

***Foundations of Operations Management, 3e Cdn. (Ritzman)***

**Chapter 1: Creating Customer Value through Operations**

**1.1 End-of-Chapter Problems**

1) A process involves transforming inputs into outputs.

Answer: TRUE

Diff: 1 Type: TF

Reference: Process View

2) Inputs to a process can include human resources.

Answer: TRUE

Diff: 1 Type: TF

Reference: Process View

3) Processes of multiple firms can be linked together to form a chain reaction.

Answer: FALSE

Diff: 1 Type: TF

Reference: Introduction

4) Every process has a customer.

Answer: TRUE

Diff: 1 Type: TF

Reference: Process View

5) A nested process refers to a process within a process.

Answer: TRUE

Diff: 1 Type: TF

Reference: Process View

6) Operations management refers to the direction and control of inputs that transform processes into products and services.

Answer: TRUE

Diff: 1 Type: TF

Reference: Introduction

7) Relative to strategic decisions, tactical decisions are less structured and have longer-term consequences.

Answer: FALSE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

8) The process of baking a doughnut at Tim Hortons is a manufacturing process.

Answer: TRUE

Diff: 2 Type: TF

Reference: Process View

9) Processes do not necessarily add value to every customer along the supply chains.

Answer: FALSE

Type: TF

Reference: Process View

10) Many service operations have little outside customer contact.

Answer: TRUE

Diff: 2 Type: TF

Reference: Process View

11) As a percentage of total employment within the Canadian economy, jobs in the service sector have declined over the past 40 years.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

12) Productivity is measured as input over output.

Answer: FALSE

Diff: 1 Type: TF

Reference: Trends in Operations Management

13) Labour productivity is an index of the output per person or hours worked.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

14) As the value of output per work hour goes up, the nation's standard of living is lowered.

Answer: FALSE

Diff: 1 Type: TF

Reference: Trends in Operations Management

15) Over the last decade the gains in labour productivity in Canada have been greater in the manufacturing sector than in the service sector.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

16) Today, most products are made of material and services from around the world.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

17) Many companies today compete on the basis of time.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

18) Today, many environmental issues are receiving more emphasis.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

19) Competitive priorities are the means by which operations implements the firm's corporate strategies.

Answer: FALSE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

20) Entering into regional trade blocks such as the North American Free Trade Agreement (NAFTA) tends to lessen the competitive pressures on manufacturers located within member countries such as Canada.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

21) On a per capita basis, as a nation Canada is one of lowest emitters of greenhouse gases in the world.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

22) One effective global strategy is strategic alliances.

Answer: TRUE

Diff: 2 Type: TF

Reference: Customer Value and Competitive Priorities

23) One factor used to determine market segments is psychological factors.

Answer: TRUE

Diff: 1 Type: TF

Reference: Supply Chain View

24) The first step of needs assessment is market analysis.

Answer: FALSE

Diff: 2 Type: TF

Reference: Supply Chain View

25) Flexibility is a possible competitive priority.

Answer: TRUE

Diff: 1 Type: TF

Reference: Supply Chain View

26) Consistent quality is unimportant to today's consumers.

Answer: FALSE

Diff: 1 Type: TF

Reference: Supply Chain View

27) Delivery time should always be less than two days.

Answer: FALSE

Diff: 2 Type: TF

Reference: Customer Value and Competitive Priorities

28) An operations management department typically performs one process.

Answer: FALSE

Diff: 2 Type: TF

Reference: Introduction

29) Functions within an organization are characterized by having their own knowledge and skill areas, primary responsibilities, processes, and decision domains.

Answer: TRUE

Diff: 1 Type: TF

Reference: Introduction

30) Multifactor productivity measures are determined by measuring more than one of the input resources used to produce outputs.

Answer: TRUE

Diff: 1 Type: TF

Reference: Trends in Operations Management

31) In computing a multifactor measure of productivity, the inputs can be measured in different units such as dollars, labour hours, volume of materials used, etc.

Answer: FALSE

Diff: 3 Type: TF

Reference: Trends in Operations Management

32) An increase in the value of the Canadian dollar relative to other currencies lessens the pressure on manufacturing companies based in Canada to consider locating facilities in low-cost labour countries such as China and India.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

33) Measuring the number of square metres of carpet installed per day by an installer working for a flooring company is example of a multifactor measure of productivity.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

34) An organization is only as effective as its managers.

Answer: FALSE

Diff: 1 Type: TF

Reference: Process View

35) Core process is a set of activities that delivers values to internal customers.

