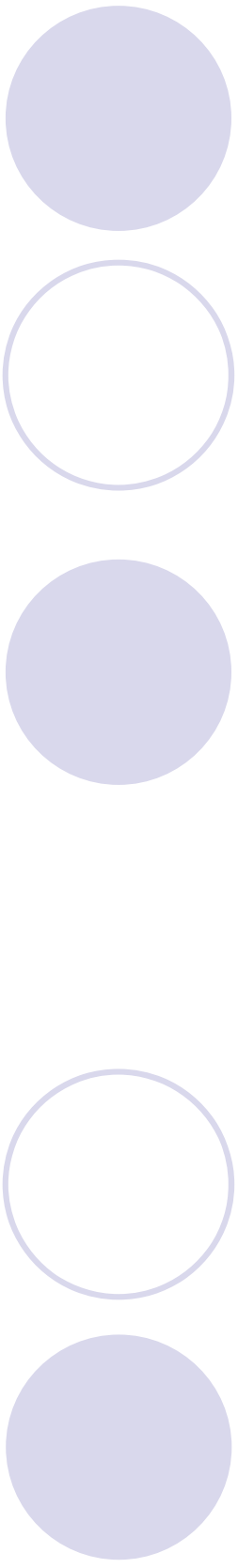




Introduction to Supply & Value Chain,

As Tool



Introduction to the Supply Chain



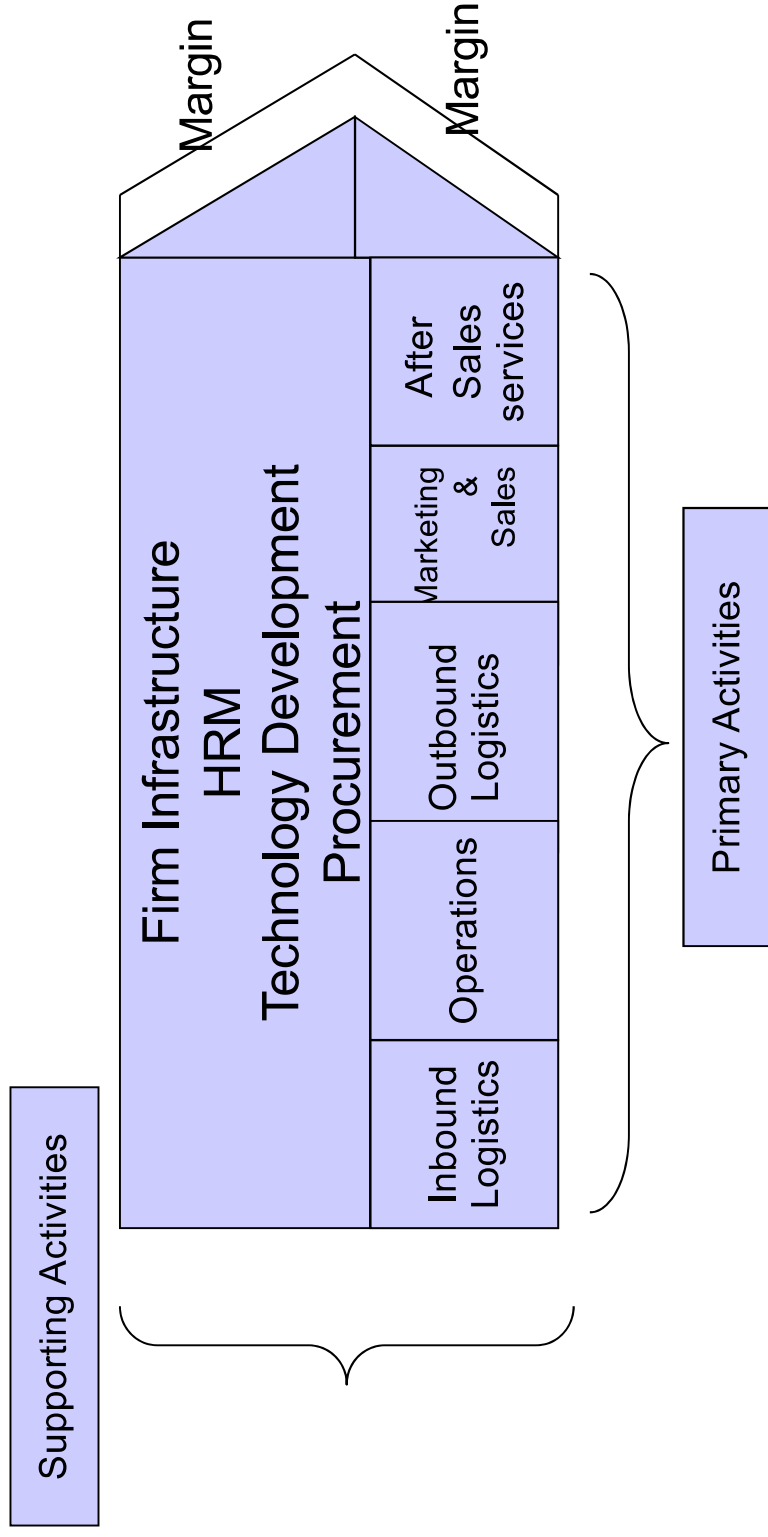
Texts, Books and Materials

- Introduce value chain concept as a tool for analysing supply chain.
- Describe differences between supply chain, value chain and commodity chain.
- Discuss issues in global logistics and supply chain environments.
- Case studies.

Introduction to the Supply Chain

Introduction to the concept

- Value Chain is a framework to add value to the output of the firm



What is a Value Chain?

