

Enterprise Applications

Reading:

Laudon & Laudon
chapter 8

Additional Reading:

Brien & Marakas
chapter 7

Outline

- ❑ Enterprise Systems
- ❑ Supply Chain Management Support
- ❑ Customer Relationship Management Systems
- ❑ Enterprise Applications
 - ❑ New Opportunities and Challenges

Enterprise Systems

➤ E-Business

- Use of Internet and other networks and IT to support
 - ◆ E-commerce, enterprise communications, collaborations, web-enabled business process – within and with customers/partners

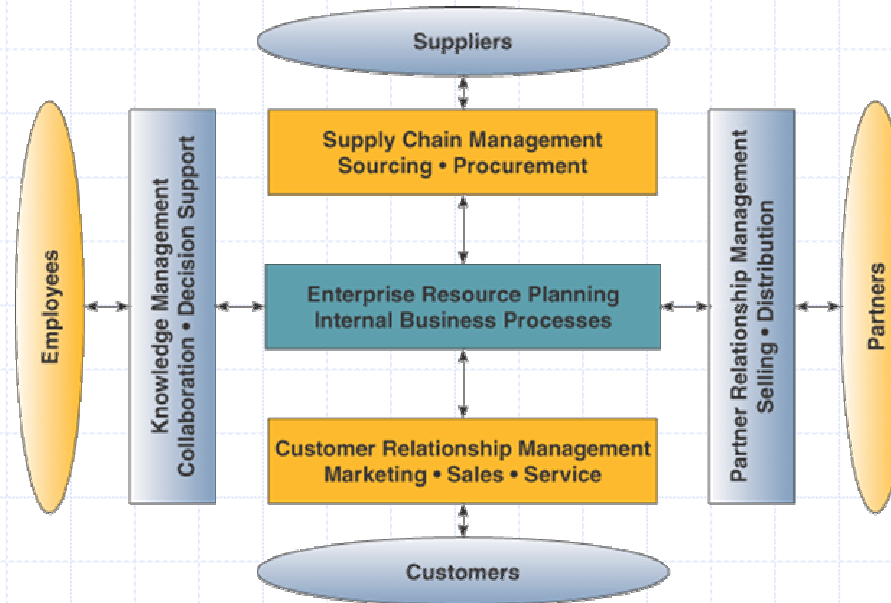
➤ Cross-Functional Enterprise Applications

- Cross the boundaries of traditional business functions – reengineer all vital business process across enterprise
- Moved from functional, mainframe-based legacy systems → Integrated, cross-functional client/server applications
 - ◆ Typically involved installing ERP, SCM, CRM software from SAP America, Oracle, or others

