

Supply Chain Management

Supply Chain Management (SCM)

Learning Outcomes

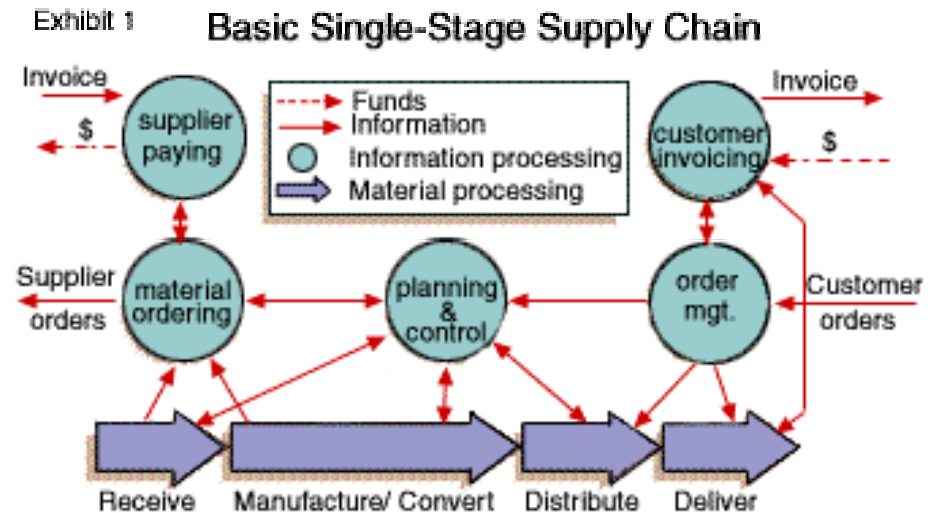
- Describe process and components
- Identify and describe the forces
- Explain how e-Business can use technology in SCM
- Contrast the traditional and internet enabled supply chain
- Business Process Reengineering (BPR)
- Partnership strategies and implementation concerns
- Describe order fulfillment/delivery issues
- Describe reverse logistics issues

What Is the Supply Chain?

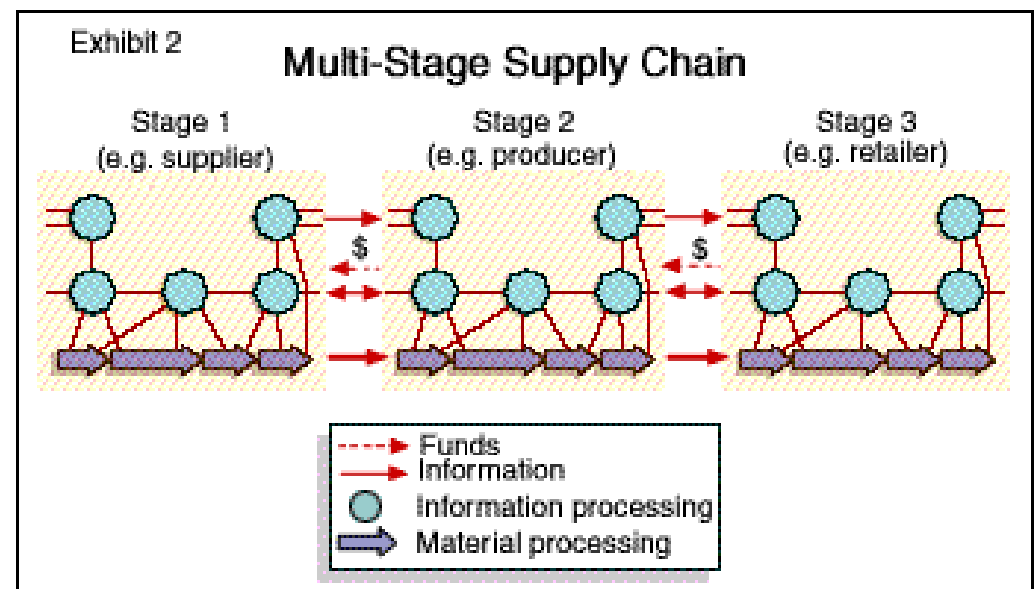
- The supply chain is essentially all of the companies from product creation through:

