



2

Supply Chain Performance: Achieving Strategic Fit and Scope

*PowerPoint presentation to accompany
Chopra and Meindl Supply Chain Management, 5e*



Learning Objectives

1. Explain why achieving strategic fit is critical to a company's overall success.
2. Describe how a company achieves strategic fit between its supply chain strategy and its competitive strategy.
3. Discuss the importance of expanding the scope of strategic fit across the supply chain.
4. Describe the major challenges that must be overcome to manage a supply chain successfully.



Competitive and Supply Chain Strategies

- Competitive strategy defines the set of customer needs a firm 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
- All functional strategies must support one another and the competitive strategy

The Value Chain

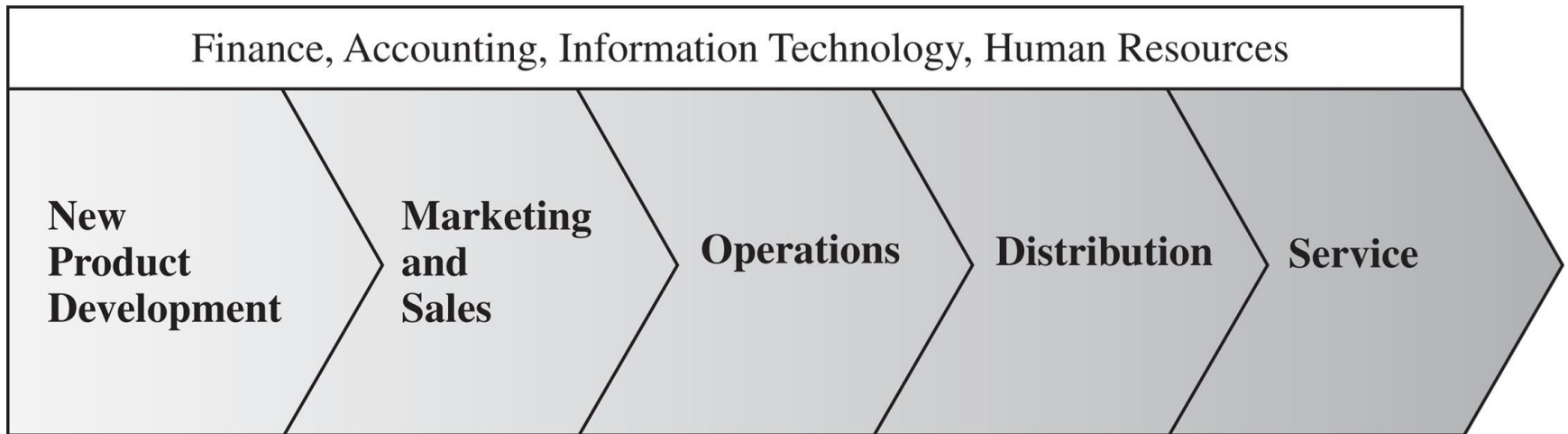


Figure 2-1



Achieving Strategic Fit

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



Achieving Strategic Fit

1. The competitive strategy and all functional strategies must fit together to form a coordinated overall strategy.
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.



How is Strategic Fit Achieved?

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



Step 1: Understanding the Customer and Supply Chain Uncertainty

- Quantity of product needed in each lot
- Response time customers will 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

- *Demand uncertainty* – uncertainty of customer demand for a product
- *Implied demand uncertainty* – resulting uncertainty for the supply chain given the portion of the demand the supply chain must handle and attributes the customer desires



Achieving Strategic Fit

- Understanding the Customer

- Lot size
- Response time
- Service level
- Product variety
- Price
- Innovation



***Implied
Demand
Uncertainty***



Customer Needs and 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 more disaggregate
Number of channels through which product may be acquired increases	Increase because the total customer demand is now disaggregated over more channels
Rate of innovation increases	Increase because new products tend to have more uncertain demand
Required service level increases	Increase because the firm now has to handle unusual surges in demand

Table 2-1



Implied Uncertainty and Other Attributes

- Products with uncertain demand are often less mature and have less direct competition. As a result, margins tend to be high.
- Forecasting is more accurate when demand has less uncertainty.
- 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.
- Markdowns are high for products with greater implied demand uncertainty because oversupply often results.