- **A value chain is a sequence of business functions in which utility (usefulness) is added to products or services as they move from supplier to end customer**
- **Value chains are often viewed like a river--upstream and downstream**
- **NOTE: Value Chain discussion draws heavily from Michael Porter, *Competitive Advantage--Creating and Sustaining Superior Performance***

Primary and Support Activities

- **Primary Activities**

Inbound logistics

- **Includes activities associated with receiving, storing, and disseminating inputs to support the product or service, including transportation, material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers**

Primary and Support Activities

- **Primary Activities**

Operations

- **Activities associated with transforming inputs into final form, such as machining, packaging, assembly, equipment maintenance, testing, printing, and facility operations**

Primary and Support Activities

- **Primary Activities**

 - Outbound logistics

 - Includes activities associated with physically **collecting, storing, and distributing** a product or service to customers, such as finished goods warehousing, material handling, delivery, order processing, and scheduling

Primary and Support Activities

- **Primary Activities**

Marketing and Sales

- **Includes activities associated with providing a means to which buyers can purchase the product and inducing them to do so, such as advertising, promotion, sales force efforts, job quoting, channel selection, channel relations, and pricing**

Primary and Support Activities

- **Primary Activities**

Service

- Includes activities associated with providing **service to enhance or maintain the value** of the product, such as installation, repair, training, parts supply, and product adjustment

Primary and Support Activities

- **Primary Activities**
 - **In any firm, all the categories of primary activities are present to some degree and play some role.**
 - **Key primary activities often differ from industry to industry.**

Primary and Support Activities

- Support Activities

Firm infrastructure

- It does not mean building, or infrastructure, but means a unit which generates useful information for decision making and operations including accounting, finance, law department.
- Consists of a number of activities, including **general management**, planning, government affairs, finance, accounting, legal, and quality management
- While firm infrastructure is sometimes **viewed as overhead**, it can be a powerful source of competitive advantage.

Primary and Support Activities

- **Support Activities**

Human resource management

- **Consists of activities involved in recruiting, hiring, training, developing, and compensating all types of personnel**

Primary and Support Activities

- Support Activities

Technology Development

- Includes activities typically associated with **MIS, engineering, and R&D** and involve activities that seek to improve product and processes.
- **New product and process development** are **primary concerns** of technology development support activities

Primary and Support Activities



- **Support Activities**

- Procurement

- **Involves activities associated with identifying, evaluating, selecting, managing, and developing sources of supply**

Primary and Support Activities



- **Support Activities**

- Procurement

- Though **purchased inputs** are commonly associated with primary activities, purchased inputs are present in every value activity, including support activities.

Primary and Support Activities

- **Support Activities**

-Procurement

- **Examples:**
 - **Supplies**
 - **Travel services**
 - **Media**

What is Value Chain Integration?

- **Value chain integration involves bringing together different groups, functions, or organizations, either formally or informally, physically or by information technology, to work jointly and often concurrently on a common business-related assignment purpose.**



Horizontal Integration Across the Value Chain

- **Examples of how firms integrate across the value chain--**

- Committees/groups/teams
- Shared and linked information systems
- Integrated performance goals/objectives/measures
- Strategy development process.



Value Chain Management Issues

- Configuration: where to build factories
 - Independent plants supplying to local markets
 - Network of plants supplying to specific region
 - Centralized manufacturing, supplying to the whole world



Value Chain Management Issues

- **Compatibility:** with competitive strategy
(Multi-domestic vs. global)
- **Coordination:** making logistics, channel management and CRM work together
- **Control:** centralized, decentralized, and knowledge acquisition and dissemination

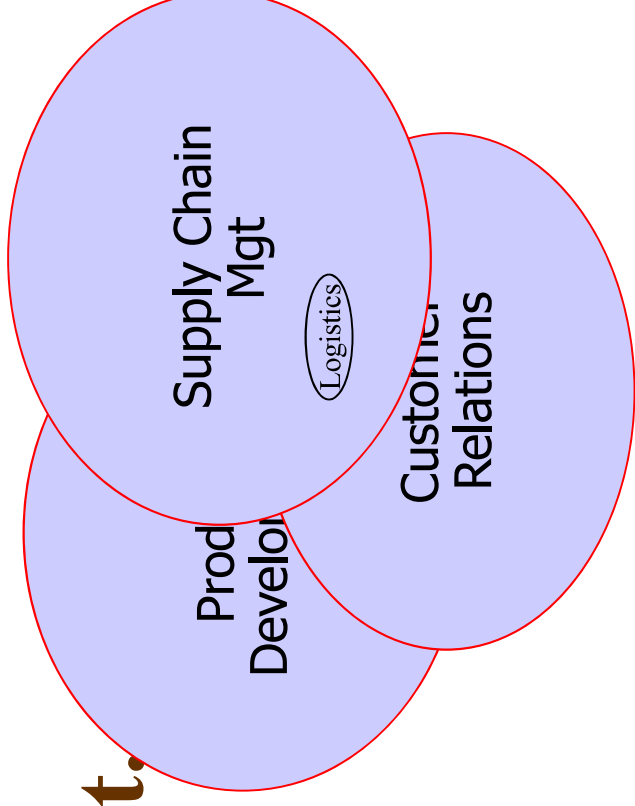


Value Chain Decision Constraints

- Customer characteristics
- Product characteristics
- Channel characteristics
- Environmental characteristics

Fig. 1 Current business framework

- **Product Development**
- **Customer Relations**
- **Supply Chain Mgt.**



Introduction to the Supply Chain

Mannheim et al. (1994) explain in 3 parallel flows:

- **Product development** – the process is the core of the firm determining what it produces & how it chooses to compete in the marketplace.
- **Customer relations** – This flow encompasses the activities related to the market: 4Ps.
- **The supply chain** – The flow is the activities involving the organisation & flow of physical to produce & deliver the product to end customer.

Commodity chain

- Commodity chain is series of independent enterprises and internal organisational units, with individual transactions determined by the market, without overall direction by a single dominant firm.
- The weaknesses of the commodity chain are:
 - It required firms to duplicated their activities at each stage in the process, principally inventory;
 - the system could not respond rapidly to change, other than through the price mechanism.
- It proved to be inadequate in meeting the demands of a modern, technologically oriented global society.

