Industry Knowledge

Interview preparation summary · SC track

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INT.KI.1.a · Consumer, retail and healthcare

Explain how consumer goods makers and retailers make money, which metrics show their health, and what the typical consulting problems and traps are.

Consumer goods makers earn a gross margin by selling branded products through retailers, then spend part of it on advertising and on trade terms (promotions and listing fees) to win shelf space and shopper attention. Retailers buy, display and sell, so their profit is a thin margin on large sales, driven by like-for-like growth, sales per square metre, gross margin after markdowns and promotions, store labour and rent, and stock turns. The first question for either is whether growth came from price, volume or mix, because price rises can hide falling volume. Store economics are judged at store level (sales less cost of goods, staff, rent and local costs, before head office) and by payback on the fit-out. Online adds delivery and returns costs that can erase the margin on small baskets. Typical consulting problems are falling like-for-like sales, margin squeeze from input costs or own-label products, a network with too many weak stores, and a promotion programme that buys volume at a loss. The usual trap is quoting total sales growth when new stores or price inflation explain it.

WORKED EXAMPLE: STORE ECONOMICS AT HENDRY AND POLE

Hendry and Pole is an invented UK homeware retailer. A proposed new store has 1,200 square metres, expected sales of 4,500 per square metre a year, a gross margin of 36%, store staff cost of 0.78m, rent of 0.52m and other store costs of 0.26m. The fit-out costs 1.2m. Is the store worth opening, and how sensitive is the answer to sales? Convention: annual figures in £, store level only (before head office), no tax, ignore stock build.

Answer: Open the store only if sales density of about 4,500 is credible: base payback is 3.1 years, but a 10% shortfall stretches it to 6.3 years because fixed costs do not flex.

> **Interview tip:** Say the margin, then the payback, then the sensitivity. Pointing out that a 10% change in sales moves contribution by about 50% shows you understand operating leverage in a store.

INT.KI.1.b · Consumer, retail and healthcare

Explain how healthcare providers, pharma companies and medtech companies make money and what drives value in each.

Healthcare spans businesses with very different economics, so name the type first. Providers (hospitals, clinics, care homes) have high fixed costs, so occupancy or utilisation, case mix and the payer (a public health system, insurers or patients paying directly) decide profit. Prices are often set by the payer, so growth usually comes from volume, mix and efficiency rather than price, and clinician supply is often the constraint. Pharma earns from patented medicines: value rests on the pipeline by phase, the probability of success at each phase, expected peak sales, and loss of exclusivity, after which generic competition can remove most of a product's revenue within a few years. Medtech earns from devices and often from consumables or service tied to an installed base, so recurring revenue per installed unit, clinical evidence and reimbursement drive it. Typical consulting questions are raising utilisation, choosing among pipeline assets, market access and launch sequencing, and the cost of a hospital network. Common traps are ignoring who pays, treating a pipeline asset as certain, and forgetting that the clinician who chooses a product is often not the person who pays for it.

WORKED EXAMPLE: FILLING BEDS AT MARLOWE PRIVATE HOSPITAL

Marlowe Private Hospital is an invented 120-bed hospital. It runs at 68% bed occupancy, earns 1,150 per occupied bed-day, has variable costs of 40% of revenue and fixed costs of 17.0m a year. A consultant proposes new referral partnerships to lift occupancy to 75%. What does this do to operating profit? Convention: 365 days, annual figures, all fixed costs unchanged, no extra marketing cost.

Answer: Raising occupancy from 68% to 75% lifts operating profit from 3.55m to 5.67m, up about 60%, provided clinical capacity and staff can absorb the extra patients.

Interview tip: Say that providers have high fixed costs, so utilisation is the lever, and then name the constraint (clinical staff) that may stop you using it.

INT.KI.1.c · Consumer, retail and healthcare

Map the main sub-sectors of consumer, retail and healthcare, give the first metrics for each, and state the typical consulting questions.

A candidate asked about 'a consumer company' or 'a healthcare company' should first say which sub-sector, because the economics differ widely. Branded packaged goods make products and sell through retailers: watch price, volume and mix, gross margin, advertising and trade spend, and share. The typical problem is margin squeeze or a weak brand. Grocery retail is high-volume and thin-margin: watch like-for-like sales, sales density, shrink and supply chain cost, and the typical problem is price positioning against rivals. Specialist and fashion retail rely on range and stock turns: watch markdowns and sell-through, and the typical problem is excess stock. E-commerce depends on customer acquisition cost, basket size, delivery cost and return rates. Restaurants and leisure are site-based: watch site margin, covers and payback on openings. Healthcare providers have high fixed costs: watch utilisation, payer mix and clinician productivity. Pharma earns from patents: watch pipeline by phase, probability of success and loss of exclusivity. Medtech earns from devices and consumables: watch installed base, procedure volumes and reimbursement. Diagnostics and services are volume businesses tied to testing demand and contract renewal. For each, the common consulting questions are growth, cost, entering a new market, and whether to buy or sell a business. Use the map by naming the sub-sector first, then the driver, then the numbers.

