



Nakhon Pathom Rajabhat University



Chapter 1

Principle of Logistics Management

Dr.Santi Ditsathaporncharoen



Nakhon Pathom Rajabhat University



Outlines

- Definition of Logistics management
 - Evolution of Logistics
 - Importance of Logistics in economy and organization
 - Logistics activities
 - Logistics system planning
-



Outlines (con't)

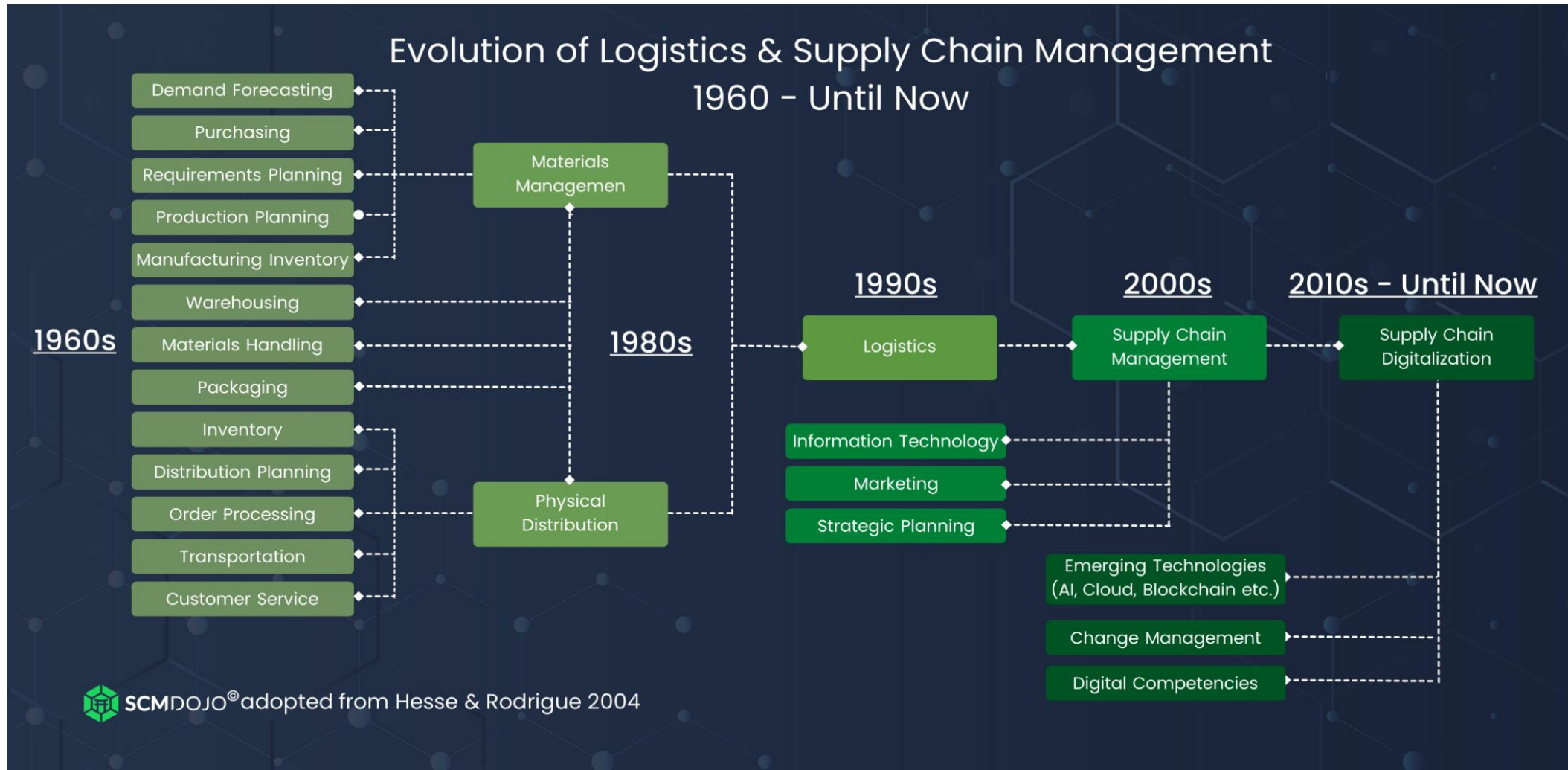
- Logistics operations
 - Logistics control
 - Logistics trends in Thailand
 - International Logistics trends
 - Exercises
-



Definition of Logistics management

Logistics management is “that part of supply chain management that 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 to meet customers' requirements.”

Evolution of Logistics





Importance of Logistics in economy and organization

✌ The role of Logistics in the economy

(1) Logistics directly contributes to economic activity through investment in warehousing, road, rail, sea, and air transport. It also creates many excellent jobs, providing skilled careers for thousands.





✌️ The role of Logistics in the economy (con't)

(2) Logistics support the movement and flow of many economic transactions; it is an important activity in facilitating the sale of all goods and services.





The role of Logistics in the organization



“Logistics support marketing”

(1) The marketing concept is a “customer-driven” perspective that holds that a business exists to meet customer needs.

(2) For a firm to be successful, any marketing effort must integrate the ideas of having the right product, at the right time and available in the right place. Logistics plays a critical role, particularly in support of getting the product to the right time and place.



✌ The role of Logistics in the organization (con't)

(3) To achieve customer satisfaction, the firm needs to examine the trade-offs among alternatives, thereby reducing the overall cost of activities within a system.



