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1. The key advantage of releasing a new product during the late-year holiday season is the potential spike in demand, especially for consumer goods like the iPod. The large seasonal "bumps" from the introduction of new generations of products coupled with the holiday shopping season pose significant challenges for its supply chain partners since they need to respond quickly to new requirements. Apple's business strategy puts a premium on suppliers that can demonstrate volume flexibility (not to mention, high levels of quality conformance) because Apple sells considerably fewer iPods from March to September than October to February, and Apple needs suppliers that can give them varying amounts of product in limited time frames. The match between supply and demand for the iPhone X is not as good as recent model introductions; demand far exceeded supply.
2. One example is McDonald's; their mission statement is as follows: McDonald's brand mission is to "be our customers' favorite place and way to eat." McDonalds' worldwide operations have been aligned around a global strategy called- 'Plan to Win,' centering on the five basics of an exceptional customer experience—People, Products, Place, Price, and Promotion. This is a useful mission statement because it addresses different functional areas of the company and in the end focuses on people and the customers' experience. Their operations and supply chain strategies are consistent with the mission statement because they execute their worldwide operations through an interconnected global strategy -.
3. The business strategy and the operation strategies are so interconnected that they can flow both ways, and core competencies derived within the operations and supply chain areas can be exploited through broader business strategies. Examples will vary.
4. Strategy experts have long said it's not what a strategy document may say; it's what the firm does that counts. For example, if the strategy document says that the firm will place a premium on introducing new, innovative products, but the firm's actual investments are in producing large quantities of standard products at the lowest possible cost, then it is the pattern of decisions it makes that set the strategy. The risk of not having an explicit rendering of the firm's strategy is

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that actions may be interpreted differently by individuals that have incomplete information about the motivations for the actions.

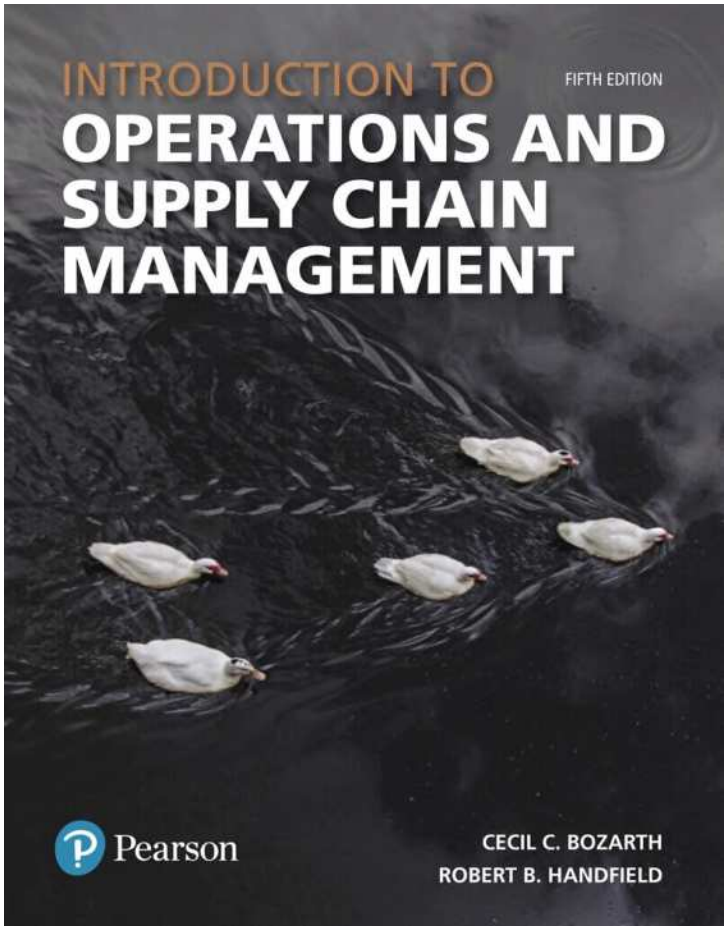
5. Answers will vary, but common responses include low cost, perceived quality of instruction or value of degree in the chosen field, flexibility of course offerings, availability of online classes, and proximity to home or work. Depending on the student, these items may be classified as order winners or qualifiers.
6. Customers can perceive the value of the same product or service differently because they evaluate products based on multiple performance dimensions and can assign different values for each of these dimensions. This means that the companies that can develop the best mix of the performance dimensions for their customer base will be able to maximize their product value and profits. Companies need to find ways to maximize the value of their performance dimensions so that they can deliver the best, most desirable product to their consumers.
7. Not all firms have to both develop and exploit core competencies in the operations and supply chain areas to be successful in business. For example, a local gas station may succeed simply by having a better location than its competitors, even though its cost and service quality may not be as good.