Answer: FALSE

Diff: 1 Type: TF

Reference: Supply Chain View

36) Support processes provide key resources, capabilities, or other inputs that allow the core processes to function.

Answer: TRUE

Diff: 1 Type: TF

Reference: Process View

37) Developing an operations strategy that delivers customer value begins with an corporate strategy.

Answer: FALSE

Type: TF

Reference: Supply Chain View

38) In business setting, a crucial reason for monitoring is to stay ahead of the competition.

Answer: FALSE

Type: TF

Reference: Supply Chain View

39) Customer benefit bundle consists of a core good and/or service and a set of peripheral goods and Services.

Answer: TRUE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

40) Lead time is the elapsed time between the receipt of a customer order and filling it.

Answer: TRUE

Diff: 2 Type: TF

Reference: Customer Value and Competitive Priorities

41) Order qualifier refers to the criterion customers use to differentiate the services or goods of one firm from those of another.

Answer: FALSE

Diff: 2 Type: TF

Reference: Customer Value and Competitive Priorities

42) Order qualifier refers to the demonstrated level of performance of an order winner that is required for a firm to do business in a particular market segment.

Answer: TRUE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

43) Consistent quality is the frequency with which the product or service meets any specification.

Answer: FALSE

Diff: 2 Type: TF

Reference: Customer Value and Competitive Priorities

44) Productivity is the value of outputs produced divided by the total values of resources.

Answer: FALSE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

45) Labour productivity is an index of the output per person or hour worked.

Answer: TRUE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

46) Machine productivity is a measure where the denominator is the number of machines.

Answer: TRUE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

47) Multifactor productivity is an index of the output provided by more than one of the resources used in production.

Answer: TRUE

Diff: 1 Type: TF

Reference: Customer Value and Competitive Priorities

48) Labour productivity in Canadian business has improved by an average of 3.1 percent annually over the past four decades.

Answer: FALSE

Diff: 2 Type: TF

Reference: Trends in Operations Management

49) China and India have comparative cost advantages over Canada and the U.S.

Answer: TRUE

Diff: 2 Type: TF

Reference: Trends in Operations Management

50) Regional trading blocs such as NAFTA and the EU further change the competitive landscape in both services and manufacturing.

Answer: TRUE

Diff: 1 Type: TF

Reference: Trends in Operations Management

51) Nationalization is a political risk in which a government may take over a firm's assets without paying compensation.

Answer: TRUE

Diff: 1 Type: TF

Reference: Trends in Operations Management

52) An operations strategy is a pattern of decisions and investments over time that develop a competitive advantage.

Answer: TRUE

Diff: 1 Type: TF

Reference: Trends in Operations Management

53) The principles of operations management is strictly for the supervisor to direct customers' traffic.

Answer: FALSE

Diff: 1 Type: TF

Reference: Trends in Operations Management

54) Which one of the following statements regarding operations management is TRUE?

A) Inputs to a production system include capital and materials, but not human resources.

B) Operations management deals only with manufacturing organizations because service organizations do not have tangible outputs.

C) Typical inputs to a production system are processes and consumer goods.

D) Customer participation and information on performance are two special types of inputs to a production system.

Answer: D

Diff: 2 Type: MC

Reference: Introduction

55) Operations management is part of a production system that can be described in the following manner: Organization: inputs-processes-outputs. Which one of the following correctly describes a production system?

A) Airline: pilots-planes-transportation

B) Bank: tellers-computer equipment-deposits

C) Furniture manufacturer: wood-sanding-chair

D) Telephone company: satellites-cables-communication

Answer: C

Diff: 2 Type: MC

Reference: Introduction

56) Which one of the following statements is TRUE?

- A) The share of the workforce in service jobs in countries such as Canada, France, Britain, Japan, and the United States is well above 60 percent.
- B) Service-sector organizations generally cannot utilize operations management techniques.
- C) The absolute number of Canadian manufacturing jobs has decreased since the late 1950s because the percentage of service jobs in the economy increased.
- D) Because outputs from service organizations typically cannot be inventoried, inventories are of little importance to service systems.

Answer: A

Diff: 2 Type: MC

Reference: Trends in Operations Management

57) Which one of the following statements concerning productivity is TRUE?

- A) Accounting for several inputs simultaneously is not possible.
- B) The low growth in service productivity has had little effect on overall productivity in countries such as Canada and the U.S..
- C) Multifactor productivity is an index of the output provided by more than one of the resources used in production.
- D) Productivity improvement is achieved by increasing the inputs used to produce a given level of output.

