

Forecasting and Predictive Analytics with Forecast X, 7e (Keating)

Chapter 1 Introduction to Business Forecasting and Predictive Analytics

1) Which of the following does not require sophisticated quantitative forecasts?

- A) Accounting revenue forecasts for tax purposes.
- B) Money managers use of interest rate forecasts for asset allocation decisions.
- C) Managers of power plants using weather forecasts in forecasting power demand.
- D) State highway planners require peak load forecasts for planning purposes.
- E) All of the options require sophisticated quantitative forecasts.

Answer: E

Difficulty: 1 Easy

Topic: Forecasting in Business Today

Learning Objective: 1-03 Distinguish between qualitative and quantitative forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

2) Under what circumstances may it make sense not to prepare a business forecast?

- A) No data is readily available.
- B) The future will be no different from the past.
- C) The forecast horizon is 40 years.
- D) There is no consensus among informed individuals.
- E) The industry to forecast is undergoing dramatic change.

Answer: B

Difficulty: 1 Easy

Topic: Forecasting and Supply Chain Management

Learning Objective: 1-05 Explain how forecasting relates to supply chain efficiency.

Accessibility: Keyboard Navigation

Gradable: automatic

3) What is most likely to be the major difference between forecasting sales of a private business versus forecasting the demand of a public good supplied by a governmental agency?

- A) Amount of data available
- B) Underlying economic relationships
- C) Lack of market-determined price data for public goods
- D) Last of historical data
- E) Lack of quantitative ability by government forecasters

Answer: C

Difficulty: 1 Easy

Topic: Forecasting in The Public and Not-For-Profit Sectors

Learning Objective: 1-03 Distinguish between qualitative and quantitative forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

- 4) Which of the following points about supply chain management is incorrect?
- A) Forecasts are required at each step in the supply chain.
 - B) Forecasts of sales are required for partners in the supply chain.
 - C) Collaborative forecasting systems across the supply chain are needed.
 - D) If you get the forecast right, you have the potential to get everything else right in the supply chain.
 - E) None of the options are incorrect.

Answer: E

Difficulty: 1 Easy

Topic: Forecasting and Supply Chain Management

Learning Objective: 1-05 Explain how forecasting relates to supply chain efficiency.

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Gradable: automatic

- 5) Which of the following is not typically part of the traditional forecasting textbook?
- A) Classical statistics applied to business forecasting
 - B) Use of computationally intensive forecasting techniques
 - C) Attention to simplifying assumptions about the data
 - D) Discussion of probability distributions
 - E) Attention to statistical inference

Answer: B

Difficulty: 2 Medium

Topic: Forecasting in Business Today

Learning Objective: 1-03 Distinguish between qualitative and quantitative forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

- 6) Which subjective forecasting method depends upon the anonymous opinion of a panel of individuals to generate sales forecasts?
- A) Sales Force Composites
 - B) Customer Surveys
 - C) Jury of Executive Opinion
 - D) Delphi Method
 - E) None of the options are correct.

Answer: D

Difficulty: 1 Easy

Topic: The Delphi Method

Learning Objective: 1-04 Discuss four types of qualitative forecast methods.

Accessibility: Keyboard Navigation

Gradable: automatic

7) Which subjective sales forecasting method may have the most information about the spending plans of customers for a specific firm?

- A) Sales Force Composites
- B) Index of consumer sentiment
- C) Jury of Executive Opinion
- D) Delphi Method
- E) None of the options are correct.

Answer: A

Difficulty: 1 Easy

Topic: Sales Force Composites

Learning Objective: 1-04 Discuss four types of qualitative forecast methods.

Accessibility: Keyboard Navigation

Gradable: automatic

8) Which subjective sales forecasting technique may have problems with individuals who have a dominant personality?

- A) Sales Force Composites
- B) Customer Surveys
- C) Jury of Executive Opinion
- D) Delphi Method
- E) None of the options are correct.

Answer: C

Difficulty: 1 Easy

Topic: Jury of Executive Opinion

Learning Objective: 1-04 Discuss four types of qualitative forecast methods.

Accessibility: Keyboard Navigation

Gradable: automatic

9) Which of the following methods is not useful for forecasting sales of a new product?

- A) Time series techniques requiring lots of historical data
- B) Delphi Method
- C) Consumer Surveys
- D) Test market results
- E) All of the options are correct.

Answer: A

Difficulty: 1 Easy

Topic: New Product Forecasting

Learning Objective: 1-06 Discuss forecasting for new products.

Accessibility: Keyboard Navigation

Gradable: automatic

10) Which of the following is not considered a subjective forecasting method?

- A) Sales force composites
- B) Naïve methods
- C) Delphi methods
- D) Juries of executive opinion
- E) Consumer surveys

Answer: B

Difficulty: 1 Easy

Topic: Qualitative or Subjective Forecasting Methods

Learning Objective: 1-04 Discuss four types of qualitative forecast methods.