- Supplier
- Manufacturing
- Warehousing
- Distribution
- Retail / Wholesale

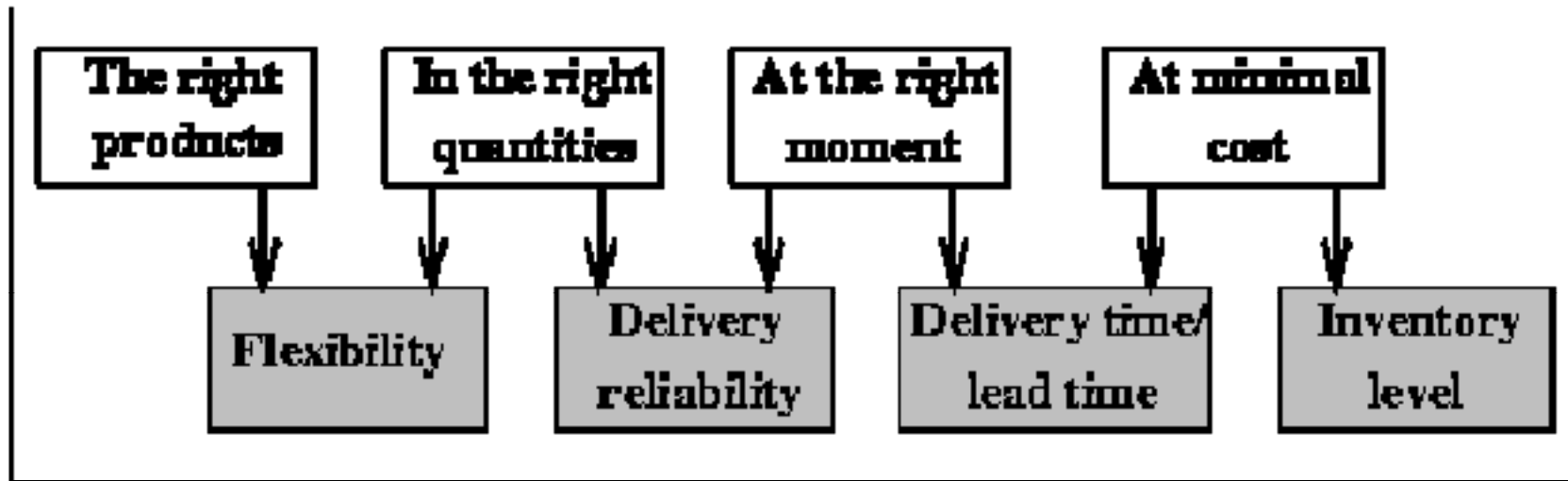
Until the product reaches the customer



Source:-www.rit.edu



Objectives of the Supply Chain



Supply Chain Management

- The process of coordinating and optimizing the flow of all products or services, information, and finances, among all players of the supply chain.

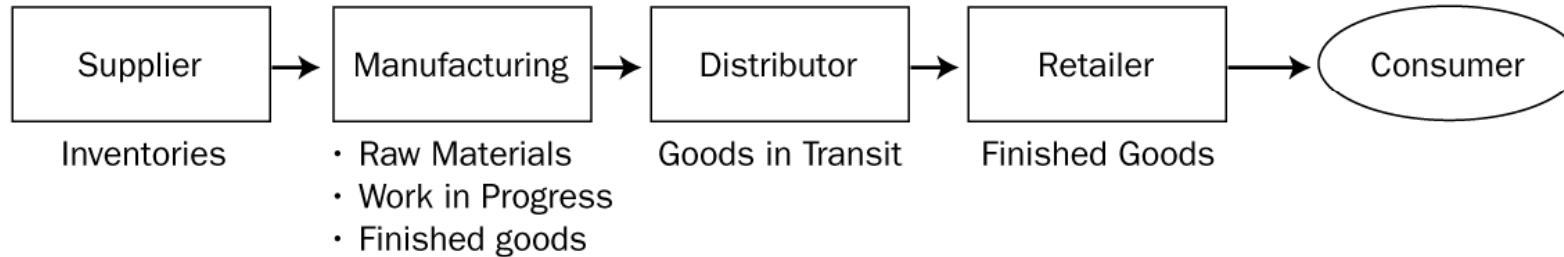
Logistics

- The process of planning, implementing, and controlling the efficient and effective flow of goods, services, and related information from point of origin to point of consumption

The Traditional Supply Chain

Figure 7.2 The Traditional Supply Chain

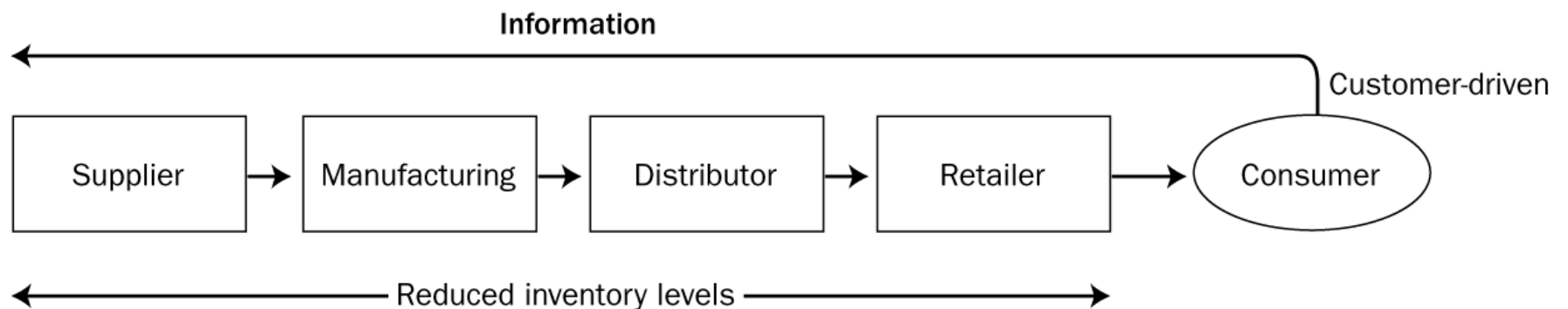
The traditional supply chain was focused on efficiency of production gained through batch manufacturing that often resulted in excess inventories throughout the supply chain.



Internet-Enabled Supply Chain Information Flows

Figure 7.3 Internet-Enabled Supply Chain Information Flows

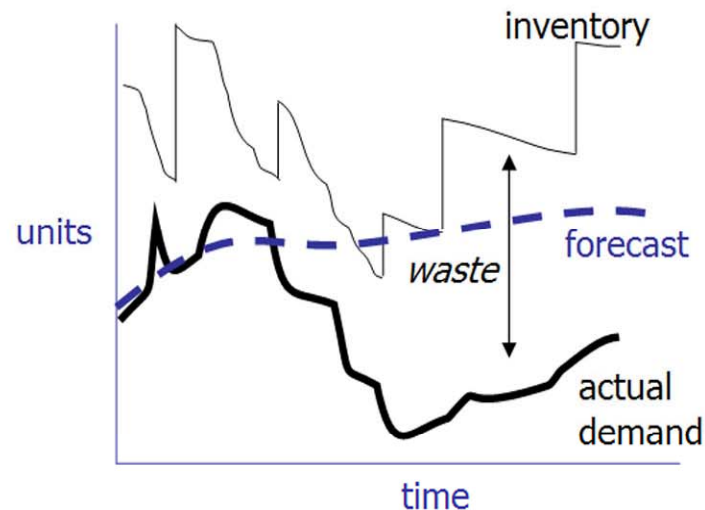
In the internet-enabled supply chain the customer drives the process, and information flows primarily upstream.