Answer: C

Diff: 2 Type: MC

Reference: Trends in Operations Management

58) Which one of the following statements concerning measures of productivity is FALSE?

- A) The number of insurance claims processed per week by employees in an insurance company is a valid measure of productivity.
- B) Productivity is measured as the ratio of outputs divided by inputs.
- C) Multifactor measures of productivity must convert the quantities being measured to a common unit of measure such as dollars.
- D) Measures of labour productivity are generally more informative than multifactor measures of productivity.

Answer: D

Diff: 2 Type: MC

Reference: Trends in Operations Management

59) The percentage of the workforce in service jobs in some industrialized countries such as Canada, France, Japan, and Britain is

- A) much lower than that of the manufacturing sector in these countries.
- B) more than 60 percent of the total workforce in these countries.
- C) higher than that in the manufacturing sector now, but shows a declining trend.
- D) lower than that in the manufacturing sector now, but shows a rising trend.

Answer: B

Diff: 2 Type: MC

Reference: Trends in Operations Management



60) In countries such as Canada, the United States, Japan and Germany, productivity gains in the service sector

- A) have tended to lag gains in labour productivity in manufacturing.
- B) have improved recently with widespread adoption of the Internet as a means to service customers more directly.
- C) have accelerated with greater international competition in areas such as financial services.
- D) all the above

Answer: D

Diff: 2 Type: MC

Reference: Trends in Operations Management

61) Which of the following technologies is least likely to help companies to improve their competitiveness?

- A) electronic mail
- B) the Internet
- C) automated robots
- D) keypunch cards

Answer: D

Diff: 2 Type: MC

Reference: Trends in Operations Management

62) Which of the following is the responsibility of operations?

- A) develop new products and services
- B) transform inputs into new products and services
- C) transport inputs and outputs
- D) interpret financial information

Answer: B

Diff: 2 Type: MC

Reference: What Is Operations Management?

63) Which of the following skill areas is NOT fundamental to operations managers?

- A) quantitative analysis
- B) knowledge of information systems
- C) understanding of international business
- D) advertising tactics

Answer: D

Diff: 2 Type: MC

Reference: What Is Operations Management?

- 64) The text views operations management in several different ways. One acceptable view of operations management is as a
- A) corporate function in which the best way to finance corporate assets is determined.
  - B) system wherein inputs pass through one or more operations and are transformed into outputs (goods or services).
  - C) set of decisions related to budgeting the annual resources between different functional areas.
  - D) set of decisions related to product pricing and marketing.

Answer: B

Diff: 2 Type: MC

Reference: What Is Operations Management?

- 65) Which of the following statements is best? Operations management can be made more effective by
- A) focusing on aspects of operations that are directly related to production.
  - B) coordinating operations with other functional areas that impact operations.
  - C) making products early enough so that stock outs do not occur.
  - D) coordinating all activities related to operations, directly or indirectly, both within and outside the organization.

Answer: D

Diff: 2 Type: MC

Reference: What Is Operations Management?

- 66) Which of the following statements is best?
- A) Operations management refers primarily to manufacturing.
  - B) Productivity in the service sector has kept pace with the manufacturing sector.
  - C) Operations managers have little interaction with other functional areas.
  - D) Global competition is putting additional pressures on operations managers.

Answer: D

Diff: 2 Type: MC

Reference: Trends in Operations Management

- 67) Competitive priorities define the dimensions on which the firm should excel with its products or services. Which one of the following statements regarding this concept is TRUE?
- A) The strategy of emphasizing lower price is most appropriate when the product is highly differentiated.
  - B) McDonald's restaurants emphasize high-performance design quality rather than consistent quality.
  - C) All eight dimensions of competitive priorities should be equally emphasized in order to service the increasingly competitive market of the 1990s.
  - D) Often there are trade-offs among competitive priorities; thus, the best emphasis is situational.

Answer: D

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

68) Competitive priorities state the dimensions on which a firm can excel. Which one of the following statements about each dimension is TRUE?

A) Emphasizing low price is most appropriate for differentiated products in the growth stage of demand.

B) A firm that intends to excel at high-performance design quality can succeed only when its production volume is very high.

C) McDonald's is a typical example of an organization that excels at volume flexibility rather than quality consistency.

D) For a firm that gives top priority to customization, volumes for any individual product tend to be low.

Answer: D

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

69) An ethnic restaurant, in serving a lovely, four-hour, seven-course dinner for two for \$150, is giving particular emphasis to which dimension of competitive priorities?

A) price

B) consistent quality

C) fast delivery time

D) high-performance quality

Answer: D

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

70) Which of the following statements about competitive priorities is TRUE?