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Introduction to Operations and Supply Chain Management

Fifth Edition



Chapter 2

Operations and Supply Chain Strategies

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Chapter Objectives (1 of 2)

Be able to:

- Explain the relationship between business strategies and functional strategies and the difference between structural and infrastructural elements of the business.
- Describe the main operations and supply chain decision categories.
- Explain the concept of customer value and calculate a value index score.
- Differentiate between order winners and qualifiers and explain why this difference is important to developing the operations and supply chain strategy for a firm.

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Chapter Objectives (2 of 2)

Be able to:

- Discuss the concept of trade-offs and give an example.
- Define core competencies and give an example of how core competencies in the operations and supply chain areas can be used for competitive advantage.
- Explain the importance of strategic alignment and describe the four states of alignment between the operations and supply chain strategy and the business strategy.

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Elements of the Business

- Structural element
  - Includes tangible resources such as buildings, equipment, and computer systems.
- Infrastructural element
  - Includes the policies, people, decision rules, and organizational structure choices made by a firm.

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Strategy (1 of 3)

- Strategy
  - A mechanism by which a businesses coordinates its decisions regarding structural and infrastructural elements.
- Mission Statement
  - A statement that explains why an organization exists. It describes what is important to the organization, called its core values, and identifies the organization's domain.

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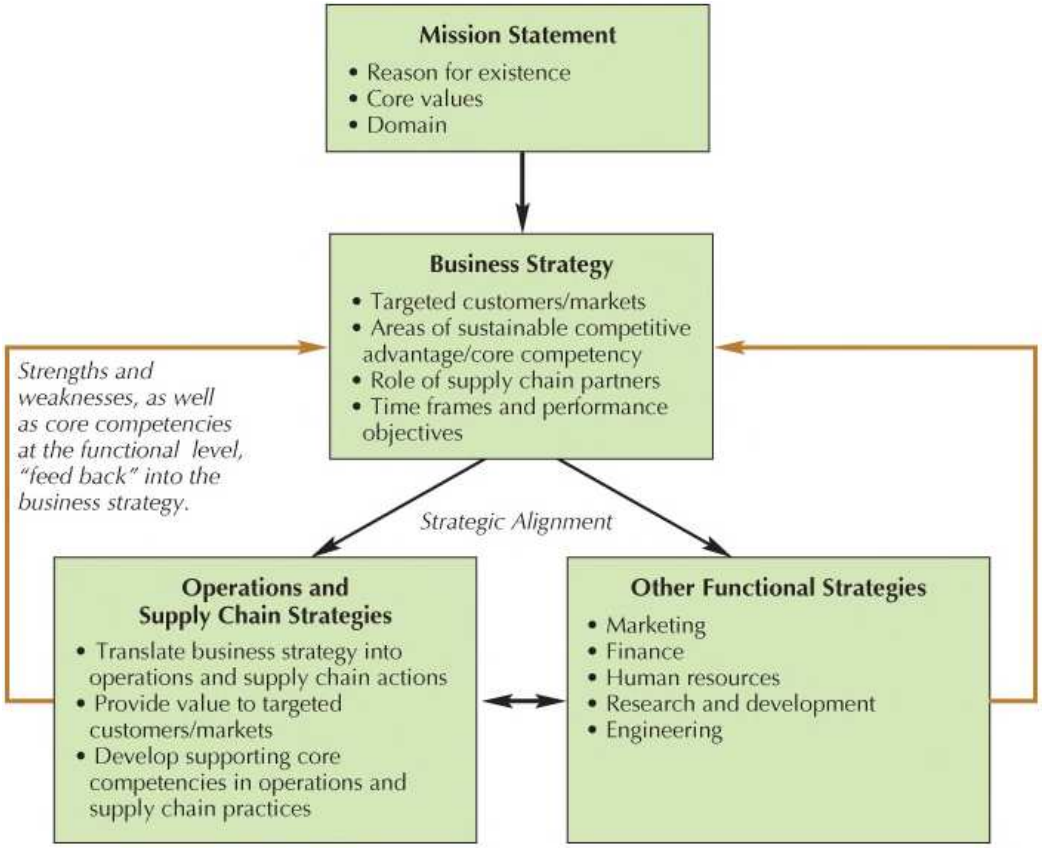
Strategy (2 of 3)