➤ Enterprise Application Architecture

- Overview of the major cross-functional enterprise applications

Enterprise Systems



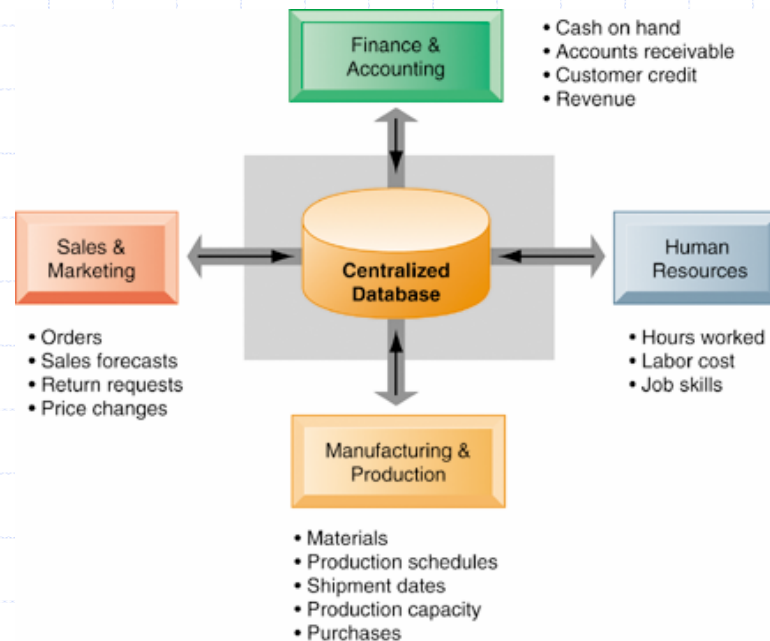
➤ Enterprise Systems

- Aka enterprise resource planning (ERP) systems
- Suite of integrated software modules, a common central database
- Collects data from many divisions of firm for use in nearly all of firm's internal business activities
- Information entered in one process is immediately available for other processes

Enterprise Systems

➤ Enterprise Software

- Built around thousands of predefined business processes that reflect best practices
 - ◆ Finance/accounting: General ledger, accounts payable, etc.
 - ◆ Human resources: Personnel administration, payroll, etc.
 - ◆ Manufacturing/production: Purchasing, shipping, etc.
 - ◆ Sales/marketing: Order processing, billing, sales planning, etc.



Enterprise Systems

➤ Enterprise Software

- In order to implement this software firms
 - ◆ Select functions of system they wish to use
