

Throughput Accounting

Throughput = Sales revenue – Direct material costs

$$TPAR = \frac{\text{Throughput per bottleneck hour}}{\text{Operating cost per bottleneck hour}}$$

TPAR > 1: profitable · TPAR < 1: loss-making

Activity-Based Costing

Cost driver rate = Total cost pool ÷ Total cost driver units

Product cost = Σ(Cost driver rate × Drivers used by product)

Target Costing

Target cost = Market price – Required profit margin

Cost gap = Current cost – Target cost

Pricing — Demand & Marginal Revenue

$$P = a - bQ \quad b = \frac{\Delta P}{\Delta Q} \quad MR = a - 2bQ$$

P = price · Q = quantity · a = price when Q = 0

Profit maximised where MR = MC

Relevant Costing

Relevant cost = Future incremental cash flow from the decision

Opportunity cost = Benefit foregone from next best alternative

Limiting Factors

Rank by contribution per unit of scarce resource (highest = best)

Shadow price = Extra contribution from one additional unit of resource

Risk & Uncertainty

EV = Σ (Probability × Outcome)

Value of perfect information = EV with PI – EV without PI

Learning Curve

$$Y = ax^b \quad b = \frac{\log(LR)}{\log 2}$$

Y = cumulative avg time/unit · a = time for first unit · LR = learning rate

Planning & Operational Variances

Planning = (Original std – Revised std) × Actual output

Operational = (Revised std – Actual) × Actual output

Planning = uncontrollable · Operational = management performance

Mix & Yield Variances

Mix = (Actual in std mix – Actual qty used) × Std cost

Yield = (Actual yield – Expected yield from actual input) × Std cost/unit

Calculate mix on ACTUAL total input in standard mix proportions

Sales Mix & Quantity Variances

Sales mix = (Actual in actual mix – Actual in std mix) × Std contribution/unit

Sales qty = (Actual in std mix – Budgeted) × Std contribution/unit

Both use standard contribution per unit, not standard cost

Transfer Pricing

Minimum TP (seller) = Marginal cost + Opportunity cost

Maximum TP (buyer) = External market price (or net marginal revenue)

Always state both minimum and maximum in exam answers

Divisional Performance

ROI = Divisional profit ÷ Divisional net assets × 100

Residual income = Divisional profit – (Net assets × Cost of capital)

ROI may reject positive NPV projects · RI aligns with NPV

Financial Performance Indicators

ROCE = PBIT ÷ Capital employed × 100

ROCE = Profit margin × Asset turnover

Gearing = Debt ÷ (Debt + Equity) × 100

Interest cover = PBIT ÷ Interest payable

Current ratio = Current assets ÷ Current liabilities

Receivable days = Receivables ÷ Revenue × 365

Payable days = Payables ÷ Cost of sales × 365

Inventory days = Inventory ÷ Cost of sales × 365