

1.7 Evidence-based case analysis

Name: _____ Class: _____ Date: _____

Total: 24 marks

KEY WORDS fact • assumption • conclusion • case analysis
• review metrics

Objective

Structure a case analysis that separates facts from assumptions, choose between options with a weighted decision table built honestly, and send every recommendation out with its assumptions and review metrics attached.

1 Key knowledge and worked examples

■ Fact, assumption, conclusion – sort every claim

A **fact** carries a source and a definition: "Nimbus' two shops sold an average of 420 loaves per day in October (shop tills)". An **assumption** is something treated as true for now: "pre-order customers would have bought less without pre-order". A **conclusion** follows from both under stated criteria.

Case analysis fails at this sorting step more than anywhere else: numbers quoted without a source are assumptions wearing fact costumes.

■ The weighted decision table

Fix the criteria and weights BEFORE scoring, or the scores will quietly arrange themselves around the option you already like.

Worked example (Nimbus). Third shop vs pre-order expansion. Weights fixed first: profit impact 0.5, risk 0.3, fit with staff skills 0.2.

Criterion (weight)	Third shop	Pre-order
Profit impact (0.5)	6	5
Risk (0.3)	4	7
Staff fit (0.2)	7	8
Weighted total	5.6	6.2

Pre-order wins on the weights as stated. The table's value is not the number – it is that a disagreement now has a location: change the weights, and you can see exactly how the answer changes.

■ A recommendation travels with its monitoring

The final structure: situation (facts, sourced) → problem (a decision question with real options) → analysis (frameworks carrying evidence, not adjectives) → recommendation (one option, chosen against the criteria, risks named) → **review metrics** (what would prove it wrong, and by when).

”Open a stall for eight Saturdays; if average daily stall profit is below the shop break-even within eight weeks, stop“ is a recommendation. ”Expand because bakery demand is growing” is not – no option, no criteria, no falsifier.

2 Practice

2.1 For each claim, label fact or assumption and say why in one clause: (a) ”Our customers love us“; (b) ”Till records show repeat purchases by 55% of customers each month“; (c) ”A third shop would pay back in two years”. [3]

2.2 In the Nimbus table, profit impact is scored 6 for the third shop but 5 for pre-order. State two questions you would ask before accepting those two scores, one about the numbers and one about what ”profit impact” means. [4]

2.3 Recompute both weighted totals with weights changed to profit 0.6, risk 0.2, staff fit 0.2 (scores unchanged). State which option wins and what the change demonstrates about the method. [3]

3 Exam-style questions

3.1 Nimbus is offered a lease on a third shop near a new university campus (opens in 9 months, no bakery within 1 km today). The owner also has a pre-order expansion plan (existing shops, app costs 8,000 fixed per year).

Build a decision table with three criteria you choose and justify (state each weight and one sentence why). Score both options with a stated basis for each score, compute the weighted totals, and recommend one option. Then list the two assumptions your recommendation most depends on and one review metric with a deadline. [8]

3.2 A consultant reports: "Nimbus should open the third shop – the campus will bring thousands of customers and the brand is strong."

Rewrite this as an evidence-based recommendation by: (a) naming the hidden assumption in "will bring", (b) stating what evidence would test it, and (c) writing one review metric with a falsifying threshold. Explain in one sentence why a recommendation without a falsifier cannot be reviewed. [6]

Solutions

2.1

- (a) Assumption – “love” is unmeasured opinion with no source or definition.
- (b) Fact – it cites a source (till records), a defined measure and a period.
- (c) Assumption – a future outcome projected, not yet observed.

2.2

- About the numbers: what period and data produced each score – e.g. shop profit forecasts based on what comparable-site sales?
- About the criterion: is “profit impact” first-year profit, payback speed, or long-run margin? The two options can rank differently under each.

2.3

- Third shop: $0.6 \times 6 + 0.2 \times 4 + 0.2 \times 7 = 5.8$.
- Pre-order: $0.6 \times 5 + 0.2 \times 7 + 0.2 \times 8 = 6.0$.
- Pre-order wins 6.0 to 5.8 – and the method makes weight-setting explicit, so disagreement moves to the weights, where it can be argued with reasons instead of preferences.

3.1

- Criteria justified with weights, e.g. profit impact 0.5 (the owner’s stated goal), risk 0.3 (limited cash reserves), speed to revenue 0.2 (loan repayments start in a year). (Any three defensible criteria with reasons.)
- Scores with stated basis, e.g. third shop: profit 7 (new-site monopoly but lease cost), risk 3 (no comparable site owned before), speed 2 (9 months to opening); pre-order: profit 5 (app cost 8,000/yr against existing footfall), risk 7 (reversible pilot), speed 8 (runs within weeks).
- Totals: third shop $0.5 \times 7 + 0.3 \times 3 + 0.2 \times 2 = 4.8$; pre-order $0.5 \times 5 + 0.3 \times 7 + 0.2 \times 8 = 6.2$.
- Recommendation: pre-order expansion, chosen against the stated weights.
- Key assumptions: (1) existing customers will adopt pre-order at a rate that covers the 8,000 app cost; (2) no competitor opens near the campus within the 9 months.
- Review metric: e.g. “pre-order covers its monthly app share by week 12; otherwise cancel the subscription.”

3.2

- (a) Hidden assumption: campus footfall converts to bakery customers at the assumed rate – “will bring thousands” is a projection about behaviour, not a fact about leases or enrolment.
- (b) Evidence: footfall counts at comparable campus-adjacent shops, or survey/pilot data on conversion; signed enrolment numbers rather than forecasts.
- (c) Metric with falsifier: e.g. “average daily sales at the new shop below 300 loaves by the third month after opening → exit the lease early”.
- A recommendation without a falsifier cannot be reviewed because nothing it claims can be shown false by evidence.