Introduction to the Supply Chain

Definitions of Supply Chain

- A coordination of a company's activities (both internal and external), with objective is to develop and improve long-term performance of the company and its partners through the chain. (*Shapiro, 2001*)
- The management of **upstream and downstream relationship** with suppliers and customers to deliver superior customer **value** at less cost to the supply chain as a whole. (*Christopher M. 1998*)
- “An integrative approach to manage the total flow of a distribution channel from the supplier to the ultimate user” (Cooper & Ellram, 1993)

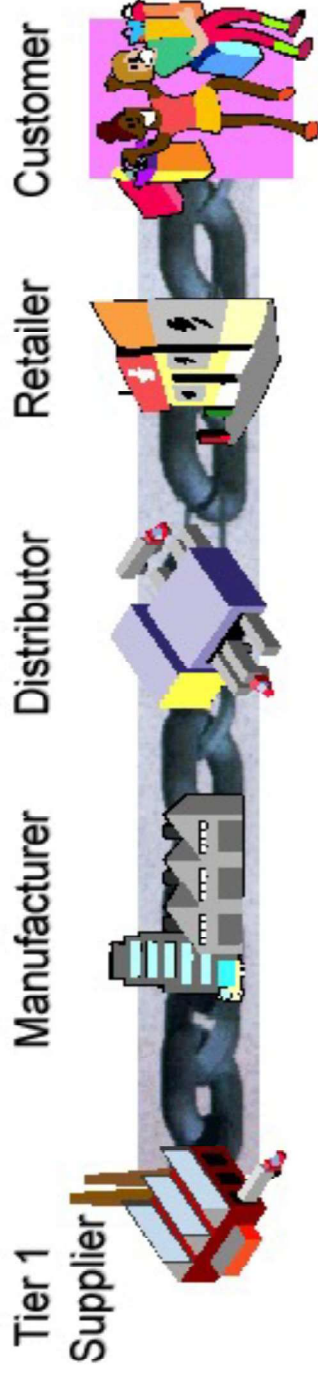
Introduction to the Supply Chain

Definitions of SC

- The **processes** which are effectively and efficiently **coordinating and linking activities** with the purpose is to **create and add a bundle of benefit and value** to stakeholders through the chain (*Theppitak, 2003*)
- Distribution channel includes **connection or linking** by a common process to stakeholders
- **Integration** means the coordination of a network of separate operations to achieve common objectives in physical & information flow.

Who is stakeholders in supply chain

- A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request - product or service



- A supply chain includes suppliers, manufacturers, distributors, retailers, and customers



Introduction to the Supply Chain

The customer orientation

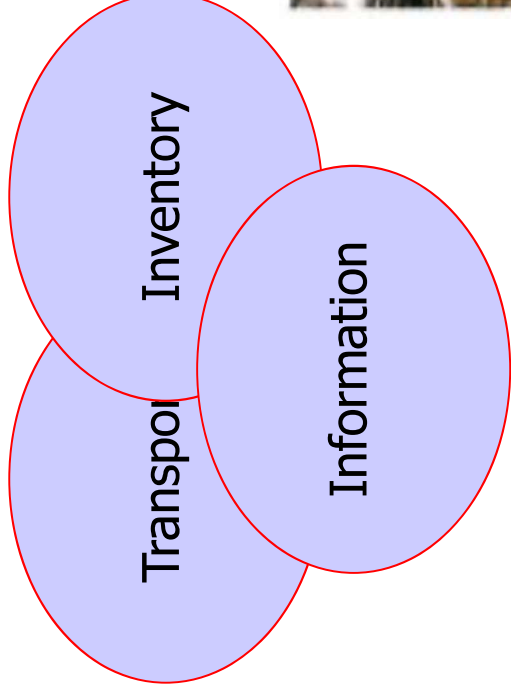
- **Push orientation** – product & materials move towards the final market, driven by forecast demand.
- **Pull orientation** – SC originates with customer & decisions flow backward through the supply.

