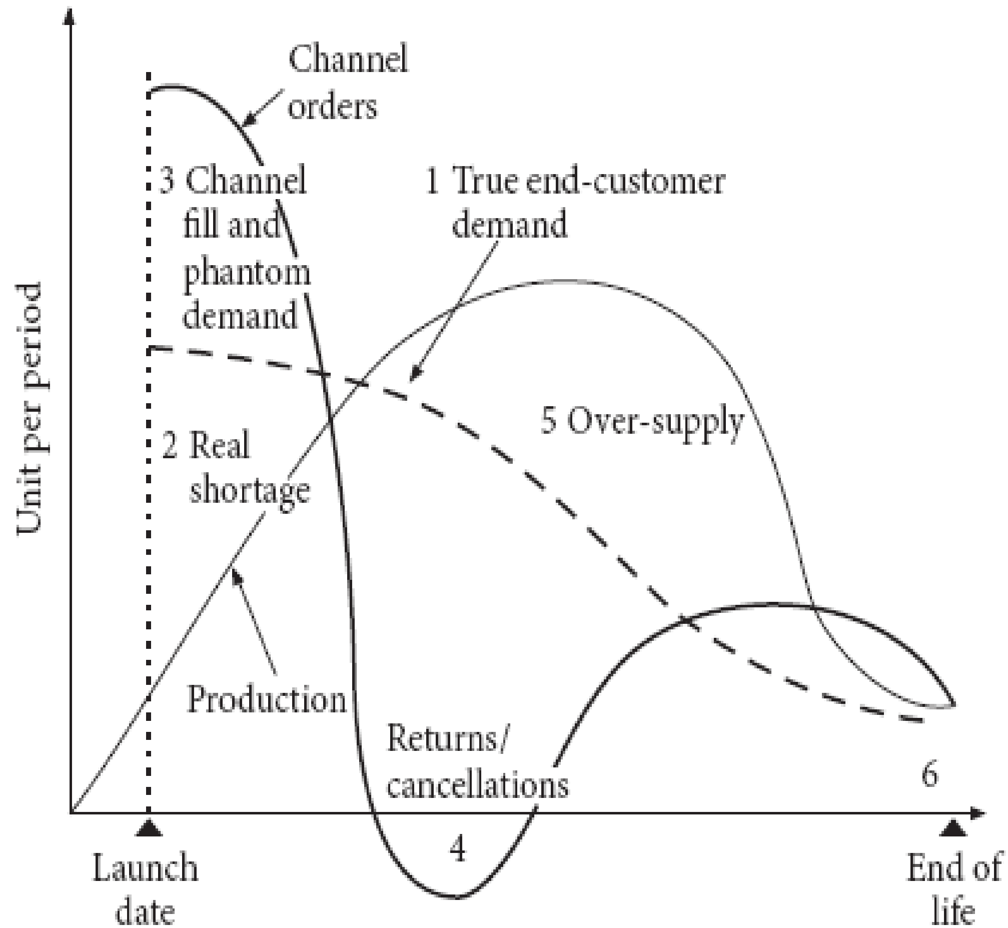
Chapter 7 Demand Management

Demand Management represents focused effort to estimate and manage customer demand.

- The goal is to enhance ability of supply chain participants to collaborate on the flow of product, services, information, and funds.
- Challenges in achieving this goal:
  - Lack of coordination
  - Too much emphasis on demand forecasts, with less attention on the collaborative efforts as well as strategic and operational plans

Figure 7-1 Supply/Demand Misalignment



1 True end-customer demand.
2 Production cannot meet initial projected demand, resulting in real shortages.
3 Channel partners over-order in an attempt to meet demand and stock their shelves.
4 As supply catches up with demand, orders are canceled or returned.
5 Financial and production planning are not aligned with real demand; therefore, production continues.
6 As demand declines, all parties attempt to drain inventory to prevent write-down.

Source: Accenture, Stanford University, and Northwestern University, *Customer-Driven Demand Networks: Unlocking Hidden Value in the Personal Computer Supply Chain* (Accenture, 1997): 15.

