

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) Lack 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.

Accessibility: Keyboard Navigation

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

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

Accessibility: Keyboard Navigation

Gradable: automatic

22) Consider the calculation of Root Mean Square Error (RMSE) used as a measure of forecast fit. RMSE applied to the analysis of model forecast errors, treats

- 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.

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

23) Because of different units being used for various data series, which fit statistic can be used across different series that are in fact measured in different units?

- A) MSE
- B) RMSE
- C) MAPE
- D) MAE
- E) None of the options are correct.

Answer: C

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

24) Some helpful hints on judging forecast accuracy include:

- A) Be wary when the forecast outcome is not independent of the forecaster.
- B) Do not judge model adequacy based on large one-time errors.
- C) Do not place unwarranted faith in computer-based forecasts.
- D) Keep in mind what exactly you are trying to forecast.
- E) All of the options are correct.

Answer: E

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

25) Which of the following would not be an appropriate use of forecast errors to assess the fit of a particular forecasting model?

- A) Examine a time series plot of the errors and look for a pattern.
- B) Examine the average absolute value of the errors.
- C) Examine the average squared value of the errors.
- D) Examine the average level of the errors.
- E) None of the options are correct.

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

26) Which of the following forecasting methods requires use of large and extensive data sets?

- A) Naïve methods
- B) Exponential smoothing methods
- C) Multiple regression
- D) Delphi methods
- E) None of the options are correct.

Answer: C

Difficulty: 1 Easy

Topic: Source of Data

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

Accessibility: Keyboard Navigation

Gradable: automatic

27) When using quarterly data to forecast domestic car sales, how can the simple naïve forecasting model be amended to model seasonal behavior of new car sales, i.e., patterns of sales that arise at the same time every year?

- A) Forecast next period's sales based on this period's sales.
- B) Forecast next period's sales based on last period's sales.
- C) Forecast next period's sales based on the average sales over the current and last three quarters.
- D) Forecast next period's sales based on sales four quarters ago.
- E) None of the options are correct.

Answer: D

Difficulty: 1 Easy

Topic: A Simple Naive Forecasting Model

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

Accessibility: Keyboard Navigation

Gradable: automatic

- 28) Four necessary features of the Delphi procedure (according to Rowe and Wright) include
- A) preference, judgement, feedback, and conclusion.
 - B) panels, iteration, judgement, and facilitation.
 - C) statistical groups, feedback, preference, and preconceived criteria.
 - D) anonymity, iteration, feedback, and statistical aggregation.
 - E) None of the options are correct.

Answer: D

Difficulty: 2 Medium

Topic: The Delphi Method

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

Accessibility: Keyboard Navigation

Gradable: automatic

- 29) When discussing the Delphi procedure, Rowe and Wright suggest a number of guidelines that include
- A) unframed questions.
 - B) using more than 20 people.
 - C) using homogenous experts.
 - D) weighting of the experts' estimates.
 - E) None of the options are correct.

Answer: D

Difficulty: 3 Hard

Topic: The Delphi Method

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

Accessibility: Keyboard Navigation

Gradable: automatic

- 30) The disadvantages of subjective forecasting methods include the consideration that
- A) they are almost always biased.
 - B) they are non-consistently accurate over time.
 - C) it takes years of experience for someone to learn how to convert intuitive judgment into good forecasts.
 - D) All of the options are correct.

Answer: D

Difficulty: 1 Easy

Topic: Some Advantages and Disadvantages of Subjective Methods

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

Accessibility: Keyboard Navigation

Gradable: automatic

31) What methods seem suited to forecasting new-product sales?

- A) Time series methods
- B) Subjective or judgmental methods
- C) Extrapolative methods
- D) Inductive methods

Answer: B

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

32) A "product life cycle" includes what different stages?

- A) Introduction
- B) Decline
- C) Growth
- D) Maturity
- E) All of the options are correct.

Answer: E

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

33) The notion of a product life cycle can be applied to

- A) a product class.
- B) a product form.
- C) a brand.
- D) All of the options are correct.