Fig. 2 The Tools of logistics

● **Transportation**

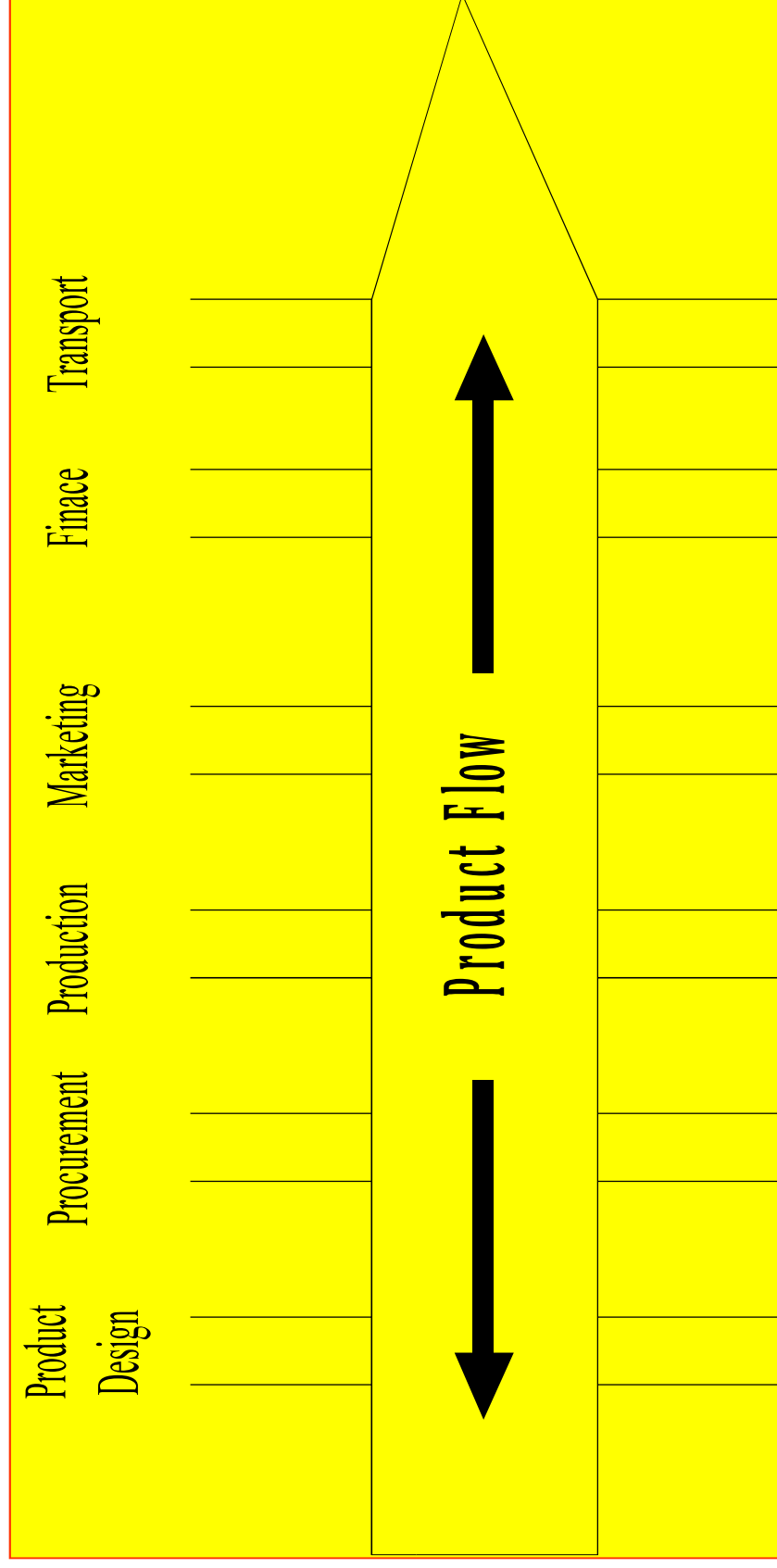
● **Inventory**

● **Information**



Introduction to the Supply Chain

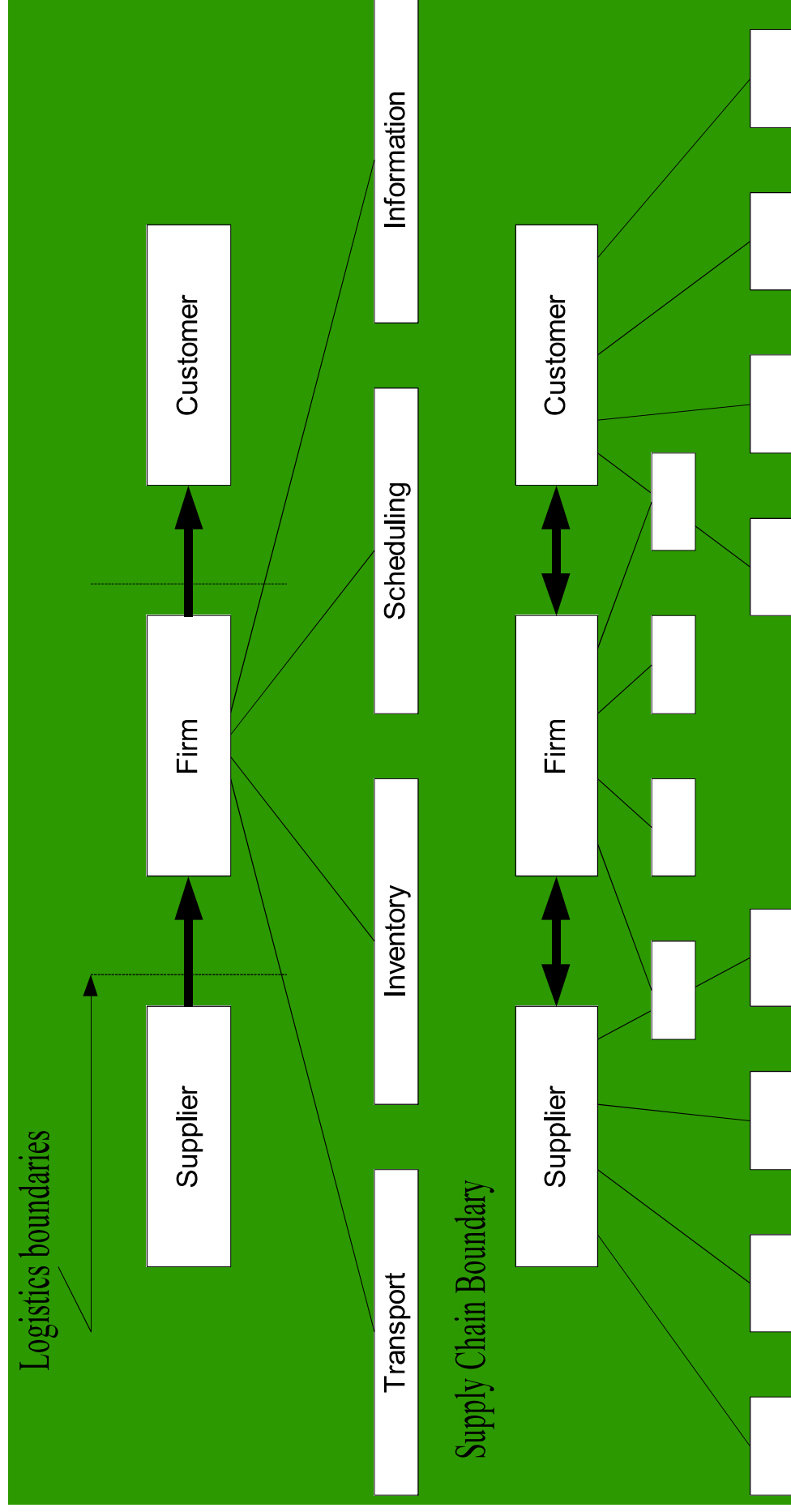
- Logistics interacts with every area of the firm.



