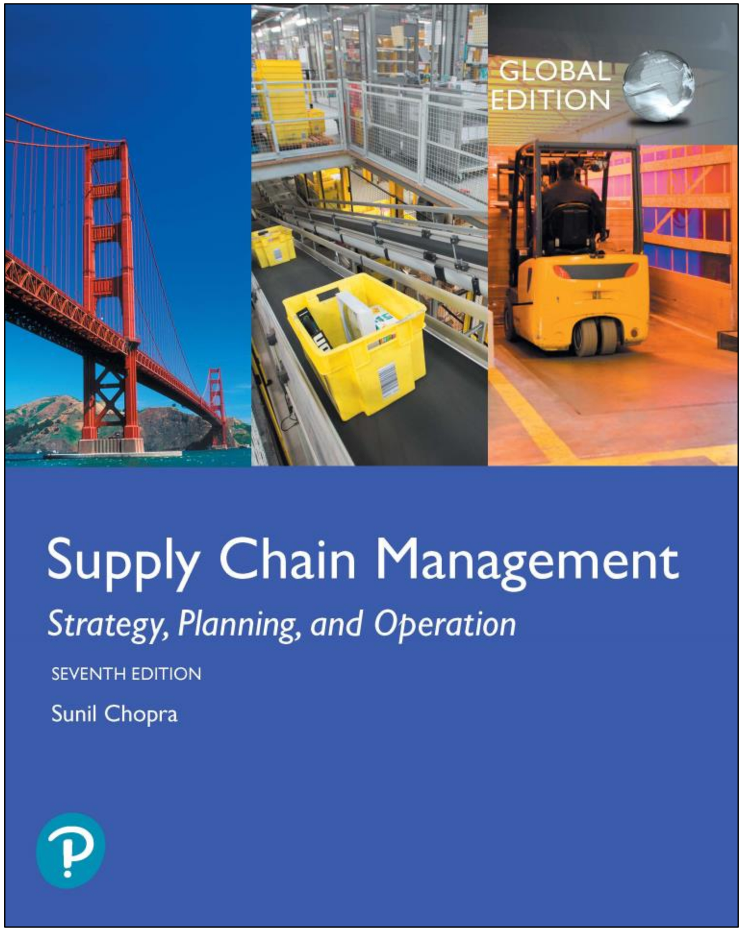
Supply Chain Management: Strategy, Planning, and Operation

Seventh Edition, Global Edition



Chapter 2

Achieving Strategic Fit in a Supply Chain

Learning Objectives

2.1 Explain why achieving strategic fit is critical to a company’s overall success.

2.2 Describe how a company achieves strategic fit between its supply chain strategy and its competitive strategy.

2.3 Identify the main levers to deal with uncertainty in a supply chain.

2.4 Discuss the importance of expanding the scope of strategic fit across the supply chain.

Competitive and Supply Chain Strategies

- **Competitive strategy** defines the set of customer needs a company seeks to satisfy through its products and services
- **Product development** strategy specifies the portfolio of new products that the company will try to develop
- **Marketing and sales** strategy specifies how the market will be segmented and product positioned, priced, and promoted
- **Supply chain** strategy determines the nature of material procurement, transportation of materials, manufacture of product or creation of service, distribution of product, follow-up service, whether processes will be in-house or outsourced
- All functional strategies must support one another and the competitive strategy

