve less well.	The niche segment is too small to be profitable, or a broad-based rival adapts just enough to serve the niche too.

GIẢI THÍCH TIẾNG VIỆT

VN

Ba chiến lược cạnh tranh chung: **Cost leadership** — trở thành nhà sản xuất chi phí thấp nhất ngành để định giá thấp mà vẫn có lãi; **Differentiation** — tạo sự khác biệt được khách hàng đánh giá cao (chất lượng, thiết kế, thương hiệu) để bán giá cao hơn; **Focus** — tập trung vào một phân khúc hẹp và phục vụ tốt hơn đối thủ diện rộng. **Stuck in the middle (kẹt ở giữa)** là tình trạng nguy hiểm khi doanh nghiệp không theo đuổi trọn vẹn chiến lược nào — không rẻ nhất, không khác biệt rõ rệt, không có ngách riêng — dẫn đến lợi nhuận kém vì không hấp dẫn trọn vẹn với bất kỳ nhóm khách hàng nào.

Ví dụ mẫu · Worked example: matching businesses to a generic strategy

Firm X operates the largest distribution network in its country, negotiates the lowest supplier prices due to huge purchasing volumes, and advertises "everyday low prices" → **cost leadership** (its whole business model is built around being the lowest-cost, lowest-price option at scale).

Firm Y is a boutique skincare brand using rare, ethically-sourced ingredients and artisanal packaging, priced well above mass-market rivals and targeted at affluent urban consumers → **focus (differentiation-focus)** — a narrow, premium niche served with a distinctive, high-value product rather than broad-market reach.

Firm Z, by contrast, has recently cut some costs to try to compete on price while simultaneously adding premium features to try to compete on quality, without fully committing to either → at risk of being **stuck in the middle**: its prices are no longer low enough to win price-sensitive customers, but its quality/branding is not distinctive enough to justify a premium, so it risks losing customers to both cost leaders and differentiators.

GIẢI THÍCH TIẾNG VIỆT

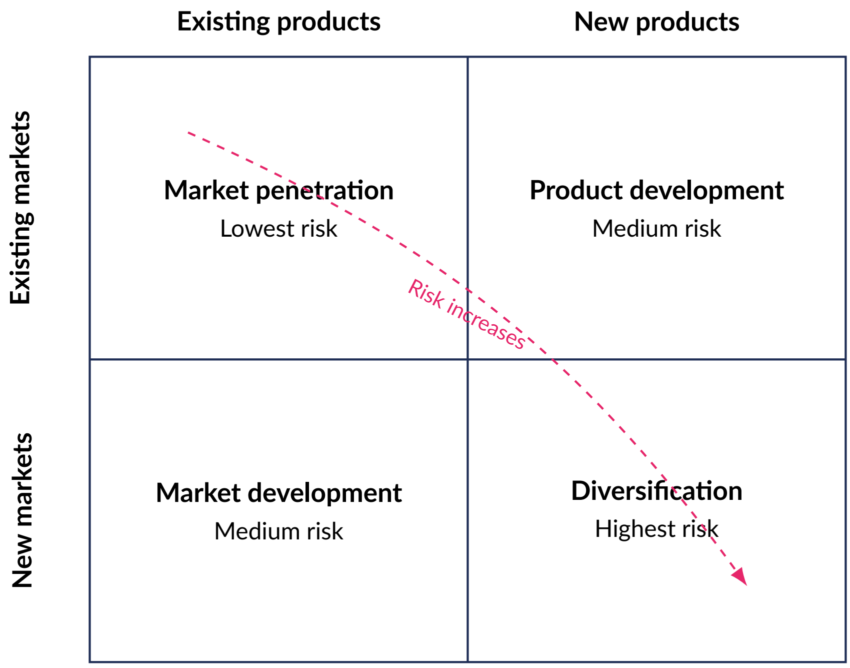
VN

Firm X theo **cost leadership** (quy mô lớn, chi phí thấp nhất, giá thấp nhất). Firm Y theo **focus (differentiation-focus)** (ngách hẹp, cao cấp, khác biệt rõ rệt). Firm Z có nguy cơ **stuck in the middle** vì vừa cố giảm giá vừa cố thêm tính năng cao cấp mà không dồn lực trọn vẹn vào bên nào — kết quả thường là mất khách cho cả hai nhóm đối thủ.

6.4 Ansoff's matrix

6.4.1 The matrix and the risk gradient

Ansoff's matrix maps four growth strategies against two dimensions: whether the product is existing or new, and whether the market is existing or new.



The Ansoff matrix: risk rises moving away from the top-left cell (existing product, existing market) toward the bottom-right cell (new product, new market).

Market penetration: sell more of the existing product into the existing market (advertising, loyalty schemes, price promotions) — lowest risk, since the firm already understands both the product and its customers. **Product development**: sell a new product into the existing market (leveraging existing customer relationships and brand trust). **Market development**: sell the existing product into a new market (new geography, new customer segment, new distribution channel). **Diversification**: sell a new product into a new market — normally the single highest-risk quadrant, since the firm has neither product expertise nor market knowledge to draw on; **related** diversification (into an industry with some overlap with the firm's existing operations) is generally lower-risk than **unrelated** diversification (into a completely different industry).

GIẢI THÍCH TIẾNG VIỆT

VN

Ma trận Ansoff kết hợp hai chiều — sản phẩm (hiện có/mới) và thị trường (hiện có/mới) — thành 4 chiến lược tăng trưởng: **Market penetration** (bán nhiều hơn sản phẩm hiện có vào thị trường hiện có — rủi ro thấp nhất); **Product development** (sản phẩm mới vào thị trường hiện có); **Market development** (sản phẩm hiện có vào thị trường mới); **Diversification** (sản phẩm mới vào thị trường mới — rủi ro cao nhất, vì doanh nghiệp không có kinh nghiệm về cả sản phẩm lẫn thị trường). Diversification **có liên quan (related)** tới hoạt động hiện tại thường ít rủi ro hơn diversification **không liên quan (unrelated)**.

(!) Lỗi thường gặp: Risk on the Ansoff matrix increases along *both* axes at once, not just one — moving from "existing market" to "new market" *and* from "existing product" to "new product" simultaneously (diversification) is not simply "the risk of market development plus the risk of product development added together"; it is conventionally treated as its own, qualitatively riskier category, because the firm loses *all* of its usual base of expertise at once.

6.4.2 Ansoff and expected value: a numeric worked example

Choosing between Ansoff strategies is rarely just a qualitative risk judgement — firms often attach probability estimates and forecast payoffs to each option, then apply the **expected value (EV)** technique (developed fully with decision trees in Section 6.4) to compare them numerically.

Ví dụ mẫu · Worked example: comparing Ansoff strategies by expected value

A budget airline is comparing two growth strategies.

(a) Market penetration: a discounted-fare promotion on existing routes, costing $2 million to run. Management estimates a 75% chance of success, generating $6 million in additional revenue, and a 25% chance of a weak response, generating only $1 million.

$$EV = 0.75(\$6\text{m}) + 0.25(\$1\text{m}) = \$4.5\text{m} + \$0.25\text{m} = \$4.75\text{m}$$

$$\text{Net gain} = \$4.75\text{m} - \$2\text{m} = \$2.75\text{m}$$

(b) Diversification: launching an unrelated air-cargo/logistics division, costing $8 million to set up. Management estimates only a 30% chance of success, generating $30 million in additional revenue, and a 70% chance of a weak result, generating just $2 million.

$$EV = 0.30(\$30\text{m}) + 0.70(\$2\text{m}) = \$9\text{m} + \$1.4\text{m} = \$10.4\text{m}$$

$$\text{Net gain} = \$10.4\text{m} - \$8\text{m} = \$2.4\text{m}$$

Conclusion: market penetration gives a marginally higher net gain ($2.75m vs. $2.4m) at lower cost and much lower risk (75% vs. 30% probability of success). Diversification offers a far larger potential upside ($30m) but is consistent with Ansoff's prediction that diversification is the highest-risk quadrant — a board might still choose it if it wants to reduce dependence on the airline's core market, but on the numbers alone, market penetration is the stronger option.

VN GIẢI THÍCH TIẾNG VIỆT

Ví dụ so sánh hai chiến lược Ansoff bằng giá trị kỳ vọng (EV): **Market penetration** có EV $= \$4.75$ triệu, trừ chi phí $2 triệu → net gain $= \$2.75$ triệu, xác suất thành công cao (75%). **Diversification** có EV $= \$10.4$ triệu, trừ chi phí $8 triệu → net gain $= \$2.4$ triệu, nhưng xác suất thành công thấp hơn nhiều (30%) và rủi ro cao hơn theo đúng dự đoán của ma trận Ansoff. Market penetration có net gain nhỉnh hơn và rủi ro thấp hơn hẳn, dù diversification có tiềm năng lợi nhuận tối đa ($30 triệu) lớn hơn nhiều.

6.5 Decision trees

6.5.1 Key terms and the roll-back method

A **decision tree** is a diagram that maps out a sequence of decisions and uncertain outcomes, allowing a numerical comparison of strategic options under risk.