Implied 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%

Table 2-2



Impact of Supply Source Capability

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

Table 2-3

Levels of Implied Demand Uncertainty

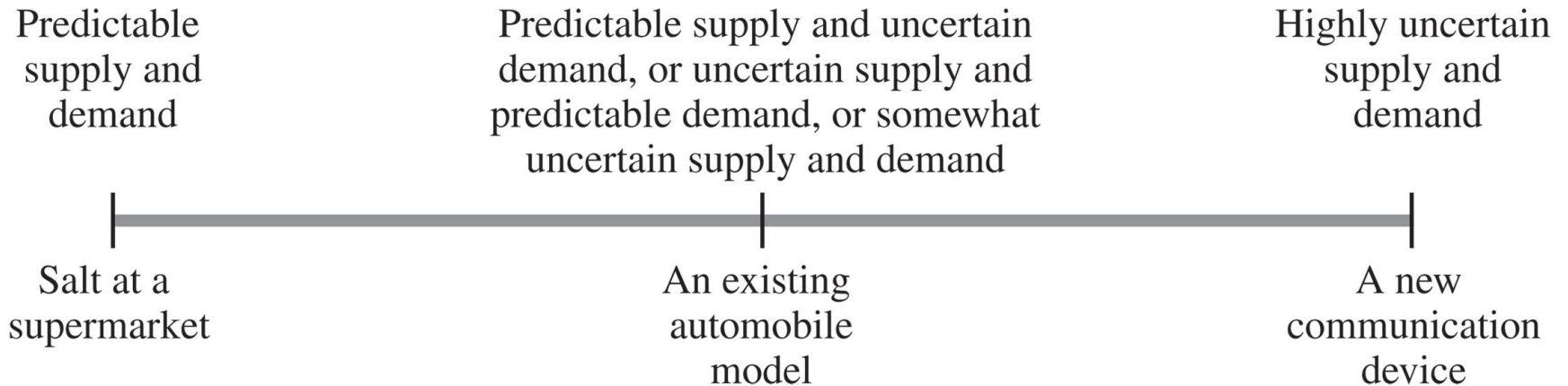


Figure 2-2



Step 2: Understanding Supply Chain Capabilities