The Value Chain

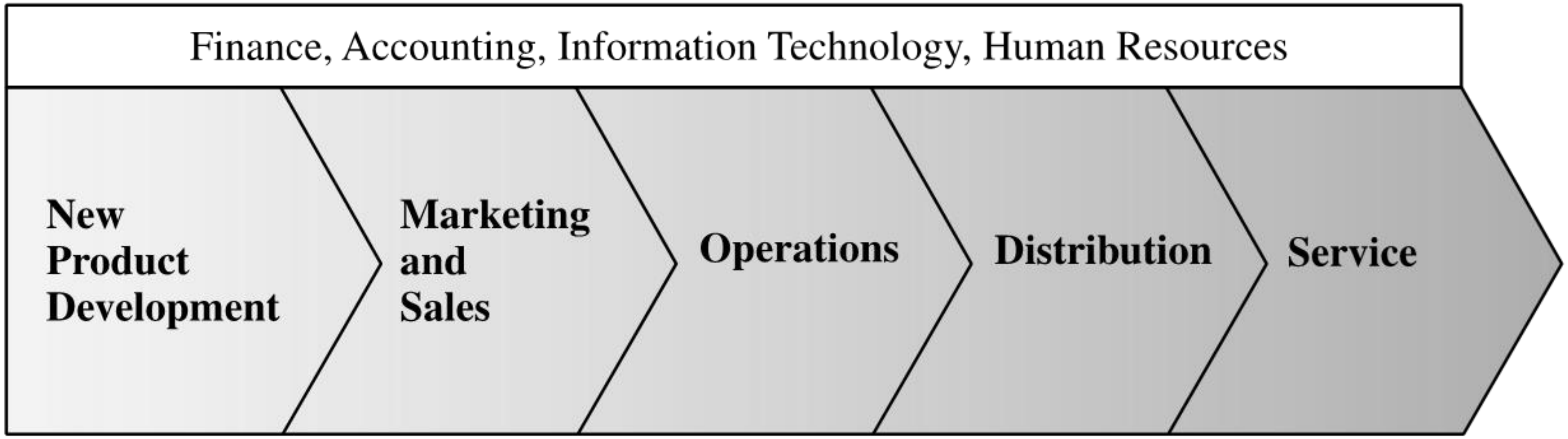


Figure 2-1 The Value Chain in a Company

Achieving Strategic Fit (1 of 2)

- **Strategic fit** – competitive and supply chain strategies have aligned goals
- A company may fail because of a lack of strategic fit or because its overall supply chain design, processes, and resources do not provide the capabilities to support the desired strategy

Achieving Strategic Fit (2 of 2)

1. The competitive strategy and all functional strategies must fit together to form a coordinated overall strategy. Each functional strategy must support other functional strategies and help a firm reach its competitive strategy goal.
2. The different functions in a company must appropriately structure their processes and resources to be able to execute these strategies successfully.
3. The design of the overall supply chain and the role of each stage must be aligned to support the supply chain strategy.

Summary of Learning Objective 1

Strategic fit requires that all functions within a firm and stages in the supply chain target the same goal—one that is consistent with customer needs. A lack of strategic fit between the competitive and supply chain strategies can result in the supply chain taking actions that are not consistent with customer needs, leading to a reduction in supply chain surplus and a decrease in supply chain profitability.

How Is Strategic Fit Achieved?

1. Understanding the customer and supply chain uncertainty
2. Understanding the supply chain capabilities
3. Achieving strategic fit

Step 1: Understanding the Customer and Supply Chain Uncertainty (1 of 2)

- Quantity of product needed in each lot
- Response time customers are willing to tolerate
- Variety of products needed
- Service level required
- Price of the product
- Desired rate of innovation in the product

Step 1: Understanding the Customer and Supply Chain Uncertainty (2 of 2)

- **Demand uncertainty** – uncertainty of customer demand for a product
- **Implied demand uncertainty** – resulting uncertainty for only the portion of the demand that the supply chain plans to satisfy based on the attributes the customer desires

Customer Needs and Implied Demand Uncertainty

Table 2-1 Impact of Customer Needs on Implied Demand Uncertainty

Customer Need	Causes Implied Demand Uncertainty to …
Range of quantity required increases	Increase because a wider range of the quantity required implies greater variance in demand
Lead time decreases	Increase because there is less time in which to react to orders
Variety of products required increases	Increase because demand per product becomes less predictable
Required service level increases	Increase because the firm now has to handle unusual surges in demand
Rate of innovation increases	Increase because new products tend to have more uncertain demand
Number of channels through which product may be acquired increases	Increase because the total customer demand per channel becomes less predictable

