

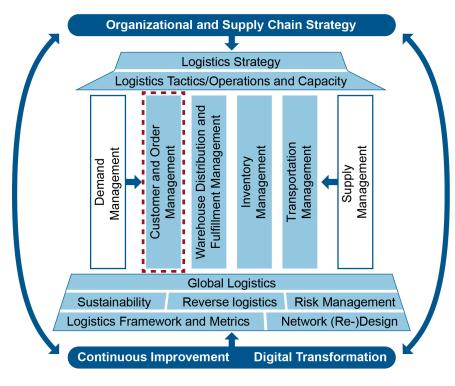
### MODULE 3: CUSTOMER AND ORDER MANAGEMENT





### Module 3: Customer and Order Management

### Module 3 Overview







### MODULE 3, SECTION A: ENABLE CUSTOMER RELATIONSHIP MANAGEMENT (CRM)





### CRM, Defined

- Marketing philosophy based on putting the customer first
- Support customer needs through:
  - Account management
  - Catalog and order entry
  - Payment processing
  - Credits and adjustments





### **Customer Service Variables**

# Pre-transaction variables

- Set customer expectations
- Customer service policy in writing
- User-friendly order taking

# Transaction variables

- Reliable, consistent, and professional
- Anticipate questions and concerns

# Post-transaction variables

- Quality follow-up
- Prompt and accurate invoicing process
- Communication is key



### **Customer Segmentation**

- Groups relevant to marketing
- Demographics and attributes
- Operationalized segmentation for logistics
  - Logistics requirements
  - Customer behavior
- Logistics service level

### Segment customers by:

- Market
- Value
- Physical characteristics
- Geography
- Sales/demand
- Preferred mode
- Network
- Organization type



### Operationalizing Segments Based on Value Proposition

#### Low-cost

- Lean supply chain
- Reliable, on time, in full, consistent quality, no surprises

#### **High demand variability**

- Agile supply chain
- Timely response to volume/product change
- Flexible capacity

#### **Project-driven**

- Plan-based approach with tight change control
- Timing and specifications compliance
- ETO to deadline

#### Long-term collaboration

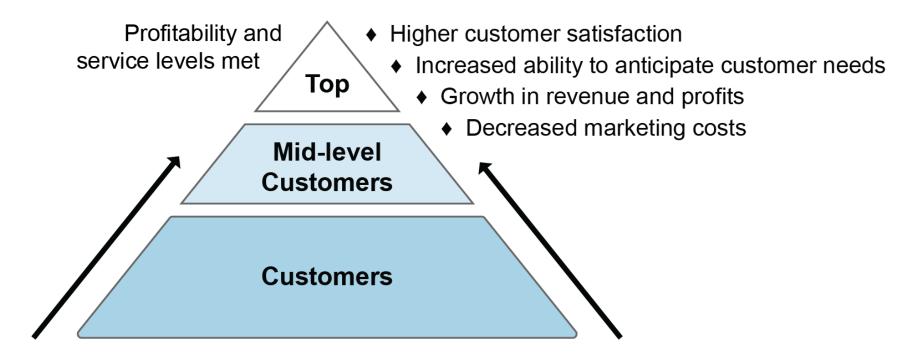
- Mutual gain: consistent quality, pricing, delivery timing, and supply
- Insights, strategy, tactics, operations

# Innovative/emergency capacity

- New types of capacity developed rapidly
- Innovative solutions



### Lifetime Customers





### Lifetime Customer Value (LCV)

- Customer profitability metric
- Predict net present value of future profits
- Focus on long-term health
- Rate and cost of customer acquisition
- Customer marginal profit increases and retention



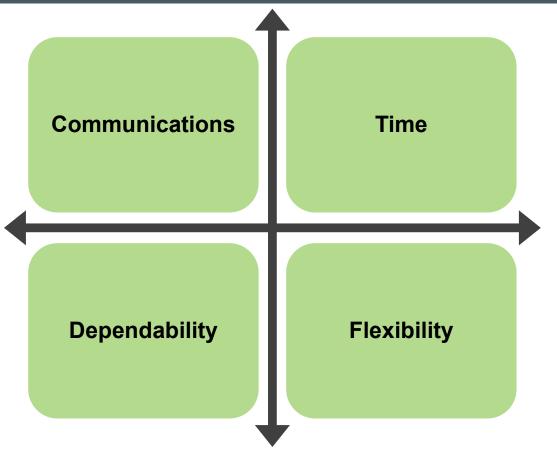
# Operating Profit versus Cost

|                       | Low Cost           | High Cost                            |
|-----------------------|--------------------|--------------------------------------|
| High Operating Profit | Protect            | Improve or transform supply chain    |
| Low Operating Profit  | Build relationship | Influence, upcharge, shift, or avoid |



