

Chapter 1: Operations Management

True/False

1. Operations management is concerned only with the day-to-day operations of a firm's productive systems.

Ans: False

Difficulty: Easy

Feedback: The Operations Function

2. A warehouse operation is an example of a physical transformation process.

Ans: False

Difficulty: Easy

Feedback: The Operations Function

3. A retail operation is an example of an exchange transformation process.

Ans: True

Difficulty: Easy

Feedback: The Operations Function

4. Operations management designs, operates, and improves productive systems.

Ans: True

Difficulty: Easy

Feedback: The Operations Function

5. To be effective an operations manager needs an integrated view of business organizations.

Ans: True

Difficulty: Easy

Feedback: Evolution of Operations

6. The systematic analysis of work methods is known as scientific management.

Ans: True

Difficulty: Easy

Feedback: Evolution of Operations

7. Operations research is concerned with the systematic analysis of work methods.

Ans: False

Difficulty: Moderate

Feedback: Evolution of Operations

8. Mass production refers to high-volume production of a standardized product.

Ans: True

Difficulty: Easy

Feedback: Evolution of Operations

9. Emphasizing the strategic role of operations enhances the competitiveness of U.S. companies.

Ans: True

Difficulty: Easy

Feedback: Operations Strategy

10. The adaptation of mass production to emphasize efficiency, rather than quality is known as lean production.

Ans: False

Difficulty: Moderate

Feedback: Evolution of Operations

11. The set of activities that create and deliver products to the customer is known as the supply chain.

Ans: True

Difficulty: Moderate

Feedback: Evolution of Operations Management

12. The four primary functional areas of a firm are marketing, finance, operations, and human resources.

Ans: True

Difficulty: Easy

Feedback: The Operations Function

13. The process of producing high-volume, standardized products for a large market is known as craft production.

Ans: False

Difficulty: Moderate

Feedback: Globalization

14. The European Union requires that strict quality and environmental standards be met before companies can do business with member countries.

Ans: True

Difficulty: Moderate

Feedback: Globalization

15. Productivity increases enable a nation to raise its standard of living.

Ans: True

Difficulty: Easy

Feedback: Productivity and Competitiveness

16. A nation's productivity is unrelated to its standard of living.

Ans: False

Difficulty: Easy

Feedback: Productivity and Competitiveness

17. Globalization has affected both manufacturing and service operations.

Ans: True

Difficulty: Easy

Feedback: Globalization

18. A transformation process is a series of activities from supplier to customer that add value to a product or service.

Ans: False.

Difficulty: Moderate

Feedback: The Operations Function

19. U.S. companies can become globally competitive by emphasizing the strategic importance of operations.

Ans: True

Difficulty: Moderate

Feedback: Operations Strategy

20. Many companies now find it necessary to have some global presence to remain competitive.

Ans: True

Difficulty: Easy

Feedback: Operations Strategy

21. Productivity is the most common measure of competitiveness.

Ans: True
Difficulty: Easy
Feedback: Productivity and Competitiveness

22. Single factor productivity measures compare output to an individual input.

Ans: True
Difficulty: Moderate
Feedback: Productivity and Competitiveness

23. Human resources management provides demand estimates that are used in production decisions.

Ans: False
Difficulty: Moderate
Feedback: The Operations Function

24. Ensuring good quality underlies all operational decisions.

Ans: True
Difficulty: Easy
Feedback: Operations Strategy

25. Two-thirds of today's businesses operate globally

Ans: True
Difficulty: Moderate
Feedback: Globalization

26. China is reshaping the way firms compete globally

Ans: True
Difficulty: Easy
Feedback: Globalization

27. Deployment is a step in strategy formulation that evaluates the alignment between core competencies and order winners.

Ans: False

Difficulty: Easy

Feedback: Operations Strategy

28. Positioning is a step in strategy formulation that compares core competencies and order winners.

Ans: True

Difficulty: Moderate

Feedback: Operations Strategy

29. Order qualifiers are the characteristics of a product that have to be satisfied just to be considered for purchase by a customer.

