Daitto Global Sourcing

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Reducing Cost Creating Values
Driving Performances

The Role of Sourcing in a Supply Chain

- Sourcing is the set of business processes required to purchase goods and services
- Sourcing processes include:
  - Supplier scoring and assessment
  - Supplier selection and contract negotiation
  - Design collaboration
  - Procurement
  - Sourcing planning and analysis

Benefits of Effective Sourcing Decisions

- Better economies of scale through aggregation
- Efficient procurement transactions
- Design collaboration
- Coordination with suppliers
- Shared risk
- Lower purchase price through use of auctions

Making Sourcing Decisions in Practice

- Use multifunction teams
- Ensure appropriate coordination across regions and business units
- Always evaluate the total cost of ownership
- Build long-term relationships with key suppliers

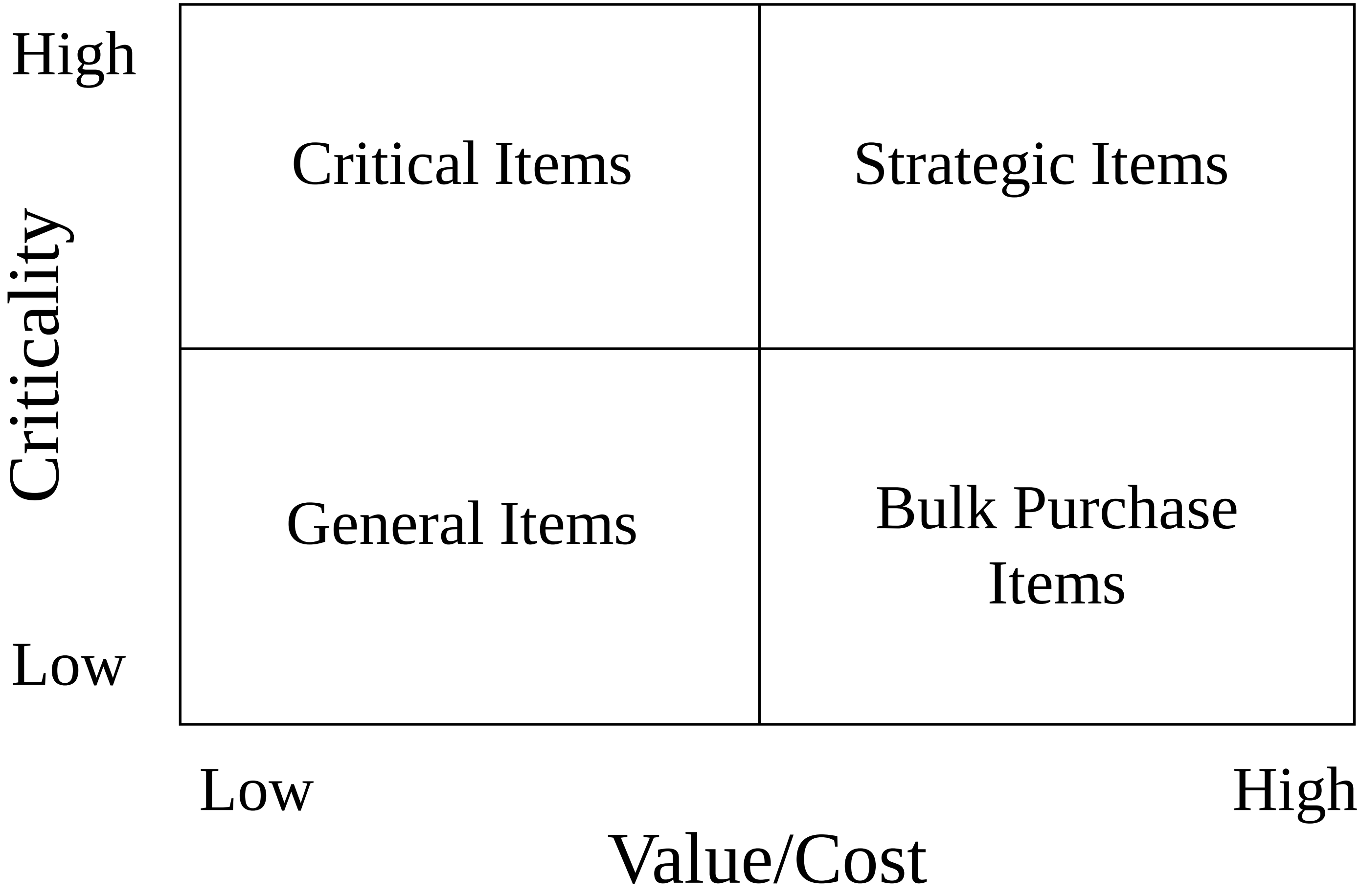
Design Collaboration

- 50-70 percent of spending at a manufacturer is through procurement
- 80 percent of the cost of a purchased part is fixed in the design phase
- Design collaboration with suppliers can result in reduced cost, improved quality, and decreased time to market
- Important to employ design for logistics, design for manufacturability
- Manufacturers must become effective design coordinators throughout the supply chain

