

Supply Chain Management, 6e (Chopra/Meindl)
Chapter 3 Supply Chain Drivers and Metrics

3.1 True/False Questions

1) The major drivers of supply chain performance are customers, facilities, inventory, transportation, and information.

Answer: FALSE

Diff: 2

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

2) The two major types of facilities are production sites and storage sites.

Answer: TRUE

Diff: 2

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

3) Inventory is an important supply chain driver because changing inventory policies can dramatically alter the supply chain's efficiency and responsiveness.

Answer: TRUE

Diff: 2

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

4) Information is potentially the biggest driver of performance in the supply chain as it directly affects each of the other drivers.

Answer: TRUE

Diff: 1

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Information technology

Objective: LO 3.2: Identify the major drivers of supply chain performance

5) A facility with little excess capacity will likely be no more or less efficient per unit of product it produces than one with a lot of unused capacity.

Answer: FALSE

Diff: 1

Topic: 3.4 Facilities

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

6) The high utilization facility will have difficulty responding to demand fluctuations.

Answer: TRUE

Diff: 1

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

7) Stock keeping unit (SKU) storage is the warehousing methodology that uses a traditional warehouse to store all of one type of product together.

Answer: TRUE

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

8) Warehouse unit storage is the warehousing methodology that uses a traditional warehouse to store all of one type of product together.

Answer: FALSE

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

9) The components of inventory decisions include capacity, cycle inventory, safety inventory, seasonal inventory, and sourcing.

Answer: FALSE

Diff: 1

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

10) Cycle inventory is inventory that is built up to counter predictable variability in demand.

Answer: FALSE

Diff: 1

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

11) Seasonal inventory is inventory that is built up to counter predictable variability in demand.

Answer: TRUE

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

12) Companies using seasonal inventory will build up inventory in periods of low demand and store it for periods of high demand when they will not have the capacity to produce all that is demanded.

Answer: TRUE

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

13) Companies using seasonal inventory will maintain a level inventory increase rate of production for periods of high demand.

Answer: FALSE

Diff: 1

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

14) A company's ability to find a balance between responsiveness and efficiency that best matches the needs of the customer it is targeting is the key to achieving strategic fit.

Answer: TRUE

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

3.2 Multiple Choice Questions

1) Katz reports total revenue of \$245,600, cost of goods sold of \$18,950 and net income of \$121,000. Their total assets are \$585,000 and total liabilities are \$250,000. What is their return on equity (ROE)?

- A) 36.12%
- B) 48.40%
- C) 20.68%
- D) 41.98%

Answer: A

Diff: 2

Topic: 3.1 Financial Measures of Performance

AACSB: Analytical thinking

Objective: LO 3.1: Describe key financial measures of firm performance.

2) Katz reports total revenue of \$375,650, cost of goods sold of \$267,400 and net income of \$48,325. Their total assets are \$784,325 and total liabilities are \$387,775. What is their return on equity (ROE)?

- A) 33.72%
- B) 12.19%
- C) 6.16%
- D) 21.38%

Answer: B

Diff: 2

Topic: 3.1 Financial Measures of Performance

AACSB: Analytical thinking

Objective: LO 3.1: Describe key financial measures of firm performance.

3) Which of the following would result in lower return on assets for Katz if all other entries in their selected financial data were held constant?

- A) A reduction in earnings before interest and taxes
- B) An increase in asset turnover
- C) A reduction in total assets
- D) An increase in profit margin

Answer: C

Diff: 3

Topic: 3.1 Financial Measures of Performance

AACSB: Analytical thinking

Objective: LO 3.1: Describe key financial measures of firm performance.

4) Which of the following would result in an improvement in the C2C cycle for Katz if all other entries in their selected financial data were held constant?

- A) An increase in accounts payable turnover
- B) An increase weeks payable
- C) An increase in weeks receivable
- D) An increase in weeks in inventory

Answer: B

Diff: 3

Topic: 3.1 Financial Measures of Performance

AACSB: Analytical thinking

Objective: LO 3.1: Describe key financial measures of firm performance.

5) Geoff strolled into his local big box retailer in search of sunflower seeds for the flock of cardinals that graced his property during the cold winter. Much to his (and the cardinals') dismay, the shelf where the 50 pound bags of sunflower seeds were kept was bare. He pirouetted and left the store in disgust, empty-handed and fearing the wrath of an angry flock of cardinals when he returned home. This sad scenario illustrates

- A) safety inventory.
- B) cycle inventory.
- C) a markdown.
- D) a lost sale.