Answer: D

Difficulty: 1 Easy

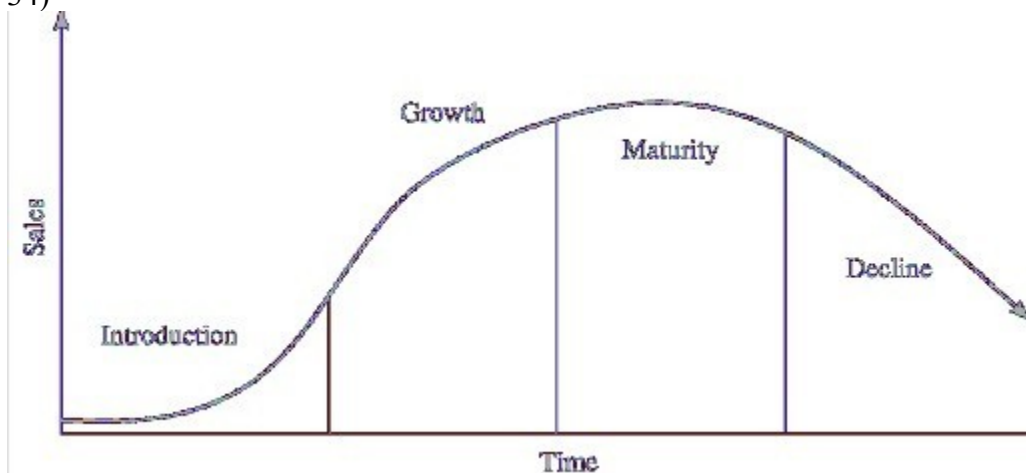
Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

34)



The diagram immediately above represents

- A) the pre-introductory product development stage.
- B) a Student's t-test distribution.
- C) the purchase intentions of hypothetical individuals.
- D) a normal distribution.
- E) a product life cycle.

Answer: E

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

35) An "Analog Forecast"

- A) is a statistical method involving the use of multiple explanatory variables.
- B) does not forecast specific amounts and instead predicts only ranges.
- C) is unlikely to be used when little past data about your product's sales is available.
- D) is sometimes used to forecast new products.
- E) None of the options are correct.

Answer: D

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

36) The Bass Model

- A) is used to forecast new product sales.
- B) is used for product forecasts with a relatively long history of sales.
- C) has been little used in the last twenty years by forecasters.
- D) is unable to model consumer durable sales.
- E) is used to forecast the sales of mature products.

Answer: A

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

37) PLC was used in the first chapter to represent

- A) the probability of limited consumption.
- B) the principle of linear correlation.
- C) the product life cycle.
- D) the positive long-term probability.
- E) None of the options are correct.

Answer: C

Difficulty: 1 Easy

Topic: New Product Forecasting

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

Accessibility: Keyboard Navigation

Gradable: automatic

38) $F_t = A_{t-1}$ represents

- A) a simple naïve model.
- B) a modified naïve model.
- C) the standard assumption in all forecasting models.
- D) one way of stating a Bass Model.
- E) None of the options are correct.

Answer: A

Difficulty: 1 Easy

Topic: A Simple Naive Forecasting Model

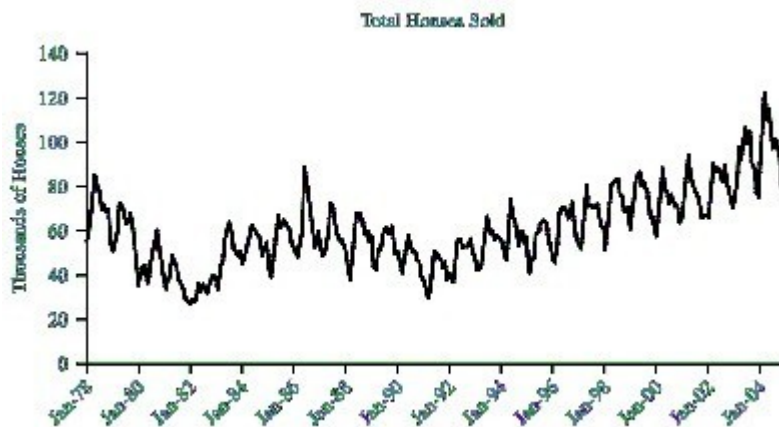
Learning Objective: 1-07 Describe the naive forecasting method.

Accessibility: Keyboard Navigation

Gradable: automatic

39)

ate	Total Houses Sold (000) THS
Jan-03	76
Feb-03	82
Mar-03	98
Apr-03	91
May-03	101
Jun-03	107
Jul-03	99
Aug-03	105
Sep-03	90
Oct-03	88
Nov-03	76
Dec-03	75
Jan-04	89
Feb-04	102
Mar-04	123
Apr-04	109
May-04	115
Jun-04	105
Jul-04	96
Aug-04	102
Sep-04	94
Oct-04	98
Nov-04	79
Dec-04	72



The data above represents the total houses sold in thousands of units per month through December of 2004. Use an appropriate naïve model to forecast January 2005 sales.

