

# Course: Logistics Management

Theme: TRANSPORTATION SYSTEM IN LOGISTICS



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# 1. WHAT IS TRANSPORTATION AND LOGISTICS MANAGEMENT?



Wikipedia, transportation is defined as



The Council of Supply Chain Management Professionals (CSCMP) defines logistics



APICS dictionary, logistics is defined

After Asking  
“What is  
Transportation and  
Logistics  
Management?” Do  
you Think They are  
the Same Thing?



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When it comes to logistics, logistics executives must make further decisions beyond the mode of transportation to include:

Packaging

Containerization

Documentation

Insurance

Storage

Importing and Exporting Regulations

Freight Damage Claims

Choosing the correct [LTL freight class](#) for your shipment

Working & collaborating with other executives within the supply chain

Managing vendors and partners

Responsible for mitigating risk and mitigating expenditures



a transportation  
management  
system

custom inbound  
freight programs

## 2. THE ROLE OF TRANSPORTATION IN LOGISTICS CHAIN



logistics

Nationalization

globalisation

management  
techniques

transportation  
system



Council of Logistics  
Management (1991)



*Johnson and Wood's*



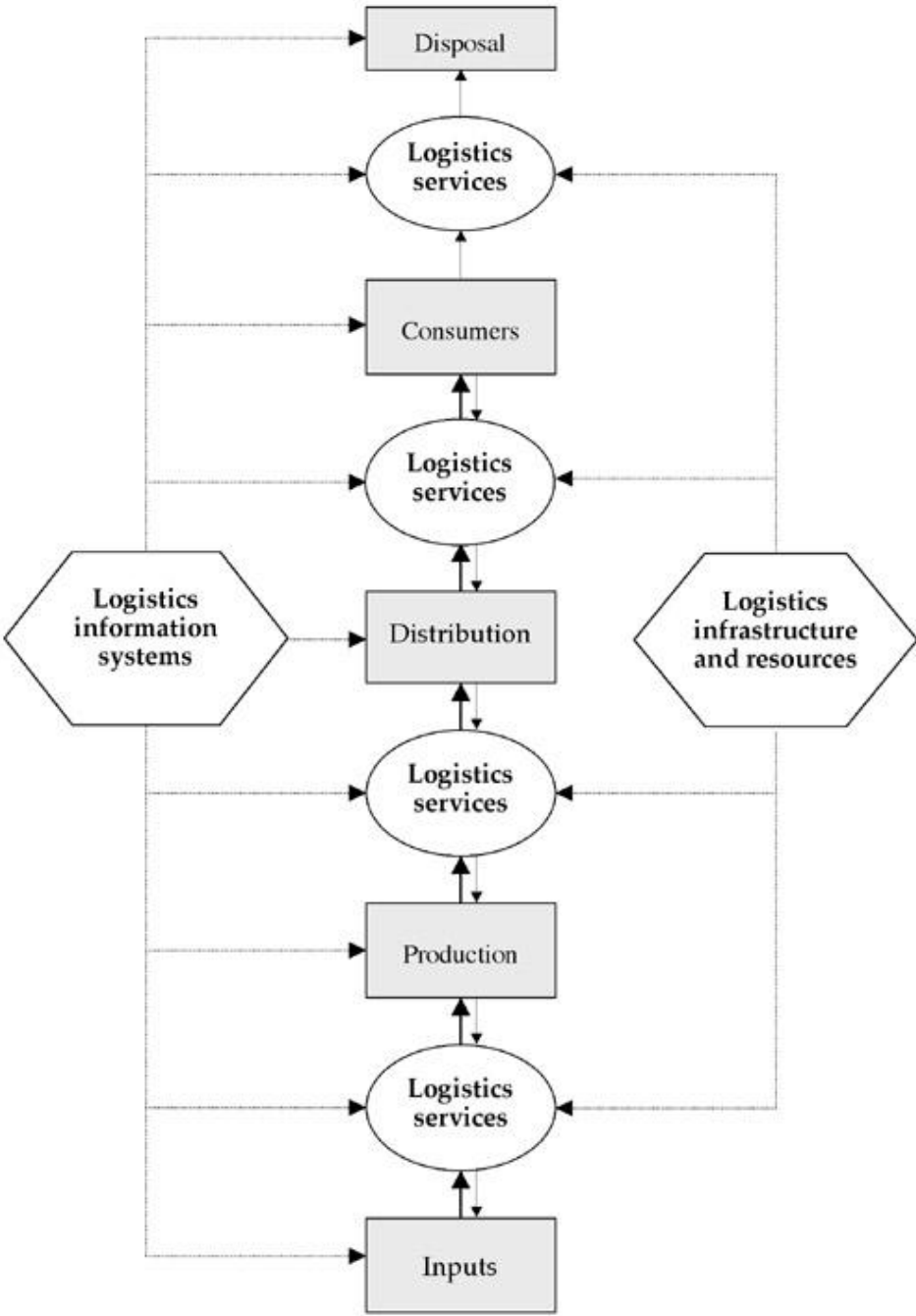