WORKED EXAMPLE: CLASSIFYING THREE COMPANIES BEFORE ANY ANALYSIS

An interviewer describes three invented companies and asks what each one is and what you would look at first. Oakridge Kitchens runs 60 restaurants, each earning sales of 2.4m a year with a site margin of 14%. Veltane Biotech has two Phase 3 assets and no product sales. Corvane Devices has 1,800 installed machines, each using 22,000 a year of consumables at a 72% gross margin. Convention: pounds, annual figures, one sub-sector for each company.

Answer: Oakridge is a restaurant operator judged on like-for-like sales and site margin, Veltane is a pipeline company judged on probability-weighted peak sales and cash runway, and Corvane is a medtech business judged on installed base and consumables income.

Interview tip: Start any industry question with the sub-sector, then give the economic model and the two or three metrics that fit. That order shows structure and prevents a generic answer.

INT.KI.2.a · Energy, industrials and infrastructure

Explain how energy producers, networks and utilities make money, what drives their returns, and how the energy transition changes the typical consulting questions.

Energy and utilities range from commodity-exposed to contract-backed businesses, so first decide which one you are looking at. Oil and gas producers earn the market price less the cost of lifting it, so reserves, decline rates and breakeven price matter, and capital spending must continually replace production. Power generators earn a spread between power price and fuel and carbon cost, or a contracted price, and are judged on availability and load factor. Networks (grids and pipelines) are usually regulated: the allowed return on the regulated asset base, set by a regulator, is the revenue driver, so growth comes from investing and from out-performing the allowed costs. Renewable projects have high up-front capital and near-zero running cost, so value depends on capacity factor, the price secured (contract or merchant) and the cost of capital. The energy transition adds electrification, storage, grid investment and policy risk. Typical consulting problems are portfolio choice, cost reduction, entry into renewables or storage, and the case for a large capital project. The usual trap is ignoring regulation or contract terms, which often decide returns.

WORKED EXAMPLE: IS THE CALDER GAS PLANT WORTH RUNNING?

Calder Power is an invented operator of a 400 MW gas-fired power station in Europe. Power sells at 110 per MWh and gas costs 30 per MWh of heat. The plant converts 50% of the heat into electricity and emits 0.37 tonnes of carbon dioxide per MWh of heat. Carbon costs 45 a tonne. It runs at a 45% load factor and has fixed operating costs of 18.0m a year. Is it profitable, and what happens if carbon rises to 60? Convention: prices in €, annual figures, ignore other variable costs and tax.

Answer: At a clean spark spread of 16.7 per MWh the plant earns about 8.3m a year, but at a carbon price of 60 it loses about 9.2m, so the case depends on carbon price, hedging and capacity income.

> **Interview tip:** Say the spread in words, power less fuel less carbon, then show how a small change in one input moves profit. Naming hedging and capacity payments shows you know how merchant plants stay viable.

INT.KI.2.b · Energy, industrials and infrastructure

Explain how manufacturers, industrial companies and logistics operators make money, which operating metrics matter, and what the typical consulting problems are.

Industrial businesses turn materials and labour into goods or move goods from place to place, so profit depends on utilisation of expensive assets, input costs and prices. Manufacturers are judged on capacity utilisation, overall equipment effectiveness (availability times performance times quality), yield, and cost per unit, which falls as volume spreads fixed cost. Machinery and capital goods firms are cyclical: orders, backlog and book-to-bill lead sales, and service and spare parts on the installed base are often more stable and higher margin than new machines. Components suppliers depend on content per vehicle or per product and on long contracts with a few big customers. Logistics operators earn a thin margin on volume, so load factor, empty running, fleet utilisation and cost per kilometre or per parcel decide profit. Typical consulting problems are cost reduction, footprint and capacity decisions, make versus buy, working capital and stock, and growth through services. The usual trap is cutting cost without checking the effect on quality or service levels, or adding capacity into a cyclical peak.