Pearson

Implied Uncertainty and Other Attributes (1 of 2)

1. Products with uncertain demand are often less mature and have less direct competition. As a result, margins tend to be high.
2. Forecasting is more accurate when demand has less uncertainty.
3. Increased implied demand uncertainty leads to increased difficulty in matching supply with demand. For a given product, this dynamic can lead to either a stockout or an oversupply situation.
4. Markdowns are high for products with greater implied demand uncertainty because oversupply often results.

Implied Uncertainty and Other Attributes (2 of 2)

Table 2-2 Correlation Between Implied Demand Uncertainty and Other Attributes

	Low Implied Uncertainty	**High Implied Uncertainty**
Product margin	Low	High
Average forecast error	10%	40% to 100%
Average stockout rate	1% to 2%	10% to 40%
Average forced season-end markdown	0%	10% to 25%

Pearson

Impact of Supply Source Capability

Table 2-3 Impact of Supply Source Capability on Supply Uncertainty

Supply Source Capability	Causes Supply Uncertainty to...
Frequent breakdowns	Increase
Unpredictable and low yields	Increase
Poor quality	Increase
Limited supply capacity	Increase
Inflexible supply capacity	Increase
Evolving production process	Increase

Implied Uncertainty (Demand and Supply) Spectrum

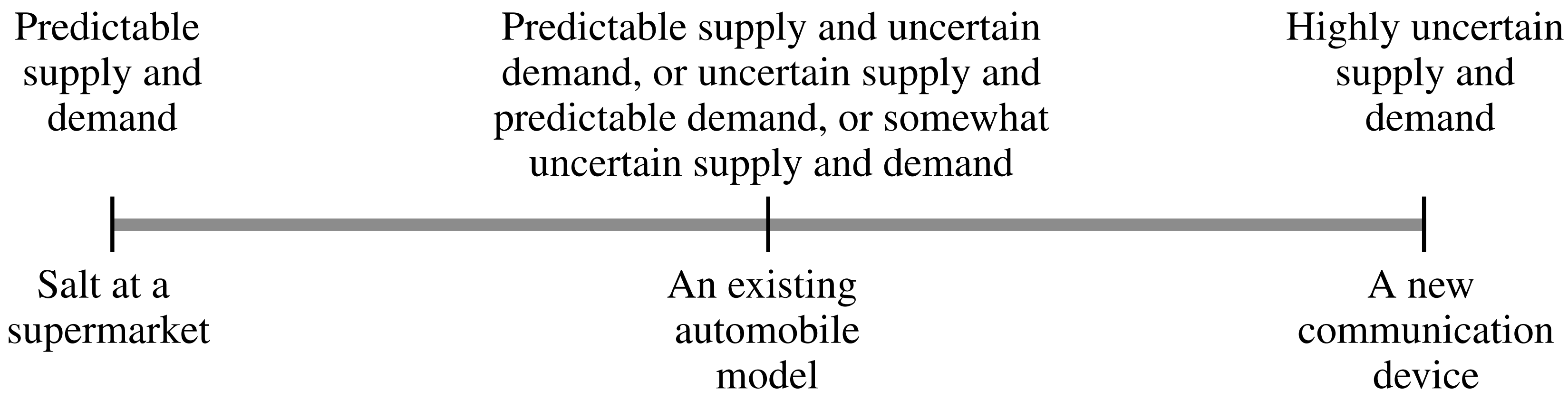


Figure 2-2 The Implied Uncertainty (Demand and Supply) Spectrum

Step 2: Understanding Supply Chain Capabilities (1 of 2)