Figure 1. Overview of Logistics System (source: BTRE, 2001)

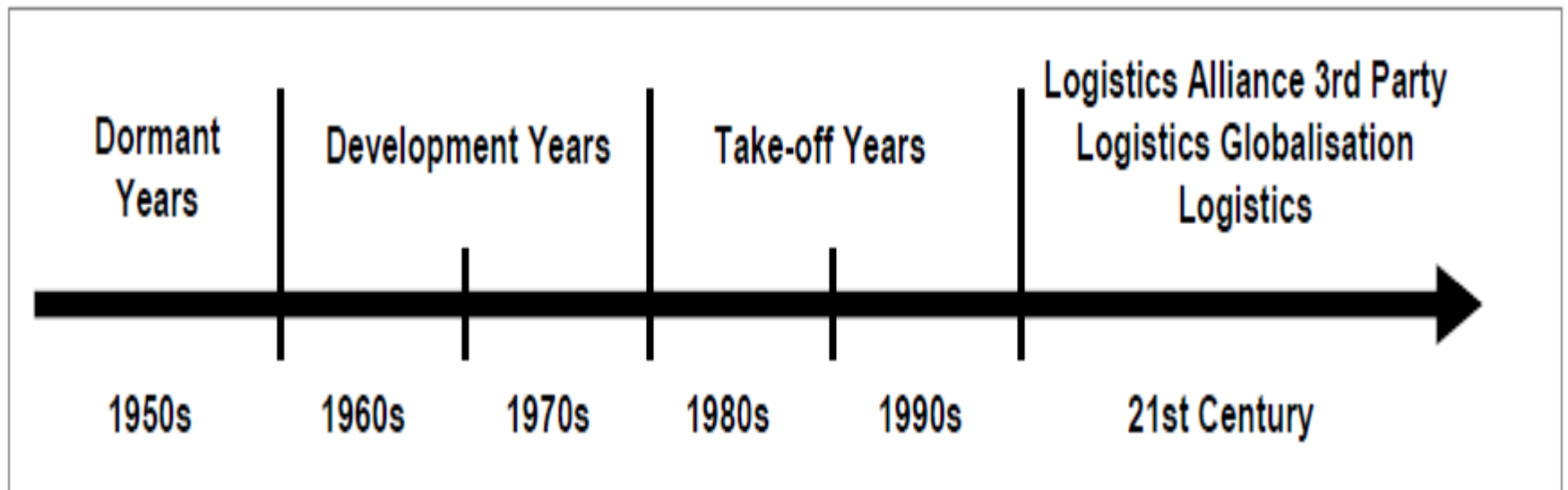


Figure 2. Logistics historical development

Supply Chain Management (SCM)

Logistics Management

*a responsive*

*economical* transportation network.

supply chain





*A responsive* transportation network

*An economical* transportation network

a Bloomberg survey reports

Trucks

Pallets

Warehouses



### 3. THREE PRINCIPLES OF TRANSPORTATION OPTIMIZATION

Companies are increasingly considering their transportation and logistics operations to be a competitive differentiator. As such, demand for advanced transportation management systems is on the rise. According to Gartner, Inc., the transportation management system market should see double-digit growth in 2011 and a five-year compound annual growth rate of 9.4 percent<sup>1</sup>. With mounting pressure on businesses to contain costs, address capacity constraints, lower their carbon footprints and streamline movements, a flexible, agile and functionally rich transportation management system can help support their service goals. Yet for some companies, pinpointing the optimal solution can be nearly as complex as getting the right products to the right places at the right time and at the lowest cost. One factor adding confusion to the search is the manner in which vendors use — or overuse — the term optimization.