Answer: D

Diff: 2

Topic: 3.1 Financial Measures of Performance

AACSB: Application of knowledge

Objective: LO 3.1: Describe key financial measures of firm performance.

6) Why would anyone in their right mind buy a brand new car in the spring when they know that new car models will appear in late summer and early fall and the dealers will use

- A) markdowns to move that old inventory?
- B) information systems to move that old inventory?
- C) pull systems to move that old inventory?
- D) lost sales to move that old inventory?

Answer: A

Diff: 2

Topic: 3.1 Financial Measures of Performance

AACSB: Application of knowledge

Objective: LO 3.1: Describe key financial measures of firm performance.

7) The places in the supply chain network where product is stored, assembled, or fabricated are known as

- A) facilities.
- B) inventory.
- C) transportation.
- D) information.

Answer: A

Diff: 1

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

8) All raw materials, work in process, and finished goods within a supply chain are known as

- A) facilities.
- B) inventory.
- C) transportation.
- D) information.

Answer: B

Diff: 1

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

9) Moving inventory from point to point in the supply is known as

- A) facilities.
- B) inventory.
- C) transportation.
- D) information.

Answer: C

Diff: 1

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

10) The data and analysis concerning facilities, inventory, transportation, and customers throughout the supply chain is known as

- A) facilities.
- B) inventory.
- C) transportation.
- D) information.

Answer: D

Diff: 1

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

- 11) The two major types of facilities are
A) distribution sites and storage sites.
B) production sites and distribution sites.
C) production sites and storage sites.
D) retail sites and distribution sites.

Answer: C

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

- 12) Which component of the supply chain decision-making framework would be established first?

- A) Customer strategy
B) Supply chain strategy
C) Supply chain structure
D) Competitive strategy

Answer: D

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

- 13) Which component of the supply chain decision-making framework would be used to reach the performance level dictated by the supply chain strategy?

- A) Customer strategy
B) Supply chain strategy
C) Supply chain structure
D) Competitive strategy

Answer: C

Diff: 1

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

- 14) Which of the following is a characteristic of a facility with excess capacity?
- A) Will likely be more efficient per unit of product it produces than one with a lot of unused capacity
 - B) Would be very flexible and respond to wide swings in the demands placed on it
 - C) Would be considered a high utilization facility
 - D) Will have difficulty responding to demand fluctuations

Answer: A

Diff: 1

Topic: 3.4 Facilities

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

- 15) Which of the following would be a characteristic of a facility with little excess capacity?
- A) Allows a facility to be very flexible and to respond to wide swings in the demands placed on it
 - B) Costs money and therefore can decrease efficiency
 - C) Requires proximity to customers and the rest of the network
 - D) Will likely be more efficient per unit of product it produces

Answer: D

Diff: 2

Topic: 3.4 Facilities

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

- 16) The warehousing methodology that uses a traditional warehouse to store all of one type of product together is
- A) warehouse unit storage.
 - B) stock keeping unit (SKU) storage.
 - C) job lot storage.
 - D) cross-docking.

Answer: B

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

17) The warehousing methodology in which all the different types of products needed to perform a particular job or satisfy a particular type of customer are stored together is

- A) warehouse unit storage.
- B) stock keeping unit (SKU) storage.
- C) job lot storage.
- D) cross-docking.

Answer: C

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

18) The following warehousing methodology is one in which goods are not actually warehoused in a facility. Instead, trucks from suppliers, each carrying a different type of product, deliver goods to a facility. There the inventory is broken into smaller lots and quickly loaded onto store-bound trucks that carry a variety of products, some from each of the supplier trucks.

- A) Warehouse unit storage
- B) Stock keeping unit (SKU) storage
- C) Job lot storage
- D) Cross-docking

Answer: D

Diff: 2

Topic: 3.4 Facilities

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

19) The average amount of inventory used to satisfy demand between receipt of supplier shipments is referred to as

- A) cycle inventory.
- B) safety inventory.
- C) seasonal inventory.
- D) sourcing.

Answer: A

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

20) The inventory that is built up to counter predictable variability in demand is called

- A) cycle inventory.
- B) safety inventory.
- C) seasonal inventory.
- D) sourcing.

Answer: C

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

21) The inventory held in case demand exceeds expectation in order to counter uncertainty is called

- A) cycle inventory.
- B) safety inventory.
- C) seasonal inventory.
- D) sourcing.