● Fig. 3 Product flow in logistics

Introduction to the Supply Chain

● Fig. 4 Logistics and the supply chain



The characteristics of the Supply Chain

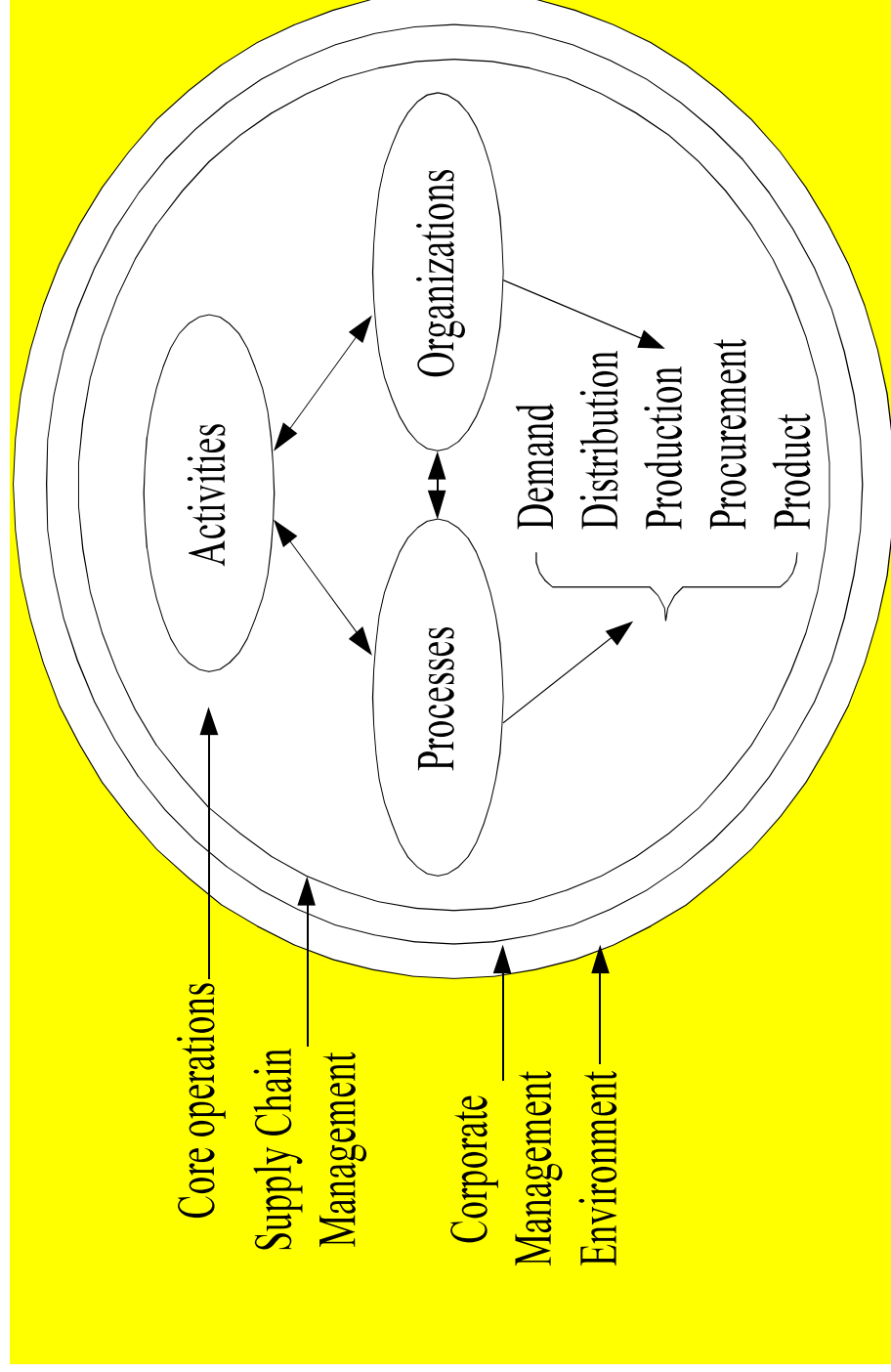
- The SC is a **complete process** for providing goods & services to final users.
- Stakeholders **include all parties**: logistics operations from initial material supplier to final user.
- **Management extends** across organisational boundaries to include **planning & control** over operations of other organisational units.
- A common information system accessible to all members makes coordination possible between organisations.
- **Members achieve their own individual objectives through the performance of the SC as a whole.**
- The SC may also **share members with other supply chains.**

Understanding the global supply chain

- Understanding the SC is prerequisite to managing it. The 3 tasks cover:
 1. To **develop a framework** for analysis
 2. To **recognise the systemic nature** of the SC;
 3. **Identify the processes** that are involved.

The framework of the Supply Chain

- Fig. 5 The framework of the supply chain





The SC is both a network & a system

- The network properties involve the **sequence of connections among organisational units** for product & information flow.
- The systemic properties are interdependence of **activities, organisations & processes**.



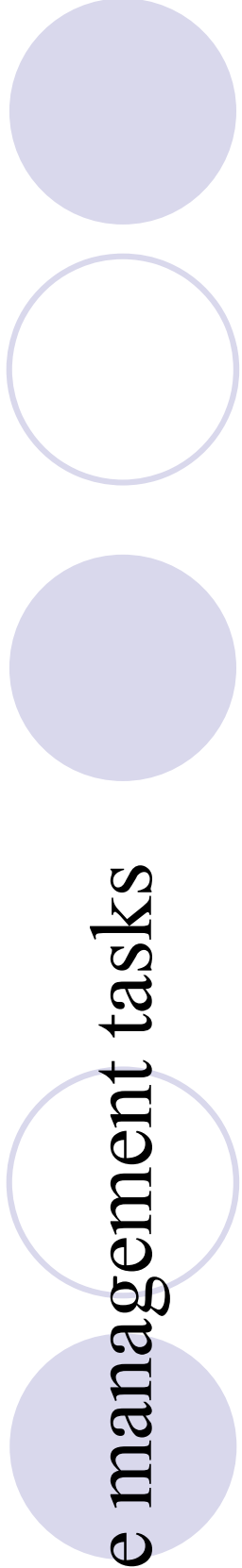
Five operating processes in supply chain

- **Product** – product design determines production processes, also determine logistics requirements for delivery.
- **Production** – add value to product flow.
- **Procurement** – links stages of manufacturing together. In effect, purchasing becomes ‘managers of outside production.’
- **Distribution** – links between production & market. It influences logistics through market requirements for service & efficiency.
- **Demand management** – this includes several related activities related to the market: forecasting, order processing, market coordination, sales support activities.