- 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 very high service level



Step 2: Understanding Supply Chain Capabilities

- 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

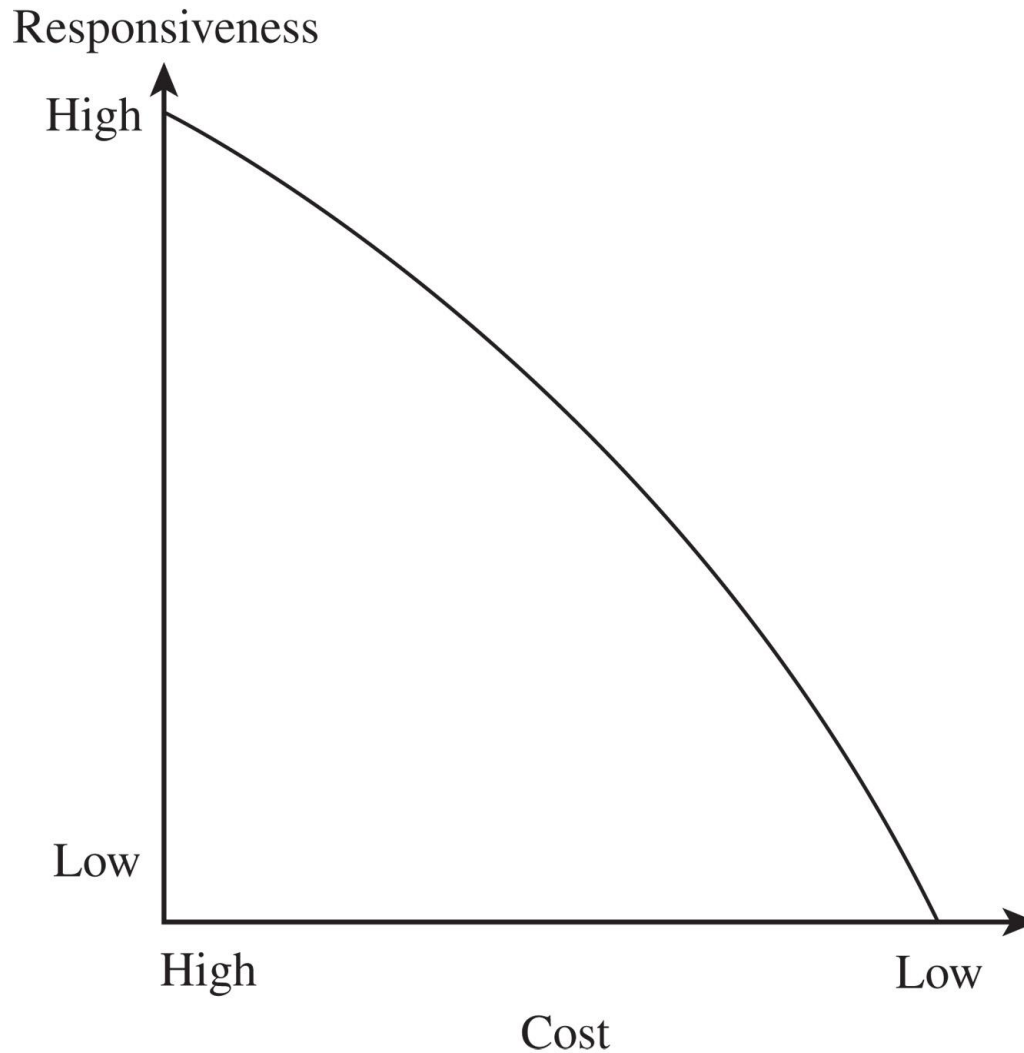


Figure 2-3

Responsiveness Spectrum

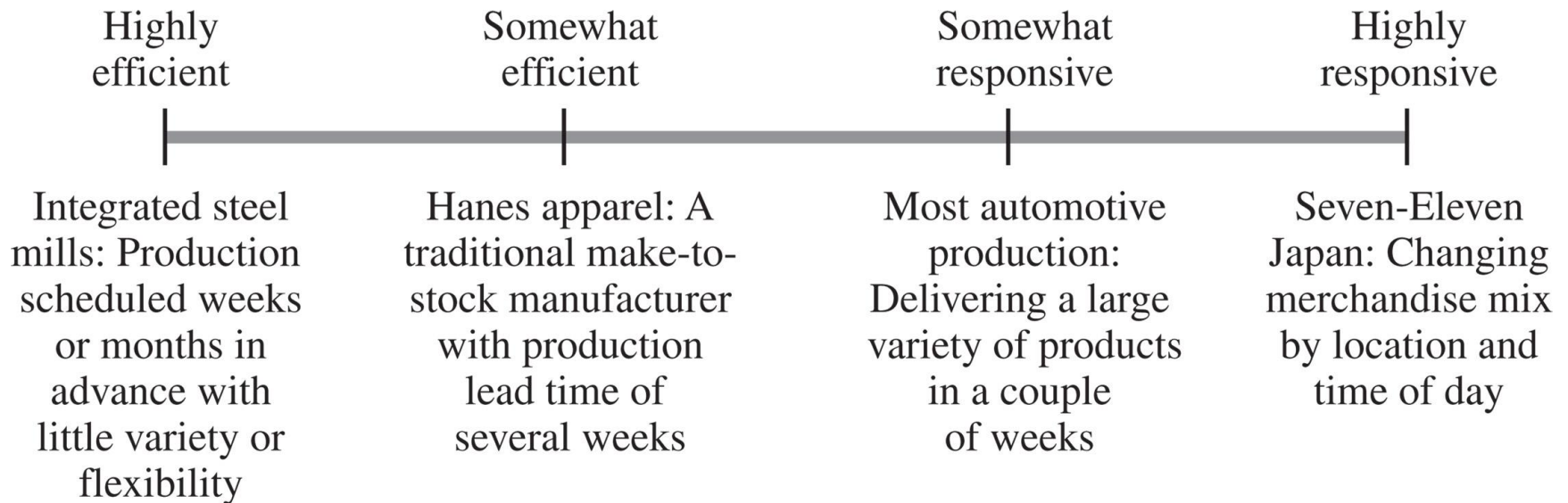
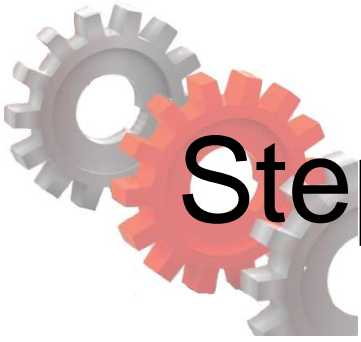