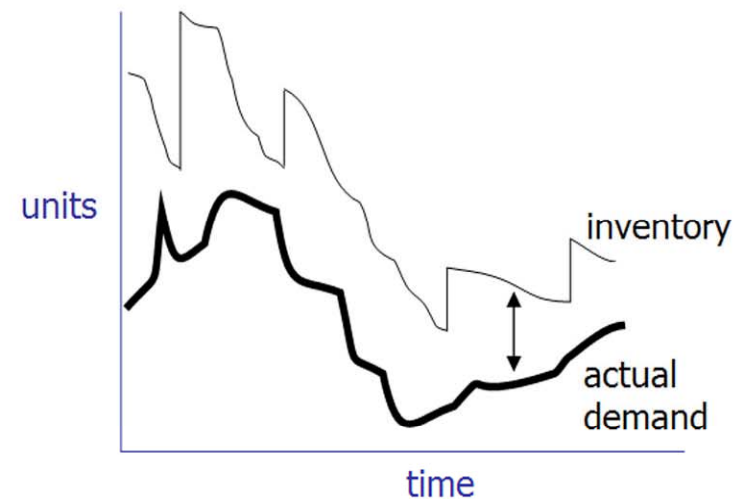
Why Supply Chain Collaboration?

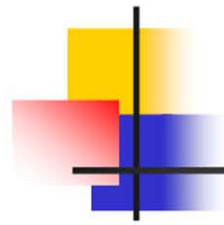
- 1) Allows product to be “pulled” from suppliers based on *actual* demand rather than “pushed” from suppliers based on *forecast*;

