

Coyle Supply Chain Management: A Logistics Perspective, 9th Edition

Chapter 2 Test Bank

CHAPTER 2 TEST QUESTIONS

True-False

1. The utility created through the basic marketing activities is known as place utility.

ANSWER: False, Page 40

2. Transportation is the physical movement or flow of goods.

ANSWER: True, Page 42

3. During the 1990s and 2000s, logistics costs as a percentage of gross national product declined.

ANSWER: True, Page 47

4. An aircraft manufacturer is a good example of an organization with a heavy inbound flow and a simple outbound flow.

ANSWER: True, Page 63

5. Acme Battery distributes its batteries to warehouses, where they are stored until ordered by a retailer. The warehouses are located close by the retail markets served. This is the logistics channel approach to logistics.

ANSWER: True, Page 66

6. In a logistics system, warehousing should be optimized at the expense of related logistics activities, such as transportation and procurement.

ANSWER: False, Page 69

7. The mathematical calculation of the point of equality between systems under analysis is used for short-run/static analysis.

ANSWER: False, Pages 61-62

8. To hold down distribution cost, the lowest cost carrier should always be used.

ANSWER: False, Page 64

9. The inverse relationship that exists between the cost of lost sales and inventory costs is the inventory effect.

ANSWER: True, Page 55

Multiple-Choice

10. Ensuring the availability of the right product, in the right quantity, and the right condition, at the right place, at the right time, for the right customer at the right cost, is which definition of logistics?

- a. Seven Rs
- b. Council of Logistics Management
- c. Society of Logistic Engineers
- d. supply chain logistics

ANSWER: a, Page 37 inside Table 2.1

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11. Logistics is the process of anticipating customer needs and wants; acquiring the capital, materials, people, technologies, and information necessary to meet those needs and wants; optimizing the goods- or service-producing network to fulfill customer requests; and utilizing the network to fulfill customer requests in a timely manner. This is a

- a. definition from an inventory perspective.
- b. general definition.
- c. definition offered by the Society of Logistics Engineers.
- d. a definition provided by the Council of Logistics Management.

ANSWER: b, Pages 38-39

12. All four subdivisions of logistics have some common characteristics. Which of the below does not belong in the list:

- a. transportation
- b. marketing
- c. scheduling
- d. forecasting

ANSWER: b, Page 38

13. The value that is added to goods through a manufacturing or assembly process is:

- a. form utility
- b. place utility
- c. time utility
- d. possession utility

ANSWER: a, Page 39

14. Which of the answers below is an example of the creation of form utility by a logistics activity?

- a. when lumber is cut and made into a chair
- b. when a firm's finance manager approves customer purchases on a credit basis
- c. when Dell combines components with software to produce a computer to a customer's specifications
- d. the breaking bulk and repackaging at a distribution center

ANSWER: d, Page 39

15. The utility that is created by moving goods from production points to market points where demand exists is referred to as:

- a. form
- b. place
- c. time
- d. possession

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ANSWER: b, Page 40

16. Logistics creates which utility through production forecasting, production scheduling and inventory control?

- a. form utility
- b. quantity utility
- c. time utility
- d. possession utility

ANSWER: b, Page 40

17. Time utility depends on

- a. when the carrier picks up the shipment.
- b. transportation companies delivering on time.
- c. proper forecasting.
- d. having the product available when the user wants it.

ANSWER: d, Page 40

18. What is often the largest component of logistics costs?

- a. inventory costs
- b. transportation costs
- c. shipper-related costs
- d. administrative costs

ANSWER: b, Page 42

19. Materials handling is concerned with

- a. inventory levels.
- b. breaking bulk.
- c. scheduling trade-offs.
- d. short-distance movement.

ANSWER: d, Page 43

20. Marketers have begun to recognize the strategic value of place in the marketing mix, as well as the benefits resulting from high-quality logistical services. As a result, which has been recognized as the interface activity between marketing and logistics?

- a. product
- b. promotion
- c. price
- d. customer service

ANSWER: d, Page 52

21. It can be argued that ? is the second language of logistics and supply chain management.

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- a. quality
- b. manufacturing
- c. finance
- d. sales

ANSWER: c, Page 53

22. What activity is described as the movement of goods into a warehouse, the placement of goods in a warehouse, and the movement of goods from storage to order picking areas and eventually to dock areas for transportation out of the warehouse?
- a. materials handling
 - b. physical distribution
 - c. business logistics
 - d. order fulfillment

ANSWER: a, Page 43

23. A(n) _____ relationship exists between the cost of lost sales and inventory cost.
- a. reverse
 - b. proportional
 - c. inverse
 - d. non linear

ANSWER: c, Page 55

24. Water Cruisers is located in Jacksonville, Florida, and makes small yachts and luxury pontoon boats for customers on the East coast of the United States. Each boat requires thousands of parts purchased from over 1,000 vendors. A number of boats are in production at any one time, so a large number of parts constantly arrive and are stored. Once a boat is finished, it is sailed up the coast to a convenient port for customer delivery. Which type of logistics system does Water Cruisers use?
- a. balanced system
 - b. heavy inbound
 - c. heavy outbound
 - d. reverse system

ANSWER: b, Page 63

25. The product's dollar value typically affects the cost of logistics activities. Which is not one of these costs?
- a. warehousing costs
 - b. transportation costs
 - c. promotion costs
 - d. packaging costs

ANSWER: c, Page 56

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26. When a specific point in time, or level of production, is chosen and costs are developed for the various logistics cost centers, it is called
- a. least cost analysis.
 - b. short run analysis.
 - c. cost center analysis.
 - d. link node analysis.