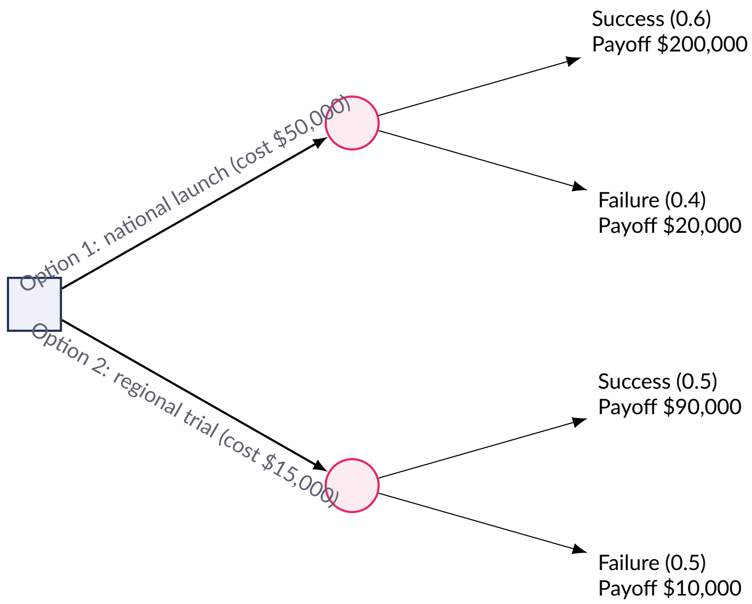
Decision node (drawn as a **square**): a point where management must choose between two or more options. **Chance (outcome) node** (drawn as a **circle**): a point where the outcome is determined by chance, with each branch assigned a probability (all probabilities leaving one chance node must sum to 1) and a payoff. **Expected value (EV)** of a chance node = the sum of (probability × payoff) across all its branches. **Roll-back (backward induction) method**: work from the right-hand end of the tree back toward the initial decision, calculating the EV at every chance node and choosing the higher-value branch at every decision node, until a final recommendation is reached at the first decision node. **Net gain** of an option = EV of that option − the cost of pursuing it — options must always be compared on *net gain*, not on raw EV alone, whenever their costs differ.

VN GIẢI THÍCH TIẾNG VIỆT

Decision node (hình vuông) là nơi ban quản lý phải chọn giữa các phương án. **Chance node** (hình tròn) là nơi kết quả phụ thuộc vào xác suất ngẫu nhiên (tổng xác suất các nhánh từ một chance node phải bằng 1). **Expected value (EV)** của một chance node = tổng của (xác suất × giá trị kết quả) trên tất cả các nhánh. **Phương pháp roll-back**: tính từ phải sang trái — tính EV tại mỗi chance node, chọn nhánh có giá trị cao hơn tại mỗi decision node, cho đến khi ra được khuyến nghị tại decision node đầu tiên. **Net gain** = EV − chi phí thực hiện phương án — luôn phải so sánh theo **net gain**, không so sánh EV thô, khi các phương án có chi phí khác nhau.

(!) Lỗi thường gặp: Always compare options on **net gain** (EV − cost), never on raw EV alone, whenever the options being compared have different costs — an option with a higher EV can still be the worse choice once its (larger) cost is subtracted. Subtract the cost *before* making the final comparison, not after.

6.5.2 Worked example 1: a two-option roll-back



Decision tree (square = decision node, circle = chance node) for two product-launch options.

Ví dụ mẫu · Worked example: full roll-back of the tree above

Option 1 — national launch (cost $50,000):

$$EV = 0.6(\$200{,}000) + 0.4(\$20{,}000) = \$120{,}000 + \$8{,}000 = \$128{,}000$$

$$\text{Net gain} = \$128{,}000 - \$50{,}000 = \$78{,}000$$

Option 2 — regional trial (cost $15,000):

$$EV = 0.5(\$90{,}000) + 0.5(\$10{,}000) = \$45{,}000 + \$5{,}000 = \$50{,}000$$

$$\text{Net gain} = \$50{,}000 - \$15{,}000 = \$35{,}000$$

Recommendation: choose Option 1 (national launch). It both costs more upfront and — usefully — also carries the higher probability of success (60% vs. 50%), and its net gain ($78,000) far exceeds Option 2's ($35,000), so it is the financially superior choice on the data given.

GIẢI THÍCH TIẾNG VIỆT

VN

Roll-back: Option 1 có EV = $\$128{,}000$, trừ chi phí $50,000 → net gain = $\$78{,}000$. Option 2 có EV = $\$50{,}000$, trừ chi phí $15,000 → net gain = $\$35{,}000$. Vì $78,000 > $35,000, chọn Option 1 (national launch) — luôn nhớ **trừ chi phí trước khi so sánh**, không so sánh EV thô.

A useful additional check is to ask how *robust* this recommendation is to the probability estimates used — this is explored formally in the "limitations" subsection below, but a quick check here is instructive: even if Option 2's chance of success were 100% (certain success, no risk of failure at all), its net gain would be $EV - \text{cost} = \$90{,}000 - \$15{,}000 = \$75{,}000$, which is *still below* Option 1's net gain of $78,000. In this particular case, therefore, the recommendation to choose Option 1 does not depend at all on how accurate the probability estimates for Option 2 turn out to be — Option 1 dominates Option 2 regardless. This is not always true (see the "two research projects" practice question below, where the two options are far closer and the recommendation is much more sensitive to the estimates used).

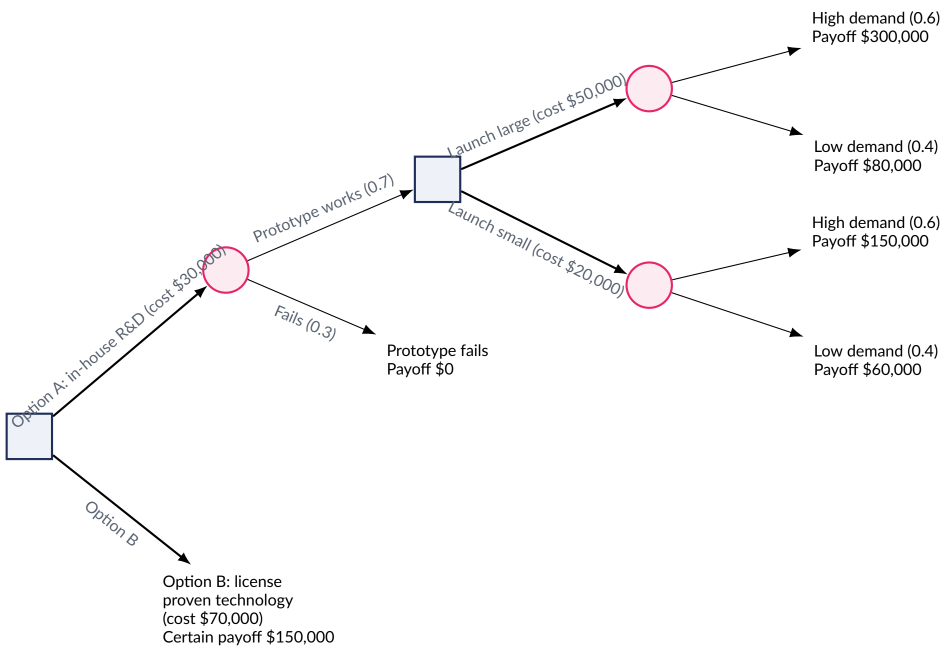
GIẢI THÍCH TIẾNG VIỆT

VN

Kiểm tra độ nhạy (sensitivity check): ngay cả khi giả định Option 2 thành công **chắc chắn** (xác suất = 100%), net gain của Option 2 vẫn chỉ là $90{,}000 - 15{,}000 = \$75{,}000$, thấp hơn net gain $78,000 của Option 1. Nghĩa là trong trường hợp này, khuyến nghị chọn Option 1 **không phụ thuộc** vào độ chính xác của xác suất ước tính — Option 1 luôn vượt trội. Đây là một cách kiểm tra tốt để biết khi nào giới hạn "xác suất chủ quan" của cây quyết định thực sự đáng lo ngại (khi hai phương án gần bằng nhau) và khi nào không quan trọng (khi một phương án vượt trội rõ rệt).

6.5.3 Worked example 2: a two-stage decision tree

Real strategic decisions often unfold in **stages** — an initial decision leads to a chance outcome, which itself opens up a *further* decision, before a final chance outcome is reached. Rolling back a multi-stage tree requires working from the final (right-hand) branches inward, one stage at a time.



A two-stage decision tree: an initial choice (Option A/B) leads to a chance node, and — if Option A's prototype succeeds — a *second* decision (launch scale) followed by a further chance node.

Ví dụ mẫu · Worked example: rolling back the two-stage tree

Stage 1 — roll back decision node D2 (only reached if the prototype succeeds).

$$\text{Launch large: } EV = 0.6(\$300{,}000) + 0.4(\$80{,}000) = \$180{,}000 + \$32{,}000 = \$212{,}000$$

$$\text{Net} = \$212{,}000 - \$50{,}000 = \$162{,}000$$

$$\text{Launch small: } EV = 0.6(\$150{,}000) + 0.4(\$60{,}000) = \$90{,}000 + \$24{,}000 = \$114{,}000$$

$$\text{Net} = \$114{,}000 - \$20{,}000 = \$94{,}000$$

Since $162,000 $>$ $94,000, roll back **"launch large"** into D2; the value carried back to chance node C1's "success" branch is $162,000.

Stage 2 — roll back chance node C1.

$$EV(C1) = 0.7(\$162{,}000) + 0.3(\$0) = \$113{,}400$$

$$\text{Net gain, Option A} = \$113{,}400 - \$30{,}000 = \$83{,}400$$

Stage 3 — compare with Option B (certain outcome).

$$\text{Net gain, Option B} = \$150{,}000 - \$70{,}000 = \$80{,}000$$

Recommendation: Option A ($83,400) narrowly beats Option B ($80,000). The margin is slim, and Option A carries a genuine 30% chance of losing the entire $30,000 prototype investment for zero return, whereas Option B is a certain outcome — a risk-averse board might reasonably choose the safer, certain Option B despite its slightly lower expected net gain.

GIẢI THÍCH TIẾNG VIỆT

VN Cây quyết định hai giai đoạn: trước tiên roll-back **decision node D2** ở giai đoạn sau (chỉ xảy ra nếu prototype thành công) — chọn "launch large" vì net $= \$162{,}000 >$ net của "launch small"

$= \$94{,}000$. Sau đó roll-back **chance node C1**: $EV = 0.7(162{,}000) + 0.3(0) = \$113{,}400$, trừ chi phí ban đầu \$30,000 → net gain Option A $= \$83{,}400$. So với Option B (net $= \$80{,}000$), Option A nhỉnh hơn nhưng chênh lệch nhỏ và rủi ro cao hơn (30% khả năng mất trắng \$30,000) — đây là điểm mấu chốt để bàn luận thêm ngoài con số thuần tuý.