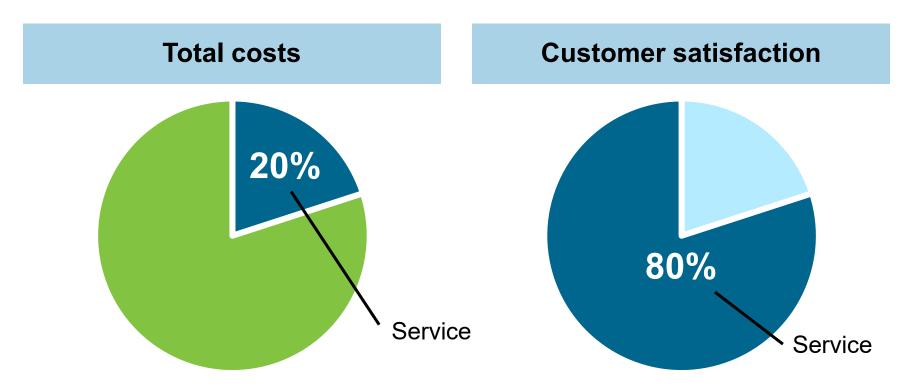
Customer
Expectations of
Buying
Experience

Ease of doing business in four areas



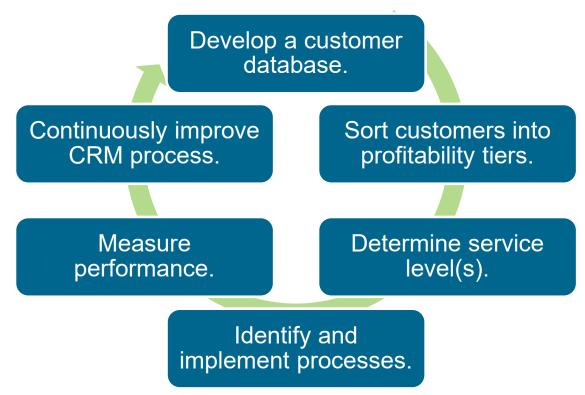


### Service and the 80-20 Rule





### Steps to the CRM Process





# Methods for Determining Customer Profitability

Use results to rank from high to low and group into tiers by profitability.

- Single allocation criteria
- Activity-based costing
  - Operating Profit Contribution
    - = Gross Profit (Invoices × Average Cost/Invoice)
- Cost-to-serve



### Determine Proper Customer Service Levels

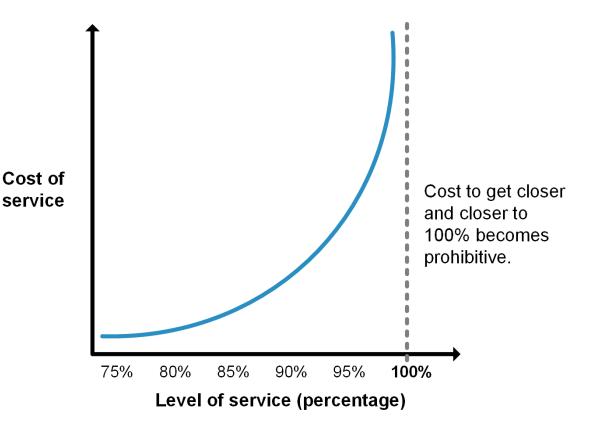


- Identify what each customer segment values.
- Categorize service components.
- Prioritize by segment or customer tier.
- Establish service level metrics.
- Benchmark vs. competitors: relative service.
- Do a gap analysis.
- Design product/service to exceed minimum requirements.
- Analyze business case.
- Monitor and control.



### Economic Constraints on Level of Service Offered

Excessive safety stock and preparedness measures become unprofitable near 100% service level.





