

# Chapter 02 Measuring Performance in Operations and Value Chains

## TRUEFALSE

1. In the context of the value chain model, when "information replaces assets," the costs increase.

(A) True

(B) False

**Answer :** (B)

2. In the context of the analytics in operations management, it costs three to five times more to keep an existing customer than acquire a new customer.

(A) True

(B) False

**Answer :** (B)

3. Actionable performance measures should be meaningful to a company's management and should provide the basis for decisions at the strategic level in an organization.

(A) True

(B) False

**Answer :** (B)

4. With interlinking models, managers can objectively make internal decisions that impact external outcomes.

(A) True

(B) False

**Answer :** (A)

5. In the context of the value chain model, fewer resources are needed to achieve performance goals when "information replaces assets."

(A) True

(B) False

**Answer :** (A)

6. Quality measures the degree to which the output of a process conforms to the management's expectations and requirements.

(A) True

(B) False

**Answer :** (B)

## **MULTICHOICE**

7. Dextron, a privately owned computer technology company, provides a wide range of customized laptops to suit the needs of students, corporate professionals, and small business owners. In this case, Dextron's ability to provide a wide range of customized laptops to suit its customers' needs best describes \_\_\_\_.

(A) volume flexibility

(B) design flexibility

(C) budget variance

(D) manufacturing yield

**Answer :** (B)

8. \_\_\_\_ is the ability to provide goods and services to customers with minimum waste and maximum utilization of resources.

(A) Operational efficiency

(B) Volume flexibility

(C) Reliability

(D) Sustainability

**Answer :** (A)

9. Key measures of innovation and learning include \_\_\_\_\_.

(A) supply-chain performance

(B) processing time

(C) percentage of new products developed

(D) the variance around the average time

**Answer :** (C)

10. \_\_\_\_ is the act of quantifying the performance of organizational units, goods and services, processes, people, and other business activities.

- (A) Measurement
- (B) Forecasting
- (C) Fulfillment
- (D) Litigating

**Answer :** (A)

11. The table below shows the data for the number of pair of shoes produced and the cost incurred by Fancy Trends Inc. for the year 2015.?

|                        |                   |          |
|------------------------|-------------------|----------|
| Pair of Shoes Produced |                   | 150,000  |
| Cost Incurred          | Direct Labor Cost | \$60,000 |
|                        | Energy Cost       | \$5,800  |
|                        | Raw Material Cost | \$42,000 |

Based on the given data, the productivity of Fancy Trends Inc. for the year 2015 is \_\_\_\_.

- (A) 1 pair/USD
- (B) 1.39 pairs/USD
- (C) 2 pairs/USD
- (D) 2.46 pairs/USD

**Answer :** (B)

12. In the context of the types of performance measures, which of the following is a measure of innovation and learning?

- (A) Patent applications
- (B) Employee retention
- (C) Product recalls
- (D) Labor productivity

**Answer :** (A)

13. In the context of the triple bottom line, \_\_\_\_\_ measures include corporate ethics and governance.

- (A) environmental sustainability
- (B) social sustainability
- (C) economic sustainability

(D) political sustainability

**Answer :** (B)

**14.** Which of the following is a quality performance measure at an operational level?

(A) Customer ratings of goods and services

(B) Customer retention

(C) Service representative courtesy

(D) Product recalls

**Answer :** (C)

**15.** In the context of the triple bottom line (TBL), which of the following measures includes the number of ethical violations?

(A) Responsiveness

(B) Service quality

(C) Social sustainability

(D) Customer retention rate

**Answer :** (C)

**16.** In the context of the scope of business and operations performance measurement, which of the following measures is an example of an innovation and learning performance measure?

(A) Employee satisfaction

(B) Flow processing or cycle time

(C) Manufacturing yield

(D) Product-related litigation

**Answer :** (A)

**17.** \_\_\_\_ measures the degree to which the output of a process meets customer requirements.

(A) Learning

(B) Innovation

(C) Variability

(D) Quality

**Answer : (D)**

**18.** \_\_\_\_ include environmental measures such as energy consumption and recycling and other resource conservation activities.