6.5.4 Limitations of decision trees

Decision-tree analysis is a powerful quantitative aid, but it has real limitations that must be weighed alongside the numbers.

Subjective probabilities: the probabilities used are almost always estimates by management, not certain, objectively verified facts — a different estimate could change the recommended option entirely. **Ignores qualitative/strategic factors**: a decision tree cannot capture factors such as brand image, staff morale, ethical considerations, or strategic fit with the firm's mission, all of which may matter as much as the expected financial payoff. **Assumes payoffs are certain once an outcome occurs**: in reality, even a "successful" outcome may deliver more or less than the single payoff figure used. **Ignores risk attitude**: the roll-back method always selects the option with the highest expected value/net gain, but a risk-averse decision-maker (as in Worked example 2 above) may rationally prefer a lower-EV but safer, more certain option.

VN GIẢI THÍCH TIẾNG VIỆT

Giới hạn của cây quyết định: (1) **xác suất mang tính chủ quan** — chỉ là ước tính của ban quản lý, không phải số liệu chắc chắn, và ước tính khác đi có thể đổi hẳn kết quả khuyến nghị; (2) **bỏ qua yếu tố định tính/chiến lược** như hình ảnh thương hiệu, tinh thần nhân viên, đạo đức kinh doanh; (3) **giả định kết quả chắc chắn** một khi đã xảy ra, trong khi thực tế có thể lệch khỏi con số payoff đã dùng; (4) **bỏ qua thái độ với rủi ro** của người ra quyết định — phương pháp roll-back luôn chọn phương án có EV/net gain cao nhất, nhưng người ra quyết định e ngại rủi ro có thể hợp lý khi chọn phương án an toàn hơn dù EV thấp hơn.

6.6 Implementing and managing change

6.6.1 Drivers of change

Organisations rarely change without a trigger. **Internal drivers**: a change of senior leadership, disappointing financial performance, new corporate objectives, an internal restructuring. **External drivers**: new legislation, a shift in consumer tastes, a new competitor or disruptive technology, an economic downturn, or supply-chain disruption. Successful change management requires diagnosing what is driving the need for change before choosing a model to plan and implement it.

VN GIẢI THÍCH TIẾNG VIỆT

Sự thay đổi trong doanh nghiệp thường xuất phát từ hai nhóm nguyên nhân: **nội bộ** (thay đổi lãnh đạo, kết quả tài chính kém, mục tiêu mới, tái cơ cấu) và **bên ngoài** (luật mới, thay đổi thị hiếu, đối thủ/công nghệ mới, suy thoái kinh tế, gián đoạn chuỗi cung ứng). Cần xác định đúng nguyên nhân trước khi chọn mô hình quản lý sự thay đổi phù hợp.

Ví dụ mẫu · Worked example: classifying drivers of change

A department-store chain is planning a major transformation programme. Classify each trigger as an internal or external driver: (1) a newly appointed CEO wants to reposition the brand as more upmarket; (2) a new consumer-protection law requires faster processing of returns; (3) same-store sales have fallen for three consecutive years; (4) a fast-growing online-only rival has taken significant market share.

(1) **Internal** — a change of leadership and its own new strategic vision, originating inside the firm. (2) **External** — a change in the law, entirely outside the firm's control.
(3) **Internal** — the firm's own trading performance (though its ultimate cause may be external, the falling sales figures are an internal performance signal management must act on). (4) **External** — a competitive threat originating outside the firm.
Recognising that this programme is driven by *both* internal (leadership vision, weak performance) and external (regulation, competition) triggers matters in practice: the internal drivers can be addressed largely through the firm's own strategic choices, while the external drivers (especially the legal requirement) constrain what those choices can be.

VN GIẢI THÍCH TIẾNG VIỆT

Phân loại nguyên nhân thay đổi: (1) CEO mới muốn định vị thương hiệu cao cấp hơn — **nội bộ**; (2) luật bảo vệ người tiêu dùng mới yêu cầu xử lý hoàn trả nhanh hơn — **bên ngoài**; (3) doanh số cùng cửa hàng giảm 3 năm liên tiếp — **nội bộ** (tín hiệu hiệu suất nội bộ mà ban quản lý phải xử lý, dù nguyên nhân gốc có thể đến từ bên ngoài); (4) đối thủ online tăng trưởng nhanh chiếm thị phần — **bên ngoài**. Việc nhận diện đúng chương trình thay đổi này chịu tác động từ **cả hai nhóm** nguyên nhân giúp ban quản lý biết phần nào có thể tự quyết định và phần nào bị ràng buộc bởi yếu tố bên ngoài (đặc biệt là yêu cầu pháp lý).

6.6.2 Lewin's three-step model

Unfreeze: build awareness that the current way of working is no longer adequate, reducing complacency and preparing people psychologically to accept change is needed. **Change (move)**: implement the new processes, structures, or behaviours. **Refreeze**: embed the new way of working as the new permanent norm (updating official policies, appraisal systems, induction/training materials, and organisational culture) so the organisation does not drift back to its old habits.

VN GIẢI THÍCH TIẾNG VIỆT

Mô hình 3 bước của Lewin: **Unfreeze (làm tan băng)** — tạo nhận thức rằng cách làm việc hiện tại không còn phù hợp; **Change (thay đổi)** — triển khai quy trình/cấu trúc/hành vi mới; **Refreeze (đóng băng lại)** — biến cách làm mới thành chuẩn mực lâu dài (cập nhật chính sách, đánh giá hiệu suất, đào tạo) để tổ chức không quay lại thói quen cũ.

6.6.3 Force field analysis

Force field analysis (Lewin) identifies the forces **driving** a proposed change forward and the forces **restraining** it, so that management can judge whether change is likely to succeed and which specific forces to strengthen or weaken.

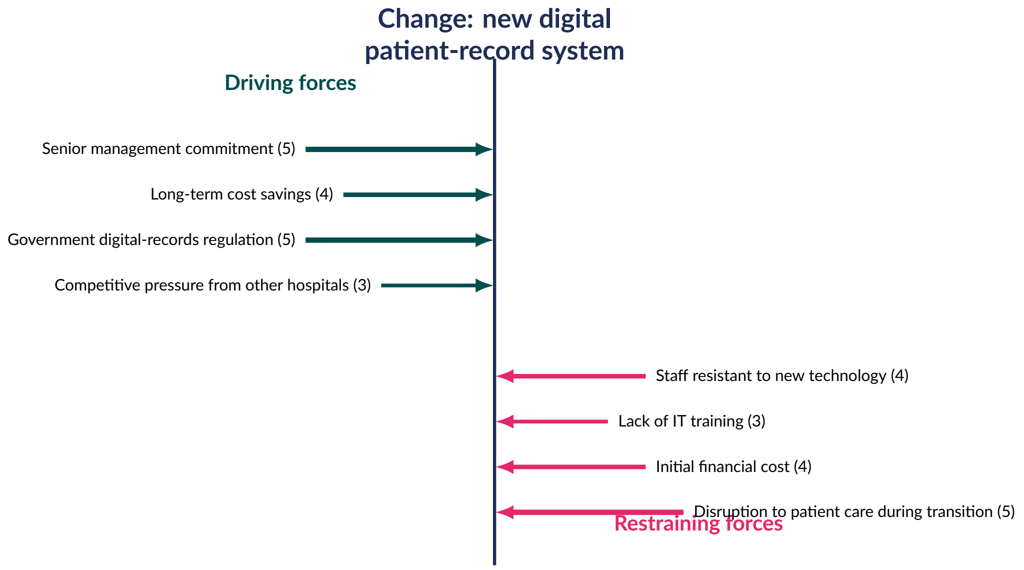
Each driving and restraining force is typically scored on a simple scale (e.g. 1–5, from weak to strong). Summing all driving-force scores and all restraining-force scores gives a rough numerical comparison: if driving forces clearly outweigh restraining forces, change is more likely to succeed as planned; if restraining forces are close to or exceed driving forces, management should act to strengthen key driving forces and/or weaken key restraining forces (e.g. more communication, training, or negotiation) before or during implementation.

VN **GIẢI THÍCH TIẾNG VIỆT**

Force field analysis xác định các lực **thúc đẩy (driving)** và lực **cản trở (restraining)** một sự thay đổi. Mỗi lực được chấm điểm (thường 1–5), cộng tổng điểm mỗi bên để so sánh: nếu tổng driving lớn hơn hẳn tổng restraining, thay đổi nhiều khả năng thành công; nếu hai bên gần bằng nhau hoặc restraining vượt driving, cần hành động để tăng cường lực thúc đẩy hoặc làm suy yếu lực cản trở (truyền thông nhiều hơn, đào tạo, đàm phán) trước hoặc trong quá trình triển khai.

6.6.4 Worked example: scoring a force field analysis

Ví dụ mẫu · Worked example: a hospital introducing a digital patient-record system



Force field diagram: arrow thickness/length is proportional to the strength score (1–5) of each force.

Driving forces total: $5 + 4 + 5 + 3 = 17$. **Restraining forces total:** $4 + 3 + 4 + 5 = 16$.
Conclusion: driving forces (17) narrowly outweigh restraining forces (16) — the change is likely to succeed, but the margin is thin. Management should act to widen it, e.g. investing in additional IT training to cut the "lack of training" score from 3 to 1, which would reduce the restraining total to 14 and give the driving forces a much clearer margin (17 vs. 14).