- A) 72
- B) 80
- C) 89
- D) 94
- E) 76

Answer: C

Difficulty: 2 Medium

Topic: Forecasting Total New Houses Sold

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

Accessibility: Keyboard Navigation

Gradable: automatic

40)

Date	Total Houses Sold (000) THS	Naïve Forecast (-12) THSF	Error	Squared Error	
Jan-03	76				
Feb-03	82				
Mar-03	98				
Apr-03	91				
May-03	101				
Jun-03	107				
Jul-03	99				
Aug-03	105				
Sep-03	90				
Oct-03	88				
Nov-03	76				
Dec-03	75				
Jan-04	89	76	13	169	
Feb-04	102	82	20	400	
Mar-04	123	98	25	625	MSE = 155.83
Apr-04	109	91	18	324	
May-04	115	101	14	196	RMSE = 12.48
Jun-04	105	107	-2	4	
Jul-04	96	99	-3	9	
Aug-04	102	105	-3	9	
Sep-04	94	90	4	16	
Oct-04	98	88	10	100	
Nov-04	79	76	3	9	
Dec-04	72	75	-3	9	
Jan-05		89			
Feb-05		102			
Mar-05		123			
Apr-05		109			
May-05		115			
Jun-05		105			
Jul-05		96			
Aug-05		102			
Sep-05		94			
Oct-05		98			
Nov-05		79			
Dec-05		72			

In the table above, Total Houses Sold in the United States are forecasted by what method?

- A) A naïve model
- B) A modified naïve model with a lag of 4
- C) A modified naïve model with a lag of 12
- D) A simple smoothing model

Answer: C

Difficulty: 2 Medium

Topic: Forecasting Total New Houses Sold

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

Accessibility: Keyboard Navigation

Gradable: automatic

41)

Date	Total Houses Sold (000) THS	Naïve Forecast (-12) THSF	Error	Squared Error	
Jan-03	76				
Feb-03	82				
Mar-03	98				
Apr-03	91				
May-03	101				
Jun-03	107				
Jul-03	99				
Aug-03	105				
Sep-03	90				
Oct-03	88				
Nov-03	76				
Dec-03	75				
Jan-04	89	76	13	169	
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Oct-04	98	88	10	100	
Nov-04	79	76	3	9	
Dec-04	72	75	-3	9	
Jan-05		89			
Feb-05		102			
Mar-05		123			
Apr-05		109			
May-05		115			
Jun-05		105			
Jul-05		96			
Aug-05		102			
Sep-05		94			
Oct-05		98			
Nov-05		79			
Dec-05		72			

In the table shown above, the root mean square error calculated is

- A) an "in sample" RMSE.
- B) an "out of sample" RMSE.
- C) a measure of "accuracy."
- D) an inappropriate measure to use because of the seasonality of the data.

Answer: A

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

42)

Date	Total Houses Sold (000) THS	Naïve Forecast (-12) THSF	Error	Squared Error	
Jan-03	76				
Feb-03	82				
Mar-03	98				
Apr-03	91				
May-03	101				
Jun-03	107				
Jul-03	99				
Aug-03	105				
Sep-03	90				
Oct-03	88				
Nov-03	76				
Dec-03	75				
Jan-04	89	76	13	169	
Feb-04	102	82	20	400	
Mar-04	123	98	25	625	MSE = 155.83
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Jul-04	96	99	-3	9	
Aug-04	102	105	-3	9	
Sep-04	94	90	4	16	
Oct-04	98	88	10	100	
Nov-04	79	76	3	9	
Dec-04	72	75	-3	9	
Jan-05		89			
Feb-05		102			
Mar-05		123			
Apr-05		109			
May-05		115			
Jun-05		105			
Jul-05		96			
Aug-05		102			
Sep-05		94			
Oct-05		98			
Nov-05		79			
Dec-05		72			

In the table above showing a forecast of Total Houses Sold in the United States, what does the RMSE number of 12.48 mean?

