Chapter 11

Distribution Customer Service and Logistics

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At the end of this presentation, you should be able to:

1. Understand why logistics (physical distribution) is such an important part of Place *and* marketing strategy planning.

2. Understand why the physical distribution customer service level is a key marketing strategy variable.

3. Understand the physical distribution concept and why the coordination of storing, transporting, and related activities is so important.

4. See how firms can cooperate and share logistics activities that will provide added value to their customers.
At the end of this presentation, you should be able to:

5. Know about the advantages and disadvantages of various transportation methods.
6. Know how inventory and storage decisions affect marketing strategy.
7. Understand the distribution center concept.
Place Decisions and the Marketing Strategy Planning Process
CH 10: Place and Development of Channel Systems

CH 11: Distribution Customer Service & Logistics
- Logistics customer service
  - What it is
  - Level to offer
  - Cost
  - JIT and EDI
- Transporting
  - Transportation modes
  - Benefits and limitations
- Storing
  - Inventory costs
  - Storage facilities and distribution centers

CH 12: Retailers, Wholesalers & Their Strategy Planning
Physical Distribution Gets It to Customers

Logistics or Physical Distribution
Why outsource?

Consider these facts:

- 30% of your distribution costs go to transportation. And every gain in productivity and efficiency goes straight to your bottom line.
- 90% of businesses either outsource or are considering outsourcing their transportation and distribution functions.
- 48% of companies lease trucks today.
- 27% more companies are using contract logistics than 5 years ago.

Then call Penske.

- A customer-focused, financially sound industry leader
- A track record of helping thousands of companies cut costs, reduce cycle times, improve customer satisfaction, and gain a competitive advantage
- A long history of providing quality service in logistics, leasing and renting
- Global capabilities
- Proven technology solutions that provide customers a seamless flow of information in a real-time environment
- A commitment to quality drives all our operations

To solve your transportation needs, call 1-800-221-3040.
Trade-Offs of Costs, Service and Sales (Exhibit 11-2)

*Note: Sales may be lost because of poor customer service or because of the high price charged to pay for too high a customer service level.*
Physical Distribution Concept Focuses on the Whole Distribution System (Exhibit 11-3)

- Info on Product Availability
- Order Processing Time
- Backorder Procedures
- Inventory Storage
- Order Accuracy
- Damage in Transit
- Online Status Information
- Advance Info on Delays
- Delivery Time
- Compliance with Customers
- Defect – Free Deliveries
- Handling Adjustments/Returns

Factors Affecting PD Service Levels
The Total Cost Approach

We’re changing the shape of shipping, again.

Take a train across the ocean? NYK can. Trains, helicopters, airplanes and even massive industrial machines are transported safely and securely around the world by NYK. Our fleet, ranging from heavy lifters to pure car and truck carriers and large container ships, is designed for optimum flexibility. And NYK is always thinking of new methods and vessel configurations for accommodating a wide variety of cargoes. After more than a century of evolving to satisfy customer needs, we’re in good shape for the future. What, when, where, wow! NYK
A Cost Comparison of Alternative Systems

Total costs of distribution by airplane:
- Inventory: $40,000
- Transportation: $199,000
- Total: $254,000

Total costs of distribution by rail with warehouse:
- Damage Packing: $5,000
- Inventory: $110,000
- Transportation: $119,000
- Total: $264,000
A manufacturer of accessories for personal computers evaluates all the alternative systems combining order processing, transportation, inventory management, and storage. If the total cost approach is followed, which physical distribution system should the manufacturer select?

A. The one that maximizes customer service at the highest total cost.
B. The one that maximizes customer service at the lowest total cost.
C. The one that meets the customer service requirement at the lowest total cost.
D. The one that meets the customer service requirement and minimizes transportation cost.
E. The one that maximizes customer service and minimizes the cost of each individual component of physical distribution.
Coordinating Logistics Activities

- Shifting and Sharing
- Conflict Handling
- JIT
- Supply Chain
Better Information Helps Coordinate PD

Areas Where Computers Help PD Service

- Continuously Updated Information Systems
- Electronic Data Interchange
Ethical Issues May Arise

Product Availability

- False expectations about delivery speed
- Selling products that are not available
- Running out of popular products

Coordination of PD

- Intentional delays in order confirmation
- Shifting of burden of holding inventory
The Transporting Function Adds Value to a Marketing Strategy (Exhibit 11-4)