A) Firms emphasizing low price have slack capacity and hold large inventories in order to be efficient.

B) To survive, all firms in an industry must compete on the same dimensions of competitive priority.

C) Club Med competes on the dimension of high-performance design in part by offering excellent entertaining, dining, and recreational facilities.

D) A good delivery time is less than a few weeks, irrespective of the industry under consideration.

Answer: C

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

71) Competitive priorities define the dimensions on which companies should excel in producing their products or services. Which one of the following statements is TRUE?

- A) A firm that competes on the dimension of volume flexibility is more likely to manufacture products that experience a seasonal demand variation.
- B) It is impossible for a firm to improve cost and quality simultaneously.
- C) A firm offering little customization cannot compete simultaneously on the dimension of consistent quality.
- D) A firm that competes on the dimension of customization tends have operating systems that are inflexible.

Answer: A

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

72) Which one of the following statements is TRUE?

- A) Increased market segmentation and technological advances mandate long development cycles.
- B) Recent trends are for manufacturing firms not to involve operations until the final design stage has been reached.
- C) The process of concurrent engineering requires design engineers, manufacturing specialists, and marketers to work jointly in designing a product and selecting a production process.
- D) Firms like Ford and Honda found that the concept of concurrent engineering is not cost effective.

Answer: C

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

73) Which of the following is NOT one of the views of a firm's sustainability triple bottom line performance?

- A) Financial
- B) General
- C) Environmental
- D) Social

Answer: B

Diff: 2 Type: MC

Reference: Trends in Operations Management

74) Which of the following is NOT fundamental to supply chain management?

- A) The flow of materials
- B) Services
- C) Supply provider
- D) Information with customer demand

Answer: C

Diff: 2 Type: MC

Reference: Supply Chain View

75) Which of the following refers to the interconnected network of processes across different firms that produce a service or product to the satisfaction of customers ?

- A) General process
- B) Demand factor
- C) Chain reaction
- D) Supply chain

Answer: D

Diff: 1 Type: MC

Reference: Introduction

76) Which of the following process is NOT one of the four core processes in the supply chain?

- A) Demand relationship process
- B) Order fulfilment process
- C) Customer relationship process
- D) New product development

Answer: A

Diff: 1 Type: MC

Reference: Supply Chain View

77) What is the function of support process?

- A) To offer benefits to others in the supply chain
- B) To assist with the analysis of the core processes
- C) To provide vital resources and inputs to the core processes
- D) To discharge customers from the supply chain

Answer: C

Diff: 2 Type: MC

Reference: Supply Chain View

78) From an operations perspective, a corporate strategy involves which of the following?

- A) Developing the firm's operations with a global perspective
- B) Monitoring and evaluation of the chain
- C) Targeting resources of the competitors
- D) Accounting for the sale activities of the firm

Answer: A

Diff: 2 Type: MC

Reference: Supply Chain View

79) Which of the following is NOT of the six broad dimensions of customer value that collectively create the customer benefit bundle?

- A) Negotiation
- B) Quality
- C) Flexibility
- D) Innovation

Answer: A

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

80) what is the relative emphasis or weighting of the dimensions of customer value that operations management must possess to outperform its competitors?

- A) Market differentiation
- B) Competitive priorities
- C) Suppliers' bargain
- D) Customers' promo

Answer: B

Diff: 2 Type: MC

Reference: Customer Value and Competitive Priorities

81) Which of the following is NOT one of the possible competitive priorities for customer relationship?

- A) High-performance design
- B) Low-cost operations
- C) Delivery speed
- D) Consistent quality

Answer: B

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

82) In order fulfilment, which of the following is NOT one of the nested processes and competitive priorities?

- A) On-time delivery
- B) High-performance design
- C) Variety
- D) Consistent quantity

Answer: D

Type: MC

Reference: Customer Value and Competitive Priorities

83) In new service development, competitive priorities will include the which of following?

- A) Variety
- B) Substitute
- C) Customization
- D) Quantity

Answer: C

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

84) In supplier relationship, which of the following is NOT included in competitive priorities?

- A) Development speed
- B) Low-cost operation
- C) variety
- D) On-time delivery

Answer: A

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

85) Which of the following is one of the four core processes?

- A) Manager relationship
- B) Order requirement
- C) New product development
- D) Employee relationship

Answer: C

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

86) Which of the following is NOT one of the measures of productivity?

- A) labour productivity
- B) machine productivity
- C) human productivity
- D) Multifactor productivity

Answer: C

Diff: 1 Type: MC

Reference: Trends in Operations Management

87) Which of the following is NOT one of the five developments that encourage sound global strategies?