VN **GIẢI THÍCH TIẾNG VIỆT**

Ví dụ: bệnh viện triển khai hệ thống hồ sơ bệnh án điện tử. Tổng điểm **driving** $= 5+4+5+3 = 17$; tổng điểm **restraining** $= 4+3+4+5 = 16$. Vì $17 > 16$ nhưng chênh lệch rất nhỏ, thay đổi có khả năng thành công nhưng chưa chắc chắn — ban quản lý nên đầu tư thêm đào tạo IT để giảm điểm lực cản (từ 3 xuống 1), đưa tổng restraining xuống 14, tạo khoảng cách rõ ràng hơn so với driving (17 so với 14).

6.6.5 Kotter's eight-step model

An alternative, more detailed model of leading change is John Kotter's eight-step model, which sequences the change process in more operational detail than Lewin's three broad stages.

Step	Name	Core idea
1	Create urgency	Communicate clearly why change is needed now, using real threats/opportunities to overcome complacency.
2	Build a guiding coalition	Assemble influential people across the organisation with enough authority and credibility to lead the effort.
3	Form a strategic vision	Develop a clear, simple picture of the desired future state to guide every subsequent decision.
4	Communicate the vision	Repeat the vision through every channel and through leaders' own visible behaviour ("walking the talk").
5	Empower broad-based action	Remove structural or procedural barriers (outdated systems, unhelpful policies) that block staff acting on the vision.
6	Generate short-term wins	Plan and deliver visible, unambiguous early successes to build momentum and credibility for the change.
7	Consolidate gains & produce more change	Use the credibility from early wins to tackle bigger, tougher elements, avoiding a premature declaration of victory.
8	Anchor change in the culture	Embed new ways of working into recruitment, promotion, and everyday norms so they outlast the individuals who drove them.

VN **GIẢI THÍCH TIẾNG VIỆT**

Mô hình 8 bước của **Kotter** chi tiết hơn mô hình 3 bước của Lewin: (1) tạo tính cấp bách, (2) xây dựng liên minh dẫn dắt có ảnh hưởng, (3) hình thành tầm nhìn chiến lược rõ ràng, (4) truyền thông tầm nhìn liên tục, (5) trao quyền hành động (gỡ bỏ rào cản), (6) tạo chiến thắng ngắn hạn để xây dựng động lực, (7) củng cố thành quả và tiếp tục thay đổi thay vì tuyên bố thành công quá sớm, (8) neo giữ thay đổi vào văn hoá tổ chức (tuyển dụng, thăng chức, chuẩn mực hàng ngày) để duy trì lâu dài.

6.6.6 Resistance to change and how to reduce it

Reasons for resistance: fear of job loss or reduced status; lack of understanding of why change is needed (poor communication); low trust in management; a perceived loss of control; past negative experience with change; simple habit and comfort with existing routines. **Strategies to reduce resistance**: **communication** (explain the reasons for change clearly, reducing uncertainty and rumour); **participation** (involve staff in planning the change, increasing ownership and surfacing practical concerns early); **negotiation** (offer concessions, e.g. transition pay or revised terms, to affected groups); **education and training** (equip staff with the skills/confidence to operate under the new system); **coercion** (impose change using management authority) — fastest, but risks lasting resentment, low morale, and only superficial compliance, so it is normally a last resort rather than a first choice.

VN **GIẢI THÍCH TIẾNG VIỆT**

Lý do phản kháng: sợ mất việc/địa vị, thiếu hiểu biết lý do thay đổi (truyền thông kém), thiếu tin tưởng vào ban lãnh đạo, cảm giác mất quyền kiểm soát, trải nghiệm tiêu cực trước đây, và thói quen cũ. **Cách giảm phản kháng**: **truyền thông** (giải thích rõ lý do), **tham gia** (cho nhân viên tham gia lập kế hoạch), **đàm phán** (nhượng bộ cho nhóm bị ảnh hưởng), **đào tạo** (trang bị kỹ năng/sự tự tin), **cưỡng chế** (áp đặt bằng quyền lực quản lý — nhanh nhất nhưng dễ để lại bất mãn lâu dài, chỉ nên dùng khi bất khả kháng).

Lewin's model and Kotter's model are complementary rather than competing: Lewin's three stages describe the change process at a high level and are easy to apply to almost any change, while Kotter's eight steps break the "change" stage in particular into much more actionable detail, and add an explicit emphasis — often missing from a purely three-stage view — on building an influential coalition early (Step 2) and on deliberately engineering visible short-term wins (Step 6) to sustain momentum through a long change programme. In an exam answer, Lewin is often sufficient for a short, general question about managing change, while Kotter is well suited to a question that specifically asks about a large, complex, or lengthy change programme (e.g. a full merger integration or an enterprise-wide systems overhaul).

(!) Lỗi thường gặp: Do not treat Lewin's "refreeze" and Kotter's "anchor change in the culture" as two separate ideas to be listed independently in an answer — they describe essentially the *same* final stage (embedding the change permanently) at two different levels of detail. When asked to apply *one named model*, stay within that model's own terminology rather than mixing Lewin's and Kotter's vocabulary together.

6.7 Strategic choice and evaluation: the SAF framework

6.7.1 Suitability, acceptability, feasibility

Once strategic options have been generated (e.g. via Ansoff or the generic strategies), each option should be tested against three criteria before a final choice is made — commonly remembered as **SAF**.

Suitability: does the option fit the findings of the strategic analysis (SWOT, PESTEL, five forces)? Does it build on a genuine strength/opportunity, or address a real weakness/threat? **Acceptability**: will the expected returns be acceptable to stakeholders — especially shareholders (e.g. a positive net present value, NPV, on the required investment, as covered in the Finance unit) — and will the level of risk be acceptable to those who must approve or live with the decision? **Feasibility**: can the organisation actually deliver the option with the finance, operational capacity, technology, and skills it has (or can realistically raise/acquire)? An option can be perfectly *suitable* and *acceptable* on paper yet fail if it is not *feasible* given the firm's real resources.

VN GIẢI THÍCH TIẾNG VIỆT

Khung **SAF** đánh giá lựa chọn chiến lược qua 3 tiêu chí: **Suitability (phù hợp)** — có khớp với kết quả phân tích chiến lược (SWOT, PESTEL, 5 áp lực) không? **Acceptability (chấp nhận được)** — lợi nhuận/rủi ro có được các bên liên quan (đặc biệt cổ đông) chấp nhận không, ví dụ NPV dương (đã học ở Unit Finance)? **Feasibility (khả thi)** — doanh nghiệp có đủ tài chính, năng lực vận hành, công nghệ, kỹ năng để thực sự triển khai không? Một phương án có thể phù hợp và được chấp nhận trên giấy nhưng vẫn thất bại nếu không khả thi về nguồn lực thực tế.

6.7.2 Worked mini-case: applying SAF to a strategic option

Ví dụ mẫu · Worked example: evaluating overseas market development using SAF

A mid-sized domestic clothing retailer, strong in online sales and logistics, is considering opening its first stores overseas (an Ansoff **market development** strategy).

Suitability: the firm's SWOT shows a genuine strength in online logistics and a recognised brand, and its five-forces analysis of the target country shows moderate rivalry with growing demand for its style of clothing — the option builds directly on an existing strength and a real external opportunity, so it passes the suitability test.

Acceptability: the expansion requires an initial investment of $500,000, forecast to generate net cash inflows of $200,000 per year for four years. At a discount rate of 10% (discount factors 0.909, 0.826, 0.751, 0.683):

$$PV \text{ of inflows} = \$200{,}000 \times (0.909 + 0.826 + 0.751 + 0.683) = \$200{,}000 \times 3.169 = \$633{,}800$$

$$NPV = \$633{,}800 - \$500{,}000 = \$133{,}800$$

A clearly positive NPV of $133,800 indicates the expected return is acceptable to shareholders relative to the investment required.

Feasibility: the firm holds $650,000 in cash reserves, comfortably covering the $500,000 outlay, and its existing distribution centre already has spare capacity to supply the five pilot stores planned for year one — the option is operationally and financially feasible without new external financing.

Conclusion: the option is suitable, acceptable, and feasible, so it should proceed to implementation (requiring careful change management, as covered above, to prepare staff and systems for overseas operations).

GIẢI THÍCH TIẾNG VIỆT

VN

Ví dụ áp dụng SAF cho việc mở cửa hàng ở nước ngoài: **Suitability** — phù hợp vì tận dụng thế mạnh logistics/thương hiệu hiện có và đúng cơ hội thị trường mới. **Acceptability** — NPV dương ($\$133{,}800$) sau khi chiết khấu dòng tiền 4 năm ở lãi suất 10%, cho thấy lợi nhuận kỳ vọng chấp nhận được với cổ đông. **Feasibility** — công ty có đủ tiền mặt ($650,000 $>$ $500,000 cần đầu tư) và năng lực vận hành (kho phân phối còn dư công suất) để triển khai thực tế. Vì đạt cả 3 tiêu chí, phương án nên được triển khai.

Not every option that looks attractive on paper passes all three tests — the contrast case below shows a strategy that is suitable and acceptable, yet fails on feasibility alone.

Ví dụ mẫu · Worked example: a strategy that fails the feasibility test

A single-site regional bakery is invited to bid for a contract to supply fresh bread daily to 500 supermarket branches nationwide, at an attractive margin.

Suitability: the contract fits the bakery's growth ambitions and its recognised strength in product quality — a genuine opportunity that plays to an existing strength.

Acceptability: the margins offered comfortably clear the bakery's required rate of return, and forecast cash flows give a clearly positive NPV — the return is acceptable to the owners.

Feasibility: the bakery currently operates one production site and a small local delivery fleet, capable of reliably supplying at most 40 branches per day. Servicing 500 branches nationwide daily would require an entirely new distribution network, several additional production sites, and a fleet many times larger — none of which the bakery has, or could realistically put in place before the contract's start date.

Conclusion: despite being both suitable and acceptable, the option should be **rejected in its current form**, since it is not feasible with the bakery's existing (or realistically attainable) resources. It could be revisited only after securing the capital and time needed to build out capacity — or by proposing a smaller, regional pilot contract that is genuinely feasible today.