Inventory Pushed From Supplier



Inventory Pulled From Supplier

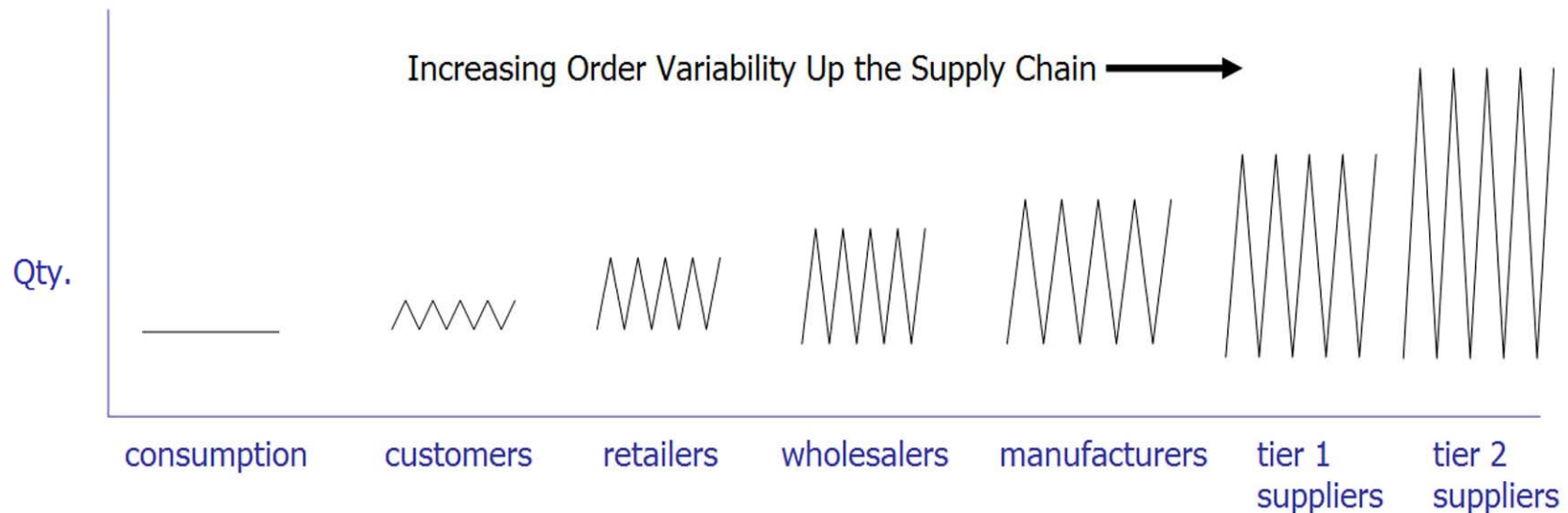




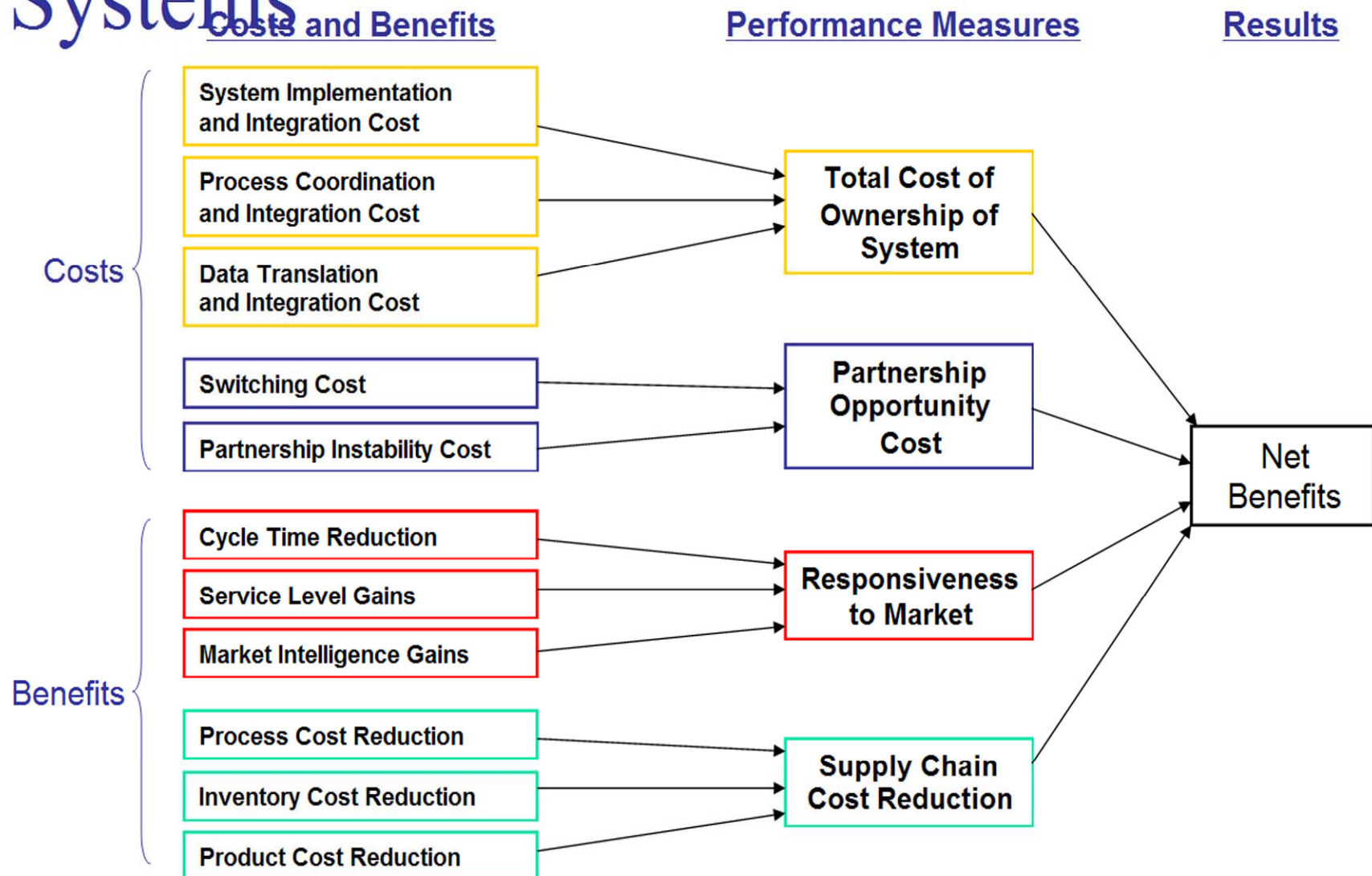
Why Supply Chain Collaboration?

- 2) Information sharing reduces the "bullwhip effect", which causes excess inventory the chain;

Information Distortion: The Bullwhip Effect (after Lee et al, 1997)



Net Benefits of Supply Chain Collaborative Systems



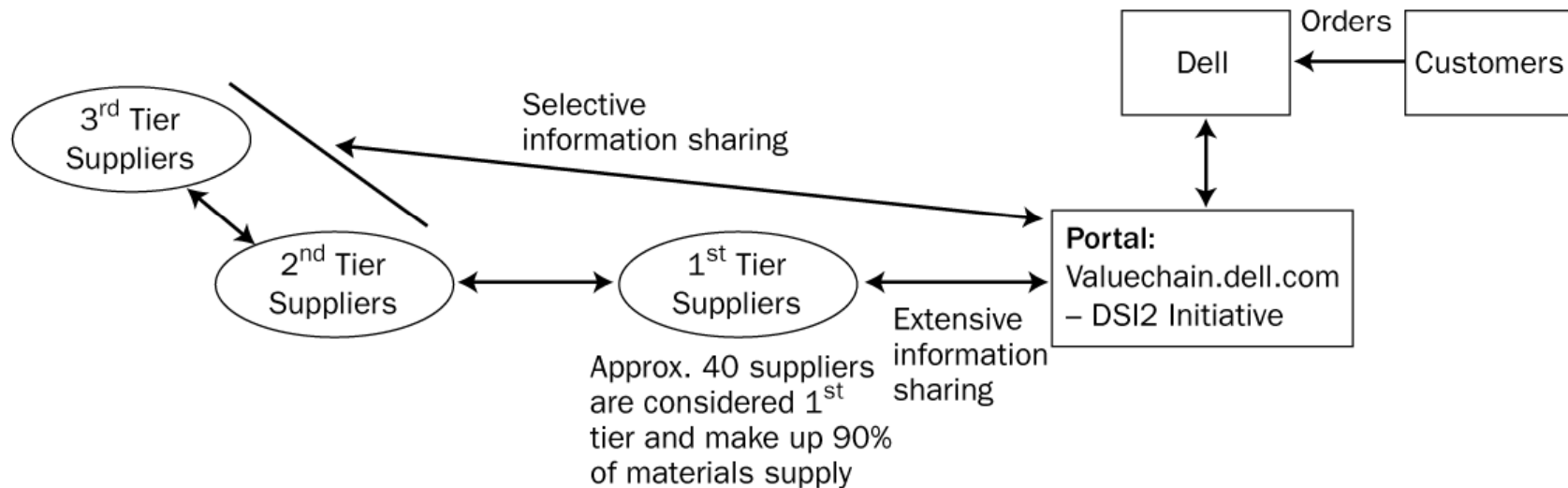
Forces Affecting SCM

- Globalization
- Mass Customization
- Price Sensitivity
- Customer Focus and time to Market
- Just-in-Time inventory and inventory reduction
- Enterprise resource planning
- outsourcing

Dell's Supply Chain Configuration

Figure 7.1 Dell's Supply Chain Configuration

Dell's supply chain involves information sharing by its members.