- A) Increased demand for imported services and goods
- B) increasing international trade barriers due from regional trading blocs
- C) Improved transportation and communications technologies
- D) Loosened regulations on financial institutions

Answer: B

Diff: 1 Type: MC

Reference: Trends in Operations Management

88) Processes have inputs and customer outputs, such input might include which of the following?

- A) Tariffs
- B) Taxes
- C) Materials
- D) Products

Answer: C

Diff: 2 Type: MC

Reference: Process View

89) One of the main outputs from any processes should include which of the following?

- A) Price
- B) Interest
- C) Service
- D) Standard

Answer: C

Diff: 1 Type: MC

Reference: Process View

90) A firm can form strategic alliance abroad through which of the following arrangement?

- A) Collaborative effort
- B) Nationalization
- C) Global discount
- D) Internationalization

Answer: A

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

91) Which of the following is a strategy to gain presence of a firm's business overseas?

- A) Negotiation
- B) Joint Venture
- C) Localization
- D) Demand alliance

Answer: B

Diff: 1 Type: MC

Reference: Customer Value and Competitive Priorities

92) Which of the following statements is TRUE?

- A) Processes cannot be broken down into subprocesses.
- B) A market analysis divides the firm's customers into market segments.
- C) Firms can only improve their competitive pricing.
- D) An operations strategy is a single initiative for controlling the markets' entrance.

Answer: A

Diff: 2 Type: MC

Reference: Trends in Operations Management

93) A(n) \_\_\_\_\_ is any activity or group of activities that takes one or more input, transforms and adds value to them, and provides one or more outputs for its customers.

Answer: process

Diff: 2 Type: SA

Reference: Process View

94) Operations management refers to the direction and control of \_\_\_\_\_ that transform \_\_\_\_\_ into products and services.

Answer: processes, inputs

Diff: 2 Type: SA

Reference: Introduction

95) The concept of a process within a process is referred to as a(n) \_\_\_\_\_.

Answer: nested process

Diff: 2 Type: SA

Reference: Process View



96) Productivity is defined as \_\_\_\_\_ over \_\_\_\_\_.

Answer: output, input

Diff: 2 Type: SA

Reference: Trends in Operations Management

97) \_\_\_\_\_ measures how quickly a new product or service is introduced, covering the elapsed time from idea generation through final design and production.

Answer: Development speed

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

98) \_\_\_\_\_ is the elapsed time between receiving a customer's order and filling it.

Answer: Fast delivery time

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

99) \_\_\_\_\_ is how industrial buyers often refer to fast delivery time.

Answer: Lead time

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

100) \_\_\_\_\_ measures the frequency with which delivery-time promises are met.

Answer: On-time delivery

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

101) \_\_\_\_\_ is the ability to accelerate or decelerate the rate of production quickly to handle large fluctuations in demand.

Answer: Volume flexibility

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

102) \_\_\_\_\_ is the synchronization of a firm's processes with those of its suppliers and customers to match the flow of materials, services, and information with customer demand.

Answer: Supply chain management

Diff: 1 Type: SA

Reference: Introduction

103) An organization is only as effective as its \_\_\_\_\_.

Answer: processes

Diff: 1 Type: SA

Reference: Process View

104) \_\_\_\_\_ is a set of activities that delivers value to external customers.

Answer: A core process

Diff: 1 Type: SA

Reference: Operations Strategy as a Pattern of Decisions

105) A support process provides \_\_\_\_\_ and \_\_\_\_\_ to the core processes.

Answer: vital resources, inputs

inputs, vital resources

Diff: 2 Type: SA

Reference: Operations Strategy as a Pattern of Decisions

106) \_\_\_\_\_ refers to an alliance where two firms agree to produce a service or good jointly.

Answer: Joint venture

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

107) A form of strategic alliance in which one company licenses its service or production methods to another is called \_\_\_\_\_.

Answer: technology licensing

Diff: 2 Type: SA

Reference: Customer Value and Competitive Priorities

108) A form of strategic alliance when one firm has resources and capabilities that another needs but is unwilling (or unable) to duplicate is called \_\_\_\_\_.

Answer: collaborative effort

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

109) The combination of quality, time, flexibility, customer experience, and innovation relative to price for a particular customer benefit bundle of goods and services is described as \_\_\_\_\_.

Answer: customer value

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

110) \_\_\_\_\_ is the frequency with which the product or service meets design specifications.

Answer: Consistent quality

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

111) \_\_\_\_\_ is an index of the output per person or hour worked.