- How does the firm best meet demand?
- Supply chain responsiveness is the ability to
  - Respond to wide ranges of quantities demanded
  - Meet short lead times
  - Handle a large variety of products
  - Build highly innovative products
  - Meet a high service level
  - Handle supply uncertainty

Step 2: Understanding Supply Chain Capabilities (2 of 2)

- Responsiveness comes at a cost
- **Supply chain efficiency** is the inverse to the cost of making and delivering the product to the customer
- The **cost-responsiveness efficient frontier** curve shows the lowest possible cost for a given level of responsiveness

Cost-Responsiveness Efficient Frontier

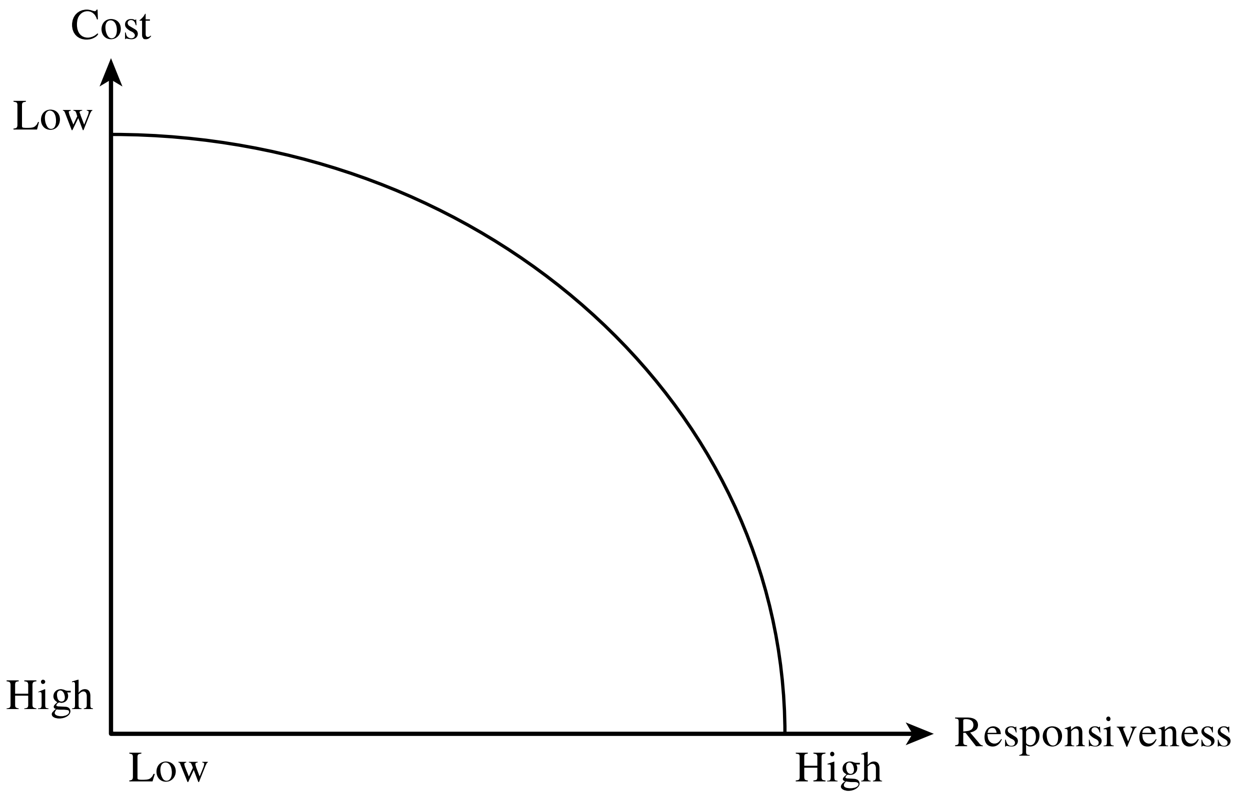


Figure 2-3 Cost-Responsiveness Efficient Frontier

Responsiveness Spectrum

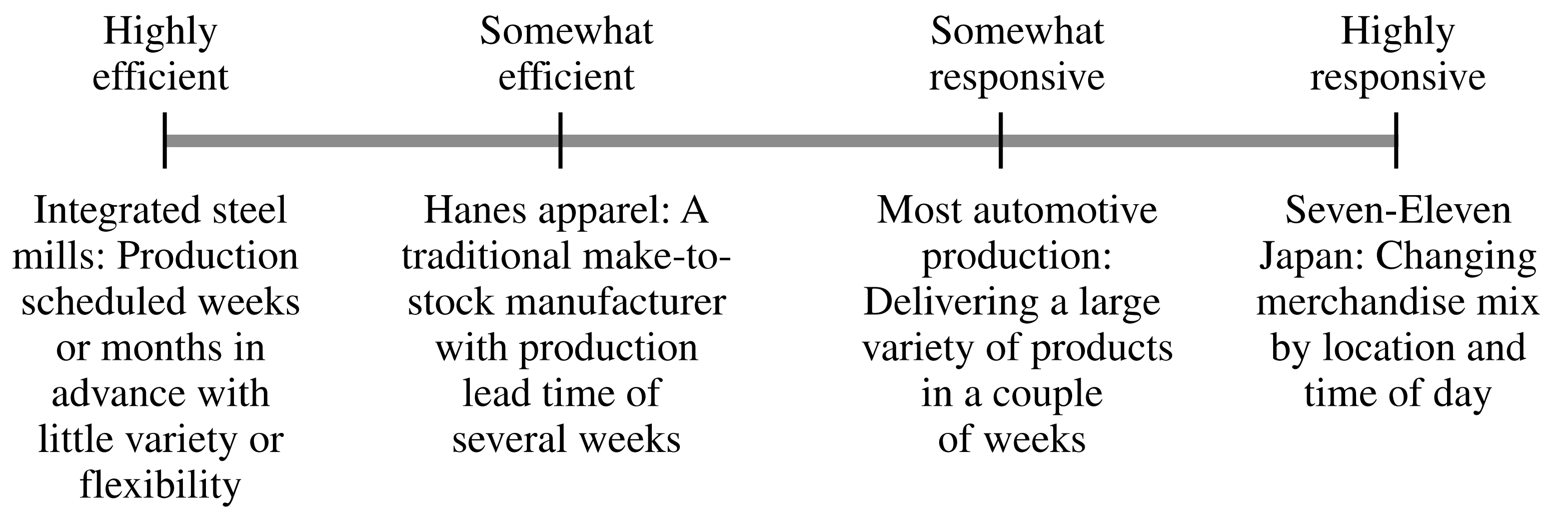


Figure 2-4 The Responsiveness Spectrum

Step 3: Achieving Strategic Fit

- Ensure that the degree of supply chain responsiveness is consistent with the implied uncertainty
- Assign roles to different stages of the supply chain that ensure the appropriate level of responsiveness
- Ensure that all functions maintain consistent strategies that support the competitive strategy