GIẢI THÍCH TIẾNG VIỆT

VN

Ví dụ ngược lại: hợp đồng cung cấp bánh mì cho 500 chi nhánh siêu thị toàn quốc **phù hợp** (suitable) và mang lại lợi nhuận **chấp nhận được** (acceptable, NPV dương), nhưng **không khả thi** (not feasible) vì tiệm bánh hiện chỉ có một cơ sở sản xuất và đội xe nhỏ, không thể phục vụ

500 chi nhánh mỗi ngày. Kết luận: nên **từ chối** phương án ở quy mô hiện tại, chỉ cân nhắc lại sau khi có đủ vốn/thời gian mở rộng năng lực, hoặc đề xuất một hợp đồng thí điểm quy mô nhỏ hơn, khả thi ngay từ bây giờ.

(!) Lỗi thường gặp: **Acceptability** is not the same test as **feasibility**. A positive NPV (an acceptable return) does not by itself mean the firm can actually resource and deliver the project; conversely, a project the firm clearly has the resources to deliver (feasible) is not automatically worth doing if its forecast return is poor (unacceptable). Always test suitability, acceptability, and feasibility as three genuinely separate questions, not as a single combined judgement.

6.7.3 Strategic drift: why strategy needs continual review

Even a well-chosen strategy can gradually become mismatched with a changing external environment if it is never revisited. **Strategic drift** (Johnson, Scholes and Whittington) describes the tendency for an organisation's strategy to fall step-by-step out of alignment with its environment through a series of small, incremental decisions, none of which looks dangerous in isolation, until the cumulative gap becomes large enough to threaten performance. Because each individual step feels safe and consistent with "how we have always done things," strategic drift is often only recognised once results have already begun to suffer — at which point the change required is far larger and more disruptive (a sudden "transformational change") than if smaller adjustments had been made earlier and continuously.

The antidote to strategic drift is to treat strategic analysis and review (Section 7.1's SWOT/PESTEL/five-forces toolkit, plus a genuine willingness to question "how we have always done things") as a **continual** part of the planning cycle described at the start of this chapter, rather than a one-off exercise carried out only when a crisis has already emerged. Regularly repeating the analysis, and being willing to act on early warning signs, allows a firm to make smaller, more manageable adjustments over time instead of being forced into a sudden, high-risk overhaul later.

VN GIẢI THÍCH TIẾNG VIỆT

Strategic drift là hiện tượng chiến lược của doanh nghiệp dần dần lệch khỏi môi trường bên ngoài đang thay đổi, qua từng quyết định nhỏ tưởng chừng an toàn ("vẫn làm như trước giờ"), cho đến khi khoảng cách tích luỹ đủ lớn để ảnh hưởng nghiêm trọng đến kết quả kinh doanh — lúc đó thường chỉ nhận ra khi đã quá muộn, buộc phải thực hiện một cuộc "thay đổi chuyển đổi" (transformational change) đột ngột, rủi ro cao hơn nhiều so với việc điều chỉnh dần dần sớm hơn. Cách phòng ngừa: biến việc phân tích chiến lược (SWOT/PESTEL/5 áp lực) thành hoạt động **liên tục**, định kỳ rà soát lại thay vì chỉ làm một lần rồi bỏ qua.

6.8 Practice bank

Bài tập luyện tập

Which of the following would correctly be classified as a **Weakness** (rather than a Threat) in a SWOT analysis?

(A) A rise in the global price of a key raw material

(B) A new law restricting the firm's advertising methods

(C) The firm's outdated, slow-to-update IT ordering system

(D) A rival firm launching a cheaper competing product

Lời giải chi tiết

(C). The outdated IT system is internal to the firm and under its own control, so it is a Weakness. Options (A), (B), and (D) are all external factors the firm does not control — they are Threats.

Bài tập luyện tập

An established regional airline is planning its first flights to a new international route. Classify each factor as a Strength, Weakness, Opportunity, or Threat, justifying each by whether it is internal or external: (1) the airline has an experienced maintenance crew and a modern fleet; (2) a rival airline already operates a well-established hub at the destination airport; (3) the destination country has just signed an open-skies agreement, easing route approval; (4) the airline's brand is not well known among travellers in the destination market; (5) rising global jet-fuel prices; (6) growing middle-class demand for air travel on the new route.

Lời giải chi tiết

(1) **Strength** — internal capability (skilled crew, modern fleet) the airline itself controls and has built up.
(2) **Threat** — external factor: a competitor's established position at the destination is outside the airline's control.
(3) **Opportunity** — external, favourable regulatory change making route entry easier.
(4) **Weakness** — internal: lack of brand recognition is a limitation of the firm itself, not an external event.
(5) **Threat** — external, industry-wide cost pressure from global commodity markets, outside the airline's control.
(6) **Opportunity** — external, favourable demand trend in the destination market.

Bài tập luyện tập

A central bank raising interest rates to control inflation is best classified as which PESTEL factor?

(A) Political

(B) Economic

(C) Social

(D) Legal

Lời giải chi tiết

(B). Interest rates, inflation, and other macroeconomic conditions are Economic factors. This is distinct from Political factors (government policy/stability) since central banks in many countries set interest rates independently of government, and distinct from Legal factors (statute law) since a rate change is a monetary policy decision, not a new law.

Bài tập luyện tập

A local gym chain's SWOT analysis is as follows. **Strengths:** loyal existing membership base and a well-known local brand; experienced personal-training staff. **Weaknesses:** limited digital/app infrastructure for online classes; a single physical location limits capacity. **Opportunities:** rising consumer interest in hybrid (in-person + online) fitness memberships; potential corporate-wellness partnerships with local employers. **Threats:** low-cost fitness apps and online-only competitors requiring no physical membership; a new budget gym chain opening nearby. Construct a TOWS matrix, giving one strategy in each of the four cells (SO, WO, ST, WT).

Lời giải chi tiết

SO: use the experienced trainers to create premium, branded online classes for existing loyal members, extending the trusted local brand into the growing hybrid-fitness trend.
WO: partner with an established fitness-app platform to quickly add digital/on-demand class infrastructure, capturing hybrid-fitness demand without having to build technology in-house.
ST: leverage the loyal local membership base and trainer expertise to offer bundled in-person-plus-online packages that low-cost apps and online-only rivals cannot easily match, defending against the budget threat.
WT: focus resources on retaining the existing single-location membership through service quality rather than competing head-on with the new budget gym on price, while building digital capability gradually and at manageable cost.

Bài tập luyện tập

Numerous almost-identical budget airlines aggressively cutting fares to fill seats on the same routes best illustrates which of Porter's five forces?

(A) Threat of new entrants
(B) Bargaining power of buyers
(C) Threat of substitutes
(D) Competitive rivalry

Lời giải chi tiết

(D). This describes intense competition among firms *already in* the industry, competing on price with little differentiation — the definition of competitive rivalry, not the other four forces.

Bài tập luyện tập

Apply the five forces framework to the global smartphone manufacturing industry and conclude on its overall attractiveness.

Lời giải chi tiết

New entrants — low: huge R&D and manufacturing capital requirements, the need for patented technology, and incumbents' brand recognition and economies of scale create high barriers.
Buyer power — high: many competing global brands, low switching cost for many buyers, and easy online price/feature comparison.
Supplier power — high: a small number of firms supply advanced components (e.g. leading-edge chip foundries, premium display panel makers), giving suppliers strong negotiating leverage even over large manufacturers.

Substitutes — low to moderate: there are few direct substitutes for a modern smartphone's combined functions, though older feature phones, tablets, and wearables partially substitute for specific uses.
Rivalry — very high: many global brands compete intensely on price, features, and marketing, with rapid annual product cycles and high fixed R&D costs pushing firms to defend volume and market share aggressively.
Conclusion: overall attractiveness is **moderate** — low entry threat protects incumbents' position, but intense rivalry and powerful component suppliers squeeze margins, so profitability depends heavily on brand strength and scale rather than on favourable industry structure alone.

Bài tập luyện tập

A firm that competes by having the lowest cost base in its industry, allowing it to profitably charge the lowest prices, is pursuing which generic strategy?

(A) Differentiation
(B) Focus
(C) Cost leadership
(D) Diversification

Lời giải chi tiết

(C). Competing on the lowest cost base to sustain the lowest profitable prices is, by definition, cost leadership. Diversification is an Ansoff growth strategy, not a Porter generic (competitive) strategy.

Bài tập luyện tập

A furniture retailer has recently cut some costs to try to compete on price while simultaneously adding premium features to try to compete on quality, without fully committing to either approach. Using Porter's framework, identify the risk this retailer faces and explain why.

Lời giải chi tiết

The retailer risks becoming **stuck in the middle**. Because it has not fully committed to cost leadership, its prices are not low enough to win the most price-sensitive customers, who will still buy from a genuine low-cost rival. Because it has not fully committed to differentiation, its added premium features are not distinctive or well-marketed enough to justify a clear price premium over genuinely differentiated rivals. As a result, it risks losing customers on both sides simultaneously and typically earns below-average profitability, since it offers no group of customers a fully compelling reason to choose it over a more clearly-positioned competitor.

Bài tập luyện tập

A soft-drinks company sells its existing flavours into an entirely new overseas market for the first time. This is best classified on the Ansoff matrix as:

(A) Market penetration
(B) Market development
(C) Product development
(D) Diversification

Lời giải chi tiết

(B). The product (existing flavours) is unchanged; only the market is new — this is market development, not diversification (which would require a new product as well).

Bài tập luyện tập

An educational publisher is considering (a) offering discounted bulk-purchase deals on its existing textbooks to schools it already supplies, versus (b) launching an unrelated line of children's toys sold through new retail channels it has never used before. Classify each option as an Ansoff strategy and comment on their relative risk.

