

# Logistics and Supply Chain Management





# World Famous Logistics Companies



# Using AI in SCM



# Success Mantra for Amazon





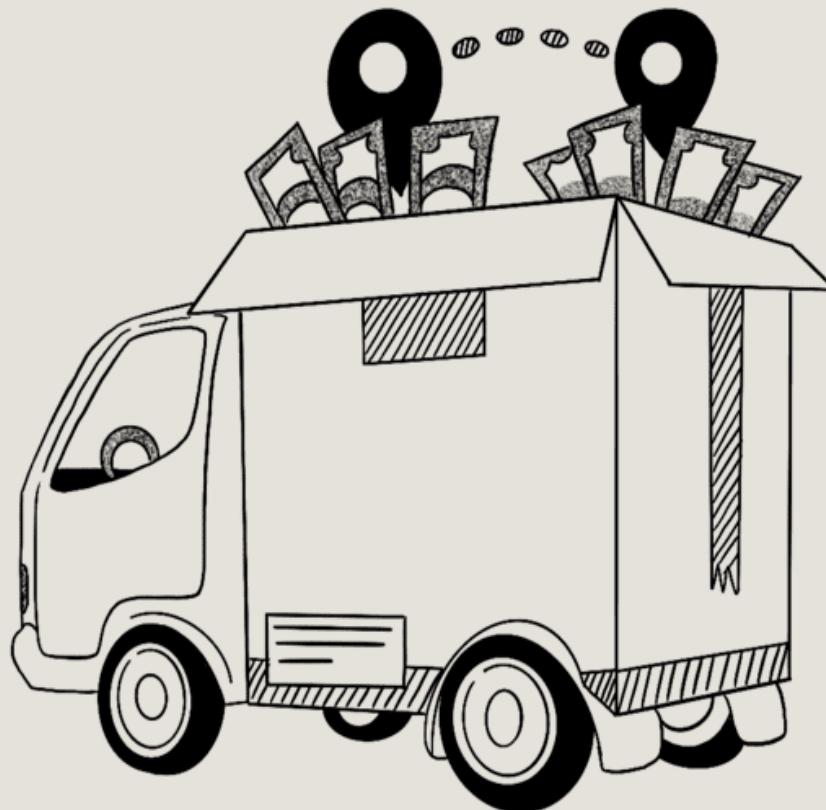
# Unit-1

- Introduction to Logistics Management: Introduction, Objectives, Concept of Logistics, Objectives of logistics, Types of logistics, Concept of Logistics Management, Evolution of Logistics, Role of Logistics in an Economy, Difference between Logistics and Supply Chain Management.

# Introduction to Logistics Management

- ‘Logistics’ has a **military** origin, and used to be associated with the movement of troops and their supplies in the battlefield. But like so many other technologies and terminologies, it entered into the business lexicon gradually and has now become synonymous with the set of activities ranging from **procurement of raw materials, to the delivery of the final polished good to the end consumer.**

# Meaning of Logistics



## Logistics

[lō-'ji-stiks]

The overall process of managing how resources are acquired, stored, and transported to a final destination.

# **Logistics in the world of business**

- In business, logistics is the management of the flow of things between their point of origin and their final destination in order to meet the needs of companies and customers. It is a subset of supply chain management.
- The resources managed in logistics include a wide range of items, including:
  - Food
  - People
  - Animals
  - Materials
  - Time
  - Information
  - Vehicles, Boats and Airplanes
- The logistics of physical things – things we can touch – generally involves the integration of material handling, information flow, production, packaging, transportation, inventory, warehousing and security.

# **IMPORTANCE OF LOGISTICS**

- Logistics is the bedrock of trade and business.
- Leads to customer satisfaction.
- Integrated Logistical Activities.
- Competitive Edge.
- Logistics wins or loses wars.
- Supports critical functions like operations and marketing.
- Logistical Costs.