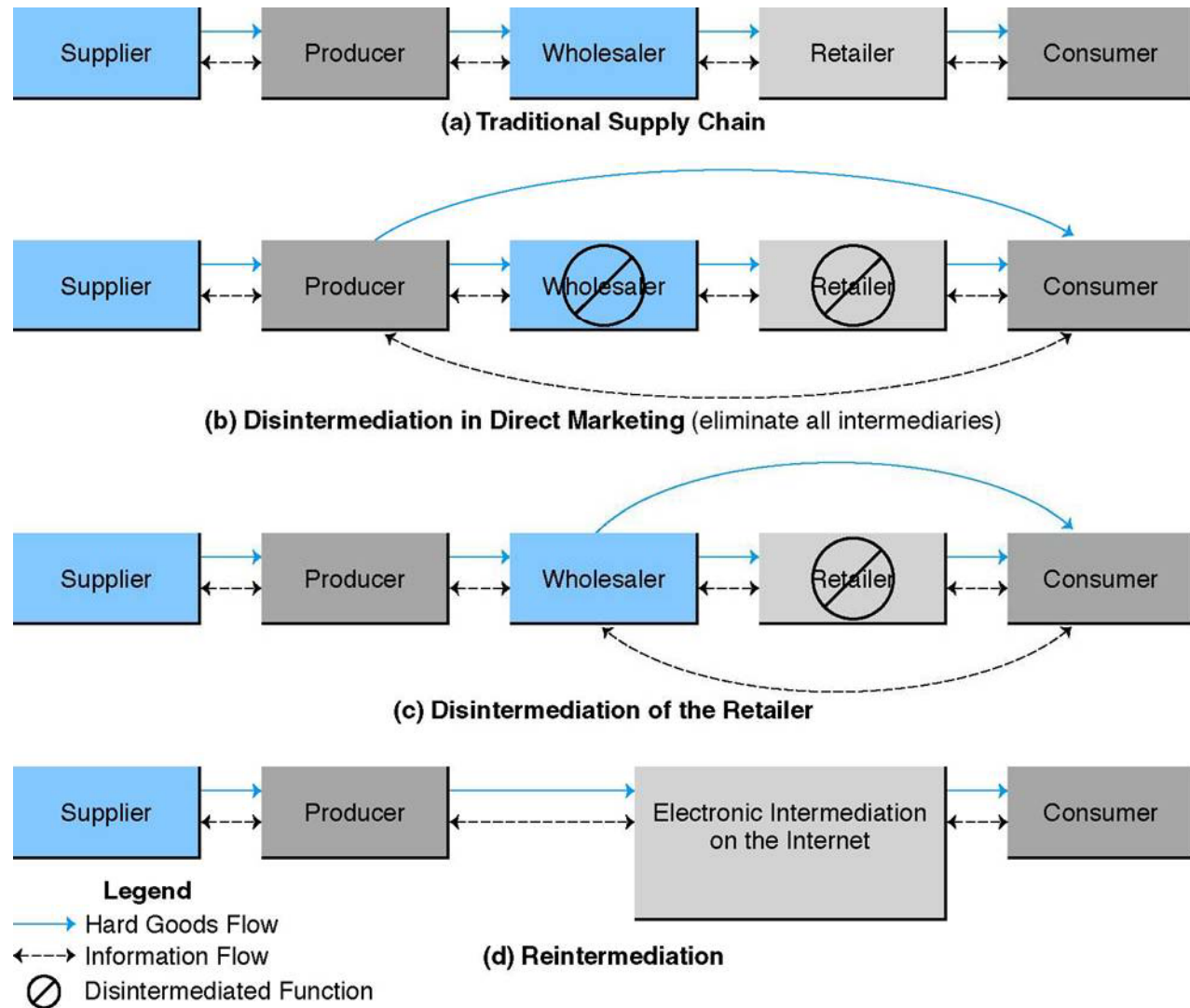


Other SCM terms

- **Disintermediation**
- **Reintermediation**
- **Vendor managed inventory**
- **Reverse logistics**

Disintermediation/Reintermediation

Change in the supply chain where the manufacturer or service provider and consumer interacting directly with each other, thereby eliminating the need for an intermediary.



