

Logistics and supply chain

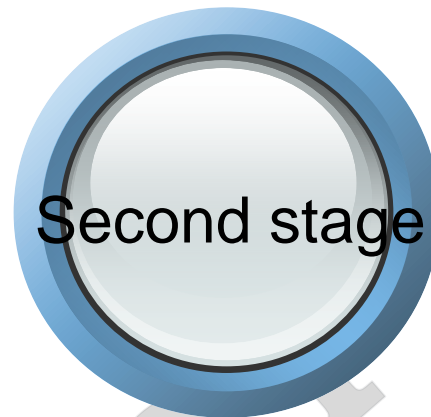
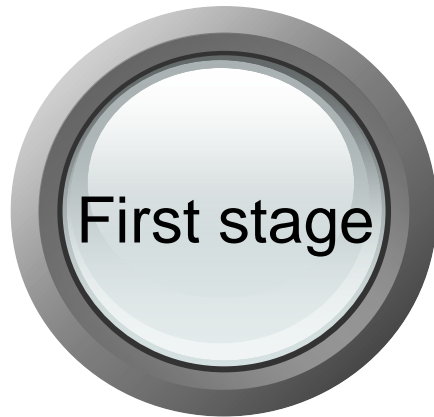
- 1 **logistics and Supply chain**
- 2 **Material and information flow**
- 3 **Competing through logistics**
- 4 **Logistics strategy**

Case study



- Seven-eleven convenience store
 - Describe the key logistics processes at 7-11.
 - What differences between the early reform and the regional distribution center at 7-11.
 - What do you think are the main logistics challenges in running the 7-11 operation.

Case study



No distribution center

Centralized distribution

Built its own distribution center--joint distribution

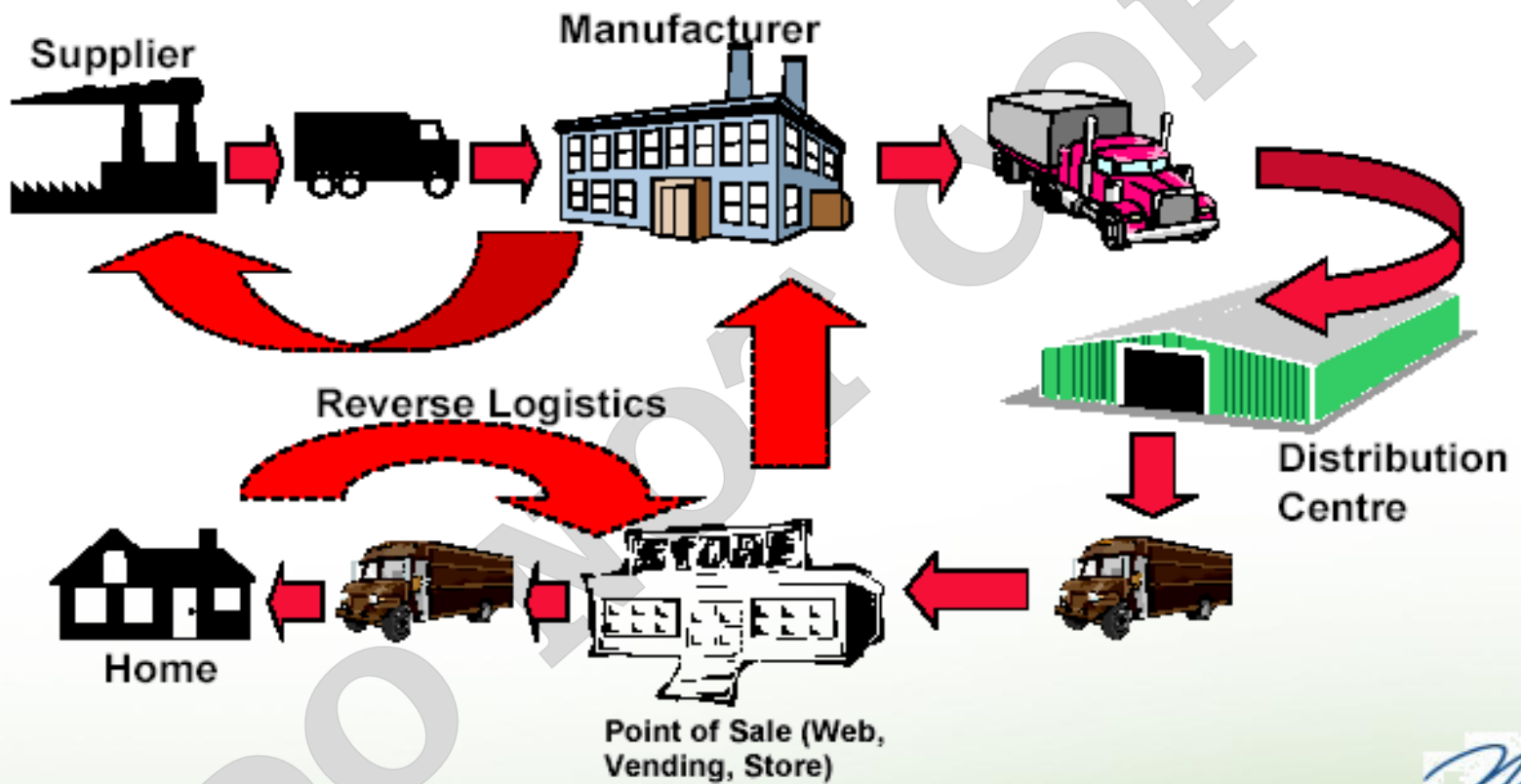
Key issues

1

What is supply chain, and how is it structured?

2

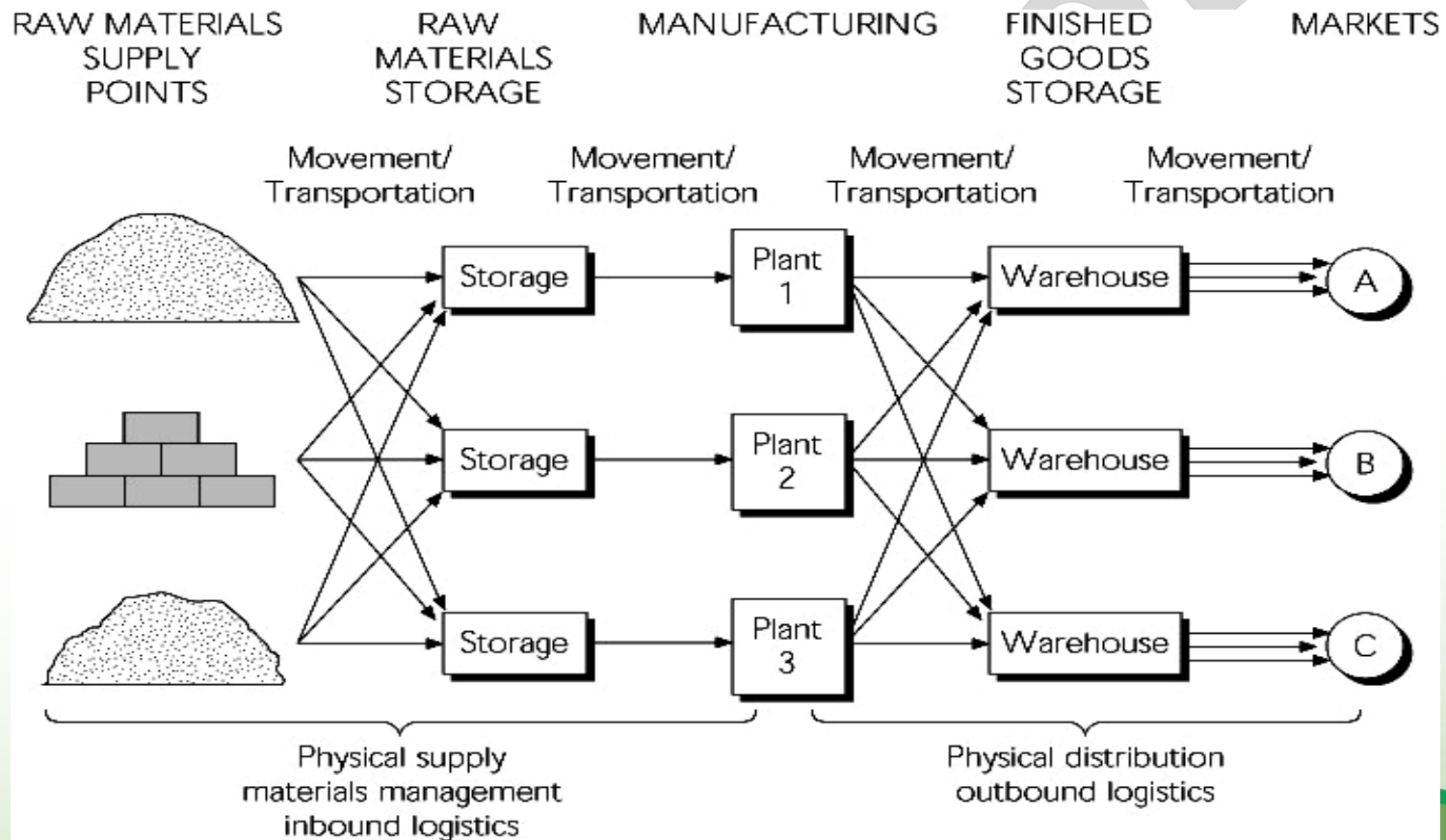
What is the purpose of a supply chain?