Zone of Strategic Fit

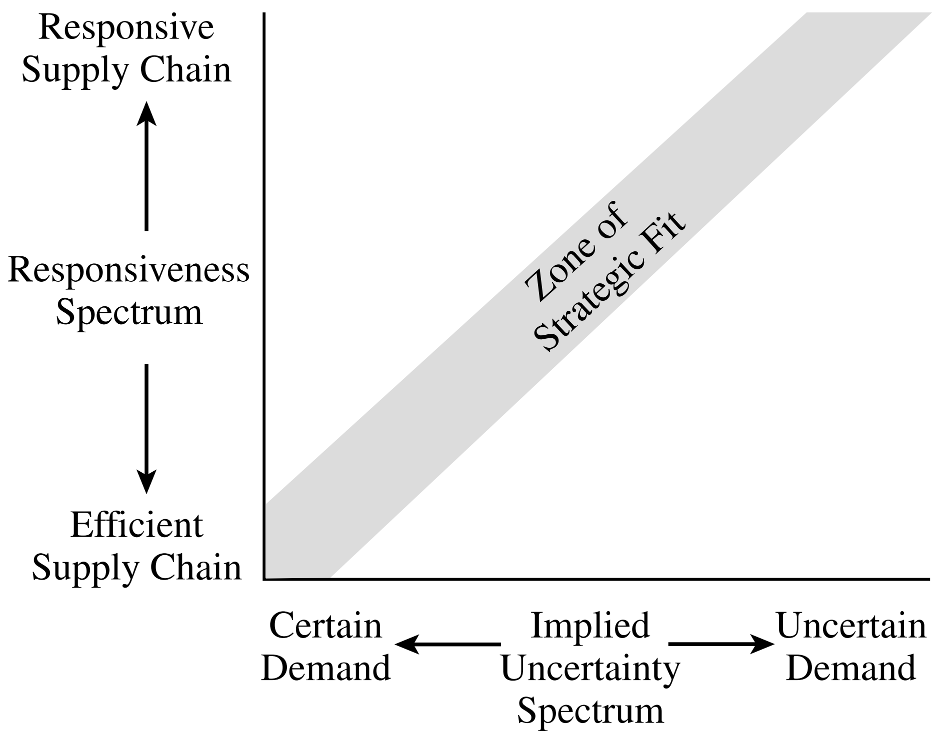


Figure 2-5 Finding the Zone of Strategic Fit

Roles and Allocations

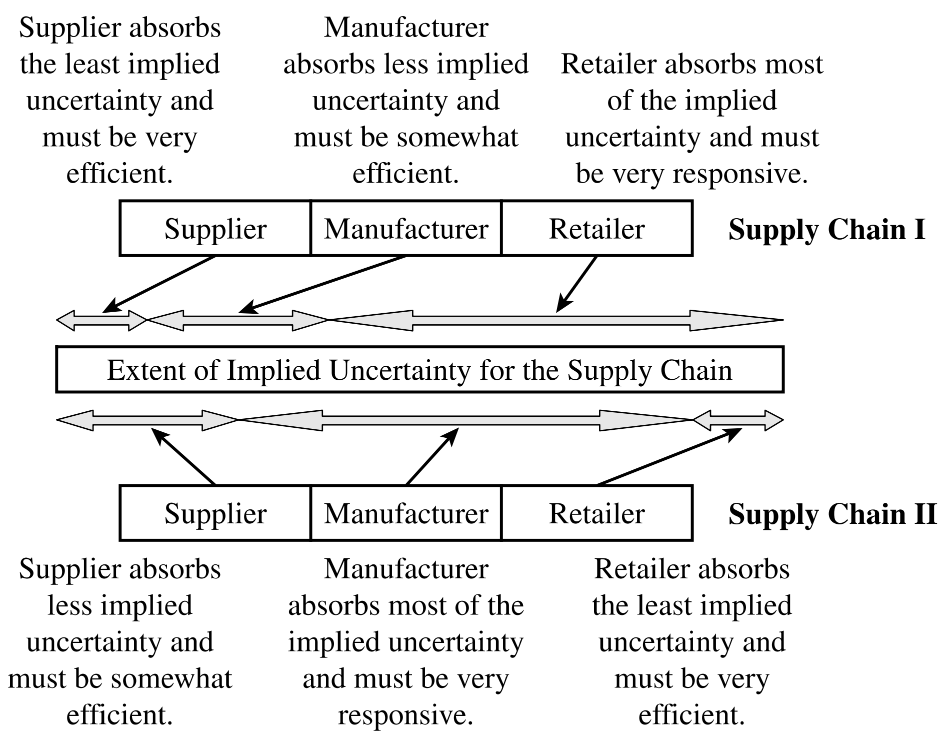


Figure 2-6 Different Roles and Allocations of Implied Uncertainty for a Given Level of Supply Chain Responsiveness