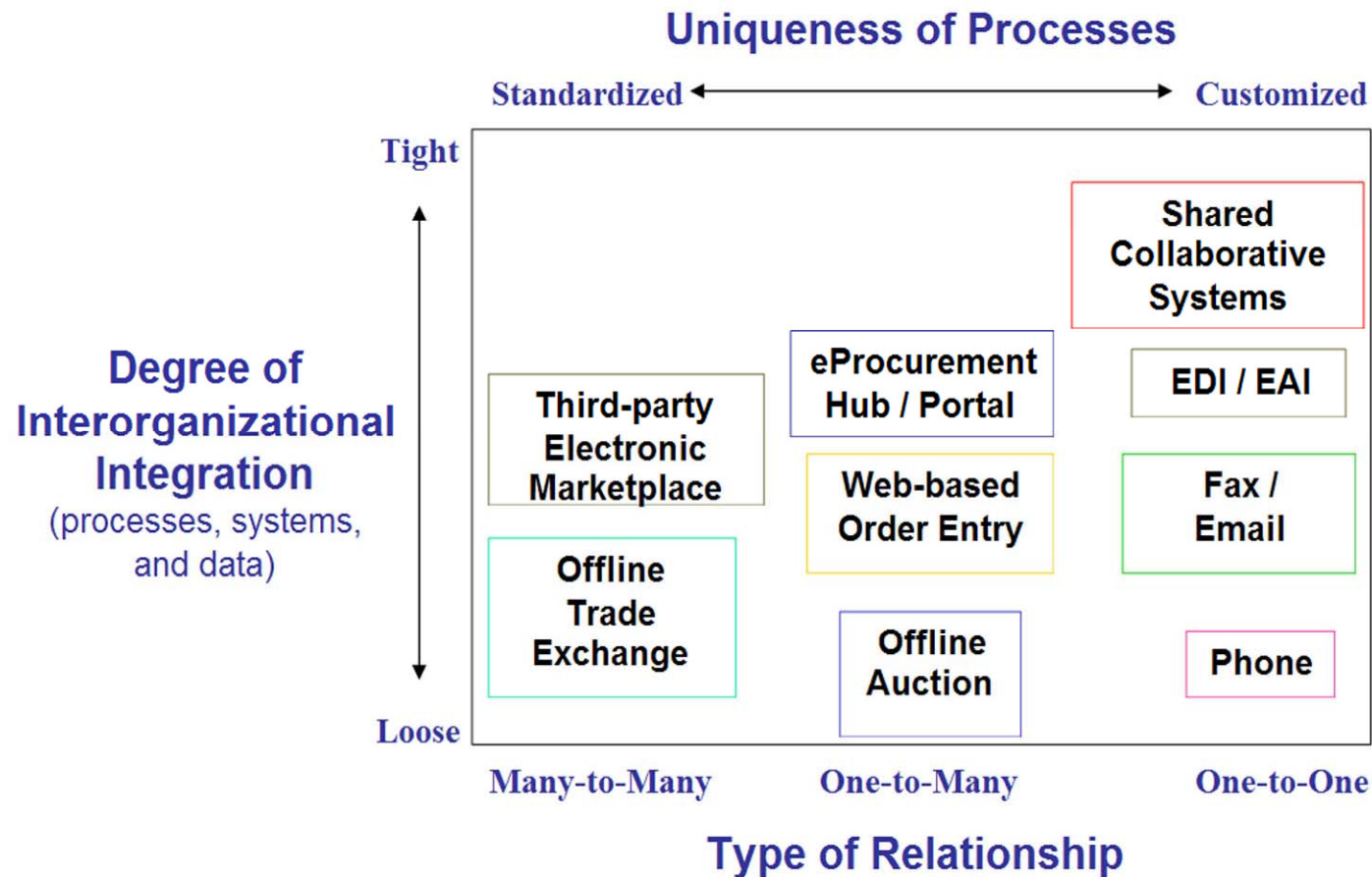
Reverse Logistics

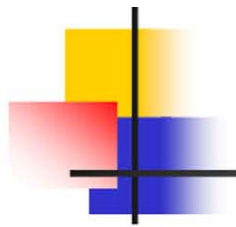
- Needs to be an efficient means for customers to return goods
- Will lead to better planned SCM strategy
- Can be complex for non-bricks e-businesses

Supply Chain - After Market Supply Chain PRODUCT LIFE CYCLE				
FORWARD LOGISTICS			E N D U S E R / C O N S U M E R	REVERSE LOGISTICS
New Product Development	Material Management	Manufacturing & Distribution		Aftermarket Customer Services
<ul style="list-style-type: none">•Design Development•Technology Roadmaps•ASIC Development•Mechanical Design•PCB Layout•Prototyping•New Product Introduction	<ul style="list-style-type: none">•Vendor Relations•Planning•ProcurementInventory Planning•Component Fabrication	<ul style="list-style-type: none">•PCB Assembly•Box Assembly•Volume Manufacturing•Integration•Configuration•Final Testing•Distribution to Customer•Customer Fulfillment•Transportation	<ul style="list-style-type: none">•Customer Service•Contact Centers (helpdesk)•Depot Repair•Service Logistics<ul style="list-style-type: none">•Field Service•Transportation/Warehousing•Spare Parts Management•RMA Management•Replacement Management•End-of-life Manufacturing•Fulfillment Services•IT Process Management•Recycling•Refurbishment/ Screening•Warranty Support	