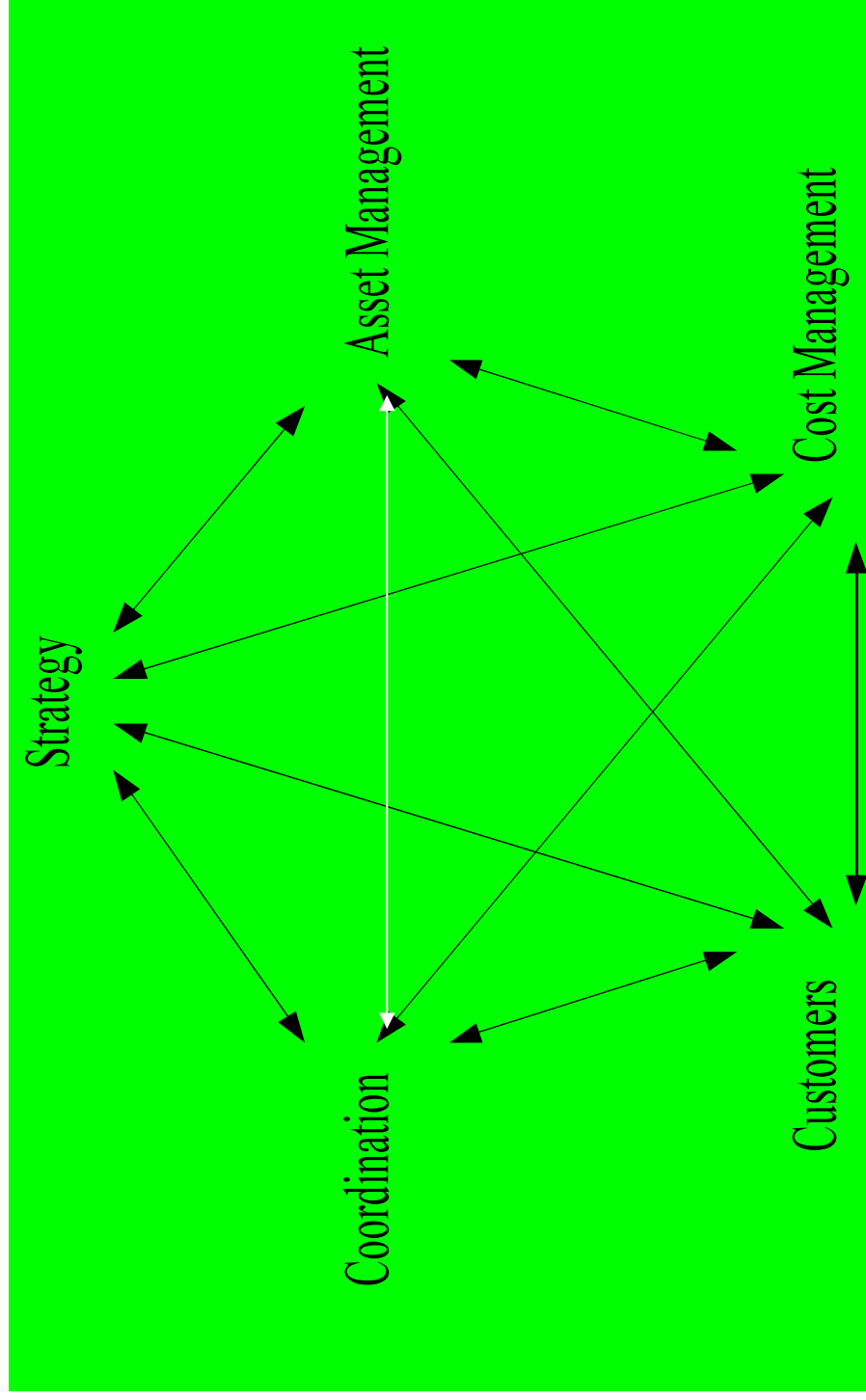
The management tasks

- The primary task is to **integrate each stage into a larger system through coordination.**
- Second task is **manage assets across the SC, specifically inventory, to serve customers & reduce costs.**
- The **concept of the SC is more than coordination and managing inventory, but creating and adding a value to customers.**
- It has the potential for strategy, to be valued by customers, more efficient & profitable.
- It becomes **a source of competitive advantage** through the effectiveness of the entire chain & organisational relations.
- **Building these relationships is difficult, but also difficult to emulate.**