Figure 2-4



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

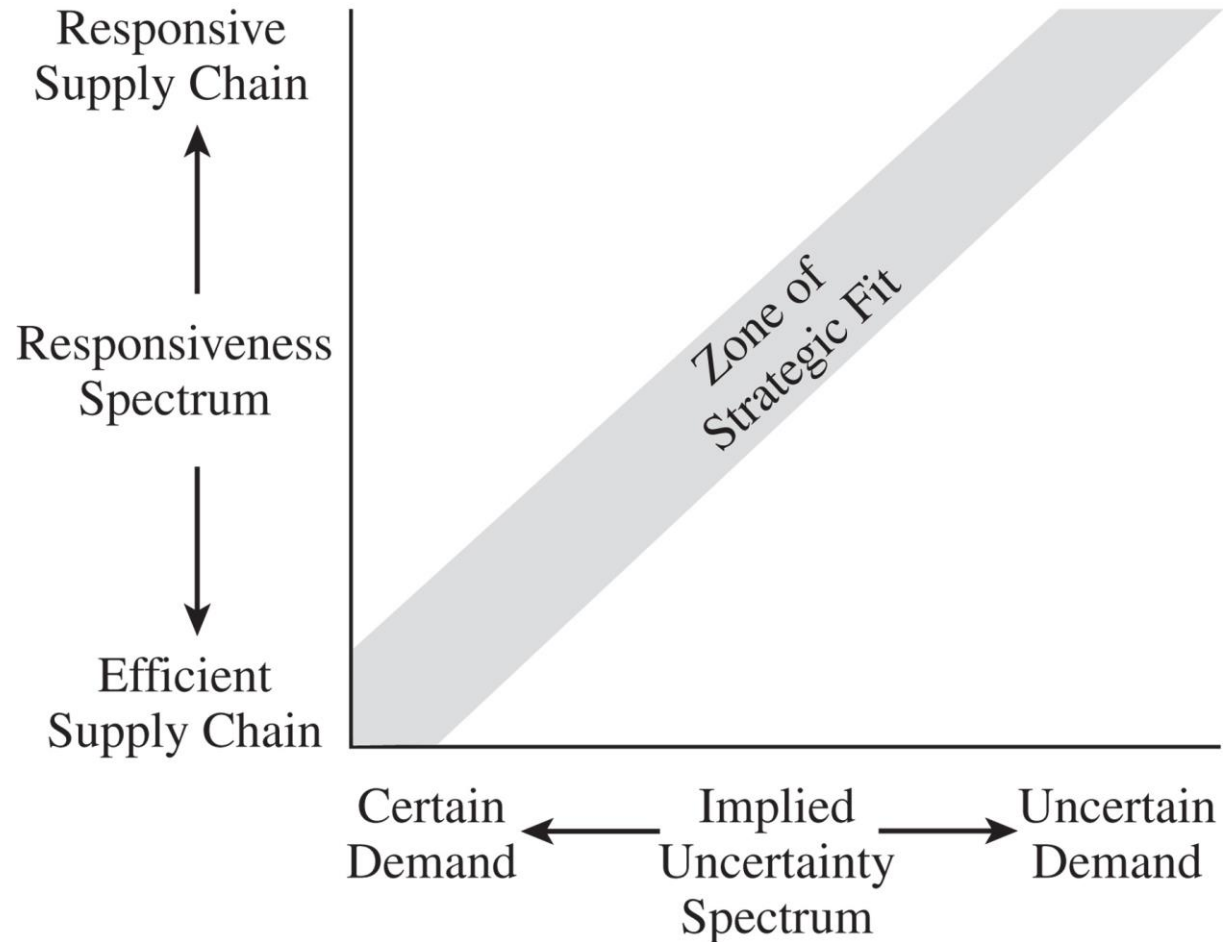


Figure 2-5

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

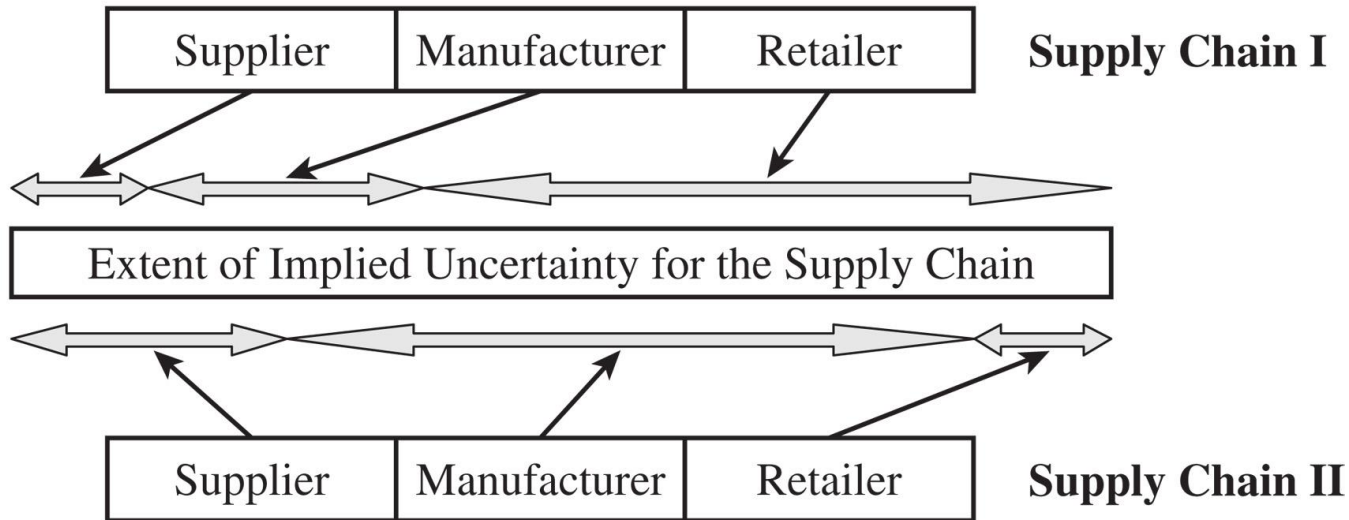
Table 2-4

Roles and Allocations

Supplier absorbs the least implied uncertainty and must be very efficient.

Manufacturer absorbs less implied uncertainty and must be somewhat efficient.

Retailer absorbs most of the implied uncertainty and must be very responsive.