Ans: True

Difficulty: Easy

Feedback: Operations Strategy

30. An order qualifier is a customer criteria that wins the order.

Ans: False

Difficulty: easy

Feedback: Operations Strategy

31. Core competencies tend to be processes and not products or technologies.

Ans: True

Difficulty: Easy

Feedback; Operations Strategy

32. Strategy formulation starts with determining a firm's order winners and order qualifiers.

Ans: False
Difficulty: Easy
Feedback: Operations Strategy

33. Order winners and order qualifiers change over time in response to the dynamics of changing market conditions.

Ans: True
Difficulty: Moderate
Feedback: Operations Strategy

34. To be competitive firms must create and sustain core competencies that are in tune with their customer's order winners.

Ans: True
Difficulty: Moderate
Feedback: Operations Strategy

35. Firms compete in the marketplace based on cost, speed, quality and flexibility.

Ans: True
Difficulty: Easy
Feedback: Operations Strategy

36. Globalization requires that firms compete on cost and not quality, speed or flexibility.

Ans: False
Difficulty: Mode
Feedback: Globalization

37. Globalization of the supply chain for many products has many pros and few, if any, cons.

Ans: False
Difficulty: Moderate
Feedback: Globalization

38. A major challenge and opportunity for many firms is the globalization of the supply chain.

Ans: True

Difficulty: Easy

Feedback: Globalization

Multiple Choice

39. Operations management is concerned with

- a. the design of a firm's productive systems.
- b. the operation of a firm's productive systems.
- c. the improvement of a firm's productive systems.
- d. all of the above.

Ans: d

Difficulty: Easy

Feedback: The Operations Function

40. The transformation process associated with health care is best described as

- a. locational
- b. exchange
- c. physiological
- d. informational

Ans: c

Difficulty: Easy

Feedback: The Operations Function

41. Which of the following is not one of the four primary functional areas of a firm?

- a. human resources
- b. legal
- c. marketing

d. operations

Ans: B

Difficulty: Easy

Feedback: The Operations Function

42. The production system that prizes flexibility over efficiency and quality over quantity is known as

- a. mass production
- b. craft production
- c. lean production
- d. electronic commerce

Ans: c

Difficulty: Moderate

Feedback: Productivity and Competitiveness

43. Dividing a job into a series of small tasks each performed by a different worker is known as

- a. craft production
- b. scientific management
- c. division of labor
- d. interchangeable parts

Ans: c.

Difficulty: Moderate

Feedback: Productivity and Competitiveness

44. Linear programming, simulation, and waiting line theory are most closely associated with which era in the historical development of operations management?

- a. human relations
- b. operations research
- c. globalization
- d. Internet revolution

Ans: b

Difficulty: Moderate

Feedback: Evolution of Operations

45. The ratio of a firm's monthly output to the number of labor hours used in the same month would be a measure of

- a. labor productivity
- b. capital productivity
- c. machine productivity
- d. multifactor productivity

Ans: a

Difficulty: Moderate

Feedback: Productivity and Competitiveness

46. The degree of competitiveness in an industry can affect

- a. product innovation
- b. technological investment
- c. operating strategy
- d. all of the above

Ans: d

Difficulty: Easy

Feedback: Productivity and Competitiveness

47. Which of the following is not an event or concept associated with the quality revolution?

- a. TQM (total quality management)
- b. PERT/CPM
- c. Business process reengineering
- d. JIT

Ans: b

Difficulty: Moderate

Feedback: Evolution of Operations

48. Japanese firms used the concept of _____ to convert from mass production to lean production.

- a. division of labor
- b. scientific management
- c. just-in-time
- d. interchangeable parts

Ans: c

Difficulty: Moderate

Feedback: Productivity and Competitiveness

49. Mass production is well suited to all of the following except

- a. producing large volumes of goods quickly
- b. adapting quickly to changes in market demand
- c. producing standardized products for a large market
- d. all of the above

Ans: b

Difficulty: Easy

Feedback: Productivity and Competitiveness

50. All of the following are characteristics of today's consumer market except

- a. longer product life cycles
- b. shorter product life cycles
- c. more customized products
- d. product proliferation

Ans: a.