The management tasks



- Fig. 6 The management concept of the SC





Global issues

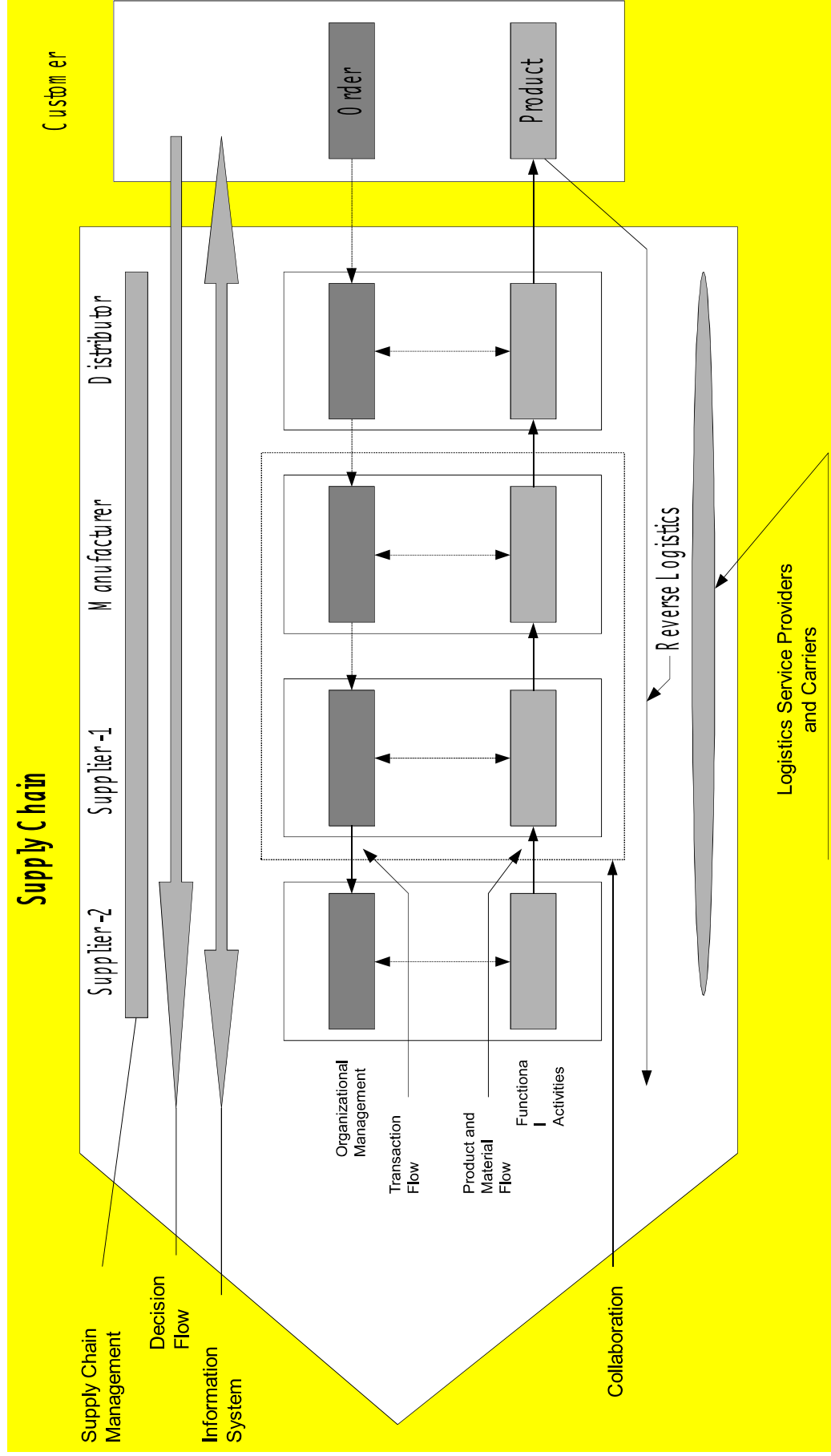
- Many **international dimensions** are involved in **supply decisions** for raw materials, production components or international marketing.
- The movement towards global business is inevitable.
- National & regional infrastructures of telecommunications and transport are **converging**.
- The global SC deals with a common structure, but needs to meet local cultures & economic conditions.

The 5 new corporate environments

- The customer orientation
- The decline of mass production
- Small inventories
- Development of electronic commerce
- Smaller organisations

Introduction to the Supply Chain

● Fig. 7 The global supply chain



The Global Supply Chain

- It comprises of 5 successive stages:
 - Customer
 - Distribution
 - Final manufacturing & assembly
 - First-tier suppliers
 - Second-tier suppliers
- Products & materials flow forward, towards the customer.
- After the product is consumed, **product recycling** becomes a material flow backward to a point of reuse or renovation.
- **Information flows** in both directions: orders and transactions move towards the source of supply.
- **Transport** provides the physical links between stages.

Tactics to implement SCM

- Developing strong relationships with SC members
- Developing high-quality products and services
- Sharing information among SC members
- Reducing the order cycle time
- Minimising inventory levels across the supply chain
- Reducing the number of suppliers and carriers
- Building commitment to SCM. (Bloomberg et al., 2002)



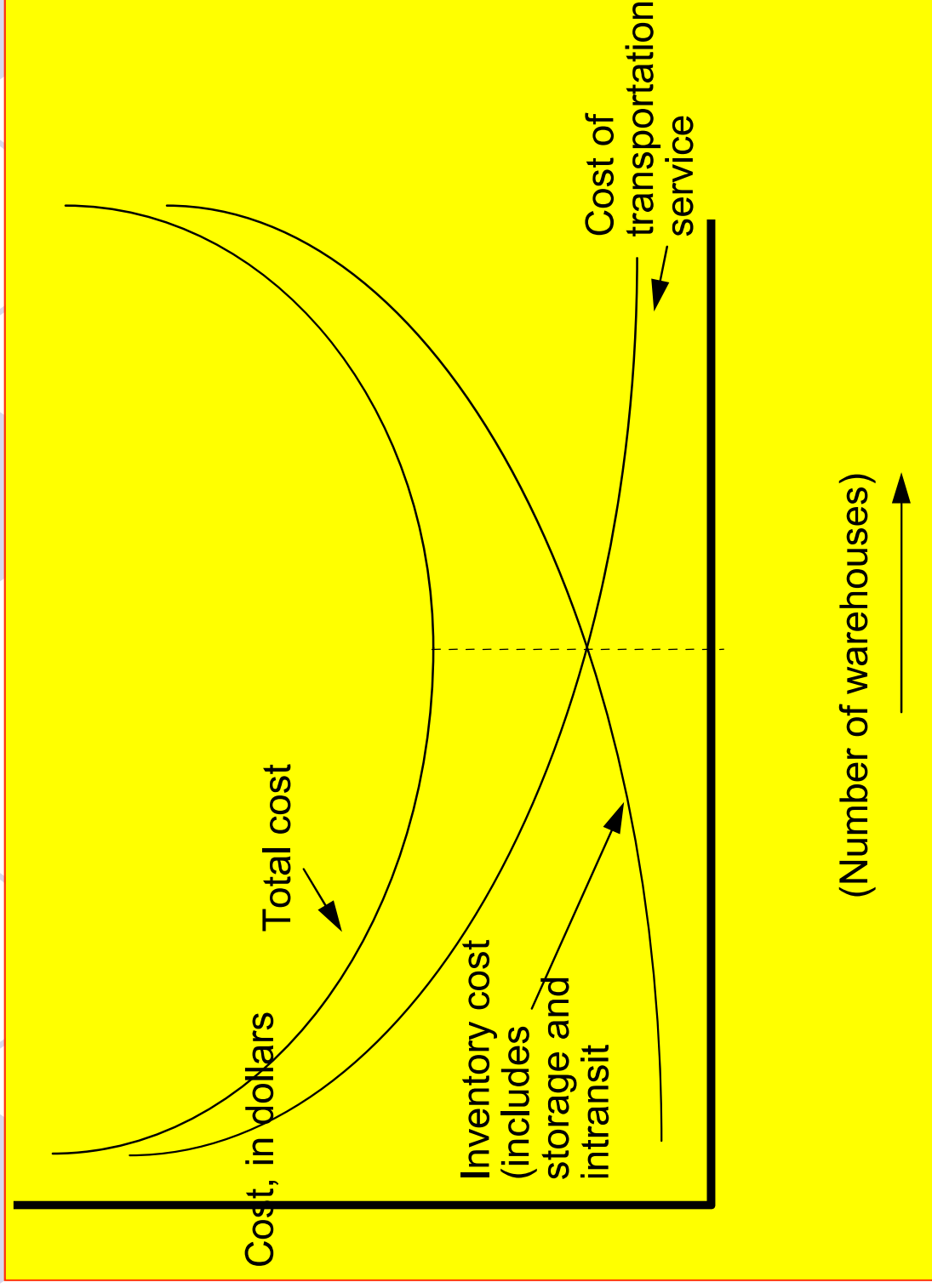
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Any Question???