Accessibility: Keyboard Navigation

Gradable: automatic

11) Which of the following is not an argument for the use of subjective forecasting models?

- A) They are easy for management to understand
- B) They are quite useful for long-range forecasts
- C) They provide valuable information that may not be present in quantitative models
- D) They are useful when data for using quantitative models is extremely limited
- E) None of the options are correct.

Answer: E

Difficulty: 1 Easy

Topic: Qualitative or Subjective Forecasting Methods

Learning Objective: 1-04 Discuss four types of qualitative forecast methods.

Accessibility: Keyboard Navigation

Gradable: automatic

12) Forecasts based solely on the most recent observation of the variable of interest

- A) are called "naïve" forecasts.
- B) are the simplest of all quantitative forecasting methods.
- C) lead to loss of one data point in the forecast series relative to the original series.
- D) are consistent with the "random walk" hypothesis in finance, which states that the optimal forecast of today's stock rate of return is yesterday's actual rate of return.
- E) All of the options are correct.

Answer: E

Difficulty: 1 Easy

Topic: A Simple Naive Forecasting Model

Learning Objective: 1-07 Describe the naive forecasting method.

Accessibility: Keyboard Navigation

Gradable: automatic

13) You are given a time series of sales data with 10 observations. You construct forecasts according to last period's actual level of sales plus the most recent observed change in sales. How many data points will be lost in the forecast process relative to the original data series?

- A) One
- B) Two
- C) Three
- D) Zero
- E) None of the options are correct.

Answer: B

Difficulty: 1 Easy

Topic: Two Simple Naive Models

Learning Objective: 1-07 Describe the naive forecasting method.

Accessibility: Keyboard Navigation

Gradable: automatic

14) Suppose you are attempting to forecast a variable that is independent over time such as stock rates of return. A potential candidate-forecasting model is

- A) the Jury of Executive Opinion.
- B) last period's actual rate of return.
- C) the Delphi Method.
- D) last period's actual rate of return plus some proportion of the most recently observed rate of change in the series.
- E) None of the options are correct.

Answer: B

Difficulty: 1 Easy

Topic: Two Simple Naive Models

Learning Objective: 1-07 Describe the naive forecasting method.

Accessibility: Keyboard Navigation

Gradable: automatic

15) Measures of forecast accuracy based upon a quadratic error cost function, notably root mean square error (RMSE), tend to treat

- A) levels of large and small forecast errors equally.
- B) large and small forecast errors equally on the margin.
- C) large and small forecast errors unequally on the margin.
- D) every forecast error with the same penalty.
- E) None of the options are correct.

Answer: C

Difficulty: 3 Hard

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

- 16) Which of the following is/are incorrect? Evaluation of forecast accuracy
- A) is important since the production of forecasts is costly to the firm.
 - B) requires the use of symmetric error cost functions.
 - C) is important since it may reduce business losses from inaccurate forecasts.
 - D) is done by averaging forecast errors.
 - E) is important since the production of forecasts is costly to the firm and requires the use of symmetric error cost functions.

Answer: E

Difficulty: 1 Easy

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

- 17) Which of the following measures of forecast fit can correctly be used to compare "goodness of fit" across different sized random variables?

- A) Mean Error
- B) Mean Absolute Percentage Error
- C) Mean Percentage Error
- D) the Durbin Watson statistic
- E) None of the options are correct.

Answer: B

Difficulty: 1 Easy

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

- 18) Which of the following measures is a poor indicator of forecast accuracy, but useful in determining the direction of bias in a forecasting model?

- A) Mean Absolute Percentage Error
- B) Mean Percentage Error
- C) Mean Squared Error
- D) Root Mean Squared Error
- E) None of the options are correct.

Answer: B

Difficulty: 1 Easy

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

19) Which measure of forecast accuracy is analogous (i.e., calculated very much like) the standard deviation?

- A) Mean Absolute Error
- B) Mean Absolute Percentage Error
- C) Mean Squared Error
- D) Root Mean Squared Error

Answer: D

Difficulty: 2 Medium

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

20) Which of the following measures of forecast fit may correctly be used to compare different forecast models of a given data series?

- A) Theil's U
- B) Mean Absolute Error
- C) Root Mean Squared Error
- D) All of the options are correct.

Answer: D

Difficulty: 1 Easy

Topic: Evaluating Forecasts

Learning Objective: 1-08 Explain what the MAPE is and how it is used in forecasting.

Accessibility: Keyboard Navigation

Gradable: automatic

21) What values of Theil's U statistic are indicative of an improvement in forecast accuracy relative to the no-change naïve model?

- A) $U < 0$
- B) $U = 0$
- C) $U < 1$
- D) $U > 1$
- E) None of the options are correct.

Answer: C

Difficulty: 1 Easy

Topic: Evaluating Forecasts

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Gradable: automatic