- Business Strategy
  - The strategy that identifies a firm's targeted customers and sets time frames and performance objectives for the business.
- Core Competency
  - An organizational strength or ability, developed over a long period, that customers find valuable and competitors find difficult or even impossible to copy.
- Functional Strategy
  - A strategy that translates a business strategy into specific actions for functional areas such as marketing, human resources, and finance.

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Strategy (3 of 3)

Figure 2.1 A Top-Down Model of Strategy



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Operations and Supply Chain Strategies (1 of 17)

- Operations and supply chain strategy
  - A functional strategy that indicates how structural and infrastructural elements within the operations and supply chain areas will be acquired and developed to support the overall business strategy.

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Operations and Supply Chain Strategies (2 of 17)

Structural Decision Categories

- Capacity
  - Amount, Type, Timing of capacity changes
- Facilities
  - Services/Manufacturing, Warehouses, Distribution hubs
  - Size, location, degree of specialization
- Technology
  - Services/Manufacturing processes, Material handling equipment, Transportation equipment, Information systems

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Operations and Supply Chain Strategies (3 of 17)

Infrastructural Decision Categories

- Organization
  - Structure, Control/reward systems, Workforce decisions
- Sourcing decisions and purchasing process
  - Sourcing strategies, Supplier selection, Supplier performance measurement
- Planning and control
  - Forecasting, Tactical planning, Inventory management, Production planning and control

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Infrastructural Decision Categories

- Business processes and quality management
  - Six Sigma, Continuous improvement, Statistical quality control
- Product and service development
  - The developmental process, Organizational and supplier roles

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- Three Primary Objectives
  - Help management choose the right mix of structural and infrastructural elements based on a clear understanding of the performance dimensions valued by customers and the trade-offs involved.
  - Ensure that the firm's structural and infrastructural choices are strategically aligned with the firm's business strategy.
  - Support the development of core competencies in the firm's operations and supply chains.

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- Customer Value
  - Value Index - A measure that uses the performance and importance scores for various dimensions of performance for an item or a service to calculate a score that indicates the overall value of an item or a service to a customer.

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Operations and Supply Chain Strategies (7 of 17)

Value Index Determination

$$V = \sum_{i=1}^{n} I_n P_n$$

Where:

V = Value index for product or service

I_n = Importance of dimension n

P_n = Performance with regard to dimension n

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Example 2.1 – Two Competing Products (1 of 3)

- John wants to buy a tablet PC to use for his school assignments and decides to evaluate the choices based on four dimensions:
  - Performance quality, Delivery speed, After-sales support, and Cost
- The campus store carries two different tablet PCs made by:
  - WolfByte Computers and Dole Microsystems
- Calculate a value index for each to determine which tablet provides the greater value.

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Example 2.1 – Two Competing Products (2 of 3)

Importance Dimensions and Scores for each option

Dimension	Importance	Wolfbyte Performance	Dole Microsystems Performance
Performance quality	3	4	3
Delivery speed	1	3	5
After-sales support	2	4	2
Cost	4	2	4

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Example 2.1 – Two Competing Products (3 of 3)

$$V = \sum_{i=1}^{n} I_n P_n$$

$$\text{Wolfbyte} = (3 \times 4 + 1 \times 3 + 2 \times 4 + 4 \times 2) = 31$$

$$\text{Dole Microsystems} = (3 \times 3 + 1 \times 5 + 2 \times 2 + 4 \times 4) = 34$$

Dole is the better value for John.

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Operations and Supply Chain Strategies (8 of 17)

- Four Performance Dimensions
  - Quality
  - Time
  - Flexibility
  - Cost

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Operations and Supply Chain Strategies (9 of 17)

- Quality
  - Performance Quality – Addresses the basic operating characteristics of a product or service.
  - Conformance Quality – Addresses whether a product was made or a service performed to specifications.
  - Reliability Quality – Addresses whether a product will work for a long time without failing or requiring maintenance.