The Supply Chain Concept

- Development of the Concept
 - Total systems cost - remains an important element of logistics analysis.
 - Outbound logistics – the warehousing and distribution of finished goods.
 - Inbound logistics – the receiving and warehousing of raw materials, and their distribution to manufacturing as they are required.
 - Value chain analysis integrated logistics activities.

Business Logistics in a Firm



The Supply Chain management Concept

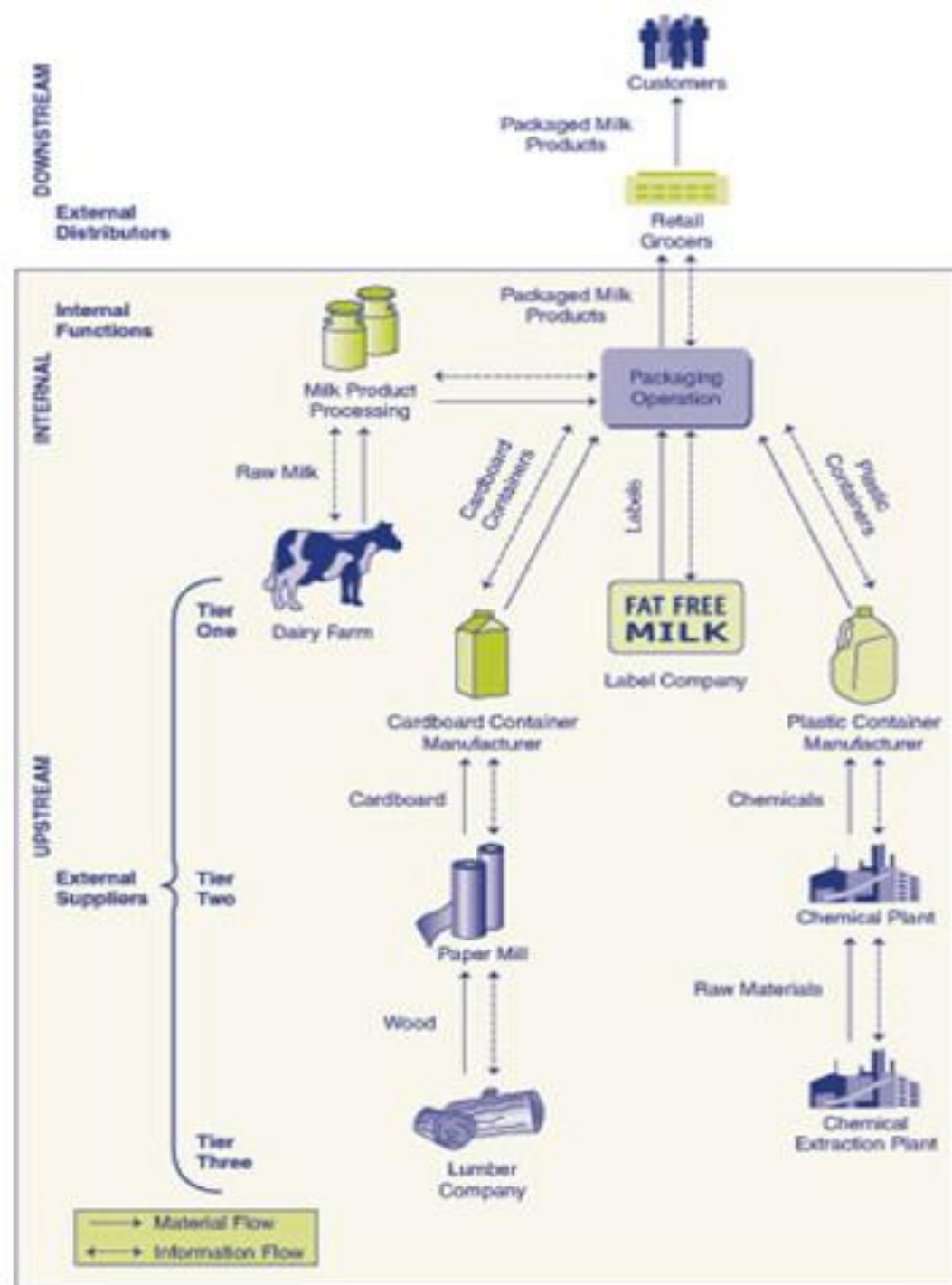
- A supply chain is a group of partners who collectively convert a basic commodity (upstream) into a finished product (downstream) that is valued by end-customers, and who manage returns at each stage.

Definition

Planning and controlling all of the processes that link partners in a supply chain together in order to serve needs of the end-customer.