Table 7-1	How Demand Management Supports Business Strategy
STRATEGY	**EXAMPLES OF HOW TO USE DEMAND MANAGEMENT**
Growth strategy	• Perform "what if" analyses on total industry volume to gauge how specific mergers and acquisitions might leverage market share. • Analyze industry supply/demand to predict changes in product pricing structure and market economics based on mergers and acquisitions. • Build staffing models for merged company using demand data.
Portfolio strategy	• Manage maturity of products in current portfolio to optimally time overlapping life cycles. • Create new product development/introduction plans based on life cycle. • Balance combination of demand and risk for consistent "cash cows" with demand for new products. • Ensure diversification of product portfolio through demand forecasts.
Positioning strategy	• Manage product sales through each channel based on demand and product economics. • Manage positioning of finished goods at appropriate distribution centers, to reduce working capital, based on demand. • Define capability to supply for each channel.
Investment strategy	• Manage capital investments, marketing expenditures, and research and development budgets based on demand forecasts of potential products and maturity of current products. • Determine whether to add manufacturing capacity.

Source: Jim R. Langabeer II, "Aligning Demand Management with Human Strategy," *Supply Chain Management Review* (May/June 2000): 68. Reprinted with permission of *Supply Chain Management Review*, a Cahners publication.

Balancing Supply & Demand

- External balancing methods – change manner customs orders to balance supply & demand
  - Price
  - Lead time
- Internal balancing methods – utilize internal process to manage supply/demand gap
  - Production flexibility
  - Safety stock

Sales & Operations Planning (S&OP)

- Run initial sales forecast
- Demand planning – sales/marketing to review forecast and adjust for promotion & introduction of new products
- Supply planning – operations to review different options to match capacity to forecast
- Pre S&OP meeting – sales/marketing, operations, and finance work to solve capacity issues by balancing demand and supply; develop alternatives
- Executive S&OP meeting – top executives from various functional areas agree on forecast and convert that into operating plan

Collaborative Planning, Forecasting & Replenishment (CPFR)

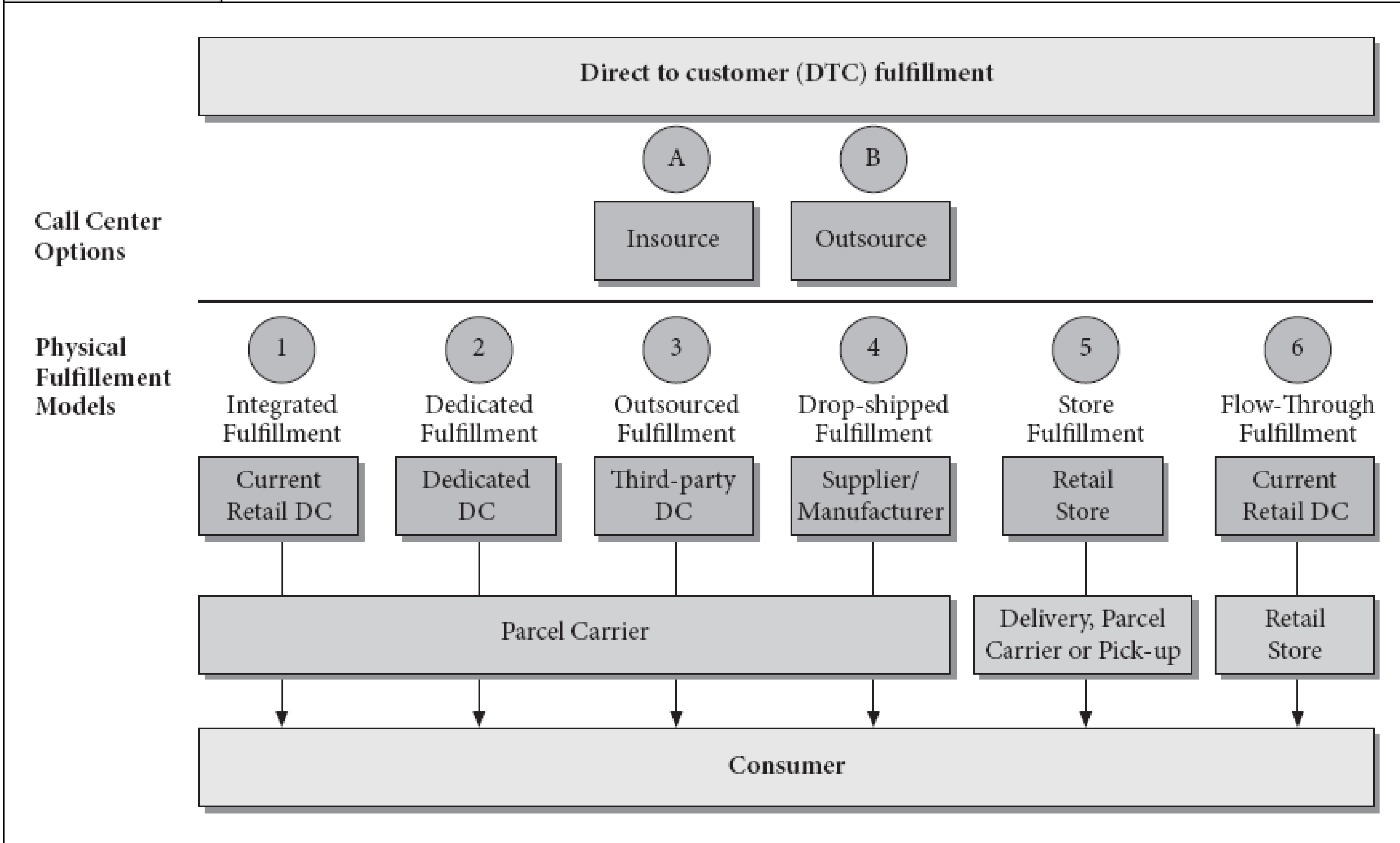
1. Develop front end agreement
2. Create joint business plan
3. Create sales forecast
4. Identify exceptions for sales forecast
5. Resolve/collaborate on exception items
6. Create order forecast
7. Identify exceptions for order forecast
8. Resolve/collaborate on exception items
9. Order generation