Supplier absorbs less implied uncertainty and must be somewhat efficient.

Manufacturer absorbs most of the implied uncertainty and must be very responsive.

Retailer absorbs the least implied uncertainty and must be very efficient.

Figure 2-6

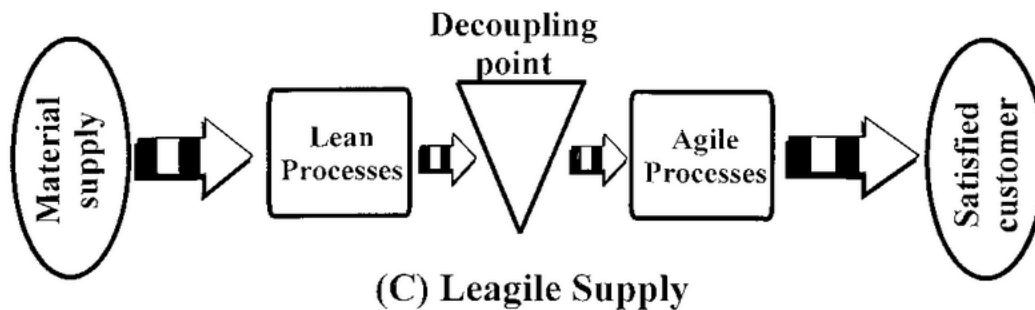
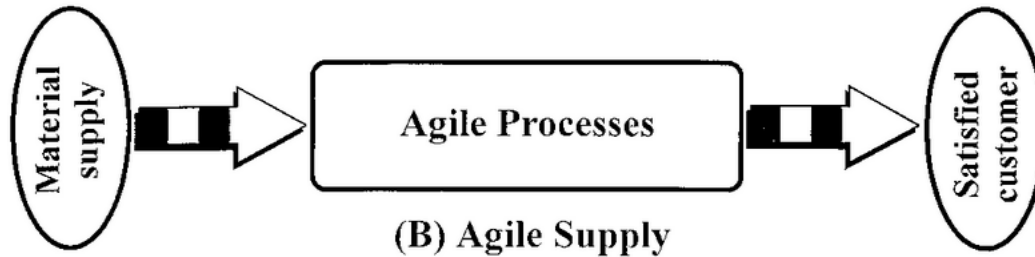
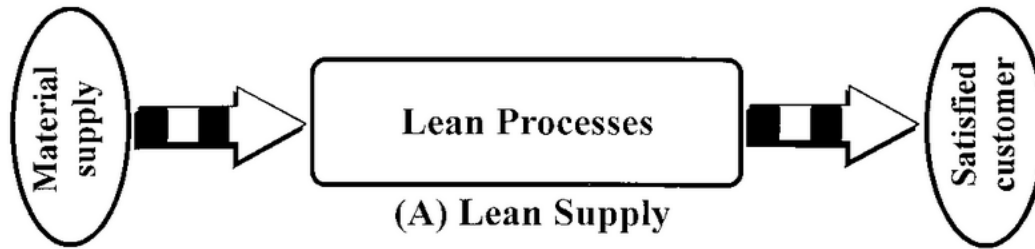
Zone of Strategic Fit

- There **is no** supply chain strategy that is always right
- There **is** a right supply chain strategy for a given competitive strategy

$$\text{Totalvalue} = \frac{[\text{quality x servicelevel}]}{[\text{costs x leadtime}]}$$