# **Customer Management Elements**

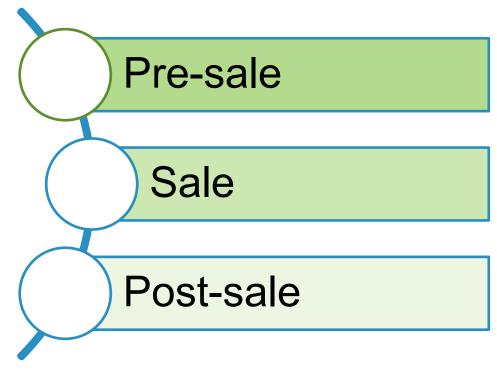
Measure over time against goals and benchmark competitors.

- Reputable
- Accessible
- Informed
- Informative
- Responsive

- Confidential
- Capable
- Honest
- Consistent
- Dependable



# Service Level Agreements (SLAs): Metrics for



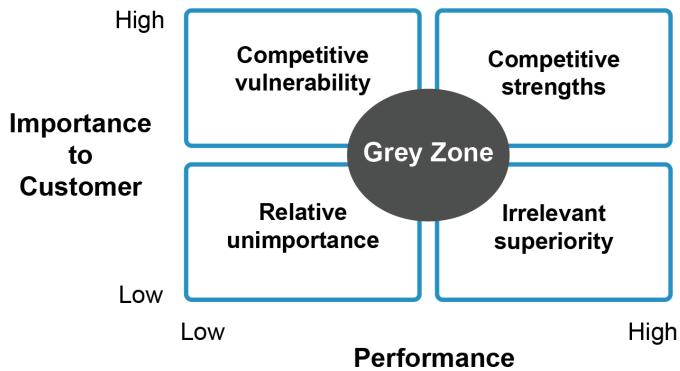


### Customer Service Management Strategy Development

- 1. Analyze current relationships.
- 2. Research expectations and preferences.
- 3. Benchmark other organizations.
- 4. Identify strengths/weaknesses per service element.
- 5. Calculate benefit-cost ratio and other financial analysis.
- 6. Select tools and technologies.
- Implement strategy.
- 8. Measure performance and identify improvement areas.



# Service Element Analysis



Adapted from source: David F. Ross, Distribution Planning and Control—Managing in the Era of Supply Chain Management, third edition. Used with permission.



# Implement Strategy

#### **Customers**

- Value-added services
- Better communication

#### **Supply channel participants**

- Competitive pricing
- Benefits: Incentive to keep customer as priority

#### **Employees**

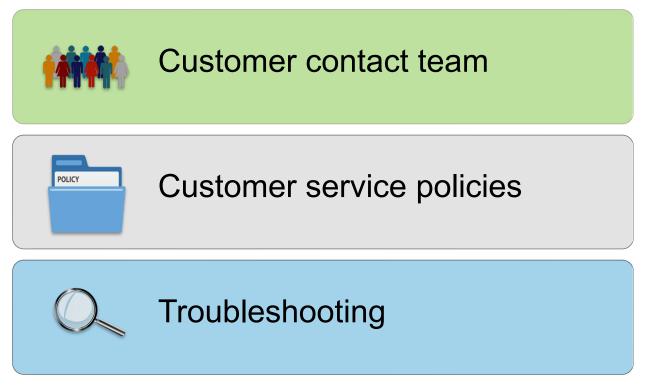
- Streamline workflows
- Encourage continuous improvement

#### **Shareholders**

- Return on investment
- Earn customers' loyalty



# Sales and Marketing Support





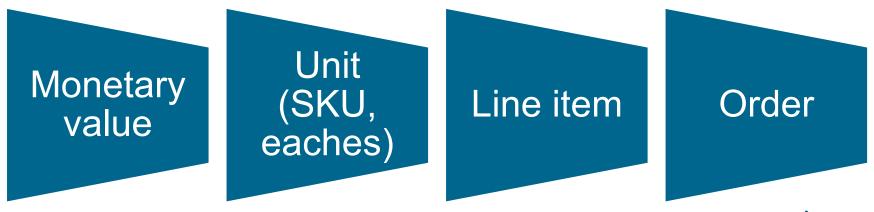
# Technical Support, Service, and Parts

- Product recalls
- Replacement parts
- Claims and returns
- Repairs, installation, and warranties



# Customer Service Ratio (Fill Rate)

- A measure of delivery performance of finished goods
- Percentage of product delivered compared to the amount ordered by the customer
- Variations in fill rate include:





# Stockout Frequency

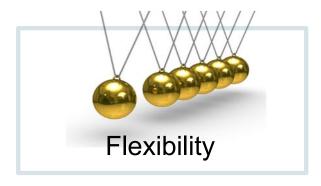
Evaluates management of stockouts.

