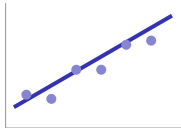


Marketing

A-Level Business ■ Topic 8

A-Level Business



What we will cover

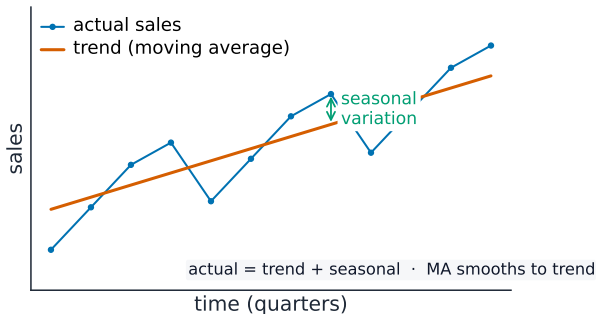
- 1 Time-series forecasting
- 2 Correlation
- 3 Elasticity
- 4 Marketing strategy
- 5 Ansoff & portfolio
- 6 Recap



firms compete on data



Sales forecasting and time-series

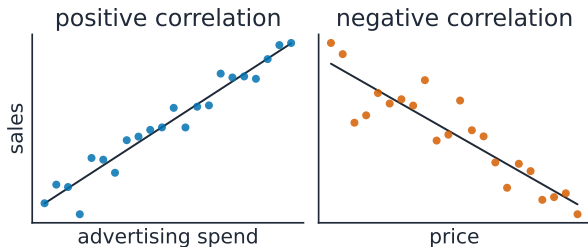


Time-series analysis splits past sales into:

- the **trend** – long-run direction (a **moving average** smooths it)
- **seasonal variation** = actual – trend

Forecasts **extrapolate** the trend – never certain.

Correlation



correlation $\neq$ causation · line of best fit shows direction

Correlation measures how two things move together:

- **positive** – both rise together
- **negative** – one rises as the other falls

Correlation **is not causation**
– another factor may be at work.

Reading a scatter, reading an elasticity

Positive correlation

Positive correlation : when one rises, the other rises too.

Negative correlation

Negative correlation : when one rises, the other falls.

**Correlation is not
cause**

A strong line can still be a coincidence, or both variables can follow a third. Say what the causal mechanism would be.

Globalisation – the world becoming more connected – has made both the data and the rival's response arrive faster.

Reading a time series, and forecasting from it

the trend

the underlying direction over several years, found by a moving average

seasonal variation

the regular rise and fall within a year – ice cream sells more in summer

cyclical variation

the swing with the business cycle, over several years

random variation

what is left, and what cannot be forecast

extrapolation

a forecast extends the trend into the future and then adds the usual seasonal variation back

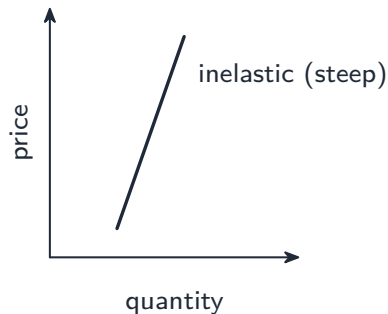
the caution

extrapolation assumes the past pattern continues – which a shock breaks

With quarters 100, 140, 180, 120 the four-quarter average is 135, so Q1's seasonal variation is –35. Add that back to the projected trend to forecast next Q1.

Elasticity in marketing decisions

- **PED** – elastic: cut price for more revenue; inelastic: raise it
- **YED** – how sales move with incomes (booms vs slumps)
- **XED** – effect of a rival's or partner's price



Three elasticities, three decisions

Price elasticity of demand

Price elasticity of demand (PED): for a **price elastic** product, cutting the price raises total revenue; for a **price inelastic** one, raising the price does.

Income elasticity of demand

Income elasticity of demand (YED): how sales will change as incomes rise or fall – which is how a firm plans for booms and recessions.

Cross elasticity of demand

Cross elasticity of demand (XED): how a rival's price change, or the price of a partner product, will affect its own sales.

Each answers a different question: my price, my customers' incomes, someone else's price.