Difficulty: Moderate

Feedback: Productivity and Competitiveness

51. All of the following are responsibilities of operations managers except

- a. acquiring financial resources
- b. managing inventories
- c. planning production
- d. scheduling production

Ans: a

Difficulty: Easy

Feedback: The Operations Function

52. The work of W. Edwards Deming is most closely associated with

- a. MRP
- b. TQM
- c. supply chain management

- d. time and motion studies

Ans: b

Difficulty: Easy

Feedback: Evolution of Operations

53. All of the following are transformation processes except:

- a. physiological
- b. locational
- c. exchange
- d. optimal

Ans: d

Difficulty: Easy

Feedback: The Operations Function

54. Linear programming, waiting line, simulation, and PERT/CPM are all parts of which era of operations management?

- a) Quality Research
- b) Operations Research
- c) Internet Revolution
- d) Globalization

Ans: b

Difficulty: Moderate

Feedback: Evolution of Operations

55. A firm who is adept at recognizing global windows of opportunity, acting on those very quickly, with tight linkages can be said to be competing on:

- a) flexibility
- b) speed
- c) quality
- d) cost

Ans: b

Difficulty: Hard

Sectioned: Operations Strategy

56. The major factors impacting globalization of the supply chain include all the following except

- a. Creation of the WTO
- b. Regional Trade Agreements
- c. Fall of communism
- d. Advances in information and transportation technology

Ans: c

Difficulty: Hard

Feedback: Globalization

57. Companies go global to

- a. Take advantage of favorable costs
- b. To keep abreast of trends and access new technologies
- c. To build reliable sources of supply
- d. All the above.

Ans: d

Difficulty: Moderate

Feedback: Globalization

58. A manager of a global supply chain is concerned with all the following except?

- a. Timeliness
- b. Quality
- c. Social issues
- d. All the above are concerns

Ans: d

Difficulty: Moderate

Feedback: Globalization

Short Answer

59. Briefly describe how operations can be viewed as a transformation process.

Operations is often defined as a transformation process. Inputs such as raw materials, labor, equipment, and capital are transformed into outputs (goods and services). Customer feedback is used to adjust the transformation process. An objective of the

operations manager is to ensure that the transformation process operates efficiently and the outputs of the process have greater value than the sum of the inputs. In this way the transformation process creates value, making it possible to view the transformation process as a value chain extending from supplier to customer.

60. Briefly describe the four primary functional areas of a firm. How is operations related to them?

The four primary functional areas of a firm are marketing, finance, operations, and human resources. For most firms, operations is the technical core or “hub” of the organization, interacting with the other functional areas and suppliers to produce goods and services for customers. For example, marketing provides sales forecasts to operations and operations provides marketing with product availability information, lead time estimates and delivery schedules. Operations provides finance with inventory and production data, capital budgeting and equipment requests, and technology plans. Finance provides the capital resources for financing inventory and securing more capital equipment. Operations relies on human resources to meet its personnel needs—hiring, training, and evaluating workers.

61. What is electronic commerce?

Trade that occurs over the Internet (or any other computer network) is called electronic commerce, e-commerce, or e-business. Electronic commerce can take the form of trade between businesses (B2B), between consumers, or between business and consumers (B2C). B2B trade typically involves companies and their suppliers while B2C trade can take the form of online retailing. Companies that integrate both B2B and B2C are said to have a fully integrated value chain.

67. What is productivity and how is it measured?

Productivity is the ratio of output to input. Output can be expressed in units or dollars. Single factor productivity compares output to individual inputs, such as labor hours, investment in equipment, or material usage. Multifactor productivity relates output to a combination of inputs, such as labor + capital. Total factor productivity compares the quantity of goods and services produced with all the inputs used to produce them.

68. What can lead to increases in productivity?

Productivity increases when firms become more efficient, expand, achieve breakthroughs that enable output increases to occur with reduced inputs, downsize while maintaining

output with fewer inputs, and retrench with output and inputs decreasing but inputs decreasing at a faster rate than output.