Direct-to-Customer (DTC) Fulfillment

- General Advantages:
  - Low start-up costs
  - Workforce efficiency from consolidated operations

- General Disadvantages:
  - Order profile will change (store orders in case and/or pallet quantities, consumer orders are in small “eaches” quantities)
  - “Fast pick,” or broken case operation must be added to the distribution center
  - Conflict between store priorities and DTC order

Figure 7-7 Direct-to-Customer (DTC) Fulfillment



Integrated Fulfillment

- Retailer maintains both store and DTC presence
- Operates **one distribution network** serving both channels
- Advantage
  - low start-up costs
  - existing network can service both
- Disadvantages
  - order profile will change with addition of DTC orders
  - would require a “fast pick,” or broken case operation
  - conflict might arise between store order & DTC order

Dedicated Fulfillment

- Store and Internet fulfillment by **two separate distribution networks**
- Advantage:
  - separate distribution network for store delivery and direct consumer delivery eliminates most of the disadvantages of integrated fulfillment
- Disadvantage:
  - duplicate facilities and duplicate inventories

Outsourced Fulfillment

- Use an **outside firm** to perform fulfillment functions
- Advantages:
  - low start-up costs to service the Internet channel
  - possible transportation economies
- Disadvantage:
  - loss of control over service levels

Drop-Shipped Fulfillment or Direct Store Delivery

- Vendor delivers directly to retailer, bypassing retailer’s distribution network.
- Works best for products that have a short shelf life
- Advantages:
  - reduction of inventory in the distribution network
  - vendor has direct control of its inventories
- Disadvantage:
  - possible reduction of inventory visibility

Store Fulfillment

The order is placed through the Internet site and sent to the nearest store for customer pick up

- Advantages:
  - short lead time to the customer
  - low start-up costs for the retailer
  - returns can be handled through the store
  - product availability in consumer units
- Disadvantages:
  - reduced control and consistency over order fill
  - conflict may arise between inventories
  - must have real-time visibility to in-store inventories
  - stores may lack sufficient space to store larger product volume

Flow-Through Fulfillment

Product is picked and packed at distribution center, then sent to the store for pickup

- Advantages:
  - eliminates the inventory conflict
  - avoids the cost of the “last mile”
  - returns can be handled through the existing store network
- Disadvantage:
  - storage space at the store may be insufficient

Nordstrom’s DTC Fulfillment Center at Cedar Rapids, Iowa (Operated by 3PL)