Marketing strategy and planning



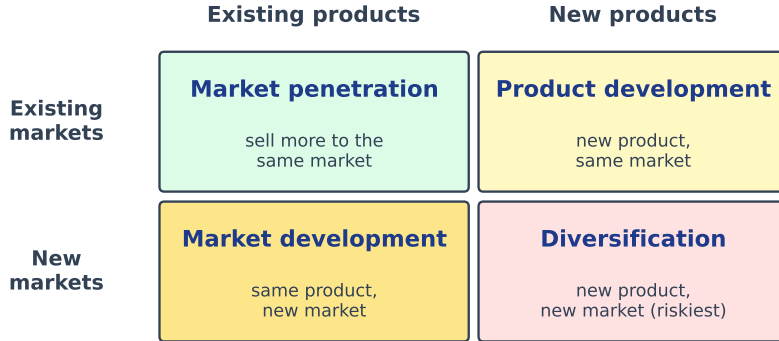
A **marketing strategy** is the long-term plan for marketing to meet objectives. **Marketing planning** studies the market, picks target customers, and sets the mix. Two tools shape it: [Ansoff's matrix](#) and portfolio analysis.

Ansoff's matrix

Ansoff's matrix maps growth by product $\times$ market:

- **market penetration** – safest
- **product development**
- **market development**
- **diversification** – riskiest (new $\times$ new)

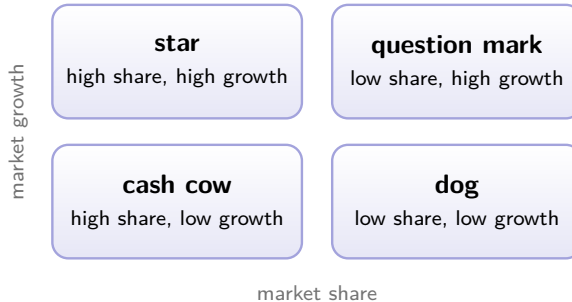
Ansoff's matrix, in detail



Exam: risk rises toward diversification — new product × new market is highest risk

Ansoff's matrix: four growth strategies, with risk rising to the bottom-right (diversification).

Product portfolio analysis



Portfolio analysis balances the range – steady **cash cows** fund risky new products.

Entering international markets

Enter a new country by **exporting** , a **joint venture** , or an own branch – rising commitment & control. **Localisation** adapts the mix (product, language, price) to local tastes & laws.

Entering international markets, in detail



Enter a new country by **exporting** , a **joint venture** , or an own branch – rising commitment & control.

Exam tips

- Read **time-series** data: separate the underlying trend from seasonal variation, and extrapolate with caution.
- Interpret **correlation** (strength and direction) but never assume it proves causation.
- Use **Ansoff's matrix** to classify a growth strategy and judge its risk (diversification is riskiest).
- Use **elasticity values** to justify a pricing or promotion decision numerically.



Worked example – elasticity and revenue

A firm cuts price by 10% and demand rises 25%. Find PED and say whether the cut was right.

- $PED = \frac{\% \Delta Q_d}{\% \Delta P} = \frac{25}{10} = 2.5$ (ignoring the minus sign).
- $PED > 1 \Rightarrow$ demand is **price elastic**.
- Quantity rose **proportionally more** than price fell $\Rightarrow$ **total revenue rises**.
- So yes – but check that the extra volume still **covers the variable cost**.

Elastic $\Rightarrow$ cut price to raise revenue. **Inelastic** $\Rightarrow$ raise it. Revenue is not profit: always check costs before calling it a good decision.

Topic 8 – key takeaways

1

Time-series

trend + seasonal variation;
extrapolate

2

Correlation

moves together $\neq$ causes

3

Ansoff

penetration safest, diversification
riskiest

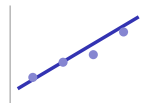
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Portfolio

balance stars, cash cows, dogs

Check yourself

- 1 Seasonal variation = actual minus what?
- 2 Does strong correlation prove causation?
- 3 Ansoff's safest growth strategy?
- 4 Which Boston product funds the others?



Answers 1. the trend value 2. no 3. market penetration 4. the cash cow