Answer: Labour productivity

Diff: 1 Type: SA

Reference: Trends in Operations Management

112) The designing and managing of process to ensure that we meet humanity's needs today without hurting the ability of future generations to meet their own needs. is called \_\_\_\_\_.

Answer: sustainability

Diff: 2 Type: SA

Reference: Trends in Operations Management

113) \_\_\_\_\_ is a demonstrated level of performance of an order winner that is required for a firm to do business in a particular market segment.

Answer: Order qualifier

Diff: 1 Type: SA

Reference: Customer Value and Competitive Priorities

114) What skill areas contribute to the success of an operations manager?

Answer: Skills include quantitative analysis to solve problems, knowledge of information systems to manage vast quantities of data, concepts of organizational behaviour to aid in designing jobs and managing the workforce, and an understanding of international business, methods to gain useful ideas about facility location, technology, and inventory management.

Diff: 1 Type: SA

Reference: What Is Operations Management?

115) Identify a large employer in your hometown. Describe this organization's inputs, processes, and outputs.

Answer: Answers will vary based on the employer selected.

Diff: 2 Type: SA

Reference: Process View

116) Identify and describe three different trends in operations management.

Answer: The textbook lists three trends— productivity improvement; global competition and sustainability and operations.

Diff: 2 Type: SA

Reference: Trends in Operations Management

117) Explain what an operations strategy is and the importance of competitive priorities. Give an example from an organization (public or private, manufacturing or service).

Answer: An operations strategy is the means by which operations implements the firm's corporate strategy. Competitive priorities are the key capabilities that operations must develop to compete successfully in a market segment. Possible competitive priorities include low-cost operation, high-performance design, consistent quality, fast delivery time, on-time delivery, development speed, customization, and volume flexibility. Examples will vary.

Diff: 2 Type: SA

Reference: Customer Value and Competitive Priorities

118) Name the two competitive priorities for quality, and give an example of each.

Answer: The two competitive priorities are high-performance design, which is the determination of the level of operations performance required in making a product or performing a service, and consistent quality, which measures the frequency with which the product or service meets design specifications. Examples will vary.

Diff: 2 Type: SA

Reference: Customer Value and Competitive Priorities

119) Name the three competitive priorities for time, and give an example of each.

Answer: The three competitive priorities for time are fast delivery time, on-time delivery, and development speed. Fast delivery speed refers to the elapsed time between receiving a customer's order and filling it. On-time delivery measures the frequency with which delivery time promises are met. Development speed measures how quickly a new product or service is introduced.

Examples will vary.

Diff: 2 Type: SA

Reference: Customer Value and Competitive Priorities

120) Explain what is meant by a "process view" of organizations. Use examples to support your explanation.

Answer: A process is an activity or group of activities that takes one or more inputs, transforms and adds value, and generates one or more outputs for its customers. The types of processes that exist within organizations can vary significantly. For example, the primary process for an airline is the movement of passengers and their luggage from one location to another. In addition, an airline requires processes for making reservations, checking in passengers, serving meals, and scheduling crews. Processes involve various inputs and outputs in the form of goods and services for its customers. Inputs include human resources (workers and managers), capital (equipment and facilities), energy, and purchased materials and services including information. The operational processes of an organization transform these inputs by adding value through the various activities it performs to produce the outputs for its customers in the form of goods and services. Customers can include external customers, who may be either end users or intermediaries (such as manufacturers, wholesalers, or retailers), buying the firm's finished products or services. Others are internal customers who may be one or more other employees who rely on inputs from other (earlier) processes within the organization in order to perform related (later) processes. Processes can involve a whole firm, a department or small group, or even a single individual. Each one has inputs and uses processes at various operations to produce outputs. Some processes are said to be nested in the sense that they can be broken down into sub processes, which in turn can be broken down into still narrower sub processes. Examples used to support the explanation will vary.

Diff: 2 Type: ES

Reference: Process View

121) Explain what is meant by an organization's internal customer, and its external customers. Use examples to support your explanation of the difference between these two types of customers.

Answer: Internal customers are one or more employees who use outputs from earlier, upstream processes in the organization to perform related, downstream processes in the next office, work station, shop, or department. External customers are end users or intermediaries, such as manufacturers, wholesalers, or retailers, who buy a firm's products and services. Examples used to support the explanation will vary.

Diff: 2 Type: ES

Reference: Process View

122) Explain how productivity is measured.