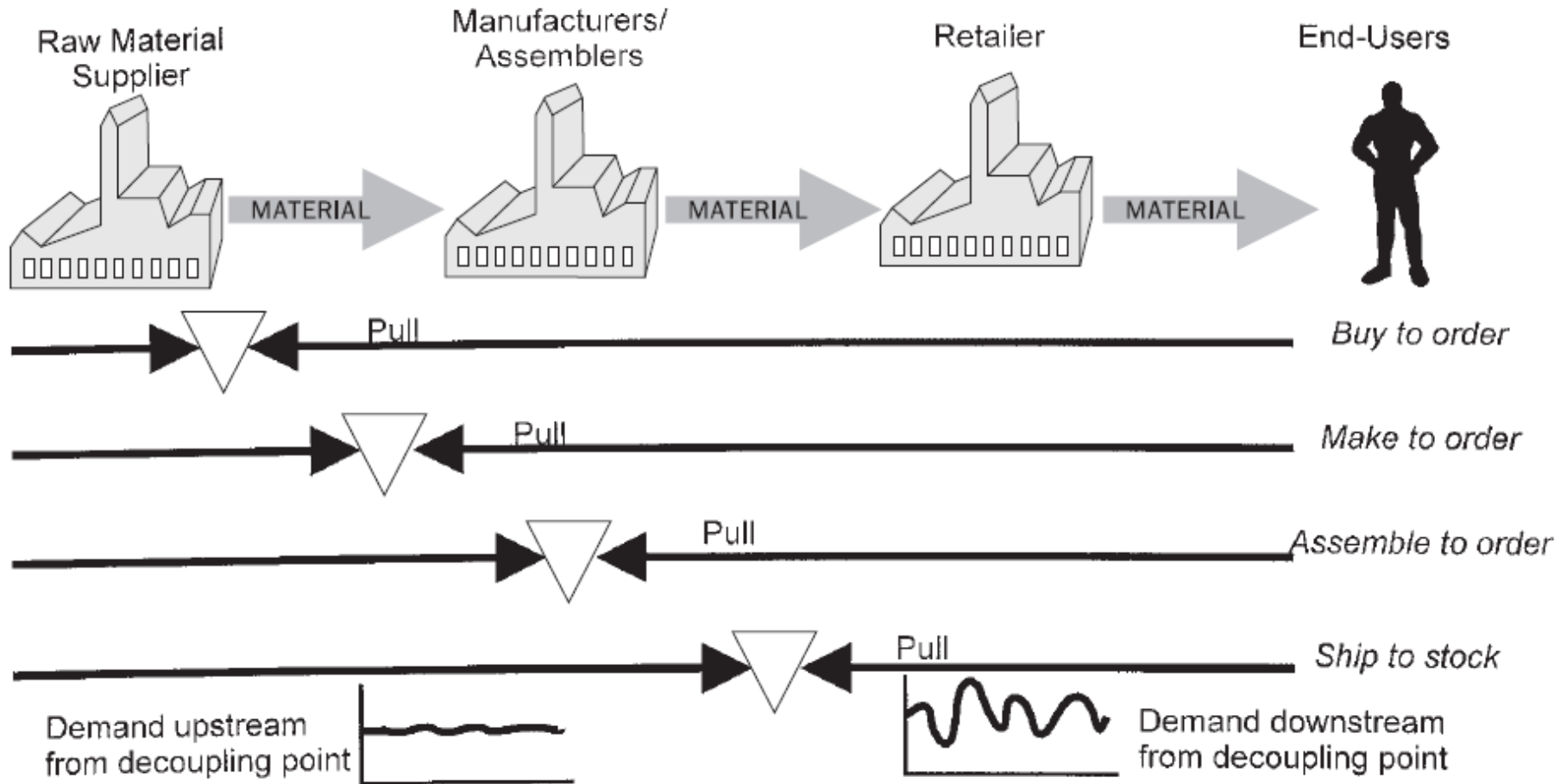
- 3A supply chain

Zone of Strategic Fit



Zone of Strategic Fit

Supply chain structures and the decoupling point



Source: Hoekstra and Romme (1992)



Summary of Learning Objectives

1. Explain why achieving strategic fit is critical to a company's overall success
2. Describe how a company achieves strategic fit between its supply chain strategy and its competitive strategy
3. Discuss the importance of expanding the scope of strategic fit across the supply chain
4. Describe the major challenges that must be overcome to manage a supply chain successfully