# Objectives of Logistics

- Rapid Response
- Minimum Variance
- Minimum Inventory
- Movement Consolidation
- Quality
- Life Cycle Support

# Functions and Scope of Logistics

- Order Processing
- Inventory Management
- Warehousing
- Transportation
- Material Handling
- Packaging
- Information Management
- Procurement / Purchasing

# **LOGISTICAL COMPETENCY FIVE PILLARS**

- Network Design
- Information Management
- Transportation
- Inventory Management
- Warehousing ,
- Material Handling & Packaging

# **7 R's of logistics**

- **Right Product**
- **Right Customer**
- **Right Condition**
- **Right Place**
- **Right Time**
- **Right Cost**
- **Right Quantity**

# WHAT ARE 7 R'S OF LOGISTICS?

7

RIGHT QUANTITY

6

RIGHT COST

5

RIGHT TIME

4

RIGHT PLACE

3

RIGHT CONDITION

2

RIGHT CUSTOMER

1

RIGHT PRODUCT

# **Types of Logistics**

- **1. Inbound Logistics**
- **2. Outbound Logistics**
- **3. Reverse Logistics**
- **4. Third Party Logistics (3PL )**
- **5. Fourth Party Logistics (4PL)**

# 1. Inbound Logistics

## INBOUND LOGISTICS

Receiving, storing and disseminating incoming goods and material for use.



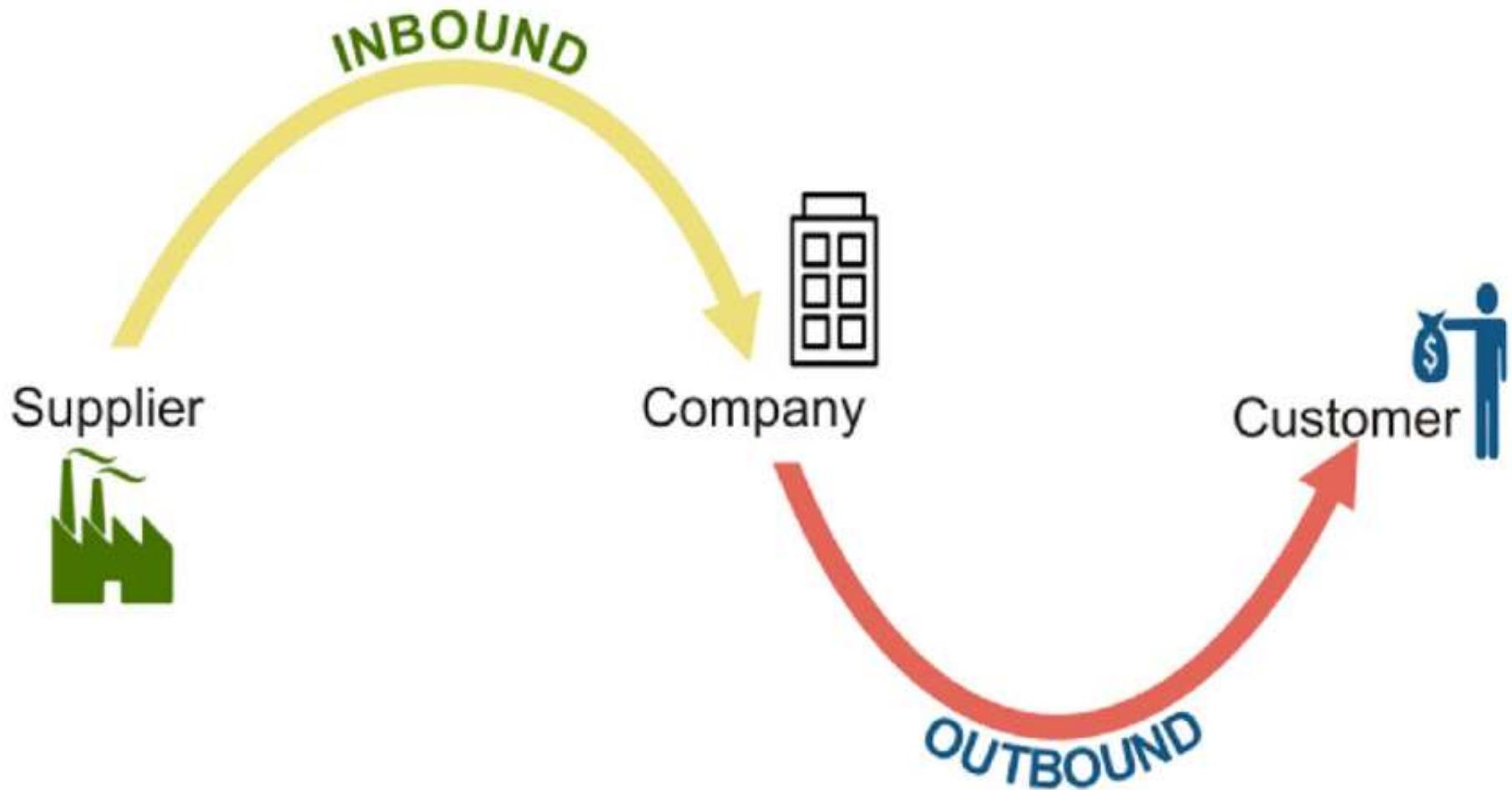
# 1. Inbound Logistics

- Inbound logistics is all about the transportation between the companies and their suppliers.
- The job of inbound logistics is to transfer the crude or raw materials to the respective departments or manufacturers for further processing.
- Large trucks are mostly preferred for transporting these crude raw materials.