 - ◆ Map business processes to predefined business processes in software
 - Use software's configuration tables for customizing
 - Can rewrite some of software → support their business process
 - Excessive customization → Degrade system performance, compromising info and process integration benefits
 - Max benefits from software → Must change the way they work to confirm
- Major Vendors
 - ◆ SAP, Oracle (PeopleSoft), SSA Global
 - ◆ Versions for small business, versions from service providers over web

➤ Business Value of Enterprise Systems

- Increase operational efficiency
- Provide firmwide information to support decision making
- Enable rapid responses to customer requests for information or products
- Include analytical tools to evaluate overall organizational performance

Supply Chain Management Systems

➤ SCM

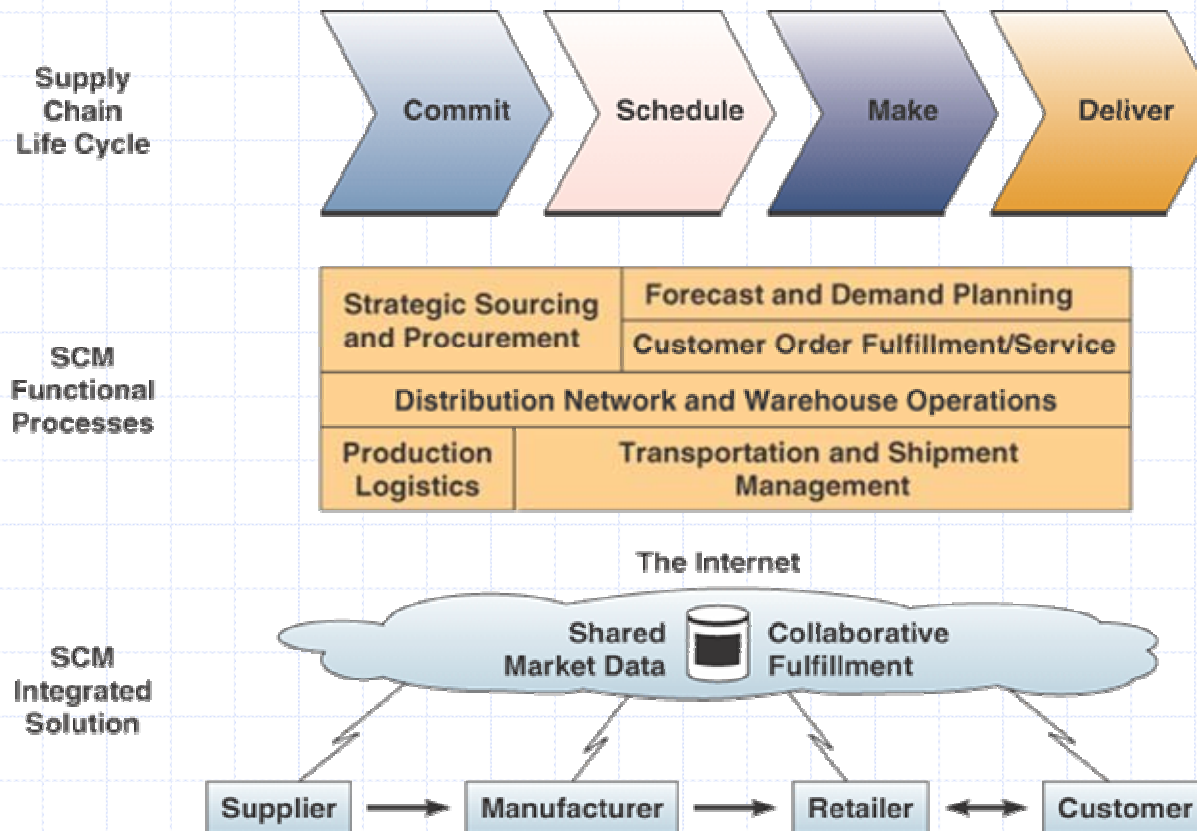
- A cross-functional interenterprise system
- To help support and manage the links between a company's key business processes
- And those of its suppliers, customers and business partners

