



Logistics/Supply Chain Strategy and Planning

“If you don’t know where you want to go, any path will do.”

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Corporate Strategy

- Strategy is the process whereby plans are formulated for positioning the firm to meet its objectives.
- Strategy formulation begins with defining a corporate strategy. This involves:
 - a. Assessing needs, strengths, and weaknesses of the 4 major components:
 - customers
 - suppliers
 - competitors
 - the company itself
 - b. "Visioning" where counter -intuitive, unheard of, and unconventional strategies are considered.
- Corporate strategies are converted to more specific strategies for the various functional areas of the firm such as logistics.

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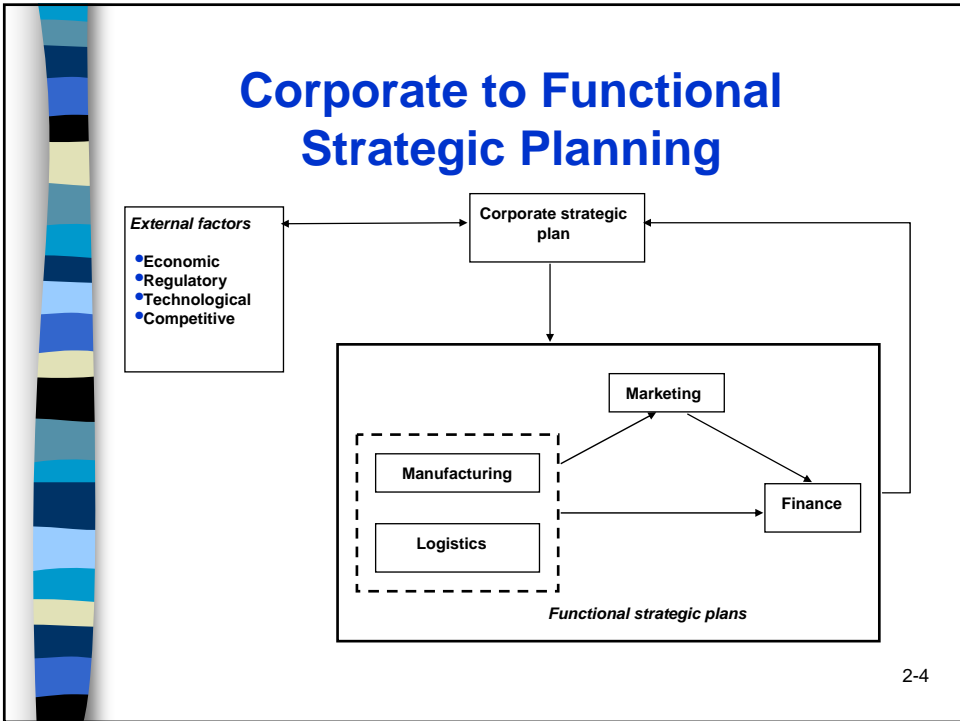
Logistics Strategy

- **The objectives of logistics strategy are:**
 - Minimize cost
 - Minimize investment
 - Maximize customer service
- **Levels of logistical planning:**
 - Strategic
 - Tactical
 - Operational
- **The 4 problem areas of supply chain planning**
 - Customer service levels
 - Facility location
 - Inventory decisions
 - Transportation decisions
- **When to plan?**
 - No distribution network currently exists.
 - There has been no re-evaluation in 5 years.
 - When costs are changing rapidly, especially transport & inventory.
 - When markets have shifted.
 - When current distribution economics encourage shifts.
 - When there has been a major policy shift in logistics such as in price, customer service, or investment level.

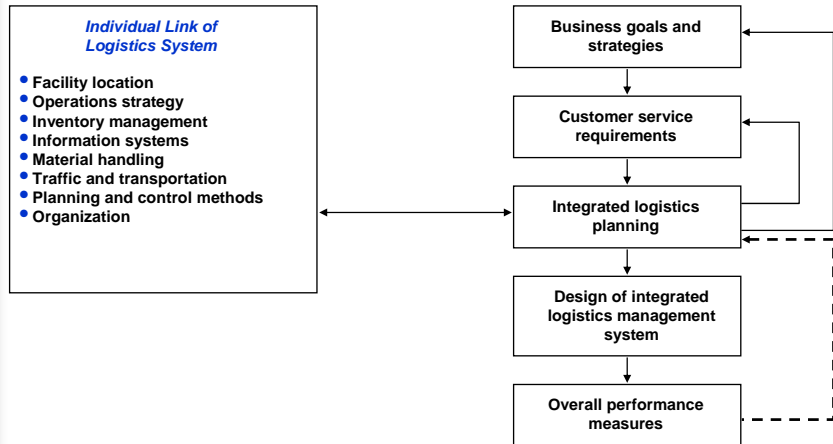
Use ROLA

Recall the logistics strategy triangle

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Flow of Logistics Planning



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Logistics' Objective

Maximize return on logistics assets (**ROLA**)

Logistics' contribution to sales

Costs of logistics operations

$$\text{ROLA} = \frac{\text{Revenue} - \text{Costs}}{\text{Assets}}$$

Investment in logistics assets

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Strategic, Tactical, and Operational Decision Making

<i>Decision area</i>	<i>Strategic</i>	<i>Tactical</i>	<i>Operational</i>
Transportation	Mode selection	Seasonal equipment leasing	Dispatching
Inventories	Location, Control policies	Safety stock levels	Order filling
Order processing	Order entry, transmittal, and processing system design		Processing orders, Filling back orders
Purchasing	Development of supplier-buyer relations	Contracting, Forward buying	Expediting
Warehousing	Handling equipment selection, Layout design	Space utilization	Order picking and restocking
Facility location	Number, size, and location of warehouses		