Lời giải chi tiết

(a) Existing product (textbooks) sold to an existing customer base (schools already supplied) → **market penetration** — the lowest-risk Ansoff quadrant, since the publisher already understands both the product and the customer relationship.
(b) A new, unrelated product (toys) sold through new, unfamiliar retail channels (a new market) → **diversification** — the highest-risk Ansoff quadrant, since the publisher has neither product expertise (toy manufacturing/design) nor market knowledge (retail-toy distribution) to draw on, and the diversification is *unrelated* to its core educational-publishing business, making it riskier still than a related diversification would be.

Bài tập luyện tập

A bakery chain is comparing two growth strategies. **(a) Market penetration:** a loyalty-card promotion costing \$8,000, with a 80% chance of generating \$30,000 in extra revenue and a 20% chance of generating only \$5,000. **(b) Diversification:** a new events-catering division costing \$25,000 to set up, with a 35% chance of generating \$90,000 in extra revenue and a 65% chance of generating only \$5,000. Calculate the expected value and net gain of each option, and recommend one.

Lời giải chi tiết

(a) Market penetration:

$$EV = 0.80(\$30{,}000) + 0.20(\$5{,}000) = \$24{,}000 + \$1{,}000 = \$25{,}000$$

$$\text{Net gain} = \$25{,}000 - \$8{,}000 = \$17{,}000$$

(b) Diversification:

$$EV = 0.35(\$90{,}000) + 0.65(\$5{,}000) = \$31{,}500 + \$3{,}250 = \$34{,}750$$

$$\text{Net gain} = \$34{,}750 - \$25{,}000 = \$9{,}750$$

Recommendation: market penetration has both the higher net gain (\$17,000 vs. \$9,750) and the much higher probability of success (80% vs. 35%) at a lower cost — it is clearly the stronger option on this evidence. Diversification would only be worth reconsidering if the bakery specifically wanted to reduce its reliance on an increasingly saturated core market, despite its lower expected return here.

Bài tập luyện tập

In a decision tree, a chance (outcome) node is conventionally drawn as which shape?

(A) Square
(B) Circle
(C) Triangle
(D) Hexagon

Lời giải chi tiết

(B). A circle represents a chance node (an outcome determined by probability); a square represents a decision node (a choice made by management).

Bài tập luyện tập

A firm is choosing between two research projects. **Project Alpha** costs \$25,000, with a 50% chance of a \$80,000 payoff and a 50% chance of a \$10,000 payoff. **Project Beta** costs \$45,000, with a 70% chance of a \$90,000 payoff and a 30% chance of a \$5,000 payoff. Calculate the expected value and net gain of each project and recommend one, noting any non-financial factor worth considering.

Lời giải chi tiết

Project Alpha:

$$EV = 0.5(\$80{,}000) + 0.5(\$10{,}000) = \$40{,}000 + \$5{,}000 = \$45{,}000$$

$$\text{Net gain} = \$45{,}000 - \$25{,}000 = \$20{,}000$$

Project Beta:

$$EV = 0.7(\$90{,}000) + 0.3(\$5{,}000) = \$63{,}000 + \$1{,}500 = \$64{,}500$$

$$\text{Net gain} = \$64{,}500 - \$45{,}000 = \$19{,}500$$

Recommendation: Alpha has a marginally higher net gain (\$20,000 vs. \$19,500), a difference of only \$500. Given how close the two options are, the firm should also weigh Beta's substantially higher probability of success (70% vs. 50%) — a firm that prefers a more certain, lower-variance outcome may reasonably choose Beta despite its very slightly lower expected net gain.

Bài tập luyện tập

A cosmetics company is deciding whether to (Option 1) run a regional trial of a new product first, costing \$20,000, or (Option 2) skip the trial and launch nationally straight away, costing \$100,000. **Option 1:** the trial succeeds with probability 0.6 (if it fails, the project stops with a \$0 payoff); if it succeeds, management then chooses between a full national rollout (extra cost \$80,000, leading to a chance node: high demand 0.5 probability, \$400,000 payoff; low demand 0.5 probability, \$150,000 payoff) or staying regional only (extra cost \$10,000, certain payoff \$60,000). **Option 2:** launching nationally without a trial leads directly to a chance node: high demand 0.3 probability, \$400,000 payoff; low demand/unaddressed product issues 0.7 probability, \$50,000 payoff. Roll back the tree fully and recommend an option.

Lời giải chi tiết

Step 1 — roll back the second-stage decision (only reached if the trial succeeds).

$$\text{Full rollout: } EV = 0.5(\$400{,}000) + 0.5(\$150{,}000) = \$200{,}000 + \$75{,}000 = \$275{,}000$$

$$\text{Net} = \$275{,}000 - \$80{,}000 = \$195{,}000$$

$$\text{Stay regional: Net} = \$60{,}000 - \$10{,}000 = \$50{,}000$$

Since $195,000 > $50,000, roll back **"full rollout"**; this value carries back to the trial's "success" branch.

Step 2 — roll back the trial's chance node.

$$EV = 0.6(\$195{,}000) + 0.4(\$0) = \$117{,}000$$

$$\text{Net gain, Option 1} = \$117{,}000 - \$20{,}000 = \$97{,}000$$

Step 3 — evaluate Option 2 directly.

$$EV = 0.3(\$400{,}000) + 0.7(\$50{,}000) = \$120{,}000 + \$35{,}000 = \$155{,}000$$

$$\text{Net gain, Option 2} = \$155{,}000 - \$100{,}000 = \$55{,}000$$

Recommendation: Option 1 (regional trial first) gives a much higher net gain ($97,000 vs. $55,000). Even though there is a 40% chance of losing the entire $20,000 trial cost for zero return, running the trial first means the far larger national-rollout investment is only committed once the market has been de-risked, which is worth considerably more overall than the higher expected payoff figures from skipping the trial suggest at first glance (skipping the trial has lower demand-outcome probabilities and a much larger up-front commitment).

Bài tập luyện tập

Which of the following is a recognised limitation of decision-tree analysis?

(A) It cannot be used alongside expected-value calculations

(B) The probabilities assigned to each outcome are often subjective estimates rather than certain, verified facts

(C) It always recommends the option with the lowest net gain

(D) It requires no financial data whatsoever

Lời giải chi tiết

(B). Decision trees rely on expected-value calculations (so A is false), always roll back to the *highest*, not lowest, net gain (so C is false), and require estimated financial payoffs and probabilities as inputs (so D is false). Their probabilities, however, are genuinely subjective management estimates, which is a real limitation.

Bài tập luyện tập

A manufacturing firm has just finished training all staff on a new quality-inspection procedure and has updated the official company handbook, performance appraisals, and induction materials to reflect the new procedure as the permanent standard way of working. Which stage of Lewin's model does this best represent?

(A) Unfreezing
(B) Changing
(C) Refreezing
(D) Force field analysis

Lời giải chi tiết

(C). Embedding the new procedure into official policy documents, appraisal criteria, and induction materials — so it becomes the lasting new norm rather than a temporary initiative — is exactly what "refreezing" means. Force field analysis is a separate diagnostic tool, not a stage of Lewin's model.

Bài tập luyện tập

A secondary school is introducing a compulsory 1:1 laptop programme for all students. **Driving forces (score 1–5):** improved access to digital learning resources (4); reduced long-term textbook costs (3); government push for digital literacy (4); competitor schools already market this as a strength (3). **Restraining forces (score 1–5):** parents' concern about the upfront cost of devices (5); teachers not yet trained to integrate laptops into lessons (4); risk of distraction/misuse during class (4); Wi-Fi infrastructure not yet upgraded (3). Calculate the total driving and restraining scores and judge whether the change is likely to succeed.

Lời giải chi tiết

Driving forces total: $4 + 3 + 4 + 3 = 14$. Restraining forces total: $5 + 4 + 4 + 3 = 16$.
Since restraining forces (16) **exceed** driving forces (14), the change is likely to face significant difficulty unless management acts. Two practical responses: offer a phased payment plan for devices (reducing the cost-concern score) and provide teacher training before rollout (reducing the training-gap score) — both would shift the balance toward the driving side before the programme is launched.

Bài tập luyện tập

A CEO has secured two visible, celebrated early successes from a change programme within its first six months, publicising them company-wide to build confidence in the change. Which step of Kotter's model is this primarily demonstrating?

(A) Creating urgency
(B) Generating short-term wins
(C) Anchoring change in the culture
(D) Forming a strategic vision

Lời giải chi tiết

(B). Delivering and publicising early, visible successes to build momentum and credibility is precisely Kotter's Step 6, "generate short-term wins."

Bài tập luyện tập

Two mid-sized accounting firms are merging. Employees at both firms are anxious about job security and unclear about which systems and procedures will be used after the merger. Recommend two specific ways to reduce resistance to this change, justifying each.

Lời giải chi tiết

Communication: management should clearly and promptly explain the reasons for the merger, the expected timeline, and — as far as honestly possible — what will happen to jobs and procedures, reducing the uncertainty and rumour that are fuelling anxiety; regular updates (rather than a single announcement) help maintain trust as details are finalised.
Participation: form joint working groups with staff from both firms to help design the combined procedures and systems (e.g. which software and client-service processes to keep), giving employees a sense of ownership over the outcome and surfacing practical integration problems (e.g. incompatible IT systems) before they cause bigger disruption after the merger completes. Together, communication and participation address both the *information* gap and the *control* gap driving resistance, and are generally more sustainable than resorting to coercion.

Bài tập luyện tập

A board is assessing whether a proposed factory expansion is expected to generate a positive net present value for shareholders. This assessment relates primarily to which element of the SAF framework?

(A) Suitability
(B) Acceptability
(C) Feasibility
(D) Sustainability

Lời giải chi tiết

(B). Whether the expected financial return (e.g. a positive NPV) is acceptable to shareholders is the core test of **acceptability**. Suitability asks whether the option fits the strategic analysis; feasibility asks whether the firm can actually deliver it with its available resources.