Answer: B

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

22) The set of business processes required to purchase goods and services is known as

- A) cycle inventory.
- B) safety inventory.
- C) seasonal inventory.
- D) sourcing.

Answer: D

Diff: 1

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

23) Cycle inventory is used because

- A) the world is perfectly predictable.
- B) demand is uncertain and may exceed expectations.
- C) it involves making a trade-off between the costs of having too much inventory and the costs of losing sales due to not having enough inventory.
- D) it focuses on processes that are external to the firm.

Answer: B

Diff: 2

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

24) Seasonal inventory should be used when

- A) a company can rapidly change the rate of its production system at a very low cost.
- B) changing the rate of production is expensive (e.g., when workers must be hired or fired).
- C) adjusting to a period of low demand without incurring large costs.
- D) the world is perfectly predictable.

Answer: A

Diff: 3

Topic: 3.5 Inventory

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

25) Which of the following are key components of transportation decisions when designing and operating a supply chain?

- A) Software selection
- B) Mode of transportation
- C) Source selection
- D) Warehouse selection

Answer: B

Diff: 1

Topic: 3.6 Transportation

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

26) Although faster transportation is more expensive, a firm receives which benefit as a result of the faster transportation?

- A) Fewer rejects
- B) Higher profit
- C) Lower inventories
- D) More warehouses

Answer: C

Diff: 3

Topic: 3.6 Transportation

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

27) A beekeeper sends out crates of honey to a number of customers. The shipping cost is a function of the gasoline prices that day and the size of the truck used for delivery. For any shipment exceeding 3000 pounds, the truck rental is \$600 and for a shipment weight less than 3000, the truck rental is \$450.

Units	Weight	Weight Fee
6	156	\$703.56
87	2175	\$9,461.25
23	575	\$2,265.50
149	3874	\$17,084.34
203	5075	\$1,9944.75
212	5724	\$2,2552.56
90	2340	\$10,272.60
28	700	\$3,066.00

What is the average outbound transportation cost?

- A) \$4.34 per pound
- B) \$4.14 per pound
- C) \$4.24 per pound
- D) \$4.44 per pound

Answer: A

Diff: 3

Topic: 3.6 Transportation

AACSB: Analytical thinking

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

28) Blue Nile is an online retailer of diamonds that has used responsive transportation to ship diamonds to customers in the United States, Canada, and several countries in Europe and Asia. Which is the mode of transportation used with this strategy?

- A) Sea
- B) Rail
- C) Internet
- D) Air

Answer: D

Diff: 1

Topic: 3.6 Transportation

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

29) Which of the following are key components of information that must be analyzed to increase efficiency and improve effectiveness in a supply chain?

- A) Software selection
- B) Source selection
- C) Warehouse selection
- D) Forecasting and aggregate planning

Answer: D

Diff: 2

Topic: 3.7 Information

AACSB: Information technology

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

30) When all the different stages of a supply chain work toward the objective of maximizing total supply chain profitability, rather than each stage devoting itself to its own profitability without considering total supply chain profit, it is known as

- A) supply chain coordination.
- B) forecasting.
- C) aggregate planning.
- D) revenue management.

Answer: A

Diff: 1

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

31) The art and science of making projections about what future demand and conditions will be is

- A) supply chain coordination.
- B) forecasting.
- C) aggregate planning.
- D) revenue management.

Answer: B

Diff: 1

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

32) Transforming forecasts into plans of activity to satisfy the projected demand is known as
A) supply chain coordination.
B) forecasting.
C) aggregate planning.
D) revenue management.

Answer: C

Diff: 1

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

33) The process by which a firm decides how much to charge customers for its goods and services is

- A) supply chain coordination.
- B) forecasting.
- C) aggregate planning.
- D) pricing.

Answer: D

Diff: 1

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

34) The use of differential pricing over time or customer segments to maximize profits from a limited set of supply chain assets is

- A) supply chain coordination.
- B) forecasting.
- C) aggregate planning.
- D) revenue management.

Answer: D

Diff: 2

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

35) Which of the following is a technology that shares and analyzes information in the supply chain?

- A) Internet
- B) Enterprise Data Planning (EDP)
- C) Electronic Resource Interchange (ERI)
- D) Chain Management (CM) software

Answer: A

Diff: 2

Topic: 3.7 Information

AACSB: Information technology

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

36) _____ identifies the difference between the planned production/inventories and the actual values.