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Operations and Supply Chain Strategies (10 of 17)

- Time
  - Delivery Speed – How quickly the operations or supply chain function can fulfill a need once it has been identified.
  - Delivery Reliability – The ability to deliver products or services when promised.
    - Delivery window – The acceptable time range in which deliveries can be made

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Operations and Supply Chain Strategies (11 of 17)

- Flexibility
  - Mix Flexibility – The ability to produce a wide range of products or services.
  - Changeover Flexibility – The ability to produce a new product with minimal delay.
  - Volume Flexibility – The ability to produce whatever volume the customer needs.

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- Cost
  - Labor costs
  - Material costs
  - Engineering costs
  - Quality-related costs

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Operations and Supply Chain Strategies (13 of 17)

- Trade-offs among Performance Dimensions
  - In a competitive marketplace, no firm can sustain an advantage on *all* performance dimensions indefinitely.
  - For example, some common conflicts facing Delta:
    - More flights mean greater flexibility for customers but higher costs.
    - Larger more comfortable seats improve quality of the service but also raise costs and reduce the number of passengers a plane can carry.
    - Business flyers will pay a premium for flexibility and comfortable seats, but casual flyers (such as families on their way to Disney World) will be more price-sensitive.

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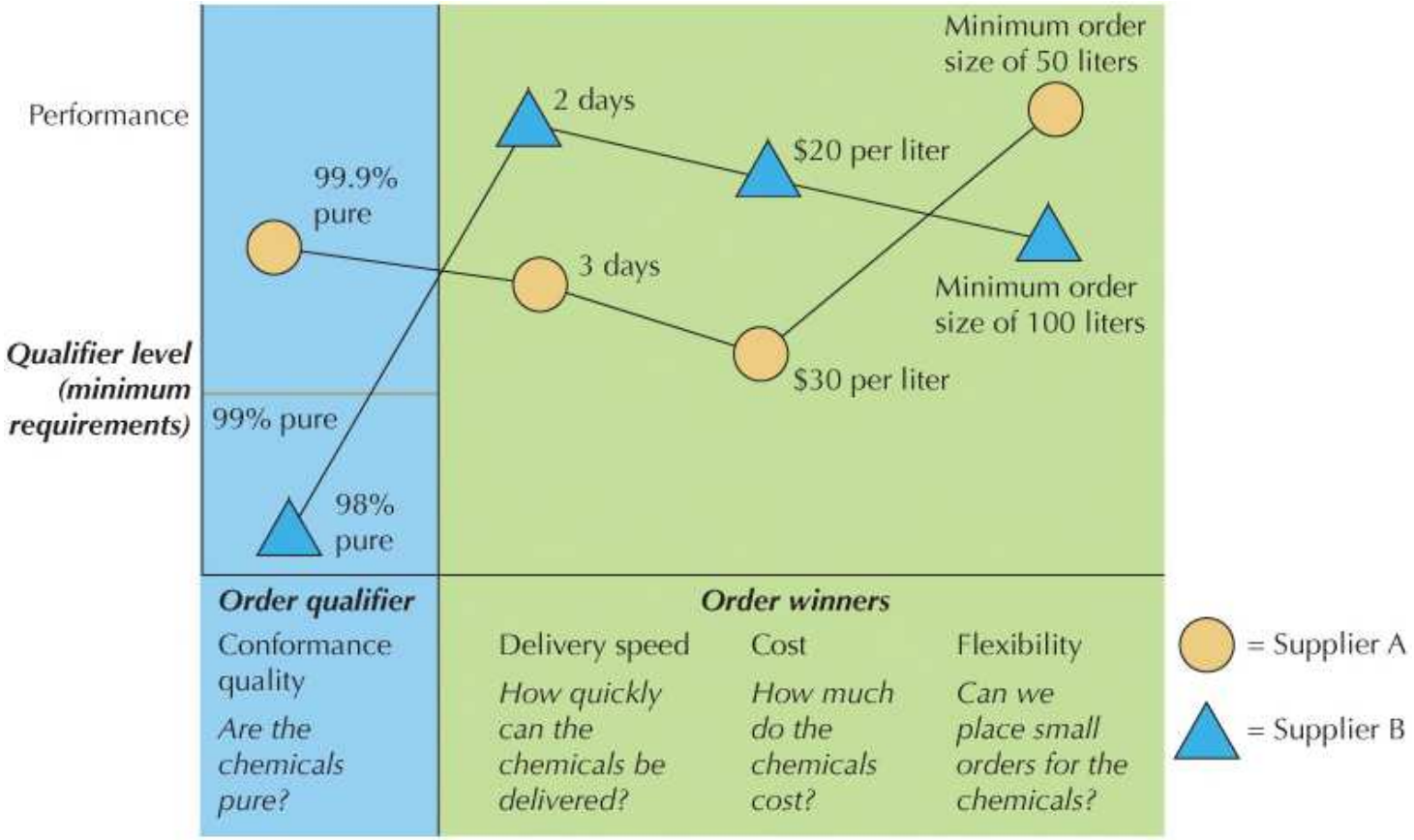
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- Order Winners
  - A performance dimension that differentiates a company's products and services from its competitors. Firms win a customer's business by providing superior levels of performance on order winners.
- Order Qualifiers
  - A performance dimension on which customers expect a minimum level of performance. Superior performance on an order qualifier will not, by itself, give a company a competitive advantage.