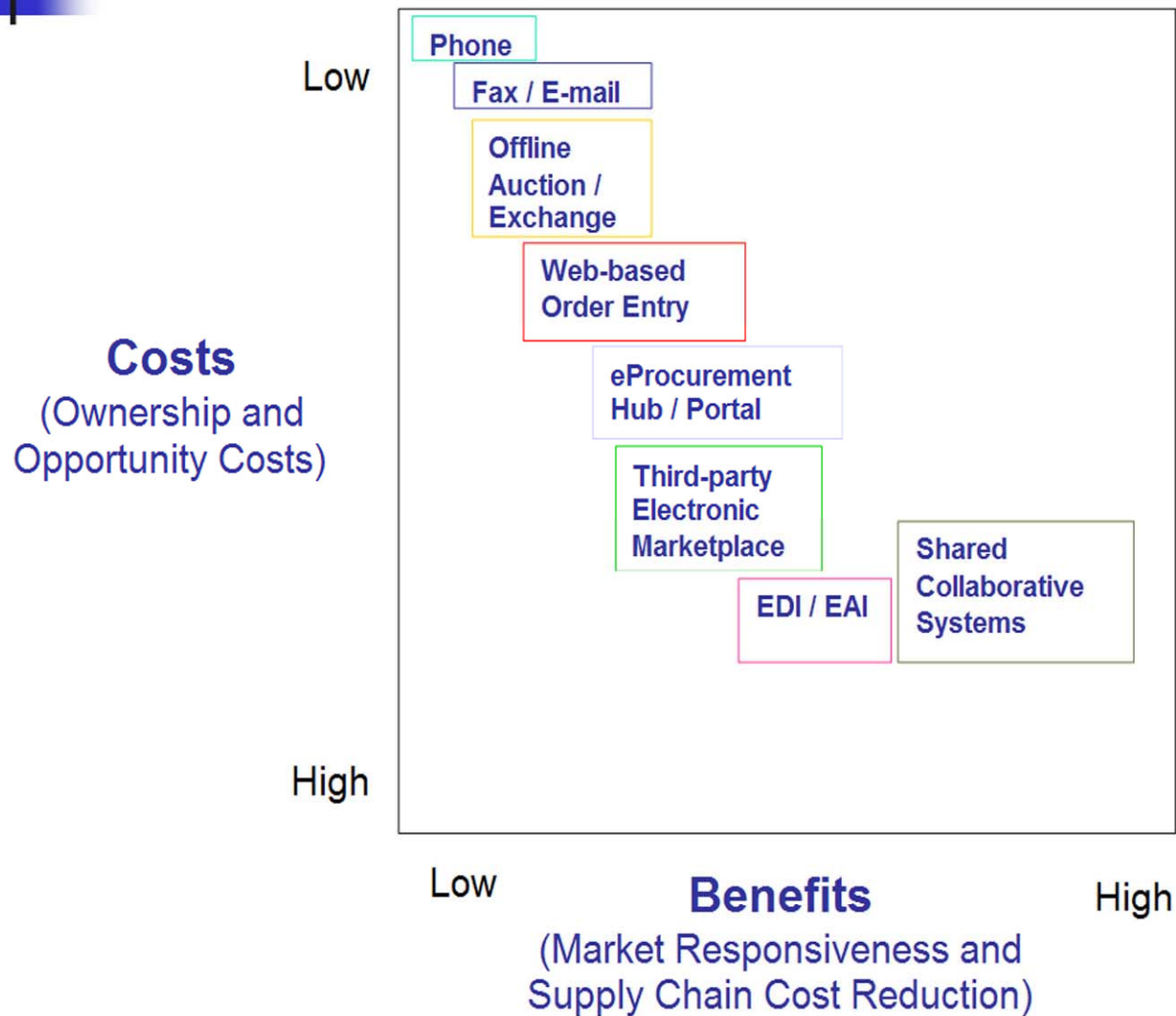


Systems for Supply Chain Collaboration





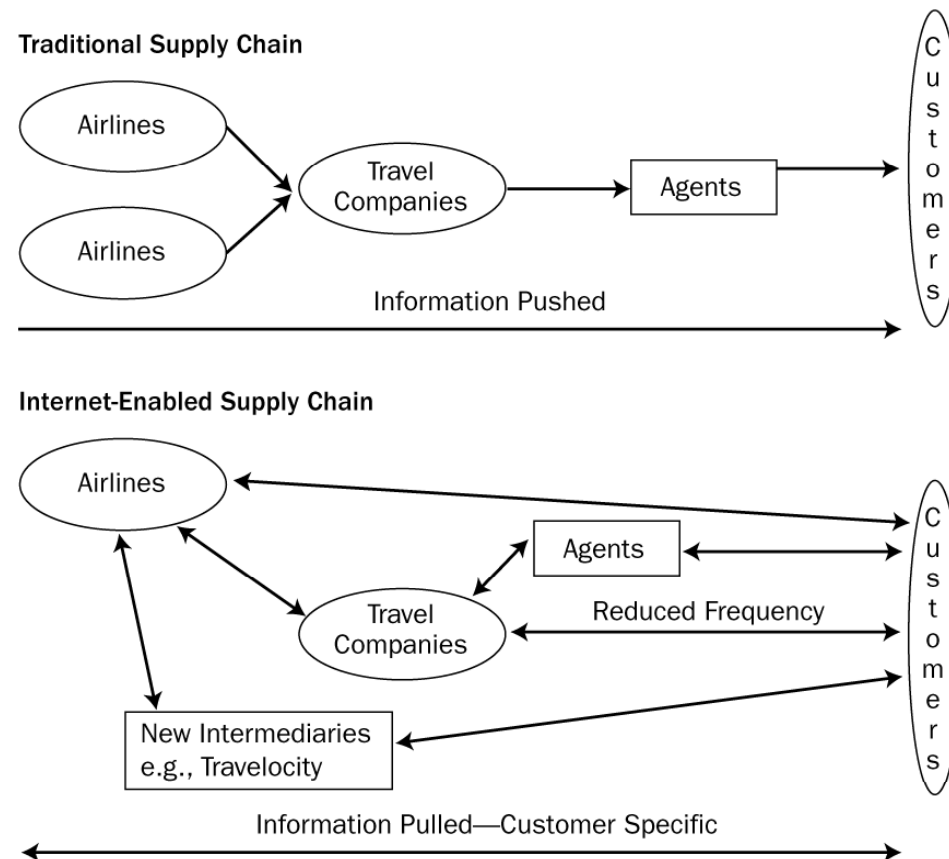
Expected Overall Cost-Benefit



Travel Industry Information Flows

Figure 7.4 Travel Industry Information Flows

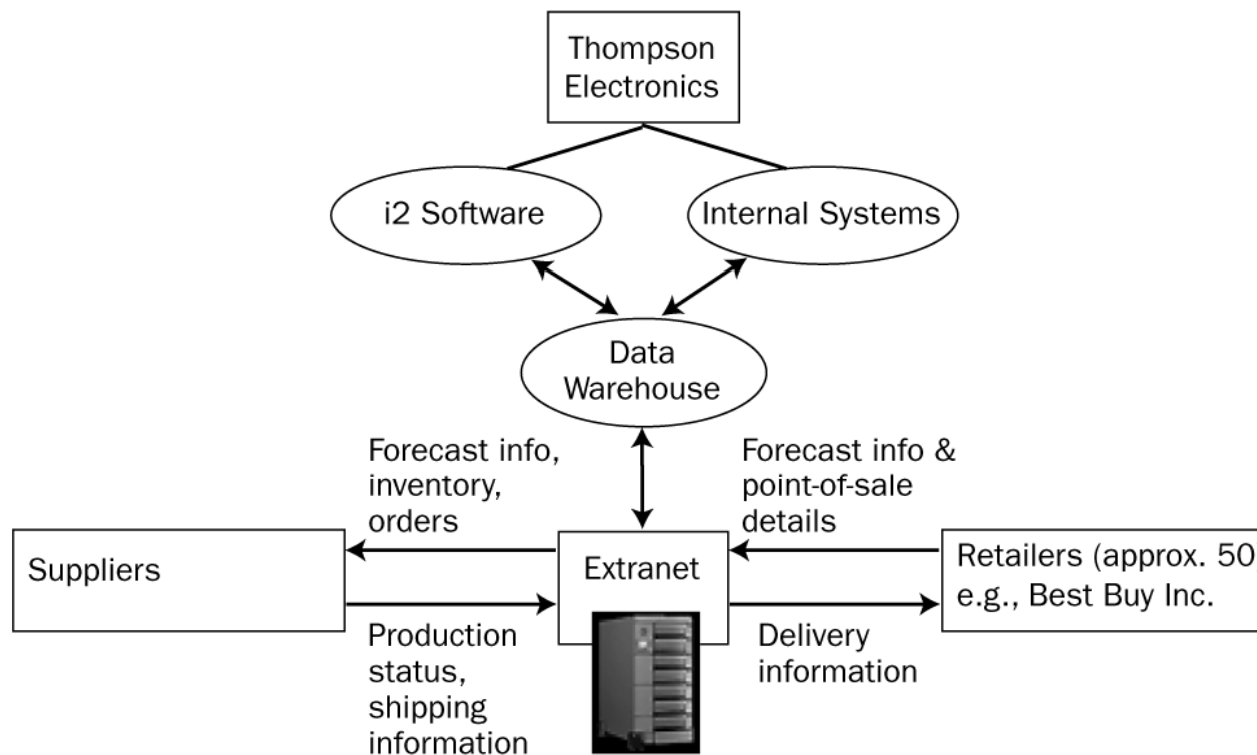
The travel industry supply chain has been drastically changed by e-commerce and the internet.