Bài tập luyện tập

A specialist machine-tool manufacturer is considering automating its main production line. Its SWOT shows strong existing engineering expertise (a strength) and rising labour costs industry-wide (a threat); the investment requires $1.2 million and is forecast to generate net cash savings of $400,000 per year for four years, discounted at 10% (discount factors 0.909, 0.826, 0.751, 0.683); the firm has $900,000 in cash reserves and would need to borrow the remainder, and its engineering team already has experience integrating automated equipment from a smaller pilot project two years ago. Apply the SAF framework to this option.

Lời giải chi tiết

Suitability: the option builds on the firm's strength in engineering expertise and directly addresses the threat of rising labour costs by reducing labour dependence — it fits the SWOT analysis well.
Acceptability:

$$PV = \$400{,}000 \times (0.909 + 0.826 + 0.751 + 0.683) = \$400{,}000 \times 3.169 = \$1{,}267{,}600$$

$$NPV = \$1{,}267{,}600 - \$1{,}200{,}000 = \$67{,}600$$

A positive (though modest) NPV suggests the return is acceptable, though the board should note the margin is not large relative to the size of the investment.
Feasibility: the firm's $900,000 cash reserves cover most, but not all, of the $1.2 million cost, so some borrowing is required — feasible, but adds financial risk (debt repayment) that

should be weighed alongside the modest NPV; operationally, the engineering team's prior pilot-project experience with automation makes successful implementation more feasible than if the firm had no relevant experience at all.
Conclusion: the option is suitable and (marginally) acceptable, and is operationally feasible given the team's prior experience, though financially it is feasible only with additional borrowing — the board should weigh the modest NPV margin against the added financial risk of debt before final approval.

Bài tập luyện tập

Classify each statement by the level of strategy it represents (corporate-level, business-level, or functional-level): (1) "The board decides to sell off the group's underperforming furniture-retail division and use the proceeds to acquire a software company." (2) "The retained software division decides to compete by offering the most technically advanced product features, even at a higher price." (3) "The software division's HR department redesigns its graduate-recruitment process to attract more specialist engineers."

Lời giải chi tiết

(1) **Corporate-level** — a decision about the overall scope of industries/businesses the whole organisation competes in (divestment and acquisition).
(2) **Business-level (competitive)** — a decision about how one specific business unit competes within its own market (here, a differentiation strategy).
(3) **Functional-level** — a decision within a single department (HR) designed to support the business-level strategy chosen in (2), by recruiting the specialist engineering talent that advanced product features require.

Bài tập luyện tập

Which of the following is the best example of a **core competence**, as opposed to simply a resource the firm happens to own?

(A) A firm's factory building

(B) A firm's cash balance

(C) A firm's unique, hard-to-imitate combination of engineering know-how, applied across several unrelated product lines

(D) A firm's five-year-old delivery van

Lời giải chi tiết

(C). A core competence must be valuable to customers, difficult for rivals to imitate, and transferable across multiple products/markets. A factory, a cash balance, and a delivery van are simply resources the firm owns — none of them meets all three conditions of a genuine core competence.

Bài tập luyện tập

Which of the following is most likely to be an advantage of **organic (internal) growth** over growth by merger or acquisition?

(A) It achieves an increase in market share overnight

(B) It avoids the culture-clash and integration risks that often accompany combining two separate organisations

(C) It immediately gains an established customer base in a new market

(D) It immediately gains a competitor's proprietary technology or patents

Lời giải chi tiết

(B). Options (A), (C), and (D) are all classic advantages of growth by merger or acquisition (speed, an existing customer base, existing technology/patents). Organic growth is slower, but because the firm is not combining with a separate organisation, it avoids the culture-clash, integration, and due-diligence risks that mergers and acquisitions typically carry.

Bài tập luyện tập

A domestic soft-drinks manufacturer plans to begin exporting to Country Z. Classify each factor into the correct PESTEL category: (1) Country Z's government has pledged to reduce national sugar consumption as a public-health priority; (2) Country Z's economy is forecast to grow at 6% per year, faster than the manufacturer's home market; (3) a growing health-conscious social trend is reducing demand for sugary drinks in Country Z; (4) new refrigeration technology allows longer-life transport of chilled beverages over export distances; (5) Country Z has introduced stricter recycled-content requirements for plastic bottle packaging; (6) Country Z requires all imported food/beverage products to be re-labelled in the local language with new nutritional warnings.

Lời giải chi tiết

(1) **Political** — a stated government policy priority (not yet a specific law).
(2) **Economic** — GDP growth forecast, a macroeconomic factor.
(3) **Social** — a shift in consumer attitudes and lifestyle.
(4) **Technological** — new transport/refrigeration technology.
(5) **Environmental** — a sustainability/recycled-content packaging requirement.
(6) **Legal** — a specific, mandatory labelling regulation the manufacturer must comply with.

Bài tập luyện tập

A national coffee-shop chain, strong in its home market, is evaluating whether to enter a large neighbouring country using an unrelated new product line (bottled ready-to-drink beverages sold through supermarkets it has never supplied before). Using the tools from this unit, briefly (a) classify the strategy on the Ansoff matrix, (b) identify one relevant five-forces consideration in the new market, and (c) state one SAF criterion that management should check most carefully before proceeding, with a reason.

Lời giải chi tiết

(a) A new product (bottled ready-to-drink beverages) sold through a new market/channel (supermarkets in a new country the firm has never supplied) is **diversification** — the highest-risk Ansoff quadrant, since the chain has neither established expertise in bottled-product manufacturing nor existing relationships with supermarket buyers in the new country.
(b) A key five-forces consideration is the **bargaining power of buyers**: large supermarket chains in the new country are likely to be few, large, and powerful buyers, able to demand low

wholesale prices and prominent (but costly) shelf placement from a new, unproven supplier — squeezing the chain's margins before it has built any brand recognition in bottled beverages. (c) **Feasibility** should be checked most carefully: the chain's existing core competence is running coffee shops, not manufacturing and distributing a packaged bottled product through a completely new retail channel in an unfamiliar country — even if the option looks suitable (an opportunity to grow) and acceptable (attractive potential revenue) on paper, it may not be feasible without acquiring entirely new manufacturing, logistics, and retail-negotiation capabilities the firm does not currently possess.

Bài tập luyện tập

A retail chain's finance director calculates that a proposed loyalty-app investment (market penetration) has an expected net gain of $60,000, while the marketing director separately argues for a new overseas store (market development) with an expected net gain of $95,000, but notes that the store option depends on a probability estimate of consumer demand that was "really just an educated guess." Explain why the finance director should not simply recommend the higher-net-gain option without further comment.

Lời giải chi tiết

Decision-tree/expected-value comparisons are only as reliable as the probability estimates that feed into them. Because the overseas-store probability was admitted to be "really just an educated guess" rather than a well-evidenced estimate, its expected net gain ($95,000) is far less trustworthy than the loyalty-app figure, and could easily be wrong in either direction if the true probability differs from the guess. This is exactly the "subjective probabilities" limitation of decision-tree analysis: a decision-maker should not mechanically choose the highest net-gain figure without first considering how reliable the underlying probability estimate is, and should also weigh qualitative factors (e.g. market development into an unfamiliar country carries risks — cultural, regulatory, logistical — that a single expected-value figure does not capture at all).

Ôn tập nhanh

SWOT vs PESTEL: SWOT — S/W luôn **nội bộ**, O/T luôn **bên ngoài**; PESTEL chỉ phân tích 6 nhóm yếu tố **bên ngoài** (Political, Economic, Social, Technological, Environmental, Legal) và nạp trực tiếp vào cột O/T của SWOT.

TOWS: SO = mạnh + cơ hội (tấn công); WO = cơ hội khắc phục yếu; ST = mạnh giảm thách thức (phòng thủ); WT = giảm cả yếu lẫn thách thức (thận trọng nhất).

5 áp lực cạnh tranh (Porter): nguy cơ gia nhập mới, quyền lực người mua, quyền lực nhà cung cấp, nguy cơ thay thế, cạnh tranh nội ngành — cả 5 yếu tố yếu ⇒ ngành hấp dẫn.

3 chiến lược cạnh tranh chung: cost leadership (chi phí thấp nhất), differentiation (khác biệt hoá), focus (tập trung ngách) — tránh **stuck in the middle**.

Ma trận Ansoff: penetration (rủi ro thấp nhất) → product/market development (rủi ro trung bình) → diversification (rủi ro cao nhất, đặc biệt unrelated diversification).

Cây quyết định: hình vuông = decision node, hình tròn = chance node; $EV = \sum($xác suất $\times$ payoff$)$; **net gain** $= EV -$ chi phí — luôn trừ chi phí trước khi so sánh các phương án; với cây nhiều giai đoạn, roll-back từ phải sang trái, từng bước một.

Force field analysis: cộng điểm driving và restraining forces (thang 1–5); driving $>$ restraining ⇒ thay đổi dễ thành công hơn; nếu sát nút, cần tăng driving hoặc giảm restraining trước khi triển khai.

Lewin vs Kotter: Lewin — Unfreeze/Change/Refreeze (3 bước tổng quát); Kotter — 8 bước chi tiết hơn, đặc biệt nhấn mạnh tạo *short-term wins* và *anchor change in culture* để thay đổi không bị đảo ngược.

Khung SAF: Suitability (phù hợp với SWOT/5 áp lực) — Acceptability (lợi nhuận/rủi ro chấp nhận được, ví dụ NPV dương) — Feasibility (đủ nguồn lực tài chính/vận hành để triển khai).

Checklist làm bài case study chiến lược: (1) xác định đúng công cụ phù hợp với câu hỏi (SWOT/PESTEL, 5 áp lực, Ansoff, cây quyết định, SAF, hay mô hình thay đổi); (2) luôn tính toán đầy đủ các bước trung gian, không chỉ nêu kết quả cuối; (3) đưa ra khuyến nghị rõ ràng (recommendation), có lập luận dựa trên số liệu và dữ liệu của đề bài; (4) đề cập ít nhất một yếu tố định tính hoặc giới hạn của công cụ định lượng đã dùng, để thể hiện đánh giá đa chiều (evaluation).