- A) Supplier reliability
- B) Forecast error
- C) Variance from plan
- D) Supply quality

Answer: C

Diff: 2

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

37) In the textbook, it mentions that Walmart has mandated the use of a specific technology by its top 100 suppliers at the level of product cases. What is the technology?

- A) RFID
- B) ERP
- C) SCM
- D) EDI

Answer: A

Diff: 3

Topic: 3.7 Information

AACSB: Information technology

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

38) _____ typically measures the cost of bringing product into a facility as a percentage of sales or cost of goods sold (COGS).

- A) Average outbound transportation cost
- B) Average inbound transportation cost
- C) Average incoming shipment size
- D) Average inbound transportation cost per shipment

Answer: B

Diff: 3

Topic: 3.7 Information

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

39) _____ measures the average time between when an order is placed and the product arrives.

- A) Supplier reliability
- B) Supply lead time
- C) Fraction of on-time deliveries
- D) Supply quality

Answer: B

Diff: 1

Topic: 3.8 Sourcing

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

40) Zara sources basic products such as white t-shirts from low cost countries because demand is predictable. For trendy products for which demand is unpredictable, Zara sources from company-owned higher cost factories in Europe. For the predictable demand, Zara strives for _____ and for the unpredictable demand, Zara hopes to achieve _____.

- A) social responsibility, quality
- B) flexibility, social responsibility
- C) efficiency, flexibility
- D) quality, efficiency

Answer: C

Diff: 2

Topic: 3.8 Sourcing

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

41) The most significant sourcing decision for a firm is

- A) whether to locate a plant close to customers or locate a plant close to sources of raw materials or suppliers.
- B) whether to use highly automate processes or manual labor.
- C) whether to use traditional inventory methods or adopt a just in time approach to stocking.
- D) whether to perform a task in-house or outsource it to a third party.

Answer: D

Diff: 2

Topic: 3.8 Sourcing

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

42) Lisa rented her goats out to anyone interested in clearing underbrush the natural way on their acreage. She received a call from her client Mary on June 21 and delivered her herd of goats to the site on June 24. The goats were done on June 30 and Lisa presented Mary with an invoice the same day. Mary wrote Lisa a check on July 18 and Lisa cashed it on July 21. What was Lisa's days payable outstanding for Mary's job?

- A) 18 days
- B) 24 days
- C) 27 days
- D) 30 days

Answer: A

Diff: 2

Topic: 3.8 Sourcing

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

43) Over the past two months, Lisa has received several orders for goat grazing services. The order date, promise date, and delivery dates are shown in the table below.

Order Date	Promise Date	Delivery Date
June 1	June 2	June 3
June 1	June 4	June 4
June 6	June 7	June 7
June 13	June 15	June 15
June 15	June 16	June 18
June 15	June 18	June 20
June 18	June 22	June 22
June 19	June 25	June 25
June 20	June 27	June 27
June 22	June 29	June 29
June 24	June 28	June 30
June 26	July 4	July 4
June 28	July 8	July 7
June 30	July 8	July 9

What is Lisa's percentage of on-time deliveries?

- A) 75%
- B) 64%
- C) 56%
- D) 51%

Answer: B

Diff: 1

Topic: 3.8 Sourcing

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

44) The _____ strategy results in a peak during the discount week, often followed by a steep drop in demand during the following weeks.

- A) Everyday low pricing
- B) High-low pricing
- C) Fixed price
- D) Menu pricing

Answer: B

Diff: 3

Topic: 3.9 Pricing

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

45) _____ measures the incremental costs that are independent of the size of the order.

- A) Average sale price
- B) Incremental variable cost per unit
- C) Incremental fixed cost per order
- D) Incremental indirect cost per order

Answer: C

Diff: 1

Topic: 3.9 Pricing

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

46) Economies of scale are illustrated by

- A) a company declaring that they will not have sales, but will maintain very low prices all the time.
- B) the price of a taxi ride service increasing after 2 a.m.
- C) a supplier using a third party logistics firm.
- D) a supplier waiting until enough demand has built up to send a full truckload shipment to their customer.

Answer: D

Diff: 2

Topic: 3.9 Pricing

AACSB: Application of knowledge

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

47) On a recent road trip to the Big Easy, the absentee landlord recorded his gasoline purchases in a logbook that he intended to support his rental expenses for the year. The entries are in the table below:

Gallons	Total Cost
15	\$44.40
16	\$36.32
13.5	\$34.70
18	\$45.90
8	\$23.36
12	\$30.72

What is the average sale price of the gasoline?