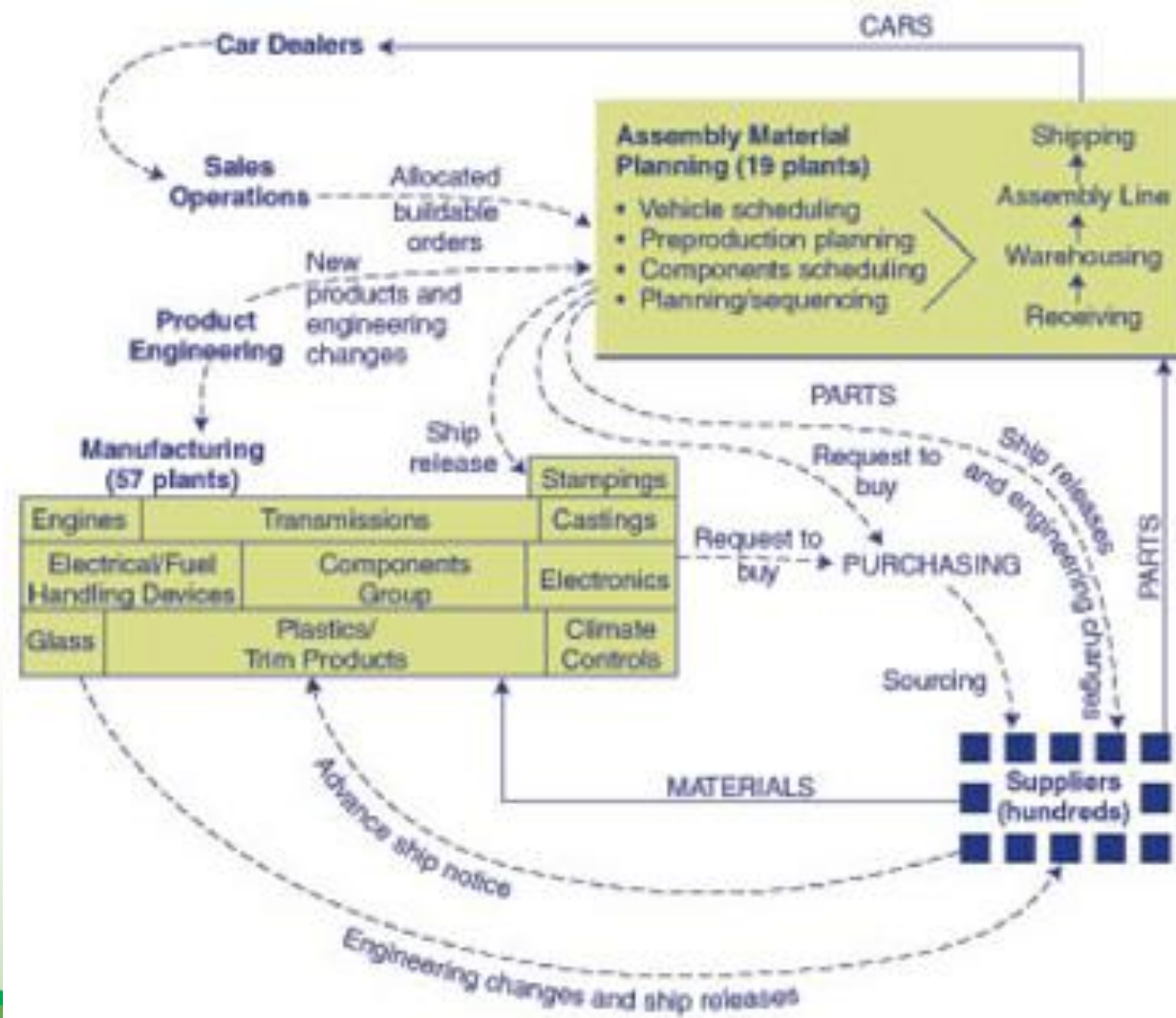
Supply chain: structure and tiering

The process starts with several external suppliers that move milk, cardboard, and plastic to the processing plant. After the milk is processed and packaged, it is delivered to retailers, who sell it to customers. The alternative delivery system is delivery from a warehouse directly to customers' homes.



Supply chain: structure and tieri

Supply chain can be fairly complex. The supply chain for a car manufacturer includes hundreds of suppliers, dozens of manufacturing plants (for parts) and assembly plants (for cars), dealers, direct business customers, wholesalers, customers, and support functions such as product engineering and purchasing.

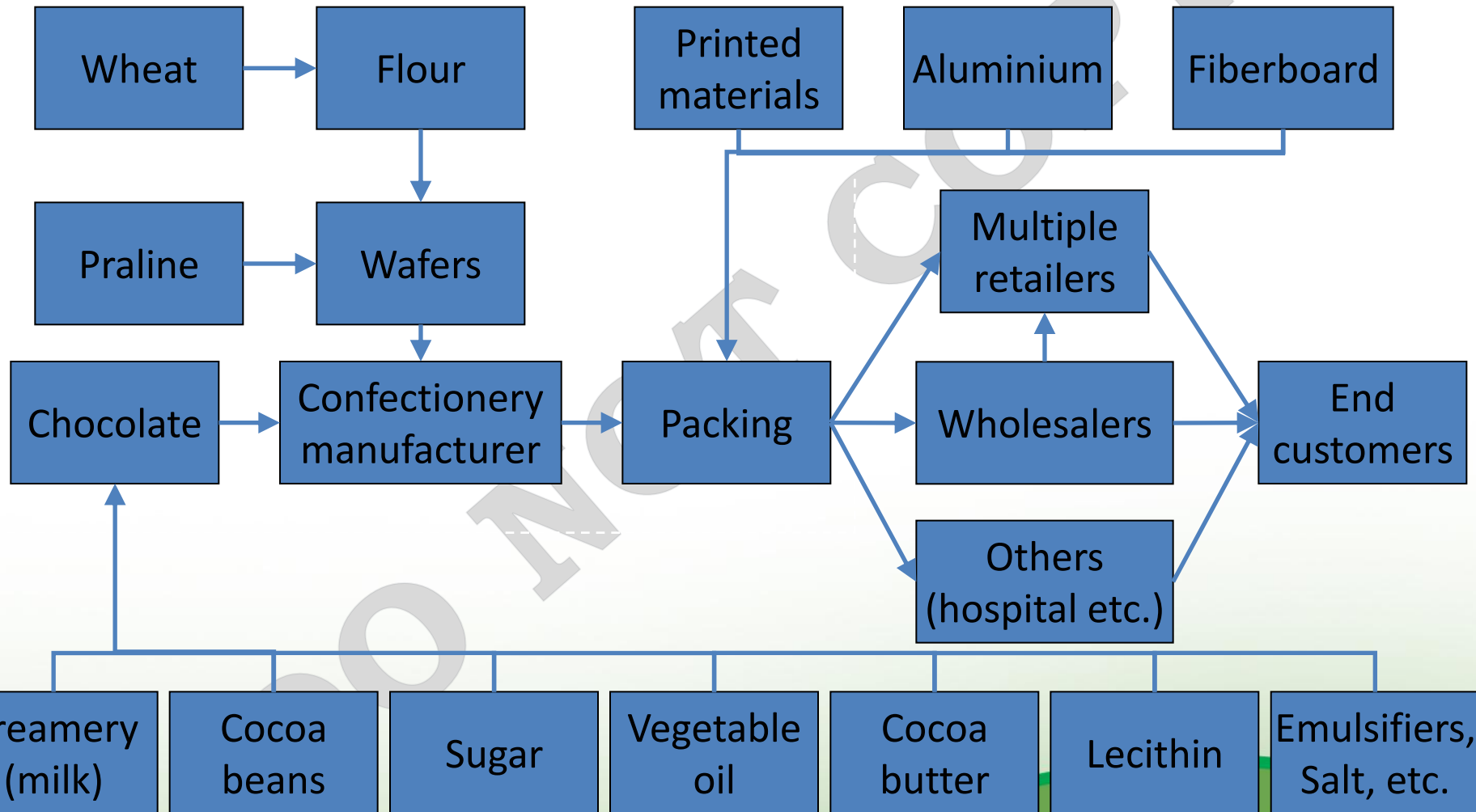


Logistics concept

Definition

The task of coordinating material flow and information flow across the supply chain.