Đồng hành cùng 8020 English

Cảm ơn bạn đã học cùng bộ giáo trình quốc tế 8020. **Điểm thật · Thầy thật · Kết quả thật** — nhiều học viên chỉ cần 1–2 khoá để đạt kết quả mong muốn.

Cảm nhận học viên & phụ huynh

“Bạn đã cải thiện được tư duy Writing — kỹ năng từng là nỗi sợ lớn nhất — và cuối cùng đã đậu vào trường top như mong muốn. Thái độ học tập cực kỳ nghiêm túc; ngay cả khi nằm viện vẫn cố gắng học đều đặn.”

— Phan Thị Thanh Hằng · IELTS Overall 8.5

“Cần tất cả kỹ năng trên 7.5 để xét vào trường top 1 Anh Quốc về Y học (chương trình UKFPO của NHS) — và đã đạt mục tiêu sau khi học Writing 1–1.”

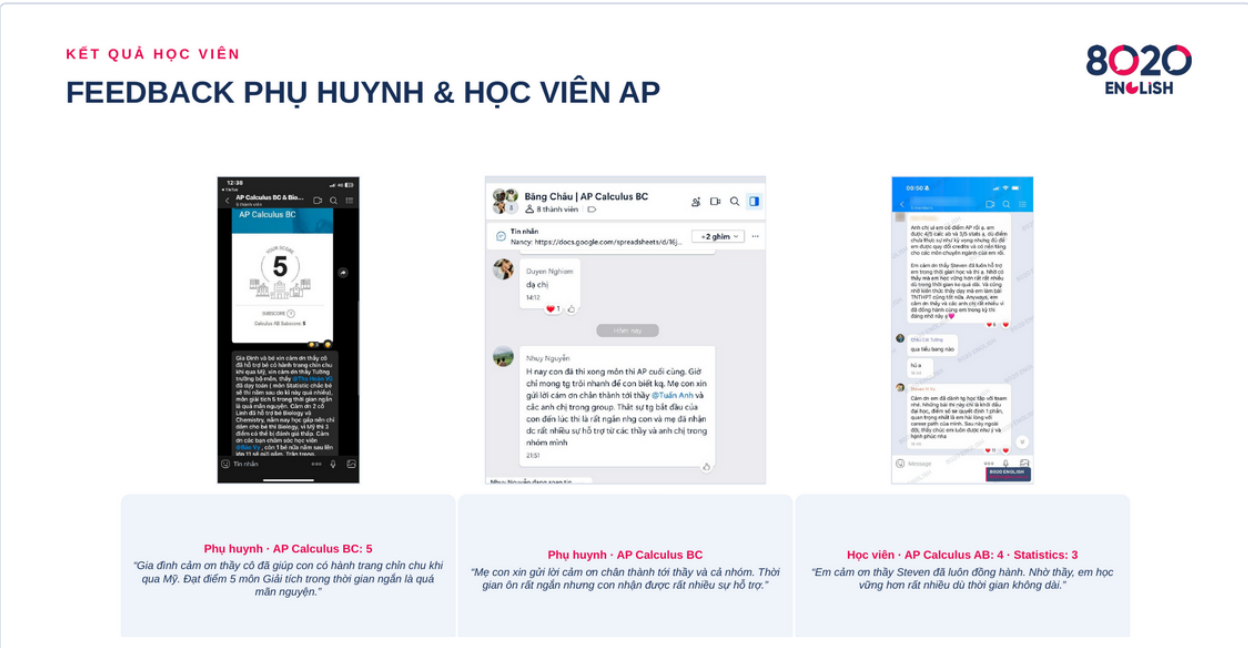
— Trần Hoàng Bảo Ngọc · IELTS Overall 8.0 (Writing 6.0 → 7.5)

“Gia đình và bé xin cảm ơn thầy cô đã giúp con có hành trang chỉn chu khi qua Mỹ. Đạt điểm 5 môn Giải tích trong thời gian ngắn là quá mãn nguyện.”

— Phụ huynh · AP Calculus BC 5/5

“Em cảm ơn thầy đã luôn đồng hành. Nhờ thầy, em học vững hơn rất nhiều dù thời gian ôn không dài.”

— Học viên · AP Calculus AB 4



Feedback phụ huynh & học viên AP — nhiều môn đạt điểm 4 & 5

Điểm thi thật của học viên

KẾT QUẢ HỌC VIÊN

ĐIỂM SỐ AP

8020 ENGLISH

AP Biology: 4 · AP Chemistry: 4

AP Calculus AB: 5

AP Calculus BC: 5

AP Chemistry: 5

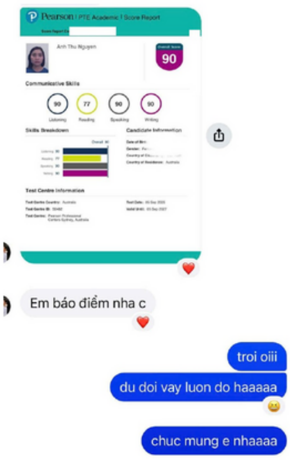
Bảng điểm AP thật của học viên – nhiều môn đạt điểm 4 & 5

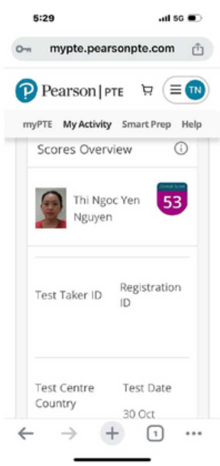
Bảng điểm AP thật — Calculus AB/BC 5/5 · Biology & Chemistry 4–5 (College Board)

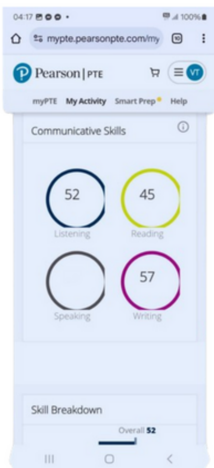
KẾT QUẢ HỌC VIÊN

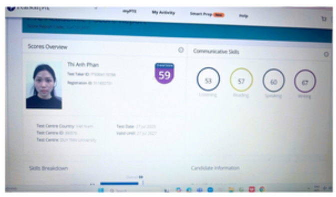
ĐIỂM SỐ PTE

8020 ENGLISH









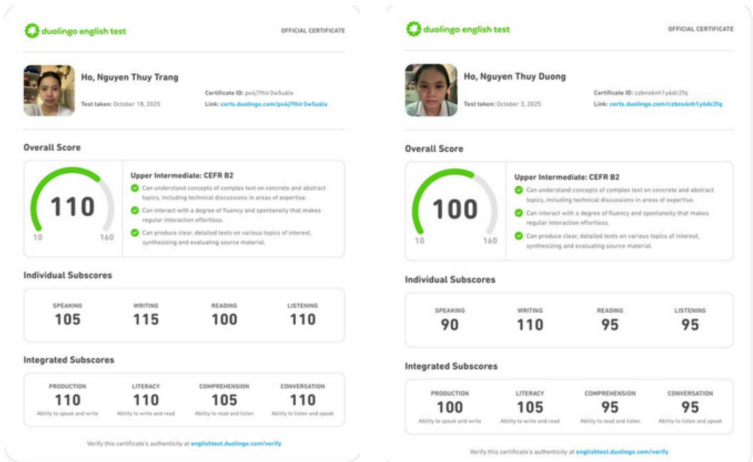
Bảng điểm PTE thật của học viên

Học viên 8020 — PTE Academic 90

KẾT QUẢ HỌC VIÊN

ĐIỂM SỐ DUOLINGO

8020 ENGLISH



Duolingo English Test – 110 & 100

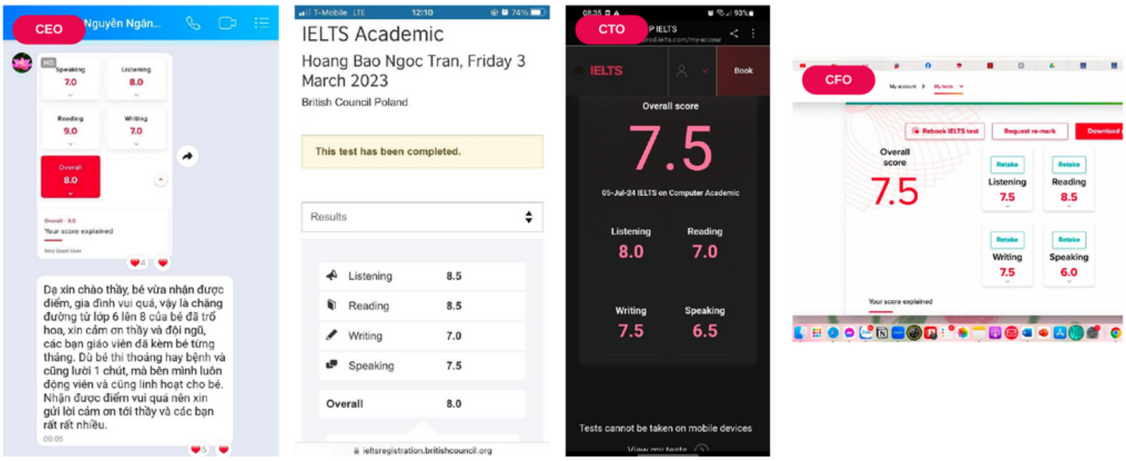
Học viên 8020 — Duolingo English Test 110 & 100

KẾT QUẢ HỌC VIÊN

THÀNH TÍCH HỌC VIÊN

8020 ENGLISH

Bảng điểm thi thật – chất lượng được giám sát nghiêm ngặt. Một số học viên chỉ cần 1–2 khóa để đạt kết quả mong muốn.



Học viên 8020 — IELTS 8.0 / 7.5 / 8.5 (báo điểm thật)