## 2. Outbound Logistics

- Outbound logistics is the movement of products or finished goods from the production centers to the next supply chain link.
- After that, these products are moved from the warehouse to the consumption point or the customers.
- Hence, outbound logistics is also known as the process of order fulfillment.

# Inbound and Outbound Logistics



# Inbound and outbound logistics



## Inbound Logistics

Sourcing and Procurement

Supplier Selection

Inbound Transportation

Receiving and Quality Check

Material Handling

## Outbound Logistics

Warehousing and Storage

Packing and Packaging

Outbound Transportation

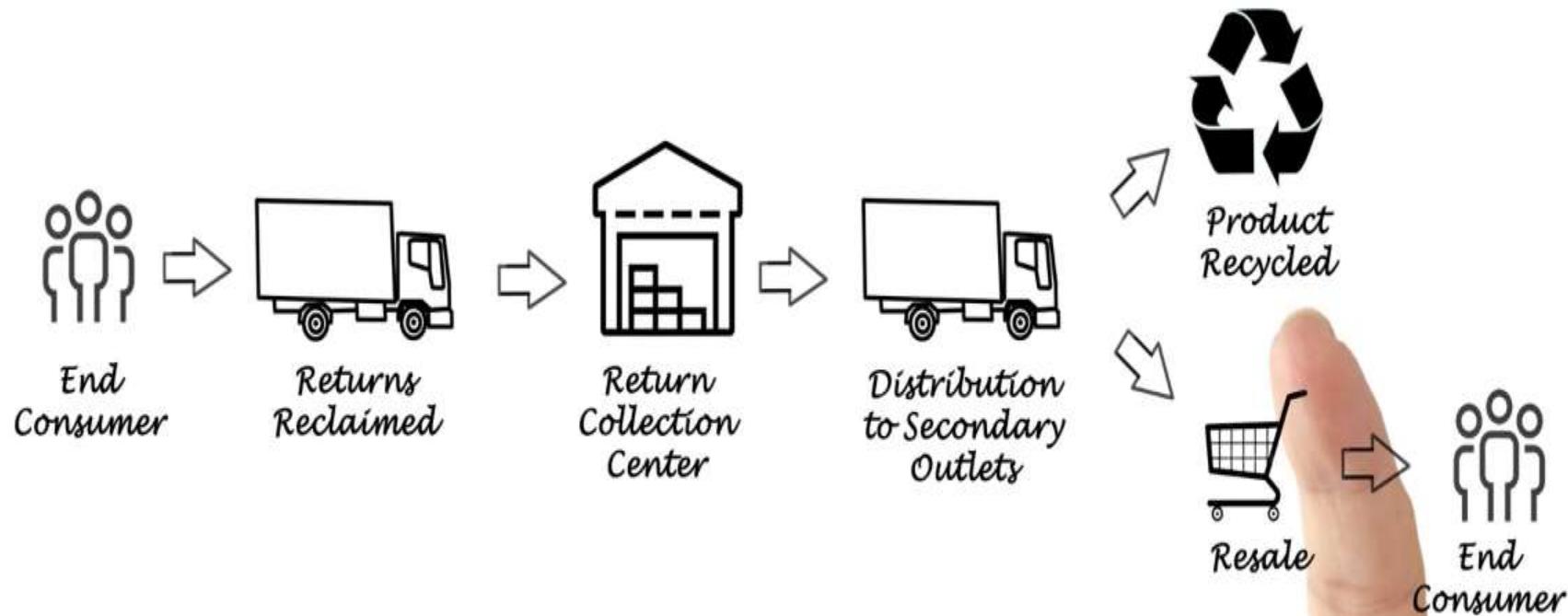
Order Fulfillment

Reverse Logistics

### 3. Reverse Logistics

- As the name suggests, Reverse Logistics is the transportation of goods or products from the end-users to the supply chain.
- Reverse logistics is needed in the event of a replacement or return of products for refurbishing, repairing, exchange, disposal, or recycling.