- Monetary value of items ordered that are in stockout
- Percentage of items that are in stockout
- Average age of stockouts
- Average time to recover items from stockout



# **Lead Time Monitoring**











### Speed of Performance

#### Common metrics for measurement

- Delivery lead time
- Time to process a customer-requested change
- Time to respond to a customer query
- Average wait time to connect on 800 number or chat
- Percentage of calls that encounter a busy signal
- Percentage of abandoned calls to customer service



# How Effective at Doing What Matters to Customer?



#### **Process**

- Delivery lead time
- Profit margins
- Billing adjustments
- Customer complaints
- Emergency response
- Customer order perfect condition
- Damaged goods
- Inventory distance
- On-time delivery



#### **Product**

- Design, attractiveness
- Fitness for use, ease of use
- Packaging convenience (protection, information, quantities, storage)
- Service frequency
- Failure rate



#### Satisfaction

- Customer access to inventory and order status
- Customer complaint analysis/response analysis
- Customer social media/comments
- Focus group feedback





### MODULE 3, SECTION B: ENABLE OUTBOUND AND INBOUND ORDER MANAGEMENT





### Order Management Process

#### **Purchasing Orders**

- Order placement
- Monitoring
- Receiving
- Acceptance
- Payment of supplier

#### **Manufacturing Orders**

- Order release
- Scheduling and routing
- Production and control
- Customer receipt or receipt into finished goods inventories

#### **Customer Orders**

- Order promising
- Order entry
- Order pick
- Pack and ship
- Billing
- Account reconciliation



### Procurement and Inbound Logistics

**Planning** 

**Purchasing** 

Inventory control

Coordinating deliveries

Receiving

Incoming inspection

Salvage operations



### Intracompany, Transfer, and Outbound Orders

#### **Intracompany Orders**

- Same legal entity
- No legal restrictions
- No tax implications

#### **Transfer Orders**

- Not same legal entity (e.g., different divisions)
- Legal restrictions
- Tax implications
- Transfer pricing if international

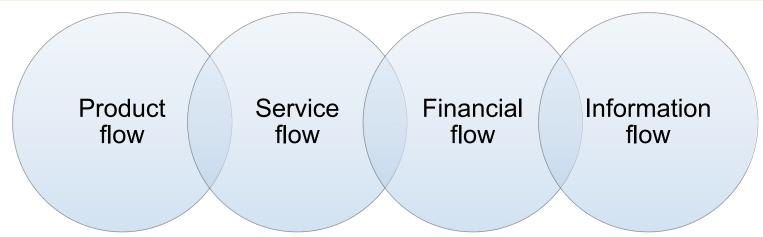
#### **Outbound Orders**

- Shipping and holding completed products until received by customer
- Core logistics responsibility
- Sales and marketing are stakeholders
- Coordinate flows and minimize total cost



# Supplier Relationship Management (SRM)

- Uninterrupted flows of materials and services
- Competitively priced raw materials and components
- Ability to prescreen suppliers





# Vendor-Managed Inventory (VMI)

- Vendors and customers collaborate on inventory planning.
  - For raw materials or finished goods per service level agreement (SLA).
  - Know what items are vendor managed and report issues.
- Vendor manages restocking.
  - Gets demand information directly: shorter lead time.



### Retail Order Management

- Inbound from many sources
- Prevent inventory accumulation
- Perishability
- Seasonality
- Inventory management system
- Planograms





### **Inbound Lead Time**

- Make suppliers aware of order earlier to shorten their lead times.
- Time components:
  - Order preparation
  - Queue
  - Processing
  - Move/transportation
  - Receiving
  - Inspection





### Set Strategy and Tactics for Outbound and Inbound Orders

# Tactical Level: Routing Guides

Simple list of carriers or detailed inbound, outbound, freight returns, regional routing information, origin-destination tables

- Order management software requirements
- Shipper setup (before first shipment), CTPAT validation, user profile
- DC addresses and codes
- General shipping instructions

- Supplier packaging constraints:
  - Dimensions for racking
  - Weight limits
  - Material-handling equipment
- Approval-to-ship instructions
- Traffic, road construction, tolls
- Customer order schedule



# Operational Level: Inbound Logistics Process

- Work order: ERP directs inbound logistics to procure shipping services.
- Shipping order: May be for multiple POs. Instructions.

Procurement Logistics PO receipt Work writes creates PO status and order is purchase shipping monitoring. materials created. order. order. inspection. Order closeout.