Activity 1



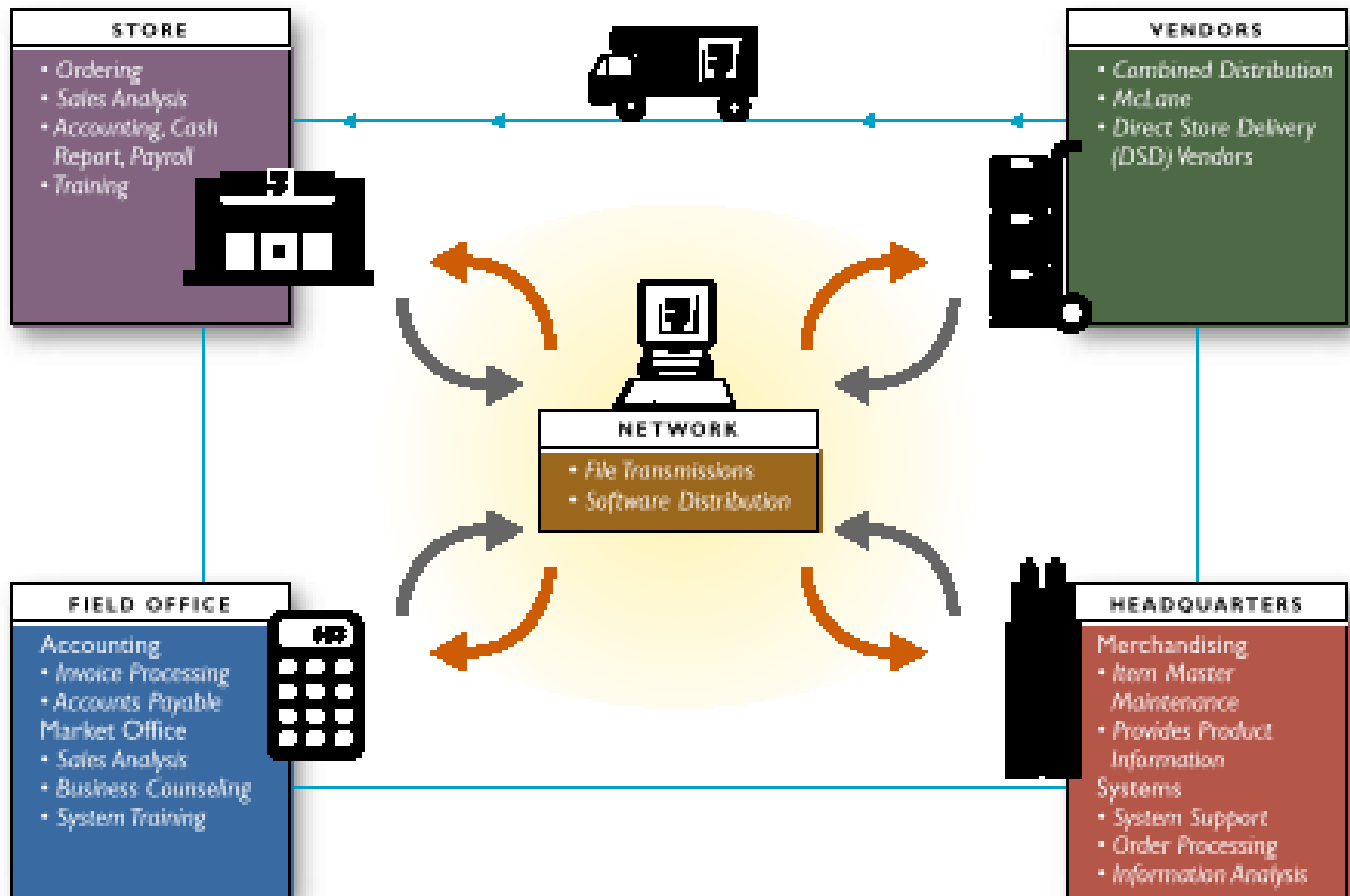
- 1 **logistics and Supply chain**
- 2 **Material and information flow**
- 3 **Competing through logistics**
- 4 **Logistics strategy**

Key issue

1

What is the relationship between material flow and information flow?

Case study: Seven-eleven



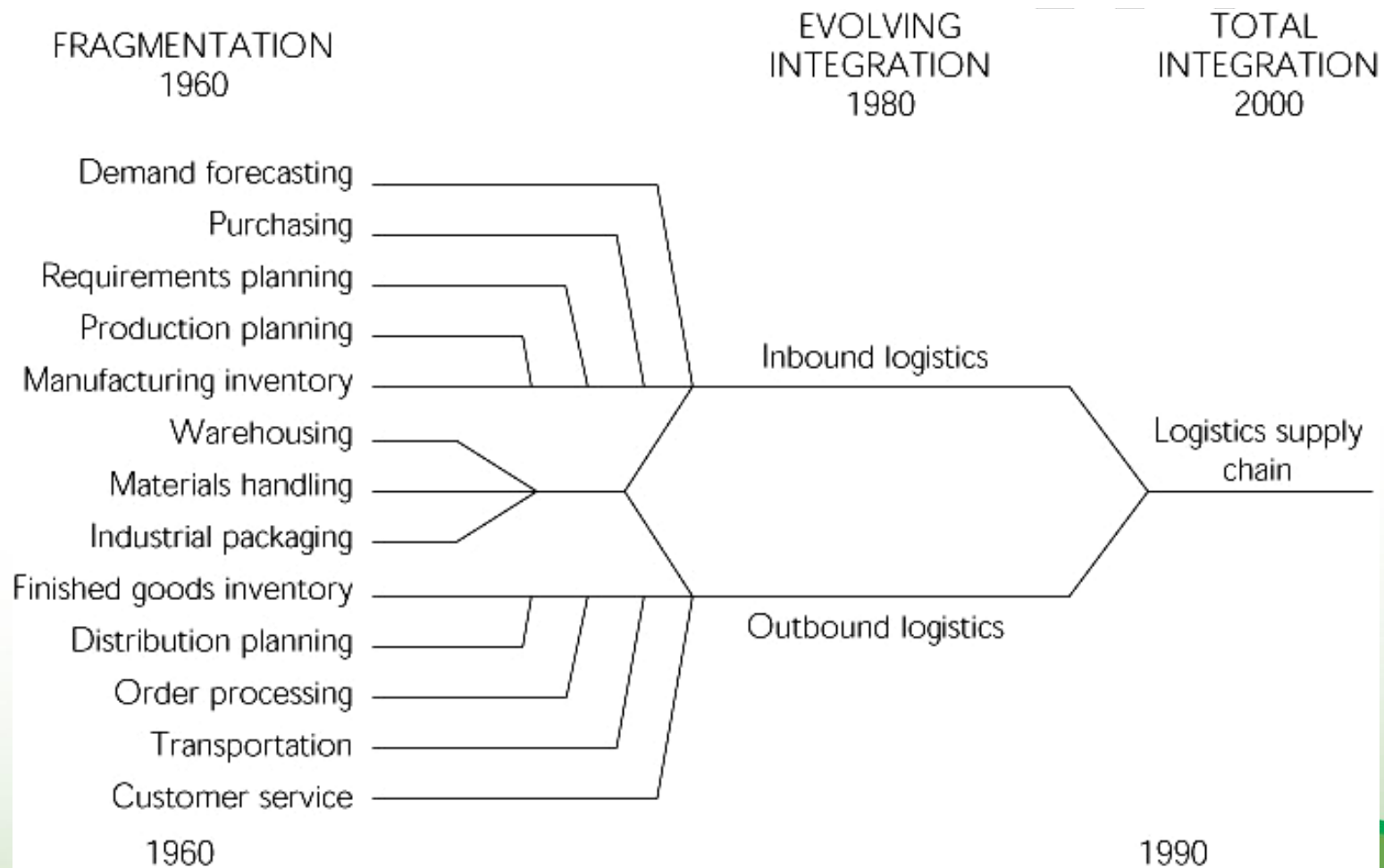
Case study: Seven-eleven's distribution strategy