- Supply Chain
 - ◆ Interrelationships with suppliers, customers, distributors, and other businesses that are needed to design, build and sell a product
 - ◆ Supply chain process should add a value to product/service → Value chain (discussed earlier)

- Goals
 - ◆ Fast, efficient, low-cost network of business relationships or **supply chain** to get a company's products from concept to market

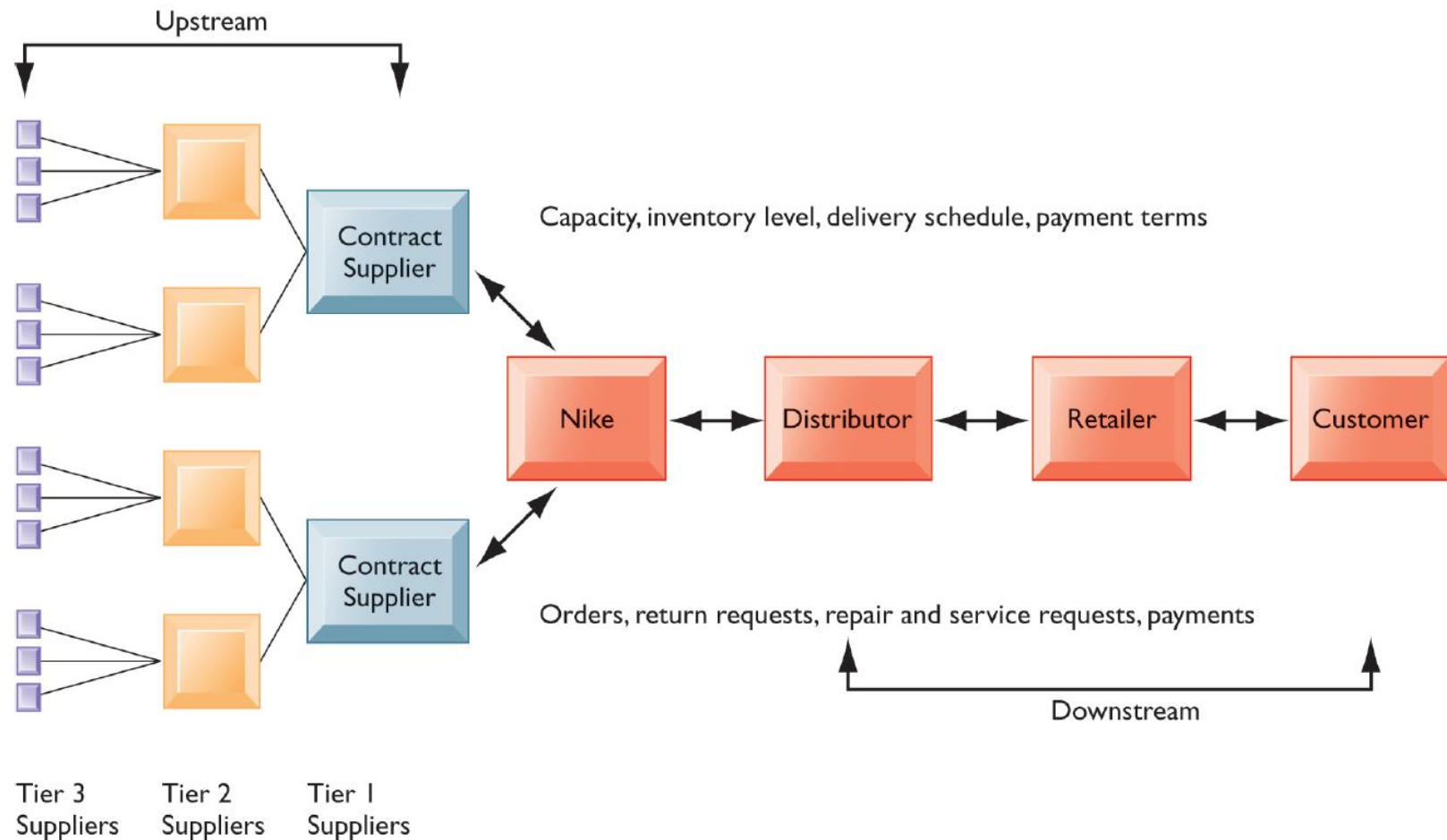
Supply Chain Management Systems

➤ SCM



Supply Chain Management Systems

➤ Nike's Supply Chain



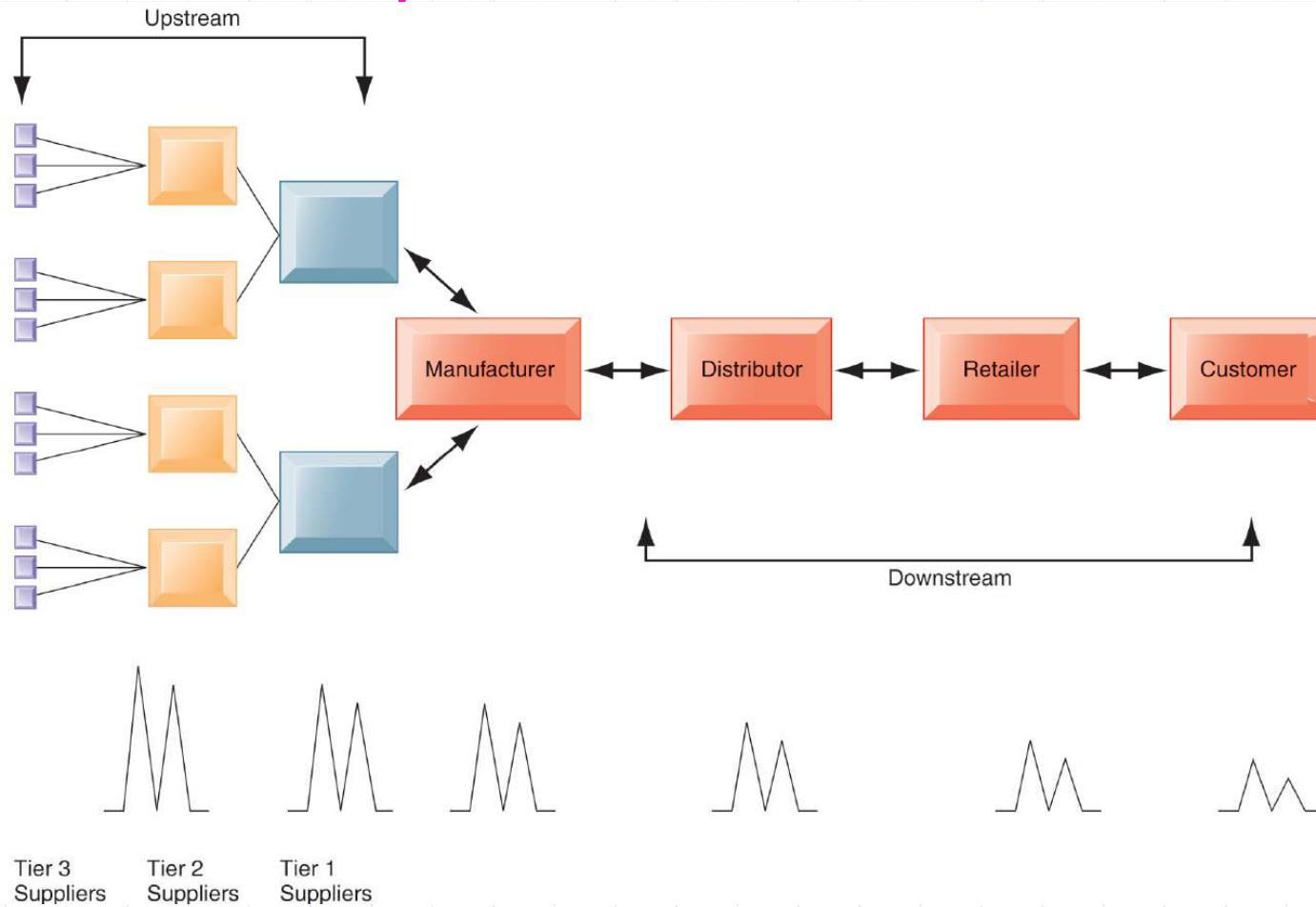
Supply Chain Management Systems

➤ Information and Supply Chain Management

- Inefficiencies cut into a company's operating costs
 - ◆ Can waste up to 25% of operating expenses
- Just-in-time strategy
 - ◆ Components arrive as they are needed
 - ◆ Finished goods shipped after leaving assembly line
- Safety stock
 - ◆ Buffer for lack of flexibility in supply chain
- Bullwhip effect
 - ◆ Information about product demand gets distorted as it passes from one entity to next across supply chain

Supply Chain Management Systems

➤ The Bullwhip Effect



Supply Chain Management Systems

➤ Global Supply Chain and Internet

- Before Internet, supply chain coordination hampered by difficulties of using disparate internal supply chain systems
- Enterprise systems supply some integration of internal supply chain processes but not designed to deal with external supply chain processes
- **Intranets and Extranets**
 - ◆ **Intranets:** To improve coordination among internal supply chain processes
 - ◆ **Extranets:** To coordinate supply chain processes shared with their business partners

Supply Chain Management Systems

➤ Global Supply Chain Issues

- Global supply chains typically span greater geographic distances and time differences
- More complex pricing issues (local taxes, transportation, etc.)
- Foreign government regulations

