

A-Level Business Studies Formula Sheet

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Financial Performance

Revenue (Sales)

Formula

Revenue = Selling Price $\times$ Quantity Sold

Use

Calculates the total income generated from sales before costs.

Examiner Tip

Revenue increasing does **not** necessarily mean the business is becoming more profitable.

Cost of Sales

Formula

Opening Inventory + Purchases – Closing Inventory

Use

Calculates the direct cost of producing goods sold.

Gross Profit

Formula

Revenue – Cost of Sales

Measures

Profit after deducting direct production costs.

Operating Profit

Formula

Gross Profit – Operating Expenses

Measures

Profit generated from normal business operations.

Profit for the Year (Net Profit)

Formula

Operating Profit – Interest – Tax

Measures

Final profit available after all business expenses.

Profitability Ratios

Gross Profit Margin

$(\text{Gross Profit} \div \text{Revenue}) \times 100$

Higher = Better pricing or lower production costs.

Operating Profit Margin

$(\text{Operating Profit} \div \text{Revenue}) \times 100$

Measures overall business efficiency.

Net Profit Margin

$(\text{Profit for the Year} \div \text{Revenue}) \times 100$

Measures overall profitability after all expenses.

Liquidity

Current Ratio

$\text{Current Assets} \div \text{Current Liabilities}$

Ideal:

1.2–2.0

Acid Test Ratio

$(\text{Current Assets} - \text{Inventory}) \div \text{Current Liabilities}$

Ideal:

Around 1

Investment Ratio

Return on Capital Employed (ROCE)

$(\text{Operating Profit} \div \text{Capital Employed}) \times 100$

Measures how effectively capital is generating profit.

Break-even Analysis

Break-even Output

$\text{Fixed Costs} \div \text{Contribution per Unit}$

Contribution per Unit

$\text{Selling Price} - \text{Variable Cost}$

Total Contribution

$\text{Contribution per Unit} \times \text{Quantity Sold}$

Margin of Safety

$\text{Actual Sales} - \text{Break-even Sales}$

Higher = Lower business risk.

Forecasting

Sales Revenue Forecast

$\text{Forecast Sales} = \text{Expected Quantity} \times \text{Selling Price}$

Cash Balance

$\text{Opening Balance} + \text{Cash Inflows} - \text{Cash Outflows}$

Used in cash-flow forecasts.

Productivity

Labour Productivity

$\text{Output} \div \text{Number of Employees}$

OR

$\text{Revenue} \div \text{Number of Employees}$

(Use whichever is specified in the exam.)

Capacity

Capacity Utilisation

$(\text{Actual Output} \div \text{Maximum Output}) \times 100$

Interpretation

Low

- Idle resources
- Higher fixed costs per unit

High

- Better efficiency
 - Risk of overcapacity
-

Market Share

Formula

$(\text{Business Sales} \div \text{Total Market Sales}) \times 100$

Higher market share often indicates competitive strength.

Market Growth

Formula

$((\text{Current Market Size} - \text{Previous Market Size}) \div \text{Previous Market Size}) \times 100$

Used in the Boston Matrix.

Investment Appraisal

Average Rate of Return (ARR)

$(\text{Average Annual Profit} \div \text{Cost of Investment}) \times 100$

Higher = More attractive investment.

Payback Period

$\text{Initial Investment} \div \text{Annual Net Cash Inflow}$

Lower = Faster recovery of investment.

Inventory

Inventory Turnover

$\text{Cost of Sales} \div \text{Average Inventory}$

Higher usually indicates efficient stock management.

Inventory Turnover Period

$(\text{Average Inventory} \div \text{Cost of Sales}) \times 365$

Lower generally indicates faster stock movement.

Receivables

Receivables Days

$(\text{Trade Receivables} \div \text{Revenue}) \times 365$

Lower = Faster customer payment.

Payables

Payables Days

$$(\text{Trade Payables} \div \text{Cost of Sales}) \times 365$$

Higher improves cash flow but may strain supplier relationships.

Asset Turnover

$$\text{Revenue} \div \text{Capital Employed}$$

Higher indicates better use of business assets.

Percentage Change

$$((\text{New Value} - \text{Old Value}) \div \text{Old Value}) \times 100$$

One of the most commonly used calculations in Business exams.

Decision Trees

Expected Value (EV)

$$\text{Probability} \times \text{Financial Outcome}$$

Total EV = Sum of all expected values.

Higher EV generally indicates the preferred option, but exam answers should also consider risk and qualitative factors.

Critical Path Analysis

Total Float

Latest Start – Earliest Start

OR

Latest Finish – Earliest Finish

Activities with zero float are on the critical path.

Workforce

Labour Turnover

$(\text{Number Leaving} \div \text{Average Number Employed}) \times 100$

High turnover may indicate poor motivation or recruitment issues.

Absenteeism Rate

$(\text{Days Lost} \div \text{Total Available Working Days}) \times 100$

Measures workforce attendance.

Price Elasticity of Demand (Business Context)

Although primarily an Economics concept, A-Level Business occasionally requires interpretation.

$\% \text{ Change in Quantity Demanded} \div \% \text{ Change in Price}$

Elastic (>1): Customers are sensitive to price changes.

Inelastic (<1): Demand changes relatively little when price changes.

Examiner Formula Checklist

Before entering the exam, make sure you can calculate and interpret:

- Revenue
- Cost of Sales
- Gross Profit
- Operating Profit
- Net Profit
- Gross Profit Margin
- Operating Profit Margin
- Net Profit Margin
- Current Ratio
- Acid Test Ratio
- ROCE
- Break-even Output
- Contribution
- Margin of Safety
- Capacity Utilisation
- Labour Productivity
- Market Share
- ARR
- Payback Period
- Inventory Turnover
- Receivables Days
- Payables Days
- Asset Turnover
- Percentage Change
- Expected Value
- Total Float

Exam Tip: Formula + Interpretation = Marks

A recurring weakness in A-Level Business is that students calculate a value correctly but stop there. The higher-mark questions require you to **calculate, interpret, apply the result to the case study, and evaluate its significance**.

For example, instead of writing:

"The current ratio is 1.8."

A stronger response is:

"The current ratio of 1.8:1 suggests the business has sufficient current assets to meet its short-term liabilities, indicating good liquidity. However, if competitors operate

effectively with a lower ratio, this could suggest excess cash or inefficient working capital management."

This approach moves beyond calculation into analysis and evaluation, which is what examiners reward in 9-, 16-, and 20-mark questions.