- A) \$2.61
- B) \$2.64
- C) \$2.67
- D) \$2.70

Answer: A

Diff: 2

Topic: 3.9 Pricing

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

48) On a recent road trip to the Big Easy, the absentee landlord recorded his gasoline purchases in a logbook that he intended to support his rental expenses for the year. The entries are in the table below:

Gallons	Total Cost
15	\$44.40
16	\$36.32
13.5	\$34.70
18	\$45.90
8	\$23.36
12	\$30.72

What is the average order size of the gasoline?

- A) 15.00
- B) 13.75
- C) 14.25
- D) 14.75

Answer: B

Diff: 1

Topic: 3.9 Pricing

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

49) On a recent road trip to the Big Easy, the absentee landlord recorded his gasoline purchases in a logbook that he intended to support his rental expenses for the year. The entries are in the table below:

Gallons	Total Cost
15	\$44.40
16	\$36.32
13.5	\$34.70
18	\$45.90
8	\$23.36
12	\$30.72

What is the range of sale price of the gasoline?

- A) 7.51
- B) 10
- C) 0.69
- D) 22.54

Answer: C

Diff: 1

Topic: 3.9 Pricing

AACSB: Analytical thinking

Objective: LO 3.4: Define the key metrics that track the performance of the supply chain in terms of each driver.

50) Amazon uses different prices for the products that are purchased from the company — often for the speed of the shipping. What is the name of this pricing scheme?

- A) Everyday low pricing
- B) High-low pricing
- C) Fixed price
- D) Menu pricing

Answer: D

Diff: 2

Topic: 3.9 Pricing

AACSB: Application of knowledge

Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

3.3 Essay Questions

1) List and define the six major drivers of supply chain performance.

Answer: Facilities are the places in the supply chain network where product is stored, assembled, or fabricated. The two major types of facilities are production sites and storage sites.

Inventory is all raw materials, work in process, and finished goods within a supply chain.

Inventory is an important supply chain driver because changing inventory policies can dramatically alter the supply chain's efficiency and responsiveness.

Transportation entails moving inventory from point to point in the supply chain. Transportation can take the form of many combinations of modes and routes.

Information consists of data and analysis concerning facilities, inventory, transportation, and customers throughout the supply chain. Information is potentially the biggest driver of performance in the supply chain as it directly affects each of the other drivers.

Diff: 2

Topic: 3.2 Drivers of Supply Chain Performance

AACSB: Application of knowledge

Objective: LO 3.2: Identify the major drivers of supply chain performance

2) Explain the supply chain decision-making framework and the role of the four major drivers.

Answer: The goal of a supply chain strategy is to strike the balance between responsiveness and efficiency, resulting in a strategic fit with the competitive strategy. To reach this goal, a company uses the four supply chain drivers discussed earlier. For each of the individual drivers, supply chain managers must make a trade-off between efficiency and responsiveness. The combined impact of these four drivers then determines the responsiveness and efficiency of the entire supply chain.

Most companies begin with a competitive strategy and then decide what their supply chain strategy ought to be. The supply chain strategy determines how the supply chain should perform with respect to efficiency and responsiveness. The supply chain must then use the supply chain drivers to reach the performance level the supply chain strategy dictates.

Diff: 2

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Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

3) Explain the basic trade-off between responsiveness and efficiency for each of the major drivers of supply chain performance.

Answer: The fundamental trade-off when making facilities decisions is between the cost of the number, location, and type of facilities (efficiency) and the level of responsiveness that these facilities provide the company's customers.

The fundamental trade-off when making inventory decisions is between responsiveness and efficiency. Increasing inventory will generally make the supply chain more responsive to the customer. This choice, however, comes at a cost as the added inventory decreases efficiency. Therefore, a supply chain manager can use inventory as one of the drivers for reaching the level of responsiveness and efficiency the competitive strategy targets.

The fundamental trade-off for transportation is between the cost of transporting a given product (efficiency) and the speed with which that product is transported (responsiveness). The transportation choice influences other drivers such as inventory and facilities. When supply chain managers think about making transportation decisions, they frame the decision in terms of this trade-off.

Good information systems can help a firm improve both its responsiveness and efficiency. The information driver is used to improve the performance of other drivers and the use of information is based on the strategic position the other drivers support. Accurate information can help a firm improve efficiency by decreasing inventory and transportation costs. Accurate information can improve responsiveness by helping a supply chain better match supply and demand.