The Procurement Process

- The process in which the supplier sends product in response to orders placed by the buyer
- Goal is to enable orders to be placed and delivered on schedule at the lowest possible overall cost
- Two main categories of purchased goods:
  - Direct materials: components used to make finished goods
  - Indirect materials: goods used to support the operations of a firm
  - Differences between direct and indirect materials listed in Table 13.2
- Focus for direct materials should be on improving coordination and visibility with supplier
- Focus for indirect materials should be on decreasing the transaction cost for each order
- Procurement for both should consolidate orders where possible to take advantage of economies of scale and quantity discounts

Product Categorization by Value and Criticality (Figure 13.2)



Sourcing Planning and Analysis

- A firm should periodically analyze its procurement spending and supplier performance and use this analysis as an input for future sourcing decisions
- Procurement spending should be analyzed by part and supplier to ensure appropriate economies of scale
- Supplier performance analysis should be used to build a portfolio of suppliers with complementary strengths
  - Cheaper but lower performing suppliers should be used to supply base demand
  - Higher performing but more expensive suppliers should be used to buffer against variation in demand and supply from the other source

Supplier Selection and Contracts

- Contracts for Product Availability and Supply Chain Profits
  - Buyback Contracts
  - Revenue-Sharing Contracts
  - Quantity Flexibility Contracts
- Contracts to Coordinate Supply Chain Costs
- Contracts to Increase Agent Effort
- Contracts to Induce Performance Improvement

Contracts for Product Availability and Supply Chain Profits

- Many shortcomings in supply chain performance occur because the buyer and supplier are separate organizations and each tries to optimize its own profit
- Total supply chain profits might therefore be lower than if the supply chain coordinated actions to have a common objective of maximizing total supply chain profits
- An approach to dealing with this problem is to design a contract that encourages a buyer to purchase more and increase the level of product availability
- The supplier must share in some of the buyer’s demand uncertainty, however

Contracts for Product Availability and Supply Chain Profits: Buyback Contracts

- Allows a retailer to return unsold inventory up to a specified amount at an agreed upon price
- Increases the optimal order quantity for the retailer, resulting in higher product availability and higher profits for both the retailer and the supplier
- Most effective for products with low variable cost, such as music, software, books, magazines, and newspapers
- Downside is that buyback contract results in surplus inventory that must be disposed of, which increases supply chain costs
- Can also increase information distortion through the supply chain because the supply chain reacts to retail orders, not actual customer demand

Contracts for Product Availability and Supply Chain Profits: Revenue Sharing Contracts

- The buyer pays a minimal amount for each unit purchased from the supplier but shares a fraction of the revenue for each unit sold
- Decreases the cost per unit charged to the retailer, which effectively decreases the cost of overstocking
- Can result in supply chain information distortion, however, just as in the case of buyback contracts

Contracts for Product Availability and Supply Chain Profits: Quantity Flexibility Contracts

- Allows the buyer to modify the order (within limits) as demand visibility increases closer to the point of sale
- Better matching of supply and demand
- Increased overall supply chain profits if the supplier has flexible capacity
- Lower levels of information distortion than either buyback contracts or revenue sharing contracts

Contracts to Coordinate Supply Chain Costs

- Differences in costs at the buyer and supplier can lead to decisions that increase total supply chain costs
- Example: Replenishment order size placed by the buyer. The buyer's EOQ does not take into account the supplier's costs.
- A quantity discount contract may encourage the buyer to purchase a larger quantity (which would be lower costs for the supplier), which would result in lower total supply chain costs
- Quantity discounts lead to information distortion because of order batching

Contracts to Increase Agent Effort

- There are many instances in a supply chain where an agent acts on the behalf of a principal and the agent's actions affect the reward for the principal
- Example: A car dealer who sells the cars of a manufacturer, as well as those of other manufacturers
- Examples of contracts to increase agent effort include two-part tariffs and threshold contracts
- Threshold contracts increase information distortion, however

Contracts to Induce Performance Improvement

- A buyer may want performance improvement from a supplier who otherwise would have little incentive to do so
- A shared savings contract provides the supplier with a fraction of the savings that result from the performance improvement
- Particularly effective where the benefit from improvement accrues primarily to the buyer, but where the effort for the improvement comes primarily from the supplier

Supplier Scoring and Assessment

- Supplier performance should be compared on the basis of the supplier's impact on total cost
- There are several other factors besides purchase price that influence total cost

Supplier Assessment Factors

Supplier performance should be compared on the basis of the supplier's impact on total cost.

- Replenishment Lead Time
- On-Time Performance
- Supply Flexibility
- Delivery Frequency / Minimum Lot Size
- Supply Quality
- Inbound Transportation Cost
- Pricing Terms
- Information Coordination Capability
- Design Collaboration Capability
- Exchange Rates, Taxes, Duties
- Supplier Viability

Learning Objectives

- What is the role of sourcing in a supply chain?
- What dimensions of supplier performance affect total cost?
- What is the effect of supply contracts on supplier performance and information distortion?
- What are different categories of purchased products and services? What is the desired focus for procurement for each of these categories?