- Delivery arrives from over 200 plants
- Delivery is cross docked at DC (over 80 DCs for food)
- Food DCs store no inventory
- Combined delivery system: frozen foods, chilled foods, room temperature and hot foods
- 11 truck visits per store per day (compared to 70 in 1974)
- No supplier (not even coke!) delivers direct

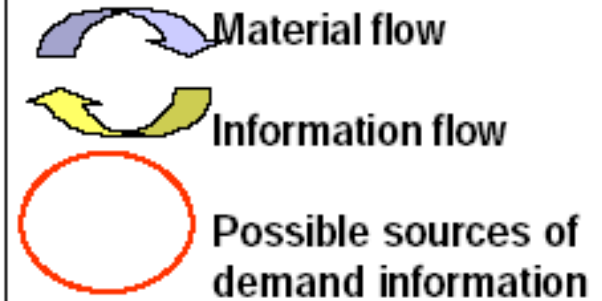
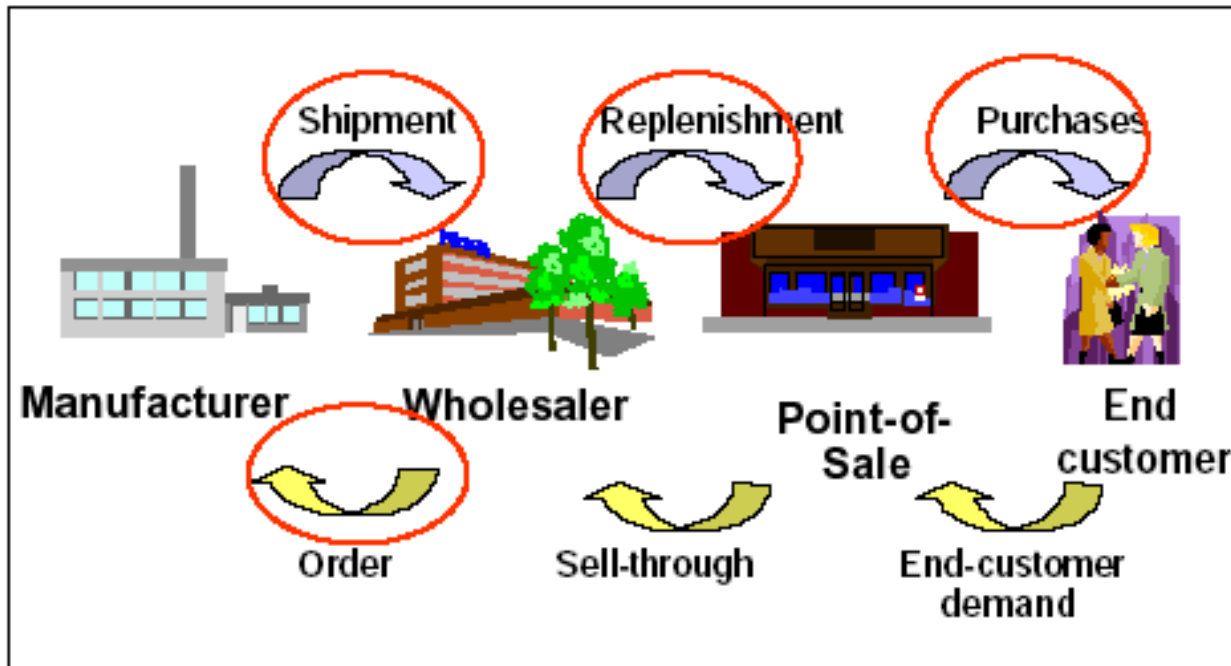
Case study: Seven-eleven's Information Strategy

- Quick access to up to date information (as contrasts with data)
 - High speed data network linking stores, headquarters, DCs and suppliers
 - Store hardware
 - Store computer
 - POS registers linked to store computer
 - Graphic Order Terminals
 - Scanner terminals for receiving

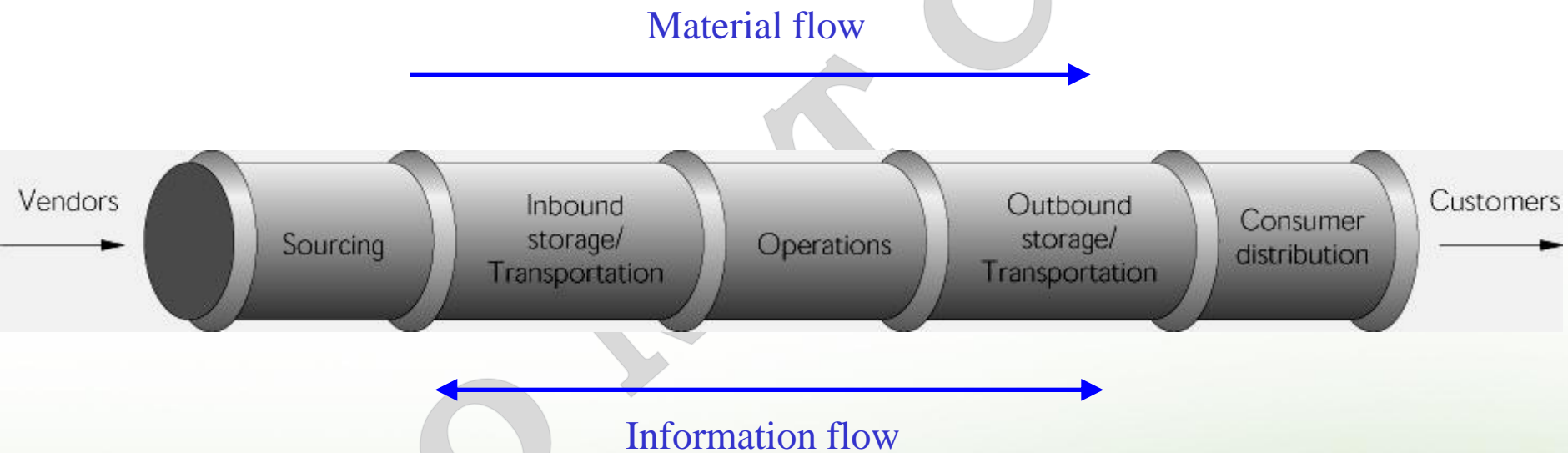
Integrated Logistics Management



Material and information flow



Material and information flow



Activity 2

- Describe the material and information flow in the supply network affecting one of the major products in Activity 1.

- 1 **logistics and Supply chain**
- 2 **Material and information flow**
- 3 **Competing through logistics**
- 4 **Logistics strategy**

