

8.1 Marketing analysis

Name: _____ Class: _____ Date: _____

Total: 27 marks

KEY WORDS trend 趋势 • seasonal variation 季节性波动 • elasticity 弹性 • correlation 相关性 • sales forecasting 销售预测

Objective

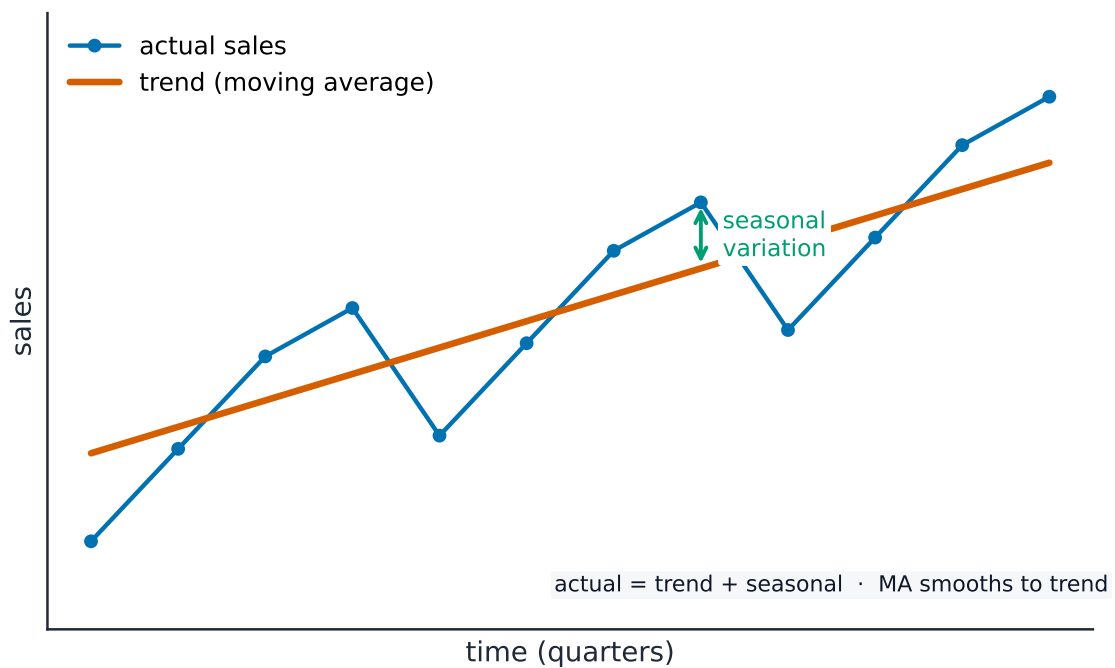
Build the skills to answer exam questions on **marketing analysis** 营销分析 — **sales forecasting** 销售预测 and **time-series analysis** 时间序列分析 (**trend** 趋势 and **seasonal variation** 季节性波动), **correlation** 相关性, and using **elasticity** 弹性 in marketing decisions.

You must be able to:

- explain trend and seasonal variation and calculate a forecast
- interpret correlation (and know it is not causation)
- analyse and evaluate the usefulness of marketing analysis tools