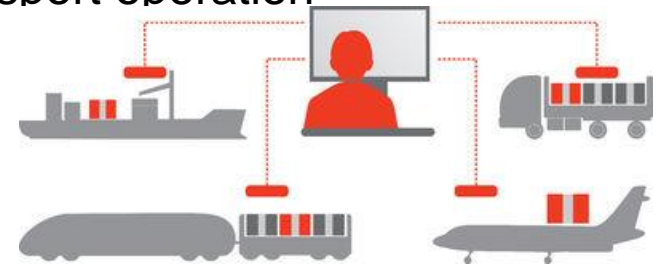
For more than 15 years, transportation solution vendors have been touting the optimization power that their solutions deliver to support more sophisticated planning, execution and settlement processes. Indeed, optimization techniques are proven to drive the vast majority of the business value realized from the use of transportation management solutions. However, not all optimization strategies are created equal and that's where the confusion lies.



Vendors too often focus on just one function to optimize, which can lead to more harm than good. A simplified optimization approach may prompt a shipper to pick one carrier over another simply based on cost. A comprehensive approach may reveal that the selected carrier doesn't have enough trucks or docks available to support the load in the first place.



Transportation is one of the most visible elements of logistics operations. As consumers, we are accustomed to seeing trucks and trains moving products or parked at a distribution facility. While this experience provides a good visual understanding of transportation elements, it does not allow the necessary depth of knowledge to understand transportation's role in logistics operations. This section establishes that foundation by reviewing functionality provided by transportation and the underlying principles of transport operation



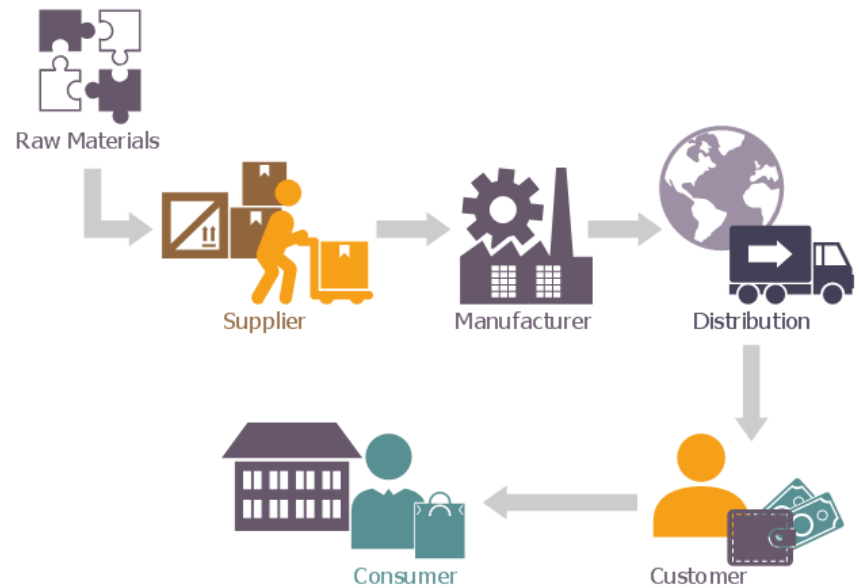
# Transportation functionality

# Product Movement

The major objective of transportation is to move product from an origin location to a prescribed destination while minimizing temporal, financial, and environmental resource costs. Loss and damage expenses must also be minimized. At the same time, the movement must take place in a manner that meets customer demands regarding delivery performance and shipment information availability.

## Product Storage





**Principle of  
Transportations**

**Economy of  
scale**



Thanks for your attention