Key issues

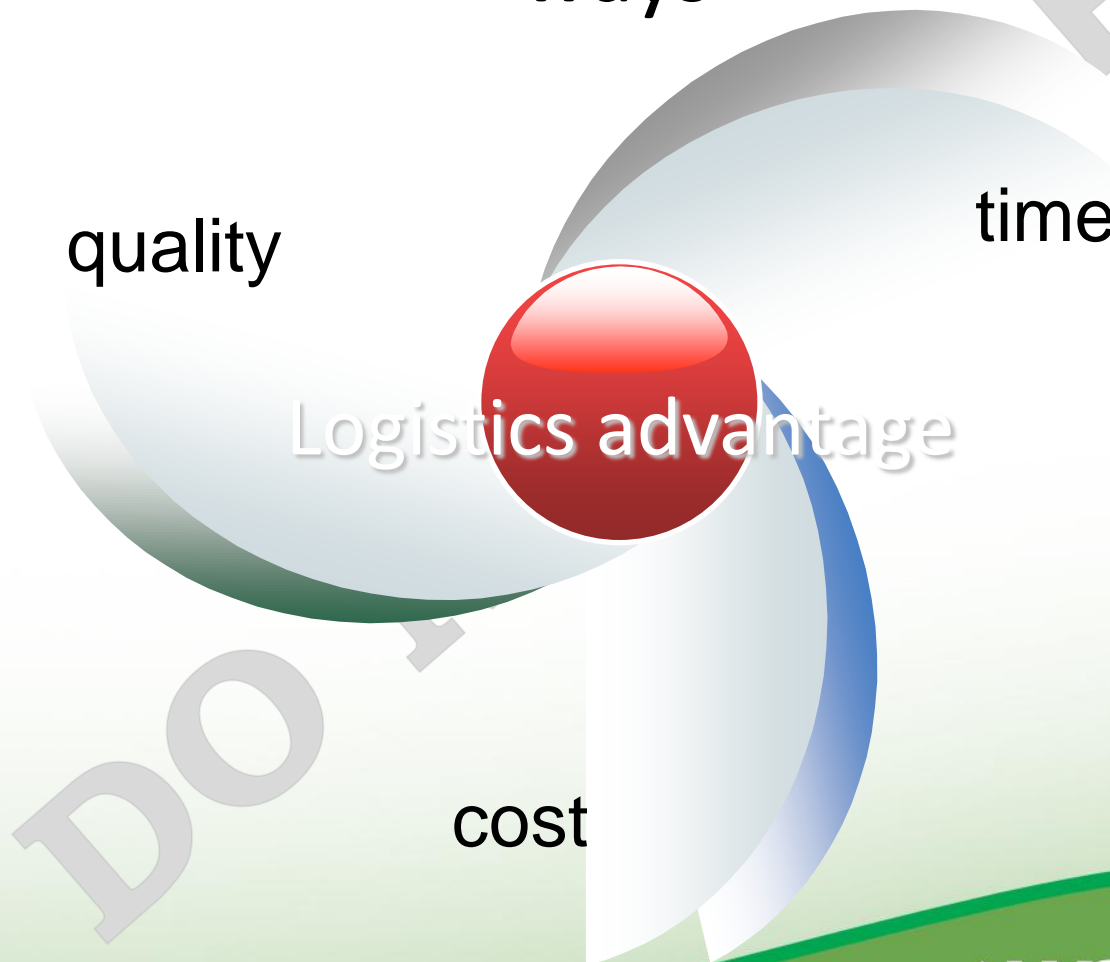
1

How do products win orders in the marketplace?

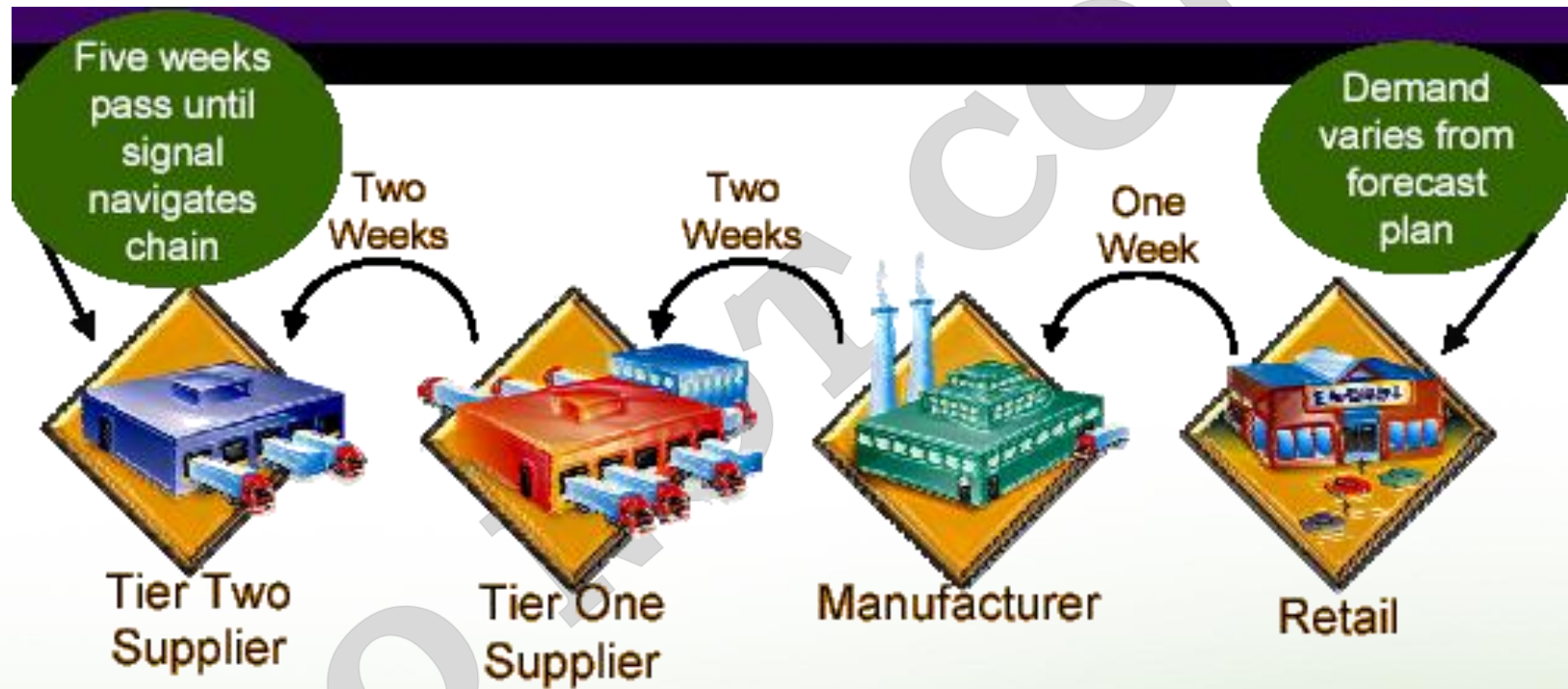
2

How does logistics contribute to competitive advantage?

Creating logistics advantage: three basic ways



Creating logistics advantage: controlling variability



- Variability undermines the dependability with which a product or service meets target.

Order winners and order qualifiers

Different logistics performance objectives

```
graph TD; A([Different logistics performance objectives]) --> B[Order winners]; A --> C[Order qualifiers];
```

Order winners

are factors that directly and significantly help products to win orders in the marketplace.

Customers regard such factors as key reasons for buying that product or services.

Order qualifiers

are factors that are regarded by the market as an 'entry ticket'.

Unless the product or service meets basic performance standards, it will not be taken seriously.