1 Worked examples

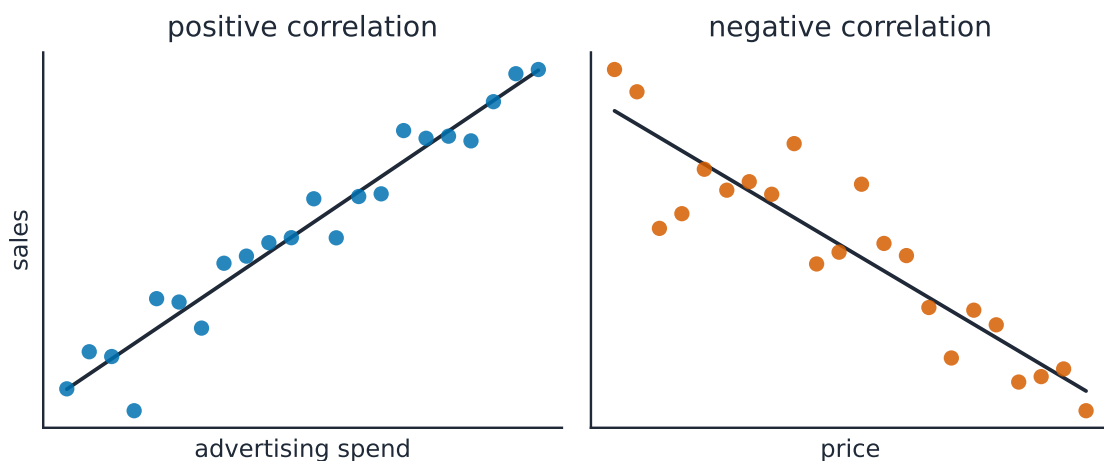
- Forecasting from a time series



Trend = long-run direction; seasonal variation = the regular within-year rise and fall

seasonal variation = actual value – trend value forecast = trend + seasonal variation

- **Worked:** trend 500, actual 560 → seasonal variation = +60. Next year's forecast for that quarter = trend + 60.
- **Correlation:** positive (rise together) or negative (one rises, other falls); strong correlation predicts but does **not** prove cause.



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

Correlation: positive (both rise) vs negative (one rises as the other falls)

- **Elasticity:** PED guides price; YED plans for booms/recessions; XED predicts a rival's price move.

Answer shapes: AO1 + AO2 + AO3 (reasoning chain) + AO4 (a supported judgement *in context*).

2 Practice

2.1 Define the term *sales forecasting*. [2]

2.2 A quarter has a trend value of 500 units and actual sales of 560 units. Calculate the seasonal variation. [2]

2.3 State the difference between *positive* and *negative* correlation. [2]

3 Exam-style questions

3.1 Explain one benefit to a business of accurate sales forecasting. [3]

3.2 A firm forecasts a **trend** of 800 units for next quarter. The average **seasonal variation** for that quarter is -120 units.

(a) Calculate the forecast sales for the quarter. [2]

(b) Analyse one limitation of relying on this forecast. [4]

3.3 Evaluate the usefulness of time-series analysis to a business that is planning production. [12]

Solutions

Business answers are marked by **level of response** against the assessment objectives: award **AO1** knowledge, **AO2** application, **AO3** analysis and **AO4** evaluation.

2.1 predicting future sales from past data and market knowledge (2 for a clear definition; 1 for a partial idea).

2.2 $560 - 500 = +60$ units (2; award 1 for a correct method with the wrong figure).

2.3 positive correlation: as one variable rises, the other rises too; negative correlation: as one rises, the other falls (2 for a clear difference; 1 for a partial idea).

3.1 [3] **AO1** 1 — name a benefit (better planning of production, staff, stock or cash). **AO2** up to 2 — develop it, e.g. a good forecast lets the firm order the right amount of stock → no shortage or waste → lower costs (2 developed / 1 limited).

3.2 (a) forecast = $800 + (-120) = 680$ units (2; award 1 for a correct method with the wrong figure). (b) [4] **AO1/AO2** 1–2 + **AO3** up to 2 — e.g. the forecast assumes past patterns continue → a new competitor or changed tastes could break the trend → the actual figure may differ a lot → production based on it could be too high or too low.

3.3 [12] **AO1** 2 / **AO2** 2 / **AO3** 2 / **AO4** up to 6. **Useful:** smooths out noise to show the trend, reveals seasonality, and supports planning of output, stock and staff. **Limited:** it assumes past patterns continue (extrapolation), ignores sudden change, and the forecast is only as good as the data. **Judgement:** time-series analysis is a helpful planning guide, especially for a seasonal product, but it should be combined with market knowledge — its value depends on how stable the market is.