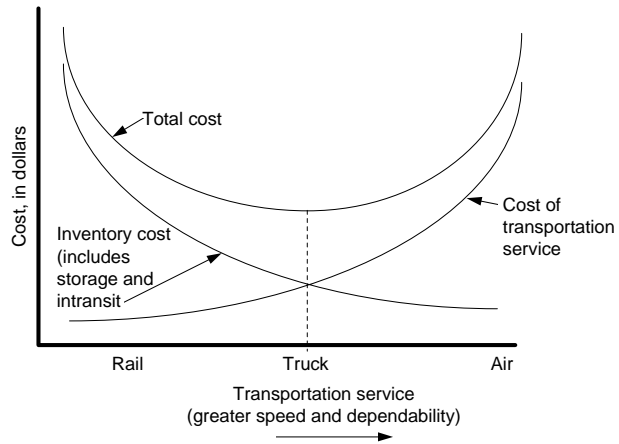
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Six Concepts for Logistics Strategy Formulation

- **Total cost concept**
Tradeoff conflicting costs at optimum
- **Differentiated distribution**
Not all products should be provided the same level of customer service
- **Mixed strategy**
A pure strategy has higher costs than a mixed strategy
- **Postponement**
Delay formation of the final product as long as possible
- **Shipment consolidation**
Smaller shipment sizes have disproportionately higher transportation costs than larger ones
- **Product standardization**
Avoid product variety since it adds to inventory

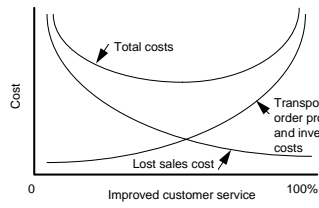
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A Cost Conflict in Logistics

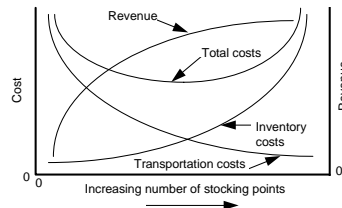


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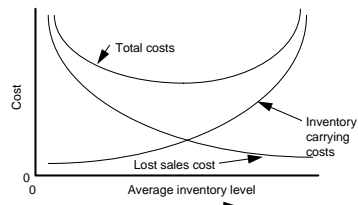
More Cost Conflicts



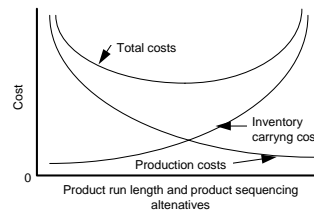
(a) Setting the customer service level



(b) Determining the number of warehouses in a logistics system



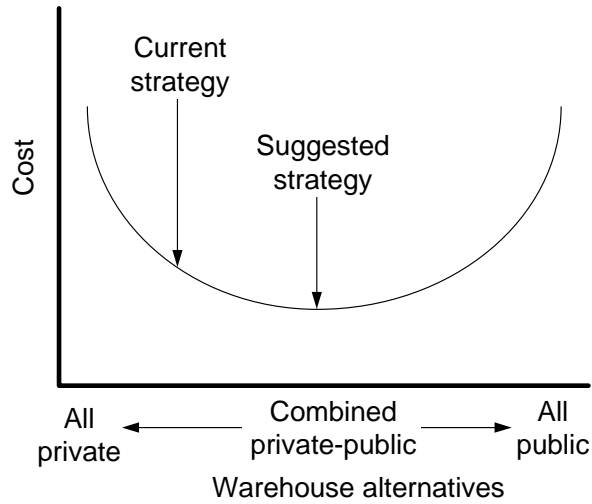
(c) Setting safety stock levels



(d) Setting the sequence of production runs for multiple products

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Pure vs. Mixed Strategy



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Choosing the Right Supply Chain Strategy

	Functional Products-- Predictable demand	Innovative Products-- Unpredictable demand
Efficient supply chain Low margin	Staple food products	
Responsive supply chain High margin		Electronic equipment

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Classification of Products

Predictable/Mature Products

- Jello
- Corn Flakes
- Lawn fertilizer
- Ball point pens
- Light bulbs
- Auto replacement tires
- Some industrial chemicals
- Tomato soup

Unpredictable/Introductory Products

- New music recordings
- New computer games
- Fashion clothes
- Art works
- Movies
- Consulting services
- New product offerings of existing product lines

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Choosing the Right Supply Chain Strategy

Efficient supply chain

Supply-to-stock

- Economical production runs
- Finished goods inventories
- Economical buy quantities
- Large shipment sizes
- Batch order processing

Responsive supply chain

Supply-to-order

- Excess capacity
- Quick changeovers
- Short lead times
- Flexible processing
- Premium transportation
- Single order processing

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Actions for Misclassified Products

Supply Chain Design Type	Product Characteristic	
	Predictable/ Mature	Unpredictable/ Introductory
Supply-to-Stock/ Efficient	Tomato Soup	If product is here
Supply-to-Order/ Responsive	If product is here	Personal Computer Models

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Seven Principles of Supply Chain Management

- Segment customers based on service needs
- Listen to signals of market demand and plan accordingly
- Develop a supply-chain-wide technology strategy
- Customize the logistics network
- Differentiate product closer to the customer
- Source strategically
- Adopt channel-spanning performance measures

Differentiated distribution

Design to customer needs

Boundary spanning info. systems

Postponement

Source: Accenture Consulting

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