WORKED EXAMPLE: MACHINE TIME AT BRANDT CASTINGS

Brandt Castings is an invented German maker of metal components with an ideal output of 1,000,000 parts a year if its line ran flat out. Availability is 85% (the line is running when scheduled), performance is 90% (it runs at 90% of ideal speed) and quality is 96% (good parts as a share of all parts). Each good part earns a contribution of €14. Management is considering a changeover-time programme costing 1.0m that lifts availability to 90%, rather than a new line. Convention: annual figures, contribution unchanged, demand available for extra parts, no tax.

Answer: A 5-point gain in availability lifts OEE from 73.4% to 77.8%, adds 43,200 parts and about 0.605m of contribution a year, repaying the 1.0m programme in about 1.65 years, if demand is there.

> **Interview tip:** Break output losses into availability, performance and quality, then say which loss is cheapest to remove. Always add that extra capacity is worth nothing without demand.

INT.KI.2.c · Energy, industrials and infrastructure

Map the main sub-sectors of energy, industrials and infrastructure, give the first metrics for each, and state the typical consulting questions.

Energy, industry and infrastructure divide by how revenue is secured, so name the sub-sector and its model first. Upstream oil and gas is commodity-linked: watch reserves, decline rate and breakeven price. Midstream pipelines and storage earn contracted fees on volume. Refining earns a margin between crude and products, called the crack spread, and depends on utilisation. Power generation earns a spread between power and fuel prices, or a contract price, and is judged on availability and load factor. Renewables are capital-heavy with near-zero running costs, so capacity factor, price secured and cost of capital matter. Networks (grids, water and gas distribution) earn a regulated return on an asset base. Energy retail earns a margin per customer, and the risk is wholesale cost against fixed prices. Machinery and capital goods are cyclical, so orders, backlog and service income matter. Components suppliers depend on content per product and customer concentration. Chemicals and materials earn spreads between input and product prices and need high utilisation. Aerospace and defence run on long backlogs and build rates. Logistics and transport earn thin margins, so load factor and yield decide profit. Infrastructure assets such as airports, ports, toll roads and towers earn from traffic or long contracts, set against concessions and regulation. Typical consulting questions cover cost reduction, capital projects, portfolio choice, entering new energy markets, and how to respond to policy. Use the map by naming the sub-sector first, then how it is paid, then the numbers.

WORKED EXAMPLE: SORTING THREE INFRASTRUCTURE AND INDUSTRIAL COMPANIES

Three invented companies are described. Skerry Grid is a regulated electricity network with a regulated asset base of 3.0bn and an allowed return of 5.0%. Fallowfield Wind owns 120 MW of onshore wind at a 35% capacity factor, selling under a contract at 85 a MWh. Brandt Machinery has a backlog of 640m, annual sales of 400m, and orders of 340m in the last year. For each, classify the company and say what the first reading is. Convention: pounds, annual figures.

Answer: Skerry Grid is a regulated network earning about 150m of allowed return, Fallowfield Wind is a contracted generator earning about 31.3m, and Brandt Machinery is a cyclical manufacturer whose book-to-bill of 0.85 warns of lower sales despite 1.6 years of backlog.

> **Interview tip:** Name the sub-sector, say how it is paid (regulation, contract or cycle), and give the two numbers that matter. Do not describe all energy and industry as one thing.

INT.KI.3.a · Financial services, technology and the public sector

Explain from a consultant's viewpoint how banks, insurers and asset managers make money, and which ratios and problems matter in each.

Financial services firms sell money, risk or advice, and each earns profit differently. A bank earns net interest income (the gap between what it charges borrowers and pays depositors), measured by net interest margin, plus fees. Its key ratios are cost-to-income, cost of risk (loan losses as a share of loans) and return on tangible equity, and it is constrained by regulatory capital. An insurer collects premiums, pays claims and expenses, and invests the float in between. Its combined ratio (claims plus expenses, as a share of premiums) below 100% means an underwriting profit, and investment income is the other source. An asset manager earns a fee, in basis points, on assets under management, so revenue follows market levels and net flows, and profit follows operating margin. Typical consulting problems are cost transformation, digital channels, pricing and risk selection, growth in a segment, and responding to fee pressure or new entrants. Regulation, capital and conduct risk shape every recommendation. The usual trap is to treat financial firms as ordinary companies and ignore the balance sheet, risk or regulatory limits.