SCM at Thomson Consumer Electronics

Figure 7.5 SCM at Thomson Consumer Electronics

Thomson Consumer Electronics uses an extranet along with sophisticated applications to control its supply chain.



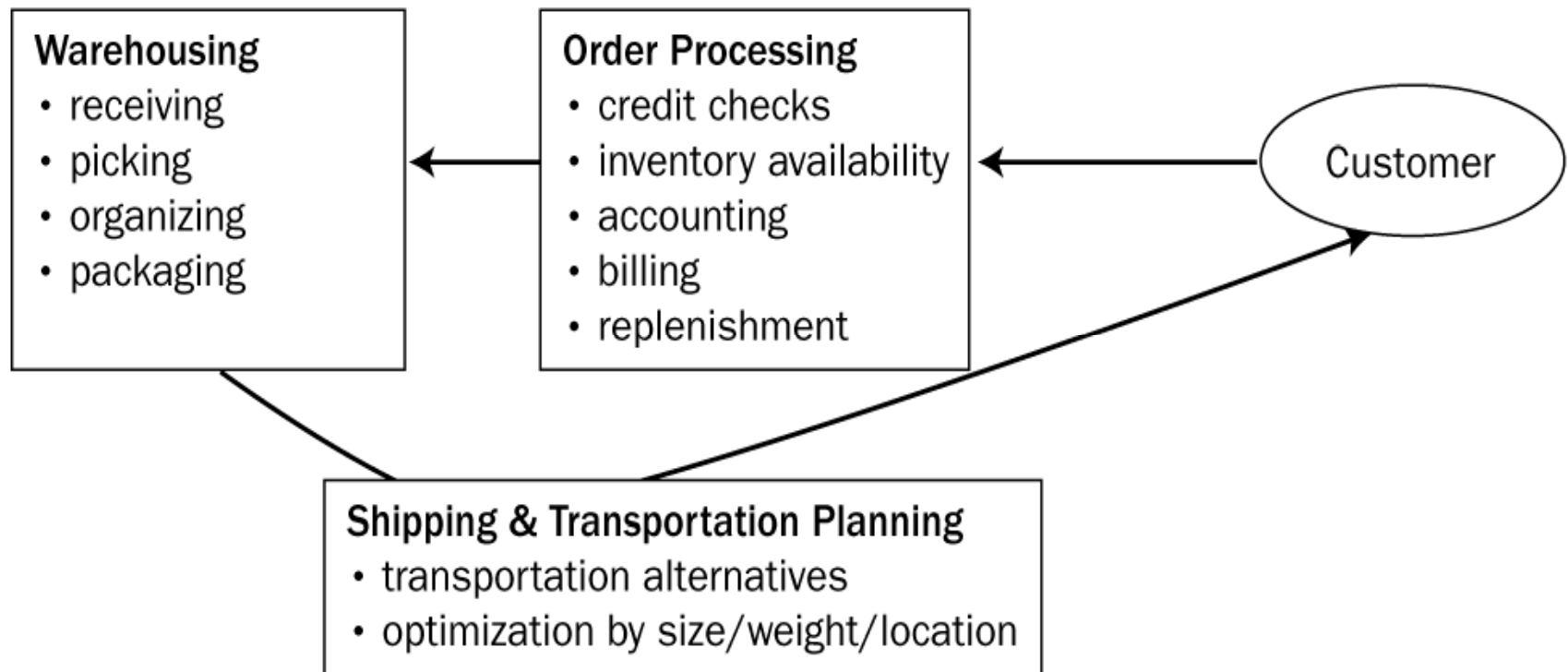
Partnerships

- **Trust**
- **Realignment**
 - **Vendor-managed inventory**
- **Service Level Agreements**
- **Performance measurement**
- **Dispute resolution**
- **Security**

Order Fulfillment

Figure 7.6 The Order Fulfillment Process

Order fulfillment includes many business processes in areas such as order processing, warehousing, and shipping and transportation planning.



Management Issues

- **Defining the e-supply structure**
- **Differentiation**
- **Order fulfillment capabilities**
- **Infrastructure capabilities**
- **Tradeoffs?**
- **Balancing all of the internal players**
 - **Sales and marketing**
 - **Production**
 - **Finance**
 - **Customer service**
- **Need to ensure all employees understand processes and corporate objectives for SCM**

KEY TERMS

- cash-to-cash cycle (p. 134)
- collaborative commerce (p. 143)
- disintermediation (p. 127)
- logistics (p. 124)
- order fulfillment (p. 139)
- order processing (p. 139)
- pull system (p. 127)
- push system (p. 124)
- reintermediation (p. 129)
- reverse logistics (p. 142)
- RFID tag (p. 140)
- supply chain management (SCM) (p. 124)
- vendor-managed inventory (VMI) (p. 137)
- warehousing (p. 139)