Efficient and Responsive Supply Chains

Table 2-4 Comparison of Efficient and Responsive Supply Chains

	Efficient Supply Chains	Responsive Supply Chains
Primary goal	Supply demand at the lowest cost	Respond quickly to demand
Product design strategy	Maximize performance at a minimum product cost	Create **modularity** to allow postponement of product differentiation
Pricing strategy	Lower margins because price is a prime customer driver	Higher margins because price is not a prime customer driver
Manufacturing strategy	Lower costs through high utilization	Maintain capacity flexibility to buffer against demand/supply uncertainty
Inventory strategy	Minimize inventory to lower cost	Maintain **buffer inventory** to deal with demand/supply uncertainty
Lead-time strategy	Reduce, but not at the expense of costs	Reduce aggressively, even if the costs are significant
Supplier strategy	Select based on cost and quality	Select based on speed, flexibility, reliability, and quality

Tailoring the Supply Chain

- Achieve strategic fit while serving many customer segments with a variety of products across multiple channels
- Requires sharing operations for some links in the supply chain, while having separate operations for other links

Changes over Product Life Cycle (1 of 2)

- Beginning stages
  1. Demand is very uncertain, and supply may be unpredictable
  2. Margins are often high, and time is crucial to gaining sales
  3. Product availability is crucial to capturing the market
  4. Cost is often a secondary consideration

Changes over Product Life Cycle (2 of 2)

- Later stages
  1. Demand has become more certain, and supply is predictable
  2. Margins are lower as a result of an increase in competitive pressure
  3. Price becomes a significant factor in customer choice

Summary of Learning Objective 2

To achieve strategic fit, a company must first understand the needs of the customers being served and the capabilities of all supply sources. Both the needs and the capabilities should be used to identify the implied uncertainty that the supply chain must absorb. The second step is to understand the supply chain's capabilities in terms of efficiency and responsiveness. The key to strategic fit is ensuring that supply chain responsiveness is consistent with customer needs, supply capabilities, and the resulting implied uncertainty. Tailoring the supply chain is essential to achieving strategic fit when supplying a wide variety of customers with many products through different channels.

Supply Chain Levers

- Five basic levers to deal with uncertainty
  - Capacity, combination of excess capacity and flexible capacity
  - Inventory, one of the most common levers used in practice to deal with uncertainty
  - Time, combination of speedy supply and the willingness of customers to wait
  - Information, appropriate information can help a supply chain reduce uncertainty
  - Price, prices of products and services that vary over time