Activity 3



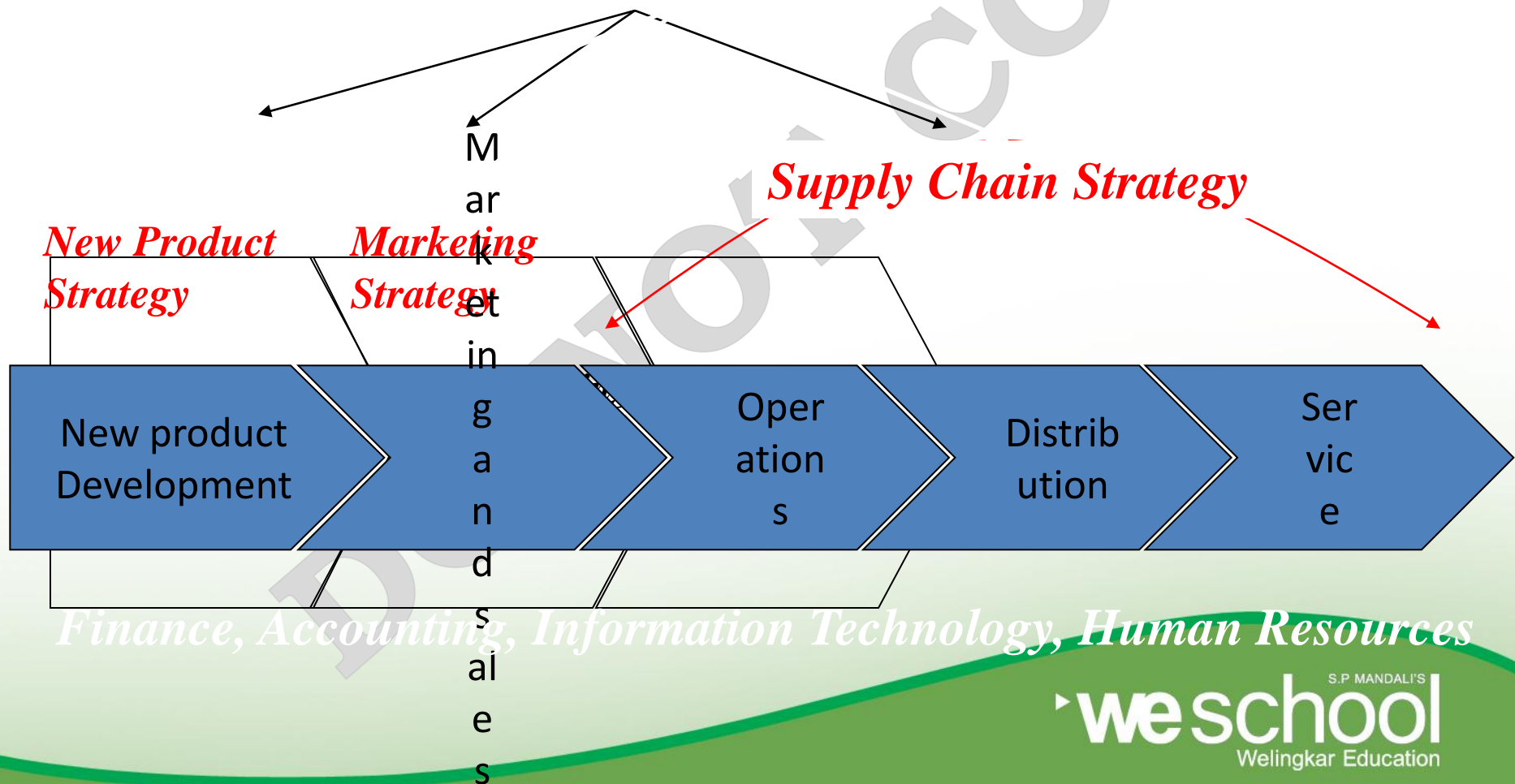
Vs.

- Compare the details for characteristics of both household appliance and mobile phone's product lines.
- Go on to identify the principal order winners and qualifiers for each product.



- 1 **logistics and Supply chain**
- 2 **Material and information flow**
- 3 **Competing through logistics**
- 4 **Logistics strategy**

The value chain: Linking supply chain and business strategy



How to Achieving Strategic Fit

- Understanding the Customer

- Lot size
- Response time
- Service level
- Product variety
- Price
- Innovation

How to measure?