Logistics activities



Logistics system planning



 **Decide what, when, and how in three levels :**

➤ Strategic level = Long range > 1 year

➤ Tactical level = < 1 year horizon

➤ Operational level = Frequently on hourly or daily



Examples of decisions

Type	Strategic	Tactical	Operational
1. Location	1. Facilities, Size, Location	1. Inventory positioning	1. Routing
2. Transportation	2. Mode	2. Seasonal service mix	2. Replenishment quality and timing

Factors influencing Logistics planning



- ➔ Globalization
- ➔ Uncertainties
- ➔ Industry growth
- ➔ Technologies



Logistics operations



Logistics operations in an organization are simply described as the management of material flow and distribution of products to customers. these five keys of operation comprise but are not limited to : Sourcing, Order processing, Distribution planning, Inventory and warehouse management, and Transportation management.



Logistics operations (con't)

Sourcing : Sourcing techniques into several categories, including Local or Global sourcing, Single or Multiple sourcing.





Logistics operations (con't)

Order processing : Order processing entails several processes and requires optimum information flow of products.





Logistics operations (con't)

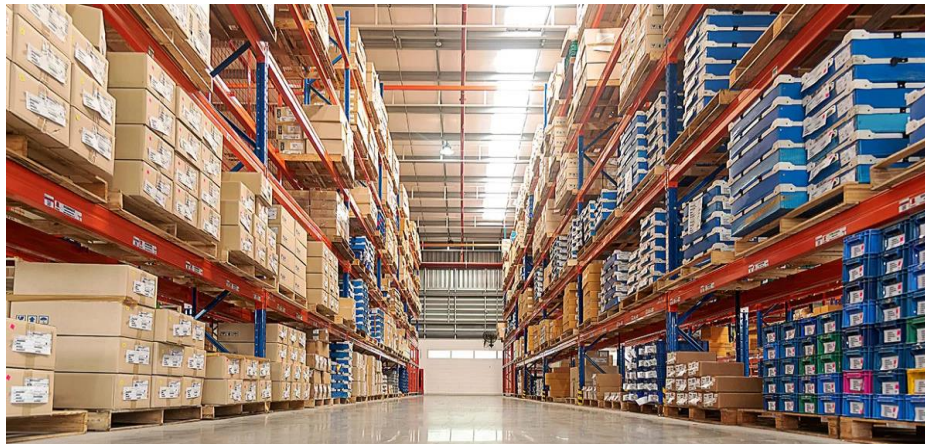
Distribution planning : The process and strategy of moving, transporting, or distributing products or goods from their point of manufacturing to the required point of destination or consumption for final customer availability for usage.



Logistics operations (con't)



Inventory and warehouse management : Maximum utilization of the warehousing space; Managing inventories with a limited guarantee period effectively and Enhancing the inventories revenue.





Logistics operations (con't)

Transportation management : Minimize the operational cost, improve the service quality to customers and better efficiency will be achieved.



Logistics control



Logistics control is normally directed toward two subjects: The control of logistics output or service level and the input of Logistics operations.

Key objects of Logistics control are service level, Inventory turnover, Warehousing costs, Transportation costs, and Administrative costs.

Logistics control (con't)



Logistics control involves : Setting goals and standards for performance, Measuring performance, and Taking corrective actions. Various methods such as Productivity ratios, Flexible budgets, Standards, Control charts, and Audits, can be used to measure the performance of logistics operations.

Logistics trends in Thailand



Supply Chain Logistics	 Local Operating Structure	 Global Operations Structure	 Partial Global Resource Planning / Controlling	 Complete Global Resource Planning / Controlling	 Open and Flexible Operations Footprint
Inbound Logistics	 Push Delivery Process	 Pull Delivery Process / JIS	 Vendor Managed Inventory	 Autonomous Inventory Management	 Predictive Inbound Logistics Management (Big Data)
Warehouse Management	 No Automation	 Automatic Warehouse System	 Automatic Warehouse Network	 Supply Chain Warehouse Network	 No Warehouse in Supply Chain
Intralogistics / Line Feeding	 Manually steered rack, trolley	 Manually steered train	 Autonomous FTS on fixed routes	 Autonomous FTS on open area	 Autonomous FTS on open area steered by production machine
Outbound Logistics	 Push Delivery Process	 Order-Based Delivery Management	 Active Delivery Management	 Automatic Delivery Management	 Predictive Delivery Management
Logistics Routing	 Decentralized Vehicle / Equipment Fleet	 Centralized Vehicle / Equipment Fleet	 Pre-planned and Centralized Fleet	 Real-Time Routing and Connected Navigation	 Autonomous Transportation Vehicle / Equipment

International Logistics trends



LOGISTICS 4.0

Digitization/automation of business and logistics processes, networking of devices

BIG DATA

Collect and share big data to optimize business and logistics processes.



GLOBALIZATION

Closer international networking through digitization and more localization for stable supply chains.



ROBOTS

Support for simple fulfillment activities by digital helpers.



MULTICHANNEL LOGISTICS

More stable supply chains through more flexible use of different modes of transport.



SUSTAINABILITY

Advanced and innovative technologies for the reduction of greenhouse gas emissions.



Exercises Chapter 1



Question 1 : What is the meaning of Logistics management ?

Question 2 : What are the Logistics activities ?

Question 3 : What are the levels of Logistics system planning ?

Question 4 : What are the keys to Logistics operations ?

Question 5 : What are the key objects of Logistics control ?



Nakhon Pathom Rajabhat University