Supply Chain Uncertainty

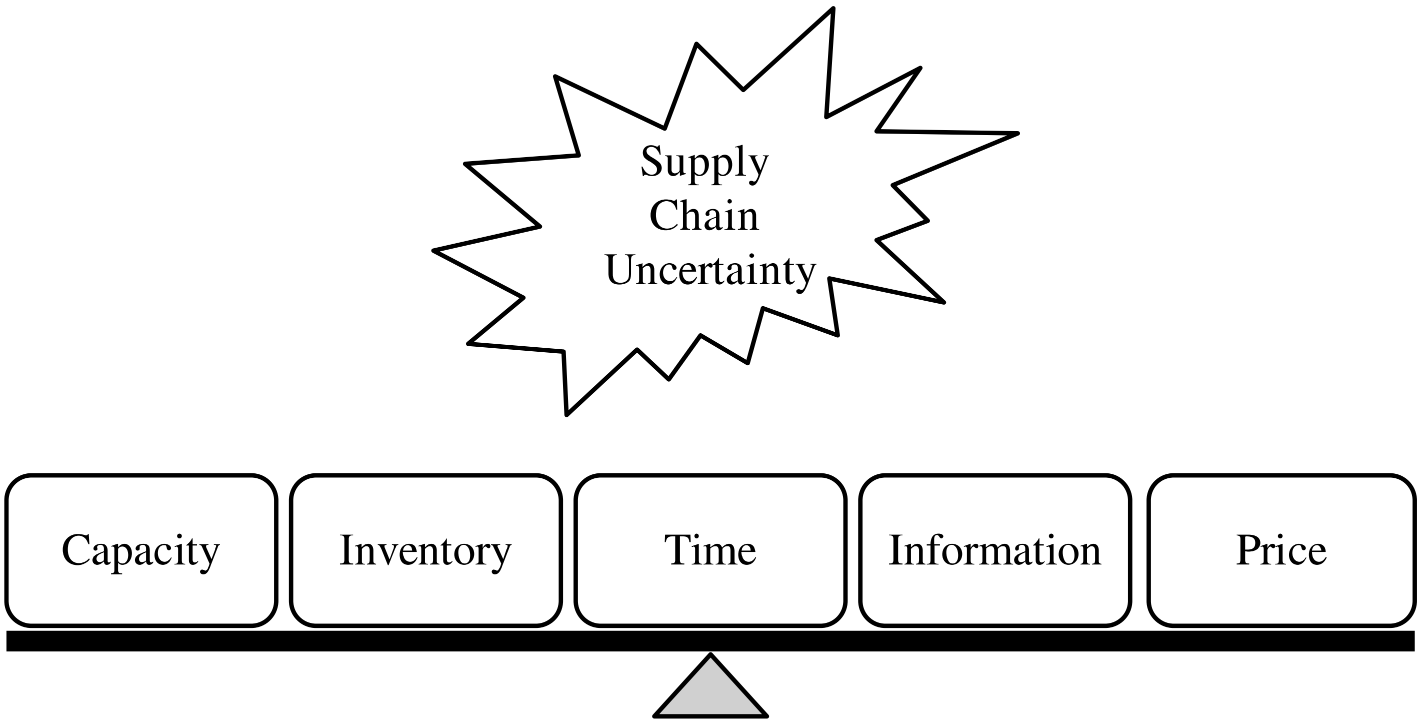


Figure 2-7 Five Key Levers to Deal with Supply Chain Uncertainty

Summary of Learning Objective 3

The implied uncertainty that a supply chain needs to absorb depends on the needs of the customer segment(s) targeted. Capacity, inventory, time, information, and price are the five levers that a supply chain can use to deal with this uncertainty. Investing more in one lever generally allows the supply chain to invest less in one or more of the other levers. To achieve strategic fit, a supply chain must find the right balance between investments in the five levers to effectively serve the target customer segment(s).

Expanding Strategic Scope (1 of 3)

- **Scope of strategic fit** – the functions within the firm and stages across the supply chain that devise an integrated strategy with an aligned objective
- Intraoperation Scope: Minimizing Local Cost
  – Each stage of the supply chain devises strategy independently

Expanding Strategic Scope (2 of 3)

- Intrafunctional Scope: Minimizing Functional Cost
  - Firms align all operations within a function
- Interfunctional Scope: Maximizing Company Profit
  - Functional strategies are developed to align with one another and with the competitive strategy

Expanding Strategic Scope (3 of 3)

- Intercompany Scope: Maximizing Supply Chain Surplus
  - Supplier and customer work together and share information to reduce total cost and increase supply chain surplus
- Agile Intercompany Scope
  - A firm's ability to achieve strategic fit when partnering with supply chain stages that change over time

Summary of Learning Objective 4

The scope of strategic fit refers to the functions and stages within a supply chain that coordinate strategy and target a common goal. When the scope is narrow, individual functions try to optimize their performance based on their own goals. This practice often results in conflicting actions that reduce the supply chain surplus. As the scope of strategic fit is enlarged to include the entire supply chain, actions are evaluated based on their impact on overall supply chain performance, which helps increase supply chain surplus.