➤ Internet helps companies manage many aspects of global supply chains

- Sourcing, transportation, communications, international finance

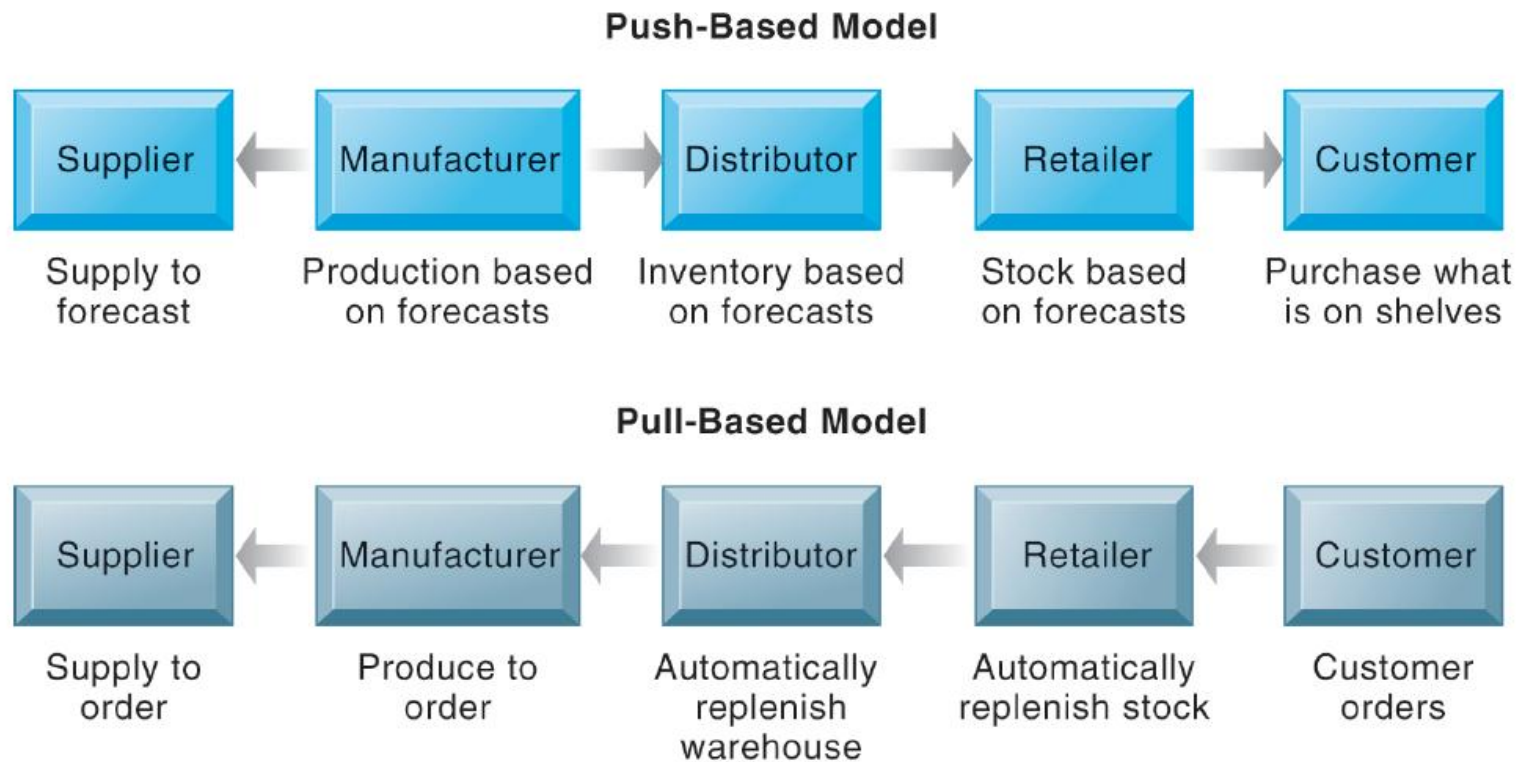
Supply Chain Management Systems

➤ Global Supply Chain and Internet

- Supply chain management systems
- Push-based model (build-to-stock)
 - ◆ Production schedules based on best guesses of demand
- Pull-based model (demand-driven)
 - ◆ Customer orders trigger events in supply chain
- Sequential supply chains
 - ◆ Information and materials flow sequentially from company to company
- Concurrent supply chains
 - ◆ Information flows in many directions simultaneously among members of a supply chain network