Diff: 2

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Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

4) Explain the role of each of the major drivers of supply chain performance.

Answer: Facilities are the where of the supply chain if we think of inventory as what is being passed along the supply chain and transportation as how it is passed along. They are the locations to or from which the inventory is transported. Within a facility, inventory is either processed or transformed into another state (manufacturing) or it is stored before being shipped to the next stage (warehousing).

Inventory exists in the supply chain because of a mismatch between supply and demand. An important role that inventory plays in the supply chain is to increase the amount of demand that can be satisfied by having product ready and available when the customer wants it. Another significant role inventory plays is to reduce cost by exploiting any economies of scale that may exist during both production and distribution. Inventory is spread throughout the supply chain from raw materials to work in process to finished goods that suppliers, manufacturers, distributors, and retailers hold. Inventory is a major source of cost in a supply chain and it has a huge impact on responsiveness. The location and quantity of inventory can move the supply chain from one end of the responsiveness spectrum to the other. Inventory also has a significant impact on the material flow time in a supply chain. Another important area where inventory has a significant impact is throughput. Inventory and flow time are synonymous in a supply chain. Managers should use actions that lower the amount of inventory needed without increasing cost or reducing responsiveness, because reduced flow time can be a significant advantage in a supply chain.

Transportation moves product between different stages in a supply chain. Like the other supply chain drivers, transportation has a large impact on both responsiveness and efficiency. Faster transportation, whether in the form of different modes of transportation or different amounts being transported, allows a supply chain to be more responsive but reduces its efficiency. The type of transportation a company uses also affects the inventory and facility locations in the supply chain.

Information could be overlooked as a major supply chain driver because it does not have a physical presence. Information, however, deeply affects every part of the supply chain. Its impact is easy to underestimate as information affects a supply chain in many different ways. Information serves as the connection between the supply chain's various stages, allowing them to coordinate and bring about many of the benefits of maximizing total supply chain profitability. Information is also crucial to the daily operations of each stage in a supply chain. For instance, a production scheduling system uses information on demand to create a schedule that allows a factory to produce the right products in an efficient manner. A warehouse management system uses information to create visibility of the warehouse's inventory. The company can then use this information to determine whether new orders can be filled.

Diff: 3

Topic: 3.2 Drivers of Supply Chain Performance

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Objective: LO 3.3: Discuss the role of each driver in creating strategic fit between the supply chain strategy and the competitive strategy.

5) Explain the role of each of the major drivers of supply chain performance in the competitive strategy.

Answer: Facilities and their corresponding capacities to perform their functions are a key driver of supply chain performance in terms of responsiveness and efficiency. For example, companies can gain economies of scale when a product is manufactured or stored in only one location; this centralization increases efficiency. The cost reduction, however, comes at the expense of responsiveness, as many of a company's customers may be located far from the production facility. The opposite is also true. Locating facilities close to customers increases the number of facilities needed and consequently reduces efficiency. If the customer demands and is willing to pay for the responsiveness that having numerous facilities adds, however, then this facilities decision helps meet the company's competitive strategy goals.

Inventory plays a significant role in a supply chain's ability to support a firm's competitive strategy. If a firm's competitive strategy requires a very high level of responsiveness, a company can use inventory to achieve this responsiveness by locating large amounts of inventory close to the customer. Conversely, a company can also use inventory to make itself more efficient by reducing inventory through centralized stocking. The latter strategy would support a competitive strategy of being a low-cost producer. The trade-off implicit in the inventory driver is between the responsiveness that results from more inventory and the efficiency that results from less inventory.

The role of transportation in a company's competitive strategy figures prominently when the company is considering the target customer's needs. If a firm's competitive strategy targets a customer that demands a very high level of responsiveness, and that customer is willing to pay for this responsiveness, then a firm can use transportation as one driver for making the supply chain more responsive. The opposite is true as well. If a company's competitive strategy targets customers whose main decision criterion is price, then the company can use transportation to lower the cost of the product at the expense of responsiveness. As a company may use both inventory and transportation to increase responsiveness or efficiency, the optimal decision for the company often means finding the right balance between the two.

Information is a driver whose importance has grown as companies have used it to become both more efficient and more responsive. The tremendous growth of the importance of information technology is a testimony to the impact information can have on improving a company. Like all the other drivers, however, even with information, companies reach a point when they must make the trade-off between efficiency and responsiveness.

Diff: 3

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