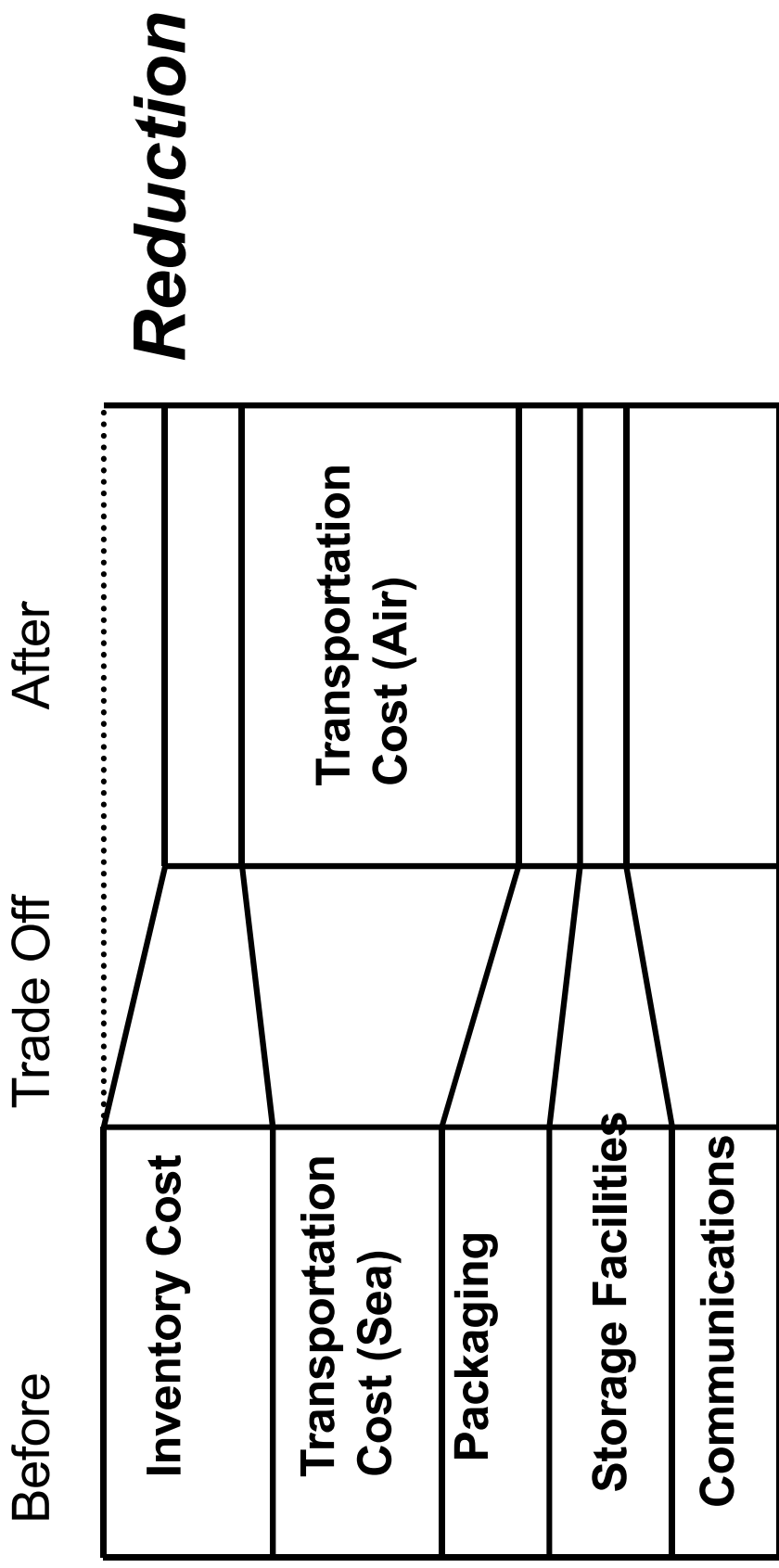
Or

Comment!!!!!!

A Total Cost Concept



Concept of Trade-Off



A Cost Conflict in Total Cost Concept