ANSWER: b, Page 60

27. A _____ analysis examines a logistics system over a long time period or range of output.
- a. cost center analysis
 - b. dynamic
 - c. link node analysis
 - d. least cost analysis

ANSWER: b, Pages 61-62

28. What are fixed spatial points where goods stop for storage or processing?
- a. nodes
 - b. links
 - c. cost centers
 - d. fulfillment centers

ANSWER: a, Page 65

29. An important sustainability issue that has received much more scrutiny in recent years is the:
- a. focus on adequate inventory levels
 - b. reduction in packaging waste by using alternate materials
 - c. effort to move warehouse storage closer to consumers
 - d. emphasis on materials handling and warehouse design

ANSWER: b, Page 43

30. What technology has helped make the physical inventory-taking process more efficient and effective?
- a. advances in forecasting
 - b. transportation management systems
 - c. just-in-time inventory
 - d. scanning of bar-coded RFID tags

ANSWER: d, Page 44

Essay

31. What is the primary challenge of logistics?

ANSWER: The challenge is to manage the entire logistics system in such a way that order fulfillment meets and perhaps exceeds customer expectations. At the same time, the competitive marketplace demands efficiency—controlling transportation, inventory, and other logistics-related costs. Cost and service tradeoffs must be considered when evaluating customer service levels and the associated total cost of logistics, but both goals—efficiency and effectiveness—are important to an organization in today’s competitive environment. (Page 36)

32. What is the definition of logistics which the authors choose and what group had formulated it?

ANSWER: The definition offered by the Council of Supply Chain Management Professionals is: “That part of the supply chain process that plans, implements and controls the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption in order to meet customer requirements.” (Page 37)

33. The text mentions four subdivisions of logistics. Pick one, define and discuss.

ANSWER: Business logistics: That part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, service, and related information from point of origin to point of consumption in order to meet customer requirements.

- Military logistics: The design and integration of all aspects of support for the operational capability of the military forces (deployed or in garrison) and their equipment to ensure readiness, reliability, and efficiency.
- Event logistics: The network of activities, facilities, and personnel required to organize, schedule, and deploy the resources for an event to take place and to efficiently withdraw after the event.
- Service logistics: The acquisition, scheduling, and management of the facilities, assets, personnel, and materials to support and sustain a service operation or business. (Page 38)

34. There are five principal types of economic utility that add value to a product or service. Name four of the five and pick one to discuss in more detail.

ANSWER: The five principal types of economic utility are form, time, place, quantity, and possession. Generally, production activities are credited with providing form utility; logistics activities with time, place, and quantity utilities; and marketing activities with possession utility. (Page 39)

35. The logistics definitions discussed indicate 14 activities for which the logistics manager might be responsible. Name at least eight and briefly discuss any two in detail.

ANSWER:

- Transportation
 - Warehousing and storage
 - Industrial packaging
 - Materials handling
 - Inventory control
 - Order fulfillment
 - Inventory forecasting

- Production planning and scheduling
- Procurement
- Customer service
- Facility location
- Return goods handling
- Parts and service support
- Salvage and scrap disposal (Pages 41- 42)

36. The micro perspective of logistics examines the relationships between logistics and other functional areas in an organization. What are these other functions? Select one and discuss how it interacts with logistics.

ANSWER: The micro perspective of logistics examines the relationships between logistics and other functional areas in an organization – including marketing, manufacturing or operations, finance and accounting. Logistics, by its nature, focuses on processes that cut across traditional functional boundaries, particularly in today’s environment with its emphasis on the supply chain. Consequently, logistics interfaces in many important ways with other functional areas since the logistics-related flows, as well as supply chain flows, tend to be horizontal in an organization, cutting across other functions. (Page 49)

37. What are the 4 “Ps” of marketing? Select one, and discuss how it interfaces with logistics.

ANSWER: Logistics has an important relationship with marketing. The rationale for this strong relationship is that physical distribution, or the outbound side of an organization’s logistics system, plays an important role in the sale of a product. In some instances, physical distribution and order fulfillment may be the key variables in the continuing sales of products; that is, the ability to provide the product at the right time to the right place in the right quantities and the right cost might be the critical element in making a sale. (Pages 50-52)

38. What is ROA? Discuss how it can impact logistics.

ANSWER: Finance has become increasingly important to logistics and supply chain management during the last decade. The impact that logistics and supply chain management can have upon return on assets (ROA) or return on investment (ROI) is very significant.

Logistics can positively impact ROA in several ways. First, inventory is both a current asset on the balance sheet and a variable expense on the income statement. Reducing inventory levels reduces the asset base as well as the corresponding variable expenses, thus having a positive impact on ROA. Second, transportation and warehousing costs can also influence ROA. If an organization owns its warehouses and transportation fleet, they are fixed assets on the balance sheet. If these assets are reduced or eliminated, ROA may increase. Similarly, if an organization utilizes third parties for warehousing and transportation, variable expenses will be incurred, which impact the profit margin. Finally, the focus on customer service can increase revenue. As long as the incremental increase in revenue is larger than the incremental increase in the cost of customer service, ROA will increase. (Page 53)

39. There are a number of product-related factors that can affect the cost and importance of logistics. Identify the factors, and pick one to discuss further.

ANSWER: Among the more significant product-related factors that affect the cost and importance of logistics are dollar value, density, susceptibility to damage, and the need for special handling. (Page 56)

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40. Spatial relationship is extremely significant to logistics. Discuss why this is true.

ANSWER: “Spatial relationships” refers to the location of fixed points in the logistics system with respect to demand and supply points. Spatial relationships are very important to transportation costs, since these costs tend to increase with distance.

The distance factor or spatial relationships might affect logistics costs in ways other than transportation costs. For example, a firm located far from one or more of its markets might need to use a market-oriented warehouse to make customer deliveries in a satisfactory time period. Therefore, distance can add to warehousing and inventory carrying costs. (Pages 59-60)