- A) The number represents the root mean squared error associated with the forecasts for Jan-05 through Dec-05.
- B) The number represents the root mean squared error associated with the forecasts for Jan-03 through Dec-05.
- C) The number represents the root mean squared error associated with the forecast for Jan-04.
- D) The number represents the root mean squared error associated with the forecasts for Jan-04 through Dec-04.

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

43) Qualitative or subjective forecasting methods include

- A) surveys of customers.
- B) exponential smoothing.
- C) the naïve model.
- D) the Bass Model.

Answer: A

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

44) Subjective or qualitative forecasting methods may be used effectively in

- A) place of quantitative methods because they are generally more accurate.
- B) situations where accuracy measures are impossible to calculate.
- C) only a small set of forecasting situations.
- D) very long-range forecasting.

Answer: D

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

45) Progressive Insurance Company was cited as being a firm that employed "Industrial Strength Forecasting." In doing so, they collected data on motorcycle riders, their ages, their accident history, their educational level and their credit scores. What did Progressive forecast with this data?

- A) The likelihood that a motorcycle rider would pay their premium
- B) The price different motorcycle riders would be willing to pay for insurance
- C) The risk exhibited by different motorcycle riders
- D) The probability that payment would be made on time to Progressive

Answer: C

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

46) If a Theil's U calculation is reported as "1," this could be explained as

- A) meaning that this forecast will never predict turning points.
- B) a likely error in the calculation since Theil's U must always be less than 1.
- C) meaning that this forecast may be expected to be almost perfect actual practice.
- D) saying this forecast is comparable to a naïve forecast.

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

47) In the Gap Sales Case at the end of Chapter One, it was suggested that we could use a "modified naïve forecasting method" to make a prediction. What "modification" was being suggested to the naïve model?

- A) Employ a lag of four periods since the data was seasonal.
- B) Employ a lag of three periods since the data was seasonal.
- C) Use only the last year of data for estimation.
- D) Remove two outliers from the original data.

Answer: A

Difficulty: 1 Easy

Topic: Integrative Case: Forecasting Sales of the Gap

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

Accessibility: Keyboard Navigation

Gradable: automatic

48) In Chapter One of the textbook, the following statement appears: "Throughout the text, you may find some situations that we show do not match exactly with the ForecastX results." What is the reason given for making this statement?

- A) ForecastX invokes proprietary alterations from the standard calculations.
- B) ForecastX, and other software packages, will always have rounding errors.
- C) ForecastX uses a "stack procedure" in its calculations.
- D) All of the options are correct.

Answer: A

Difficulty: 1 Easy

Topic: An Introduction to ForecastX

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

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49)

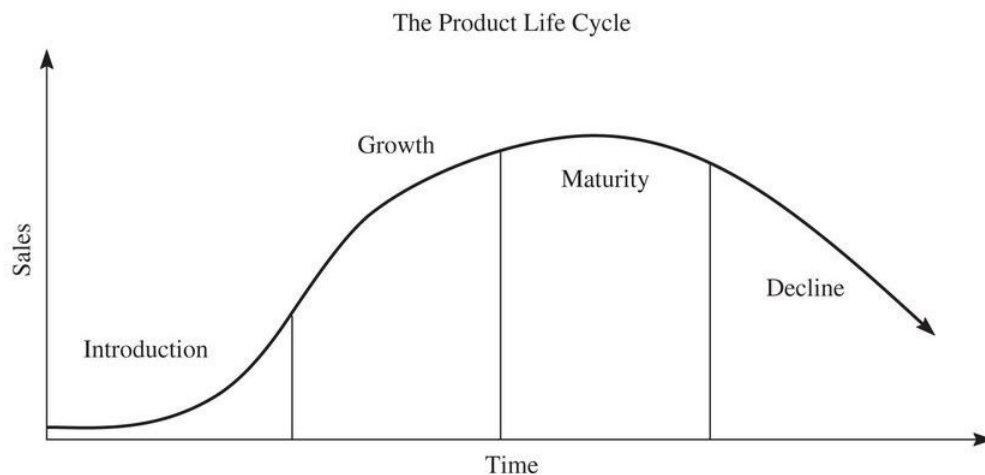


FIGURE 1.2 A product life cycle curve.

This figure in Chapter One was used to discuss

- A) the effect of price decreases.
- B) the exponential effect of advertising.
- C) the introduction of new products.
- D) the use of a naïve model.

Answer: C

Difficulty: 1 Easy

Topic: New Product Forecasting

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

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