WORKED EXAMPLE: COST-TO-INCOME AT TARROWBY BANK

Tarrowby Bank is an invented UK retail and business bank with annual income of 1,200m and operating costs of 780m. Its board wants a cost-to-income ratio of 58%. What does it take, through cost alone, through income alone, or through a mix? Convention: pounds, annual figures, income and cost treated as independent, ignore credit losses and tax.

Answer: The bank needs to save 84m of cost, or add 145m of income, or a combination, to reach 58%. A mix of 40m of savings and 60m of extra income still gives 58.7%.

> **Interview tip:** Give the ratio, then the two routes to the target in money, then say which is in the bank's control and what could go wrong. A consultant treats cost cuts as a risk to income.

INT.KI.3.b · Financial services, technology and the public sector

Explain how software companies, platforms, telecoms and media businesses make money, and which metrics and problems matter.

Technology and media businesses share high fixed costs and low extra cost per user, so scale and retention decide profit. Subscription software is judged on annual recurring revenue, gross and net revenue retention, customer acquisition cost payback, lifetime value to acquisition cost, gross margin, and the rule of 40 (growth plus margin). Platforms and marketplaces connect two sides, so gross merchandise value, take rate and the strength of network effects matter, and the first challenge is to attract both sides. Telecom operators sell connectivity: average revenue per user, churn, capex intensity and network share are the key figures, and the business is capital-heavy with slow growth. Media companies earn from advertising, subscriptions or both, so audience, engagement and content cost per subscriber matter. Typical consulting questions are pricing and packaging, reducing churn, deciding which markets to enter, cost and capex efficiency, and responding to new technologies including artificial intelligence. The usual trap is to talk about growth without checking retention, or to compare businesses with different models on a single measure.

WORKED EXAMPLE: UNIT ECONOMICS AT LUMENROOT SOFTWARE

Lumenroot Software is an invented subscription software company with annual recurring revenue (ARR) of 40.0m from 2,000 customers. Each customer pays 20,000 a year on average, the gross margin is 75%, customer acquisition cost (CAC) is 18,000, and 10% of customers leave each year. Revenue grows 25% a year and operating margin is 12%. Is this a healthy business, and which lever matters most? Convention: pounds, annual figures, no discounting, constant average revenue per customer.

Answer: Payback is 14.4 months and lifetime value is 8.3 times CAC, so the economics are strong. Reducing churn is a larger lever than a 15% cut in CAC (25% against 17.6% lift).

> **Interview tip:** Give payback, then lifetime value to CAC, then say which lever moves it most. Add that the average hides the spread of customers and that retention is what makes recurring revenue valuable.

INT.KI.3.c · Financial services, technology and the public sector

Explain how public sector bodies, schools and non-profits are funded and judged, and apply flow and cost-per-outcome thinking to typical consulting questions.

Public sector and non-profit organisations pursue outcomes within a budget, not profit, so a consultant asks what the outcome is, who pays, and what constrains the organisation. The main areas are health services, education, welfare and social care, justice and defence, local government and transport, and charities and foundations. Funding comes from taxation, grants, donations or fees, and is often fixed in advance, so cost per outcome (for example per patient treated, pupil educated or person placed in work) replaces margin. Many problems are flow problems: waiting lists, case backlogs and queues change by arrivals minus treatments, so the first task is to find whether capacity or demand is the issue. Typical consulting questions are improving productivity of a service, redesigning an organisation, setting priorities when budgets are cut, digital delivery, and evaluating which programmes work. Stakeholders are many, including ministers, staff unions, regulators and the public, so politics and change management matter. Equity and access can matter as much as efficiency, and the cheapest programme may serve easier cases. The usual traps are applying a private sector profit tree directly, ignoring that some costs are fixed by law or contract, and overlooking measurement of quality.

WORKED EXAMPLE: CLEARING A WAITING LIST AT EASTMERE HEALTH TRUST

Eastmere Health Trust is an invented UK public hospital trust. Its waiting list is 400,000 patients. Each month 90,000 new patients are added and 88,000 are treated. The board wants the list cut by 120,000 within 24 months. How many patients must it treat each month, and what does that mean for cost? Convention: constant monthly arrivals, an extra treatment costs 1,400 on average, ignore seasonality.

Answer: Eastmere must treat 95,000 patients a month, 7,000 or 8.0% more than now, at an extra cost of about 117.6m a year. Reducing arrivals or raising productivity would cut that cost.

> **Interview tip:** State the direction the list is going, work out the required net reduction, and convert it into treatments and money. Then say which levers beat paying for extra activity.

Summary of the Charta interview-preparation topic. Companies and figures in the examples are invented. Draft content, not yet expert reviewed.