## Transportation Plan

- Optimum carrier/vehicle
  - Freight consolidation opportunities
  - Delivery data
- TMS
- Factory gate pricing
- Freight forwarders



# Advance Ship Notices (ASNs)

- Give consignee (buyer) time to plan shipment arrival
- Allow buyer time to arrange delivery appointments
- Enable buyer to redeploy shipment contents
- Reduce uncertainty in order replenishment
- Many countries require ASN to customs authorities.
  - U.S. example: Importer Security Filing or "10+2 rule"



# **Ensuring Timely Arrival**

#### Order tracking (mainly B2C)

- Ability to determine physical location and supply chain status
- Supply chain event management systems

#### **Order visibility (mainly B2B)**

- Ability to locate and view realtime status.
- POs, SKUs in transit
- Role-specific views
- Documentation and regulatory compliance of suppliers



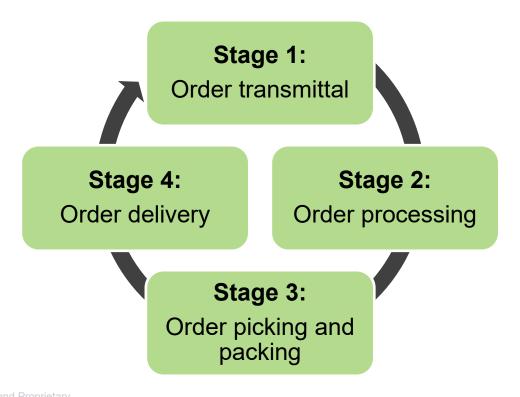
### Order Receipt and Quality Inspection: Effective Receiving



- Coordinate delivery schedule with carriers.
- PO and freight bill vs. receipt date.
- Combine products into groupings.
- Prepare receiving report.
- Move materials and ensure recipient sign-off.
- Coordinate receiving with put-away.



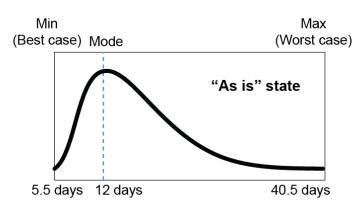
## Outbound Logistics and Order Cycle Stages

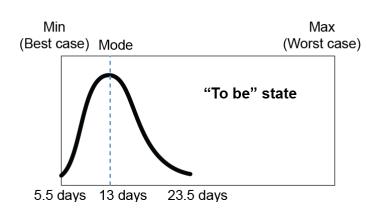




# Order Cycle Time

- Example: To-be plan is to reduce variance.
- Tradeoff: Slightly longer mode.





Source: Adapted from Donald J. Bowersox, David J. Closs, M. Bixby Cooper, and John C. Bowersox. Supply Chain Logistics Management, 2013.



# Order-to-Cash (OTC) Cycle

- Factors in time for receipt of payment for order.
- Performance used as metric for customer service:
  - Longer order cycles require buyers to have more inventory.
  - High variability in order cycle requires more safety stock.
  - Longer and more variable cycles require investing more cash.





