

Section 3 Decision-making techniques

Chapter 9 Quantitative sales forecasts

Key terms

1. Centring: a method used to calculate a moving average, where the average is plotted or calculated in relation to the central figure.
2. Correlation: the relationship between two sets of variables.
3. Correlation coefficient: a measure of the extent of the relationship between two sets of variables.
4. Extrapolation: forecasting future trends based on past data.
5. Line of best fit: a straight line drawn through the centre of a group of data points plotted on a scatter graph.
6. Moving average: a succession of averages derived from successive segments of series values.
7. Scatter graph: a graph showing the performance of one variable against another independent variable on a variety of occasions. It is used to show whether a correlation exists between the variables.
8. Time-series analysis: a method that allows a business to predict future levels from past figures.

1. Calculating time-series analysis.

- **Time-series analysis;** a method that allows a business to predict future level from past figure
- **4 main components** that a business wants to identify in time-series analysis.

1.) **Trend;** upward, downward, or constant trend

- **Variation from the trend :** How much variation there is from the trend by calculating

$$\text{Variation} = \text{Actual sales} - \text{Trend}$$

2.) **Seasonal Variations:** shows sales of a different business over a specific time period.

3.) **Causal modeling and line of best fit:** is to find a link between one set of data and another

4.) **Qualitative forecasting :** using people opinions or judgements rather than numerical data