Answer: Productivity is the value of outputs (goods and services) produced divided by the values of input resources (wages, cost of equipment, and the like) used to produce these outputs. The basic formula for computing productivity is

$$\text{Productivity} = \text{Output} / \text{Input}$$

Many measures of productivity are possible, and may in fact involve rough approximations. For example, output may be measured in the number of units produced or the dollar value customers pay for outputs. The value of inputs can be measured based on costs or by the units such as labour hours. Typically companies will rely on several reasonable measures of productivity, monitoring trends to identify areas needing improvement. A measure of labour productivity is an index of the output per person or hour worked. Similarly, machine productivity is an index of the output a machine produces over a period of time (e.g. hour or day). Productivity measures can also account for several inputs simultaneously. Multifactor productivity is an index of the output provided by more than one of the resources used in production. For example, it may account for inputs of labour, materials, and overhead costs in one measure of productivity. When developing such a measure, quantities must be converted to a common unit of measure, typically dollars.

Diff: 2 Type: ES

Reference: Trends in Operations Management

123) Briefly describe the six broad dimensions of customer value, and identify the competitive priorities for operational processes associated with each of these dimensions.

Answer: The four broad dimensions of customer value that collectively create the customer benefit bundle are: quality, time, flexibility, and price. Conceptually, customer value is defined as the ratio of:

$$\text{Customer Value} = (\text{Quality, time, flexibility, customer experience, innovation}) / \text{Price}$$

Price: The competitive priority for operational processes for the price dimension of value is low-cost operations. Lowering prices can increase demand for products or services, but it also reduces profit margins if the product or service cannot be produced at a lower cost. Therefore to compete effectively on the basis of price, operations managers must control costs, including the cost of labour, materials, scrap, overhead, and other costs. Collectively, improvements in the design and management of operations must create a system that lowers cost per unit of the product or service.

Quality: For operations, two competitive priorities deal with quality: high-performance design and conformance. High-performance design focuses on the level of particular attributes such as superior features, close tolerances, and greater durability. In services, high-performance design includes features such as helpfulness, courteousness, and availability of service employees. High performance design determines the level of functionality that operations must achieve in producing a product or service. To do so, customer needs must be accurately assessed and then translated into a product or service design. Consistent quality (also referred to as conformance) measures the frequency operations is able to produce goods or services that meet design specifications.

**Time:** Three competitive priorities deal with time; fast delivery time, on-time delivery, and development speed. Delivery time is the elapsed time between receiving a customer order and filling it, sometimes referred to as lead-time for buyers in industrial markets. On-time delivery measures the frequency with which delivery-time promises are met. Development speed measures how quickly a new product or service is introduced, covering the elapsed time from idea generation through final design to market introduction.

**Flexibility:** refers to the characteristic of a firm's operations that enables it to react to customer needs quickly and efficiently. Two types of flexibility are customization and volume flexibility. Customization typically implies that a company's operations must be flexible to receive individualized customer orders, adjust designs accordingly, and create the requested product or service. To handle wide fluctuations in the level of demand, volume flexibility is the ability to rapidly accelerate or decelerate the rate of production of a product or service.

**Customer experience:** Two competitive priorities deal with customer participation and customer connection. Processes can be designed to solicit and capture customer preferences, and engage them with either workers or other customers. In order to connect with customers, processes can employ multiple senses to provide deeper and more enriching connection.

**Innovation:** Three competitive priorities include product innovation, process innovation, and development speed. Product innovation deals with processes for developing new services and goods. It requires internal R&D capabilities, access to new technologies, and discerning latent customer needs. Process innovation refers to processes that aim to develop novel ways of meeting customer needs. Resources must be reconfigured, people trained, and technology developed to create a new process. Development speed deals with quickly introducing a new service or good.

Diff: 2 Type: ES

Reference: Trends in Operations Management

124) Explain the distinction between "order winner" and "order qualifier" competitive priorities, and provide an example of each.

**Answer:** An order winner is the one particular dimension of customer value for a given market segment that transcends others to influence purchase behaviour between competing products and services. This order winner dimension represents the criterion that customers use to differentiate the services of products of one firm from those of competing firms. An order qualifier is the minimum level of a particular dimension of customer value that has become a requirement for doing business in a particular market segment. Fulfilling an order qualifier will not ensure competitive success in a market; it will only position the firm to compete. Examples will vary.

Diff: 2 Type: ES

Reference: Customer Value and Competitive Priorities

125) Explain the distinction between the three competitive priorities that deal with time, and provide examples of each: fast delivery time, on-time delivery, and development speed.