# Tracking and Measuring Supplier Performance

Delivery reliability

Quality

Price index

Delivery date

Responsiveness

Promised quantity



# Key Performance Indicators (KPIs) for Carriers

### **Service Quality**

**Service Efficiency** 

Perfect order

Freight safety and protection

Value added

Aggregate efficiency

Billing accuracy

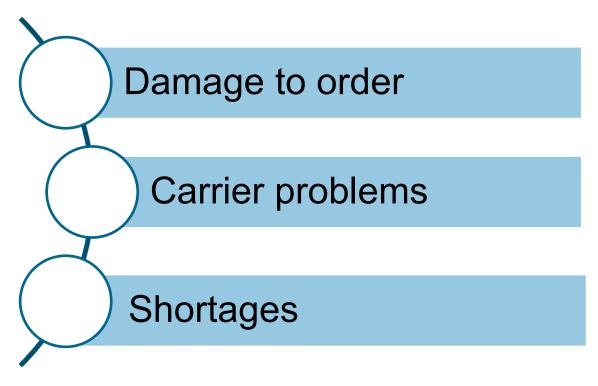
Transit time

Equipment efficiency

Organizational efficiency

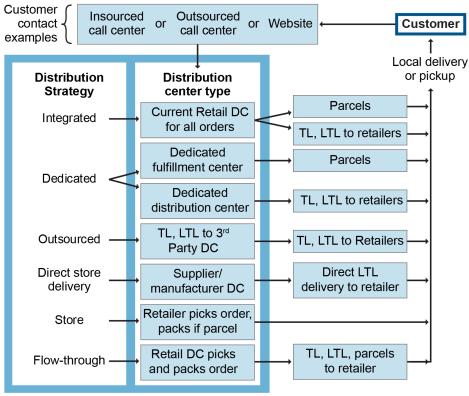


# **Exceptions and Change Management**





## Order Channels and Distribution Strategies



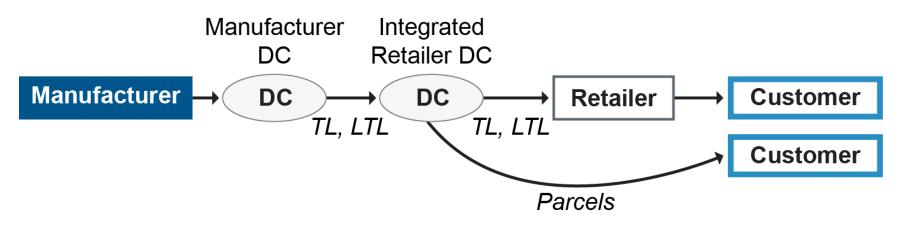
Basic functions of any distribution network:

- Sortation
- Accumulation
- Allocation
- Assortment assembly



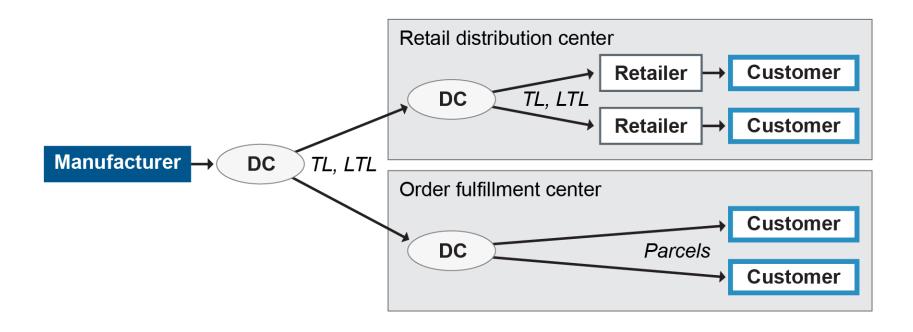
# Integrated Fulfillment

 Leverage existing retail DC to add internet parcel fulfillment without large capital expenses



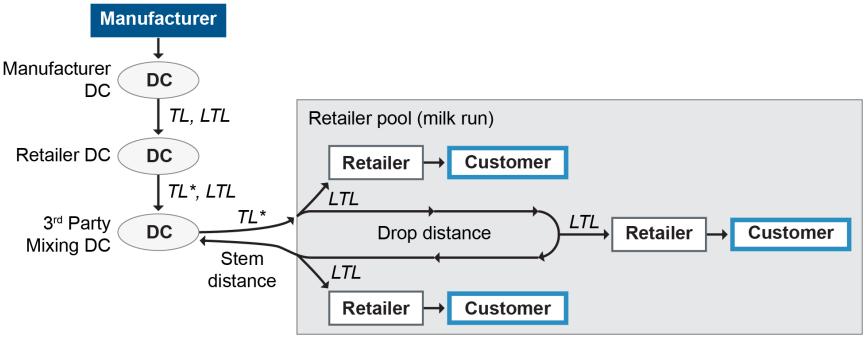


### **Dedicated Fulfillment**





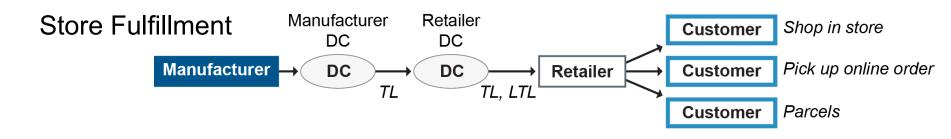
# Outsourced Fulfillment (e.g., Pool Fulfillment)