*Implied Demand
Uncertainty*

Levels of Implied Demand Uncertainty

Detergent

High Fashion

Customer Need

Price

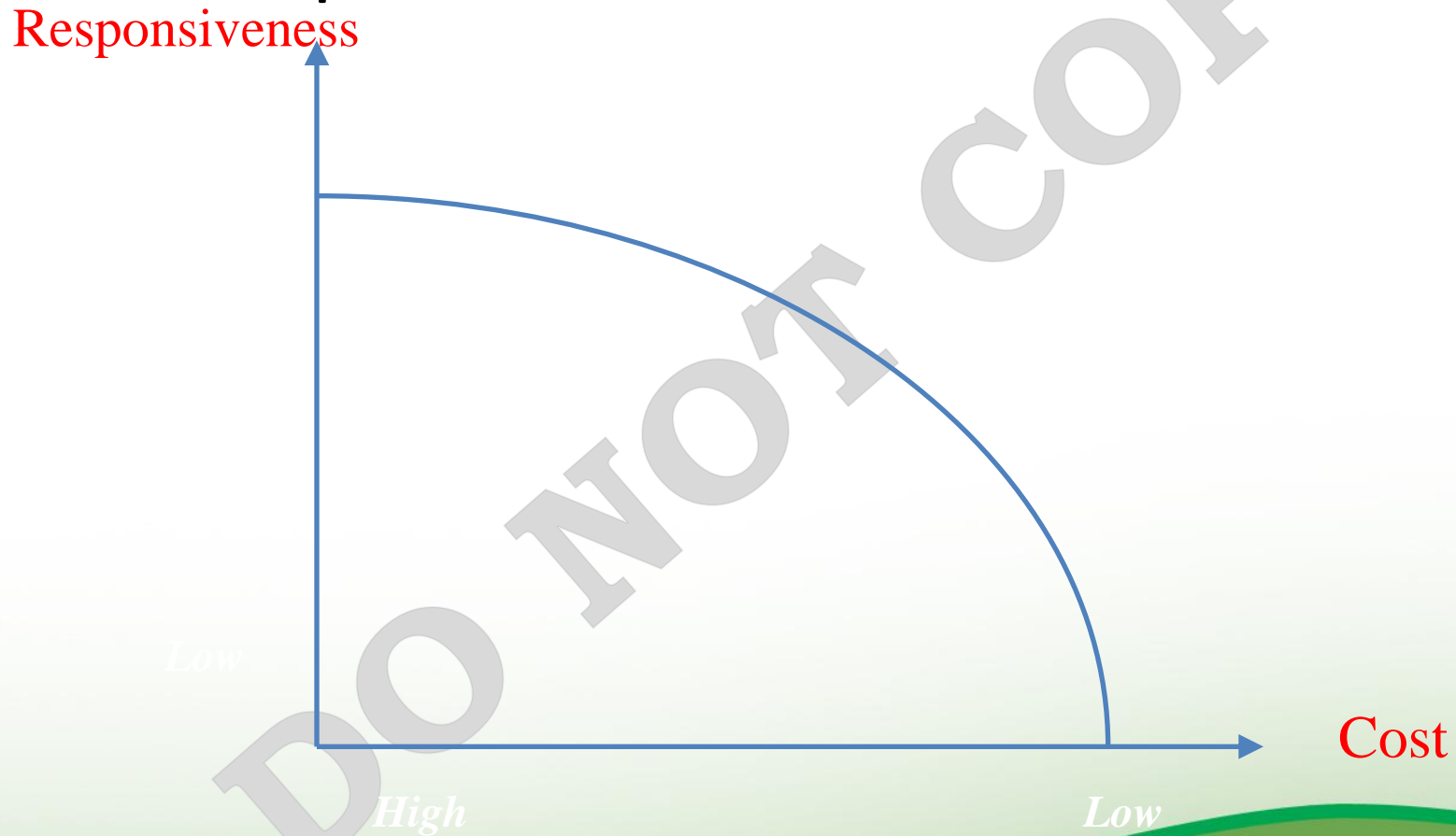
Responsiveness

Low

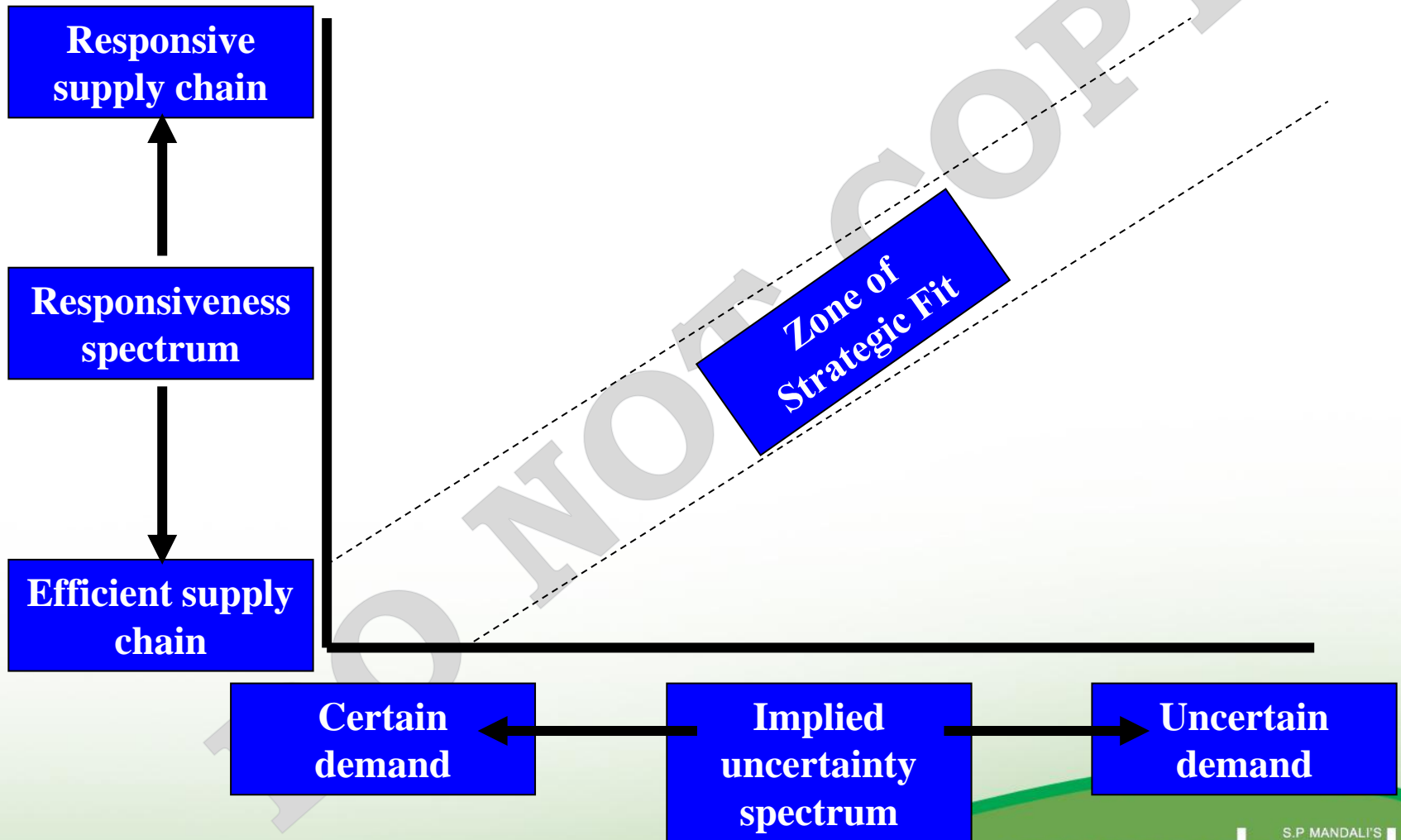
High

Implied Demand Uncertainty

Understanding the Supply Chain: Cost-Responsiveness Efficient Frontier



Achieving Strategic Fit



Strategic Scope

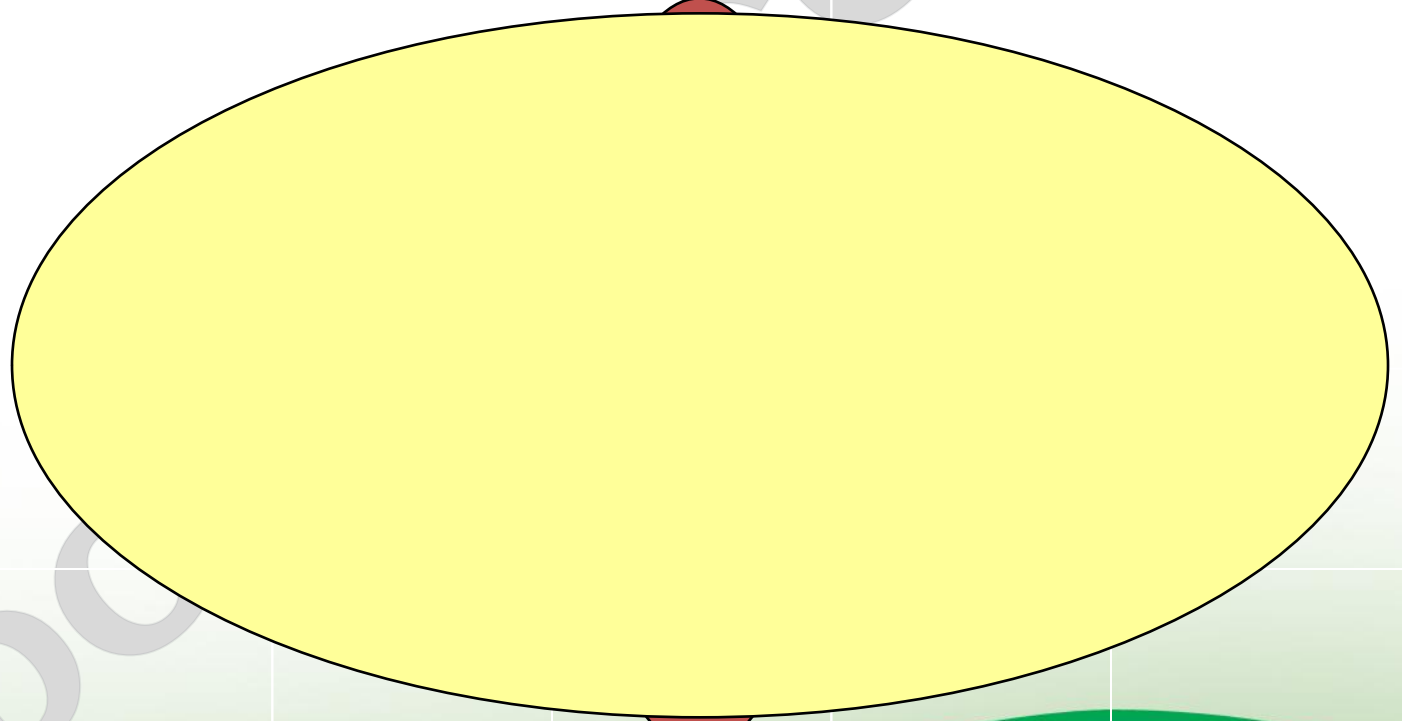
Suppliers Manufacturer Distributor Retailer Customer

**Competitive
Strategy**

**Product Dev.
Strategy**

**Supply Chain
Strategy**

**Marketing
Strategy**



Drivers of Supply Chain Performance

Competitive strategy



Efficiency

Responsiveness

Supply chain strategy and structure

Inventory

Transportation

Facilities

Information

Drivers

Considerations for Supply Chain Drivers

<i>Driver</i>	<i>Efficiency</i>	<i>Responsiveness</i>
Inventory	Cost of holding	Availability
Transportation	Consolidation	Speed
Facilities	Consolidation / Dedicated	Proximity / Flexibility
Information	What information is best suited for each objective	