<table>
<thead>
<tr>
<th>Products</th>
<th>Cost of transporting as percent of selling price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>1%</td>
</tr>
<tr>
<td>Electronic equipment</td>
<td>3%</td>
</tr>
<tr>
<td>Factory machinery</td>
<td>4%</td>
</tr>
<tr>
<td>Chemicals and plastics</td>
<td>6%</td>
</tr>
<tr>
<td>Manufactured food</td>
<td>8%</td>
</tr>
<tr>
<td>Iron ore</td>
<td>20%</td>
</tr>
<tr>
<td>Cabbage</td>
<td>38%</td>
</tr>
<tr>
<td>Bituminous coal</td>
<td>42%</td>
</tr>
<tr>
<td>Sand and gravel</td>
<td>55%</td>
</tr>
</tbody>
</table>
Which Transporting Alternative Is Best? (Exhibit 11-5)

<table>
<thead>
<tr>
<th>Mode</th>
<th>Cost</th>
<th>Delivery Speed</th>
<th>Number of Locations Served</th>
<th>Ability to Handle a Variety of Goods</th>
<th>Frequency of Scheduled Shipments</th>
<th>Dependability in Meeting Schedules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck</td>
<td>High</td>
<td>Fast</td>
<td>Very extensive</td>
<td>High</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Rail</td>
<td>Medium</td>
<td>Average</td>
<td>Extensive</td>
<td>High</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Water</td>
<td>Very low</td>
<td>Very slow</td>
<td>Limited</td>
<td>Very high</td>
<td>Very-low</td>
<td>Medium</td>
</tr>
<tr>
<td>Air</td>
<td>Very high</td>
<td>Very fast</td>
<td>Extensive</td>
<td>Limited</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Pipeline</td>
<td>Low</td>
<td>Slow</td>
<td>Very limited</td>
<td>Very limited</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>
Water Transportation

It's two of the safest ships ever built.

It's Mobil's Raven, and inside the hull that keeps water out is another hull keeping the oil in. Between them is a safety zone 13 feet wide, enough distance between oil and ocean to have prevented most of history's collision-caused spills. The Raven is our second double-hull supertanker (our Eagle was the first ever built and operated by an oil company), and two more are in the works.

Even without double hulls, they're amazing vessels. Their navigation systems are so precise that a 50-yard course deviation (less than the ship's width) causes alarms to go off. And Mobil crew training never stops. With 2.2 million barrels of oil on board, no one is more aware of the risks than we are. No one is more watchful or invests more in safety either. To learn more, visit www.mobil.com.
Airfreight Is Expensive but Fast and Growing
Interactive Exercise: Transportation Modes

Transportation Modes

- Rail
- Truck
- Pipeline
- Air
- Water
The best transportation alternative for shipping chickens from farms in West Virginia to processing plants in Maryland would be:

A. air.
B. truck.
C. rail.
D. water.
E. none of the above.
The Storing Function and Marketing Strategy

- Needed When Production Doesn’t Match Consumption
- Keeps Prices Steady
- Achieves Production Economies of Scale
- Builds Channel Flexibility
Total Inventory Cost (Exhibit 11-6)

- Cost of inventory becoming obsolete
- Interest expense & opportunity cost
- Cost of storage facilities
- Handling costs
- Cost of damage while in inventory
- Cost of risks

Total Inventory Cost (Exhibit 11-6)
Specialized Storing Facilities May Be Required (Exhibit 11-7)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed investment</td>
<td>Very high</td>
</tr>
<tr>
<td>Unit cost</td>
<td>High if volume is low – very low if volume is very high</td>
</tr>
<tr>
<td>Control</td>
<td>High</td>
</tr>
<tr>
<td>Adequacy for product line</td>
<td>Highly adequate</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Low – fixed costs have already been committed</td>
</tr>
</tbody>
</table>
Which of the following statements indicates a reasonable approach to the management of inventory and storage?

A. “Inventory that sits in a warehouse doesn’t do any harm; besides, it might be needed someday.”

B. “Inventory and storage costs should be minimized, regardless of the impact on customer service.”

C. “The cost of stockouts always exceeds the cost of carrying inventory.”

D. “Always have a large safety stock of inventory to eliminate the possibility of stockouts.”

E. “Have enough inventory on hand to meet the expected level of customer service required, but don’t carry too much.”
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2. Understand why the physical distribution customer service level is a key marketing strategy variable.
3. Understand the physical distribution concept and why the coordination of storing, transporting, and related activities is so important.
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You should now be able to:

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Key Terms

- Logistics
- Physical distribution
- Customer service level
- Physical distribution concept
- Total cost approach
- Supply chain
- Electronic data interchange (EDI)
- Transporting
- Containerization
- Piggyback service
- Storing
- Inventory
- Private warehouses
- Public warehouses
- Distribution center