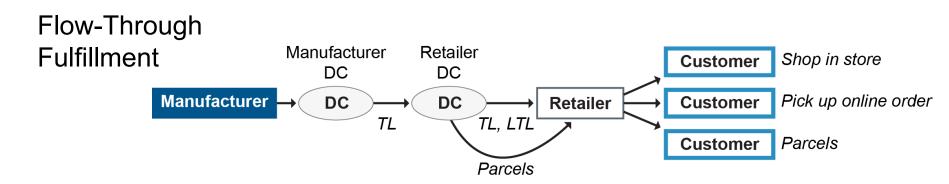


TL\* = Full TL shipments of multiple LTL orders



# Store Fulfillment and Flow-Through Fulfillment



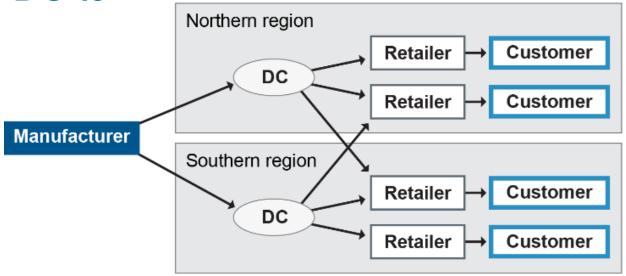




#### Optimize Order Channels, Distribution Strategies, Networks, and Fulfillment Channels

Distribution Networks: Manufacturer to DC to Retailer

Traditional supply chain

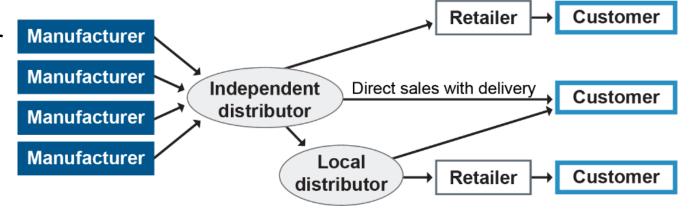




#### Optimize Order Channels, Distribution Strategies, Networks, and Fulfillment Channels

### Distribution Networks: Independent Distributor Omni-Channel

One-stop shop for retailers, local distributors, wholesalers

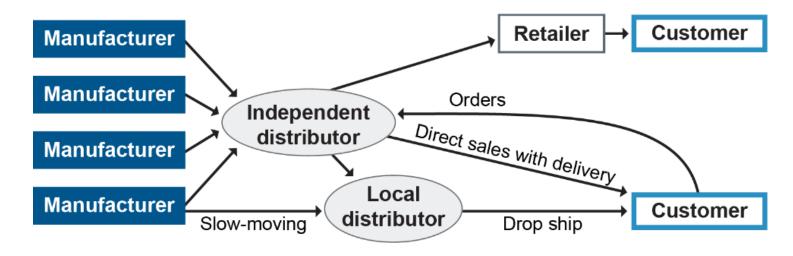




#### Optimize Order Channels, Distribution Strategies, Networks, and Fulfillment Channels

### Distribution Networks: Independent Aggregator E-Business Network

- Amazon
- Alibaba

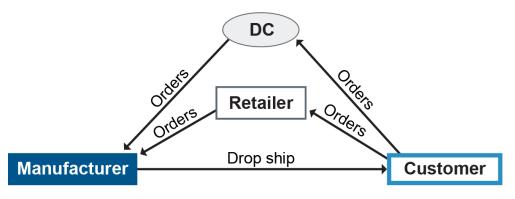


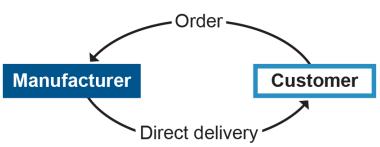


### Order Fulfillment Channels (Specific Network Route)

Manufacturer Storage with Drop Ship

Manufacturer Storage with Direct Deliver







### Aligning Order Channels and Order Fulfillment Channels

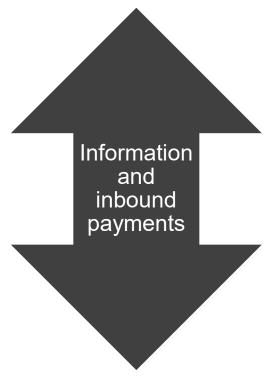
- E-commerce plus faster order cycle and cash flow velocity
  - Shorter order delivery lead times
  - Same-day delivery
- Collect customer information
- Sell-buy-make model

### **Promoting e-commerce:**

- Order visibility
- Cost-effective shipping methods
- Non-penalizing customer return policy
- Optional sites for inperson pickup, dropoff of returns



### Global Flow of Outbound Goods





Transaction channel



Communication channel



Distribution channel