Answer: Fast delivery time is the elapsed time between receiving a customer order and filling it, sometimes referred to as lead-time for buyers in industrial markets. Customer's expectations concerning delivery times vary depending on the product or service market. For instance, it may be several months for complex, customized industrial products. Manufacturers can shorten delivery times by having inventory on hand. Service providers and manufacturers can also reduce lead times by having excess capacity, so that long queues are not created in periods of increased demand.

On-time delivery measures the frequency with which delivery-time promises are met. Manufacturers measure on-time delivery as the percentage of customer orders shipped on when promised. Similar measures apply to distributors, in which case management often tracks incidences when an item is not available for immediate purchase. In high volume service businesses such as retail or food service businesses, on-time delivery might be measured by the average time customers have to wait in a queue for service.

Development speed measures how quickly a new product or service is introduced, covering the elapsed time from idea generation through final design to market introduction. This competitive priority is particularly important in technology based product markets, entertainment, and fashion industries. Repeatedly being able to get new products and services to market ahead of the competition provides an advantage that is difficult to overcome. This capability is supported by innovative management able to recognize evolving market needs or new technology developments, and is often affiliated with market leaders.

Diff: 2    Type: ES

Reference: Customer Value and Competitive Priorities

126) Beyond setting goals or objectives, identify and briefly describe the three major aspects of corporate strategy that are critical to the operations of a company.

Answer: Corporate strategy must adapt to changes in the business environment a firm competes within. Adapting to the business environment begins with environmental scanning, the process of monitoring trends in the socioeconomic environment, the marketplace, and society for potential opportunities or threats. The principal objectives of environmental scanning are to stay ahead of established competitors, and understand potential threats in the form of new entrants or established competitors that offer substitutes for a firm's products or services. Understanding the external business environment also involves following economic trends, technological developments, political conditions, social changes, the availability of vital resources, and the collective power of customers or suppliers.

Corporate strategy must also continually look for new opportunities. Firms succeed by taking advantage of what they do particularly well - that is, the organization's unique strengths. Core competencies are the unique resources and processes that an organization's management can leverage when formulating and implementing strategy. These competencies reflect the collective learning of an organization, especially in how to coordinate diverse processes, and integrate multiple technologies. These competencies include such resources as facilities and people, and processes such as product development. Competencies typically extend beyond a single product or service, applying to various products or services and across multiple markets. As a result new business opportunities are possible by continuing to extend the reach of a core competency while creating deep expertise that is difficult for competitors to buy or copy. The development of core competencies is especially important as global competition grows and competitors move quickly to copy basic product and service features.

Corporate strategy must also identify the opportunities and threats for its operations from a global perspective. International expansion of operations may involve sourcing inputs globally, combating threats from global competitors, or planning ways to enter markets beyond the traditional national boundaries of the firm. Two approaches for international expansion are strategic alliances and locating abroad. Strategic alliances can take several forms, including collaborative efforts where one firm has core competencies that another firm needs but is unable or unwilling to duplicate. Another form is a joint venture in which firms agree to produce a product or service jointly. This leverages the expertise of a partner as a way to minimize the risks of operating in a new, unfamiliar business environment. Finally, technology licensing is an agreement in which one company licenses its product or process technologies to another. Locating operations in a foreign country is another way to enter global markets, although managers must recognize that the strategies that work in their home country may not work well elsewhere.

Diff: 2    Type: ES

Reference: Operations Strategy as a Pattern of Decisions



127) Describe briefly the four core processes for using competitive priorities for a major airline of your choice.

Answer: Students are free to discuss any airlines, but needs to define each process and relate it to the airline of their choice.

Customer relationship process: This process involves high levels of customer contact through ticketing (both electronic and telephone), elite lounge service, and boarding.

Supplier relationship process: This process is responsible for acquiring all of the inputs the airline requires to do business, which range from human resources to capital goods.

Order fulfilment process: This process is responsible for delivering the service to the customer's satisfaction. It is a huge process in an airline, involving scheduling, gate operations, maintenance, cabin service, pilot operations, and baggage handling.

New service development: New services must continually be developed to stay ahead of the competition. Such services include tours to the world's vacation paradises, new routes, or new dinner service.

Diff: 3 Type: ES

Reference: Customer Value and Competitive Priorities

128) Describe sustainability and its triple bottom line assessment factors.

Answer: Sustainability has become an important issue for operations management. Managers must increasingly design and managing their firm's processes and supply chains to ensure that we meet humanity's needs today without harming future generations. Firm performance is viewed as a triple bottom line, including financial, environmental and social performance.

Diff: 2 Type: ES

Reference: Trends in Operations Management