# Reverse Logistics



## 4. Third Party Logistics (3PL )

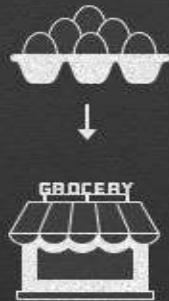
- Third Party Logistics (3PL) is defined as “A logistics process performed by an organization that is NOT the manufacturer or distributor of the product”
- Ex:
- International courier services
- International freight forwarding services
- Customs clearance services
- Warehousing services
- Transportation services

# 5. Fourth Party Logistics

- Fourth-party logistics (4PL) companies interface between their client and multiple logistics service providers – directing every moving part within a supply chain, including third-party logistics (3PL) and transportation suppliers. 4PL service providers are a strategic partner to their clients that strive to drive supply chain efficiency.

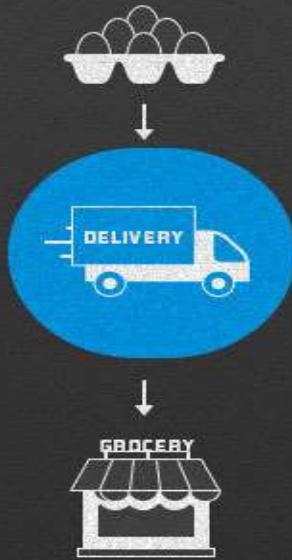
# 1PL

A farmer who delivers eggs to a grocery store for sale.



# 2PL

A courier delivers eggs from farm to grocery store.



# 3PL

A fulfillment company with a fleet of trucks transports eggs & transports them from farm to grocery store.



# 4PL

A logistics company strategically manages a 3PL on behalf of the farmer to package & deliver eggs to grocery store.



# 5PL

A logistics company manages a farmer's complete supply chain network from production to delivery.



# **Concept of Logistics Management**

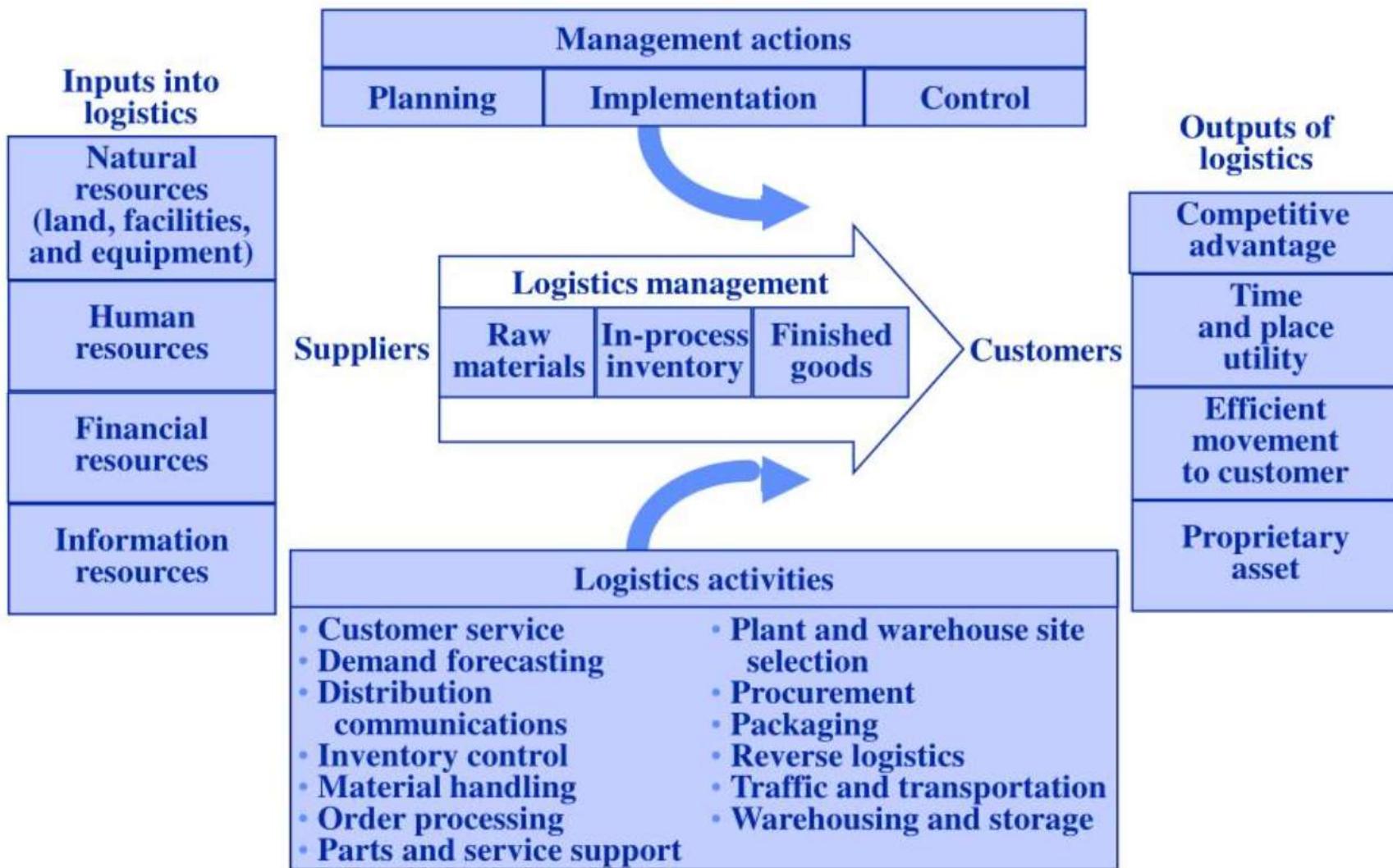
- Logistics Management is the process of
  - Planning
  - Implementing and
  - Controlling
- the efficient, cost- effective forward and reverse flow of raw materials, in-process inventory, finished goods, services, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements

**--Council of Logistics Management**

# Logistics Activities

- Customer service
- Demand forecasting
- Logistics information systems
- Plant and warehouse site selection
- Procurement
- Packaging
- Inventory control
- Reverse logistics
- Material handling
- Order processing
- Parts and service support
- Traffic and transportation
- Warehousing and storage

# Components of Logistics Management



# Objectives of Logistics Management

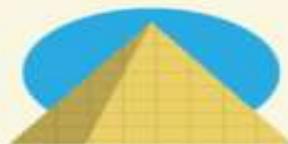
- 1 INCREASED EFFICIENCY**
- 2 RELIABLE & CONSISTENT DELIVERY PERFORMANCE**
- 3 MINIMUM PRODUCT DAMAGE**
- 4 REDUCE TRANSPORTATION COST**
- 5 QUICK RESPONSE**
- 6 INVENTORY REDUCTION**

# **IMPORTANCE OF LOGISTIC MANAGEMENT**

- 1 PROVIDE BETTER SERVICE**
- 2 ENSURE SEAMLESS DELIVERY**
- 3 COST EFFICIENCY**
- 4 ORDER MANAGEMENT**
- 5 INCREASE SUPPLY CHAIN TRANSPARENCY**

# **Evolution of Logistics**

# *The History of Logistics*



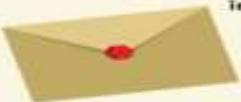
**2700 B.C.**

Material handling and transportation technology in pyramid construction.



**700 A.D.**

The Mezquita Mosque in Spain was constructed with pillars from the Islamic Empire.



**1500**

A progressive postal service was established in Europe between Paris, Vienna and Spain.



**1970 - 1980**

-Kaban and 'just-in-time' enabled logistics to link to other operational functions.



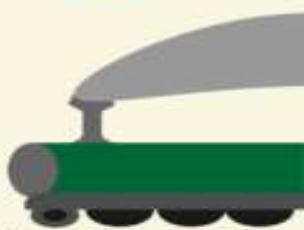
**300 B.C.**

Revolutionary Greek rowing vessels built a new foundation for intercontinental trade.



**1200**

The Hanseatic League established a cooperation for transport bundling and international sea transport.



**1800**

Discovery of new road conveyances and the railroad followed the invention of the steam engine and discovery of crude oil.



**1940**

Military logistics during the world wars inspired the business world.

**1990**

Invention of the sea container significantly contributed to globalisation and the new consumption patterns.



**Today**

Supply chain management is viewed as a holistic consideration of key business processes that extend from the supplier to the end user.

- [https://youtu.be/kT\\_toh5NbxE](https://youtu.be/kT_toh5NbxE)