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Architecture and Development Economics

A guide before commitment

2026 edition



Development decision framework

Independent teaching guide

Development starts with the relationship between site, architectural programme, target product, delivery capacity and cash timing. The aim is to understand design trade-offs, not deliver a property valuation, investment recommendation or a feasibility study for an actual project.

Independent teaching scenario: land 1,200 m², gross floor area 2,400 m², revenue SAR 12.60m, cost SAR 11.07m and surplus SAR 1.53m. All detailed inputs are illustrative assumptions, not observed prices, project results or an offer of professional services.

Process: identify constraints and objectives, standardise area definitions, develop options, calculate revenue and cost conditional on inputs, test break-even and sensitivity, then examine timing and technical checks. Attractive arithmetic cannot overcome legal, safety or evidence barriers.

Base model and cost scope

01 — An independent traceable input set

Land 1,200 m²; GFA 2,400 m²; saleable efficiency 75%, resulting in 1,800 m² saleable area. Assumed sale price SAR 7,000/saleable m². Land cost SAR 3,000,000; direct construction SAR 2,500/GFA m², or SAR 6,000,000; other fixed costs SAR 1,692,000; sales expense 3% of revenue.

Revenue = 1,800 × 7,000 = SAR 12,600,000. Sales expense = SAR 378,000. Total cost = 3,000,000 + 6,000,000 + 1,692,000 + 378,000 = SAR 11,070,000. Surplus = SAR 1,530,000; margin on revenue = 12.14%.

Other costs are an illustrative aggregate, not a bill of quantities or contractor quotation. Financing, separate tax and time value are not modelled in this nominal calculation. Surplus is not accounting net profit. Define the contents of other costs and avoid double counting before applying a model to an actual project.

Break-even and model limits

02 — Margin and a modelled land-cost ceiling

Fixed cost before sales expense = SAR 10,692,000. Break-even sale price = fixed cost ÷ (saleable area × 0.97) = SAR 6,123.71/ saleable m². Holding price and cost constant, break-even efficiency = 10,692,000 ÷ (2,400 × 7,000 × 0.97) = 65.61%.

Assume a target surplus margin of 15% of revenue. Modelled land-cost ceiling = revenue × (1 − 3% − 15%) − direct build − other fixed costs = SAR 2,640,000. Assumed base land cost exceeds this ceiling by SAR 360,000. This is a model constraint, not a valuation or a recommended purchase price.

Distinguish margin on revenue, return on cost and time-based return. Product price may change when design changes. Do not use the break-even threshold outside its assumptions or make a purchase decision from this educational result.

Architectural efficiency and options

03 — Design is more than adding area

Option B hypothetically retains 2,400 m² GFA and increases saleable efficiency to 78% (1,872 m²), with SAR 140,000 extra other costs. Assume unchanged sale price, land and construction costs, and 3% sales expense. Revenue = SAR 13,104,000. Cost = SAR 11,225,120. Surplus = SAR 1,878,880.

Incremental bridge: 72 m² × 7,000 = SAR 504,000 added revenue; less SAR 15,120 added sales expense and SAR 140,000 adjustment cost = SAR 348,880 illustrative gain in surplus. B is not automatically superior technically or commercially.

Check space quality, circulation, egress, services, safety, planning constraints, actual cost and user acceptance. If improved efficiency changes the product, price or structural system, recalculate on a consistent basis. See RE-08 and RE-12 for independent worked examples of area, revenue and cost trade-offs.

Sensitivity and timing

04 — Separate risks rather than averaging them away

Holding other inputs constant, a 10% sale-price reduction lowers surplus to SAR 307,800. A 10% direct-build-cost increase lowers it to SAR 930,000. Combining lower price and higher build cost produces a nominal deficit of SAR 292,200. A 10% price increase combined with a 10% build-cost reduction produces SAR 3,352,200 surplus. These are stress assumptions, not forecasts.

An independent annual cash-flow illustration of the same totals: pay SAR 3,000,000 at t0, SAR 4,000,000 at t1 and SAR 3,692,000 at t2; receive SAR 12,222,000 at t3 after sales expense. Nominal surplus SAR 1,530,000; maximum cumulative pre-financing cash deficit SAR 10,692,000.

At an assumed educational annual discount rate of 8%, NPV is approximately −SAR 166,781. Delaying receipt by one year without changing nominal flows lowers NPV to approximately −SAR 885,464. Nominal surplus remains positive; margin alone does not establish timing or funding capacity. Separate the actual schedule from the teaching scenario.

Decision file and verification

05 — Evidence required before a commitment

1. Site rights, planning conditions, easements, utilities and site risks from authoritative sources, without claiming legal verification. 2. User programme and consistent saleable/ usable area definitions. 3. Comparable options with consistent quantities, quality and timing. 4. Observed price evidence, contractor proposals, hidden works, tax and financing checked by appropriate specialists. 5. Cash-flow schedule, delays, overruns and combined stress tests.

Each input should have a source, date, responsible party and status: verified, assumption or missing. Conditional disposition may be eliminate, continue studying or hold pending evidence. Supporting resources: RE-06 index methodology, RE-11 cash flow, RE-12 options, RE-08 independent hypothetical cases and RE-10 v1.2 calculator.

Methodological references: GASTAT (www.stats.gov.sa) and REGA indicators (rei.rega.gov.sa). No market tables, third-party charts or client results are reproduced. This guide is not a current market survey. The examples are for learning and do not replace professional verification.