- (A) Operation efficiency measures
- (B) Innovation and learning measures
- (C) Sustainability measures
- (D) Financial measures

**Answer : (C)**

**19.** According to research, which of the following is a key dimension that customers use to assess service quality?

- (A) Operational efficiency
- (B) Flexibility
- (C) Empathy
- (D) Queue time

**Answer : (C)**

**20.** A paint manufacturing company has three factories located in France, Germany, and Spain. The productivity data of the factories are as follows:

| Factory Location | Amount of Paint Produced(US Gallons) | Total Input Cost (USD) |
|------------------|--------------------------------------|------------------------|
| Spain            | 4,600,000,000                        | \$5,250,000            |
| Germany          | 5,500,000,000                        | \$5,250,000            |
| France           | 4,000,000,000                        | \$3,500,000            |

Based on the productivity analysis of all the factories, the productivity of the factory in:

- (A) Germany is lower than that of the factory in Spain.
- (B) Spain is higher than that of the factory in France.
- (C) France is higher than that of the factory in Spain.
- (D) France is lower than that of the factory in Germany.

**Answer : (C)**

**21.** Which of the following performance perspectives in the balanced scorecard model includes measures such as productivity, flow time, and asset utilization?

- (A) The financial perspective
- (B) The customer perspective

(C) The innovation and learning perspective

(D) The internal perspective

**Answer :** (D)

**22.** Measures of \_\_\_\_\_ focus on an organization's people and infrastructure.

(A) goods and service design flexibility

(B) customer and market

(C) service quality

(D) innovation and learning

**Answer :** (D)

**23.** Which of the following performance perspectives in the balanced scorecard model measures the ultimate value that a business provides to its shareholders?

(A) The financial perspective

(B) The internal perspective

(C) The learning perspective

(D) The customer perspective

**Answer :** (A)

**24.** The innovation and learning perspective in the balanced scorecard model includes measures such as:

(A) return on investment, economic value added, and shareholder value.

(B) number of cooperative customer-company design initiatives and percent of sale from new services.

(C) training hours per employee, hiring process effectiveness, and revenue per employee.

(D) service-quality levels, design and demand flexibility, and asset utilization.

**Answer :** (C)

**25.** \_\_\_\_ is the ratio of the output of a process to the input.

(A) Productivity

(B) Flexibility

(C) Variability

(D) Reliability

**Answer :** (A)

**26.** \_\_\_\_\_ is the willingness to help customers and provide prompt recovery to service upsets.

(A) Responsiveness

(B) Empathy

(C) Assurance

(D) Reliability

**Answer :** (A)

**27.** The \_\_\_\_\_ is based on a set of cause-and-effect linkages between internal and external performance, and in this fashion, defines the key performance measurements on which service-based firms should focus.

(A) Service-Profit Chain model

(B) value chain model

(C) balanced scorecard

(D) Malcolm Baldrige Performance Excellence program

**Answer :** (A)

**28.** The time required to ramp up to an increased production output level in response to a surge in the sales of a product is a measure of \_\_\_\_\_.

(A) budget variance

(B) volume flexibility

(C) product recalls

(D) service upset

**Answer :** (B)

**29.** Airline revenue per passenger mile and hotel revenue per full-time employee are examples of \_\_\_\_\_.

(A) reliability measures

- (B) flexibility measures
- (C) sustainability measures
- (D) productivity measures

**Answer :** (D)

**30.** Which of the following is a financial performance measure at an organizational level?

- (A) Cost of quality
- (B) Revenue and profit
- (C) Budget variance
- (D) Labor and material costs

**Answer :** (B)

**31.** In the context of the triple bottom line (TBL), which of the following is a performance measure of economic sustainability?

- (A) Fines for environmental violations
- (B) Corporate ethics and governance
- (C) Revenue from new goods and services
- (D) Measures of perceived value

**Answer :** (A)

**32.** In an assembly line of a factory that makes gears, it takes fifteen minutes to complete a drilling operation using a lathe. The duration of this operation is called \_\_\_\_\_.

- (A) delay time
- (B) queue time
- (C) processing time
- (D) standard time

**Answer :** (C)

**33.** The quantitative modeling of cause-and-effect relationships between external and internal performance criteria is called \_\_\_\_\_.

- (A) productivity



(B) operational efficiency

(C) interlinking

(D) sustainability

**Answer :** (C)

**34.** Which of the following performance perspectives in the balanced scorecard model includes the percent of sale from new goods and services?

(A) The financial perspective

(B) The innovation perspective

(C) The learning perspective

(D) The customer perspective

**Answer :** (D)

**35.** The ability of an organization to respond quickly to changes in the quantity and type of demand is called \_\_\_\_\_.

(A) utility

(B) reliability

(C) demand variability

(D) volume flexibility

**Answer :** (D)