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Figure 2.3 Performance of Two Chemical Suppliers



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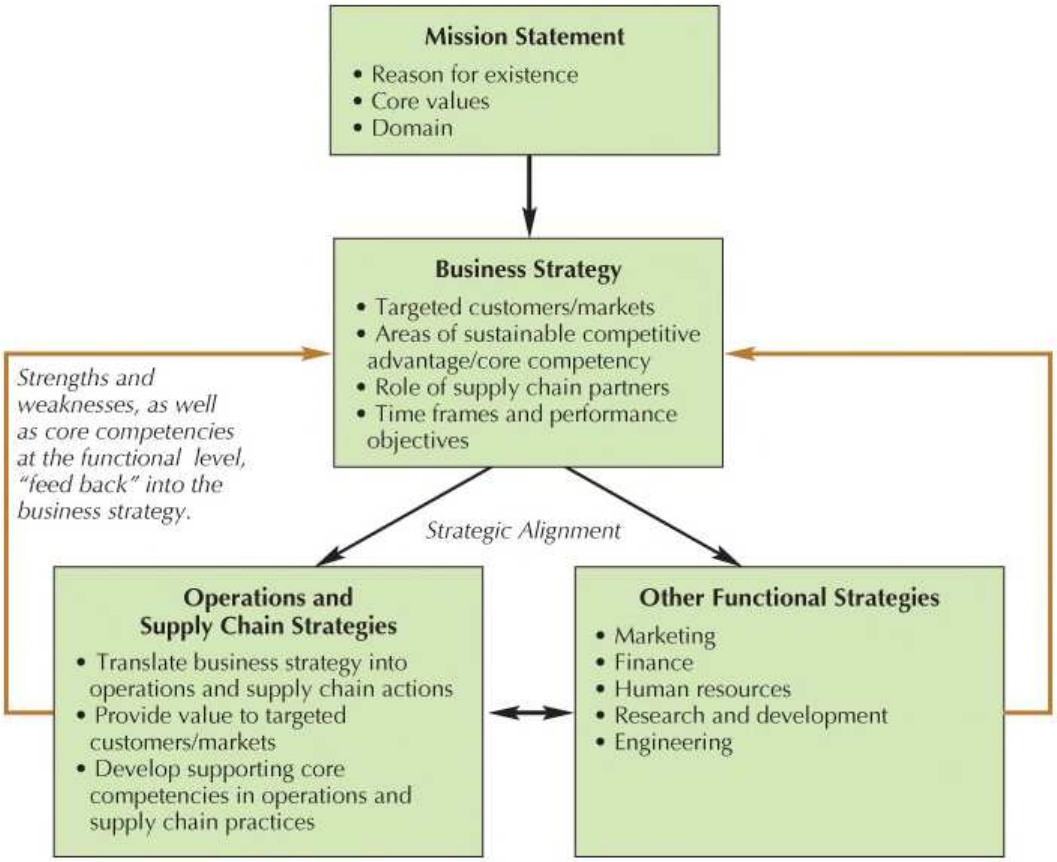
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- Stages of Alignment Between Supply Chain and Operations Strategies
  - Stage 1 – Internally neutral
  - Stage 2 – Externally neutral
  - Stage 3 – Internally supportive
  - Stage 4 – Externally supportive

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Figure 2.5 Closing the Loop between Business Strategy and Functional Area Strategies



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Operations and Supply Chain Strategies Case Study

Netflix

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