Chapter 1 Introduction to International Logistics

Book: International Logistics: Global Supply Chain Management by Douglas Long
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Outline

○ What is logistics?
○ What is the goal of logistics?
○ Regional logistics assessment
○ The role of transportation
○ A brief history of logistics and transportation
What is logistics?

- Peter Drucker (1962)
  - The economy’s dark continent
  - Logistics is the most neglected and most promising business area
  - Businesses are still learning how to use logistics effectively
What is Logistics?

○ Definition of logistics management
  ● Part of the supply chain management
  ● plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements
What is Logistics?

- Business logistics: moving cargo
- General logistics: moving cargo and moving people
- Moving cargo vs. moving people
- We refer to business logistics
What is Logistics?

- **Definition of supply chain management**
  - Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities.
  - Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers.
  - In essence, supply chain management integrates supply and demand management within and across companies.
What is Logistics?

- **Materials management**
  - What a company does with inputs
  - The way a company acquires materials such as raw materials or parts, how a company handle them once they arrive at the company, and how they are shipped out

- **Physical distribution**
  - The way a company delivers its product to the market, which could be the customers or retailers
What is Logistics?

**FIGURE 1.1 Typical Logistics Network—Physical Distribution**

- **Raw Materials Supply Points**
  - Raw Materials Storage
  - Movement/Transportation
  - Storage
- **Manufacturing**
  - Plant 1
  - Movement/Transportation
  - Plant 2
  - Movement/Transportation
  - Plant 3
- **Finished Goods Storage**
  - Warehouse
- **Markets**
  - A
  - B
  - C

**Physical Supply Materials Management**

**Physical Distribution Marketing Logistics**
What is Logistics?

FIGURE 1.3 The Logistics Evolution

Fragmentation
1960

Demand Forecasting
Purchasing
Requirements Planning
Production Planning
Manufacturing Inventory
Warehousing
Materials Handling
Industrial Packaging
Finished Goods Inventory
Distribution Planning
Order Processing
Transportation
Customer Service

Evolving Integration
1980

Materials Management

Physical Distribution

Total Integration
2000

Logistics
What is Logistics?

**FIGURE 1.4 Logistics Evolution to Supply Chain Management**

- Fragmentation
  - 1960
- Demand Forecasting
- Purchasing
- Requirements Planning
- Production Planning
- Manufacturing Inventory
- Warehousing
- Materials Handling
- Industrial Packaging
- Finished Goods Inventory
- Distribution Planning
- Order Processing
- Transportation
- Customer Service
- Strategic Planning
- Information Technology
- Marketing/Sales
- Finance

Logistics

Physical Distribution

Materials Management

Supply Chain Management
What is the Goal of Logistics?

- Logistics is about getting things to where they need to be, but is much broader than transportation
- The overall goal of logistics
  - To achieve a targeted level of customer service at the lowest possible cost
What is the Goal of Logistics?

- Logistics Activities
  - Network design
  - Information
  - Transportation
  - Inventory
  - Warehousing, material handling and packaging
What is the Goal of Logistics?

- Operational objectives of a logistics system
  - Rapid response
  - Minimum variance
  - Minimum inventory
  - Movement consolidation
  - Quality
  - Life cycle support
What is the Goal of Logistics?

- A couple of terms
  - Business logistics
  - Integrated logistics: emphasizes the need to coordinate with suppliers and customers.
  - Operations: logistics is a support function to operations
  - Inbound logistics
  - Operations logistics
  - Outbound logistics
What is the Goal of Logistics?

- Inter-firm logistics
- Intra-firm logistics
- International logistics
What is the Goal of Logistics?

- How much is spent on logistics?
  - 1993, USA, 10.7% of GDP goes to cover the cost of logistics, twice on national defense
  - 1985, 25-35% of product’s sale value for international logistics, 8-10% for domestic logistics
  - 2000, USA, 10% of the price of all goods attributed to the cost of logistics
What is the Goal of Logistics?

- Spending on logistics depends on three factors
  - Level of economic activity
  - Efficiency
  - From goods and toward services
Regional Logistics Assessment

- Logistics assets
  - Geography: some geographic features are natural aids while others are obstacles
  - Physical infrastructure: macro infrastructure; micro infrastructure
  - Legal/business infrastructure: trade and logistics requires a wide variety of services provided by other business and the government.
  - Example: Switzerland vs. Chad
Regional Logistics Assessment

- Three logistics environments
  - Military
  - Business: product, service
  - Civil: public, private
Regional Logistics Assessment

○ Performance cycle
  ● Most basic unit of logistical analysis in a business
  ● Also called fulfillment
  ● Those activities involved from the point of recognizing demand from a customer through delivering the goods or services to the customer, complete with an invoice or similar instrument to facilitate the collections of payment.
Regional Logistics Assessment

- Three different channels in action during the performance cycle:
  - Transaction
  - Distribution
  - Documentation/communication
Transportation plays a central role in logistics.

“get something to where it needs to be”: most important of all is the physical transportation.

International logistics: the role of transportation become even more important.
The Role of Transportation

- Three perspectives to transportation
  - Shipper
  - Carrier
  - Consignee
The Role of Transportation

- Characteristics of international transportation
  - Cross a national boundary
  - Political issues
  - Regulations
  - Documentation
  - Longer distance
  - Intermodalism: multiple modes of transportation
Brief History of Logistics and Transportation

- Logistics was originally a military term
- Before 1950s, no logistics. Reasons:
  - Computers were not seen in integrating functions
  - Volatile economic condition led management to concentrate on cost containment
  - Difficulty in quantifying the returns that could be gained
Brief History of Logistics and Transportation

- Things that changed logistics to be a valuable part of the company
  - Computerization
  - Quality management
  - Partnerships and alliances
  - Deregulation

- Transportation played an important role in logistics development: intermodalism
Brief History of Logistics and Transportation

- Logistics will play a central role in the global economy as we proceed into the 21 century.