Supply Chain Management Systems

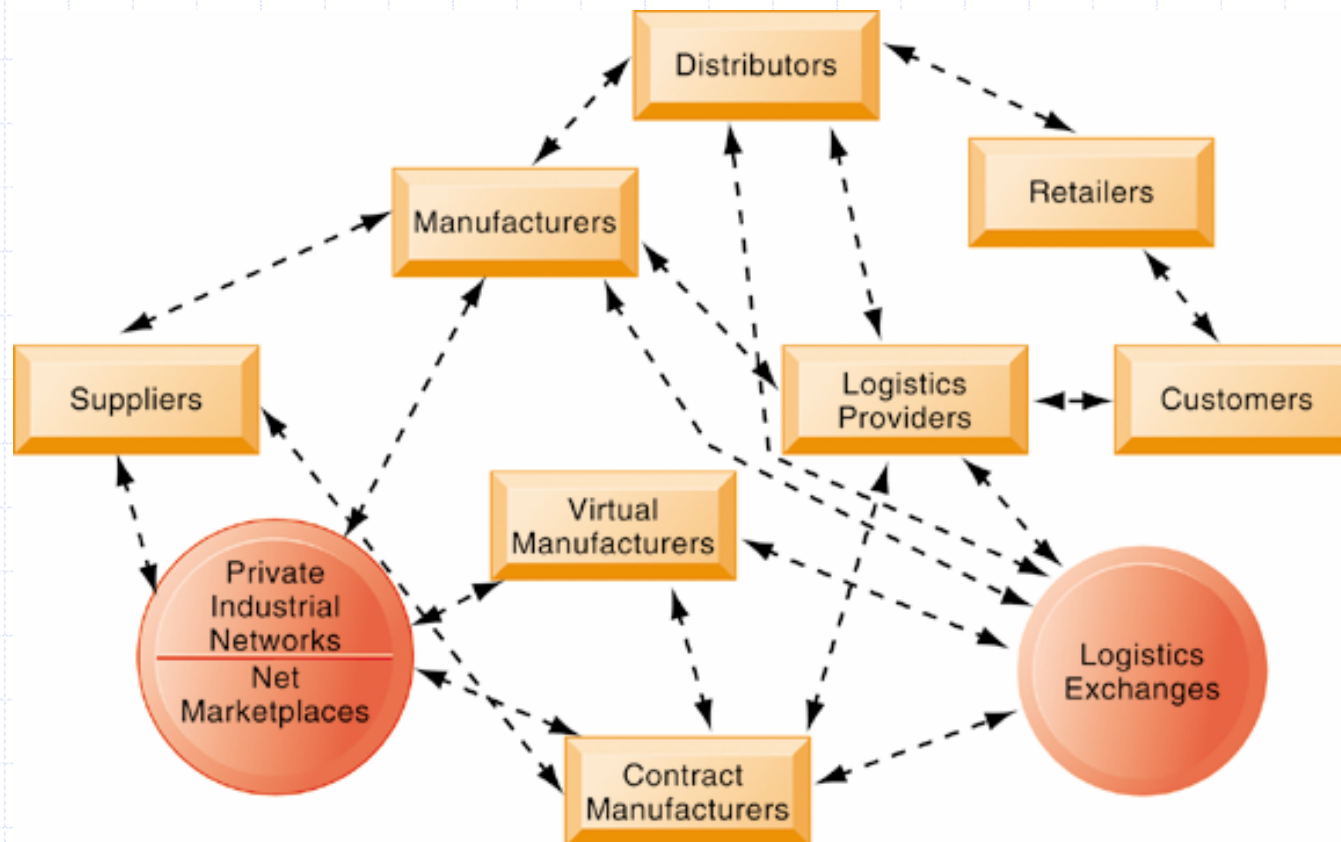
➤ Global Supply Chain and Internet



Supply Chain Management Systems

➤ Future Internet-Driven Supply Chain

Digital logistics nervous system, autonomic, multidirectional communication



Supply Chain Management Systems

➤ Business Value of Supply Chain MS

- Match supply to demand
- Reduce inventory levels
- Improve delivery service
- Speed product time to market
- Use assets more effectively
- Reduced supply chain costs lead to increased profitability
- Increased sales

Customer Relationship Management

➤ Knowing the Customer

- In large businesses, too many customers and too many ways customers interact with firm

➤ Customer relationship management (CRM) systems

- Capture and integrate customer data from all over the organization
- Consolidate and analyze customer data
- Distribute customer information to various systems and customer touch points across enterprise
- Provide single enterprise view of customers

CRM Applications



- **Contract and Account Management**
 - Helps sales, marketing and service professionals
 - Capture and track data about past and planned contacts with customers and prospects

CRM Applications

➤ Sales

- Provides sales reps with software tools and data they need to support and manage sales activities
- Sales Force Automation (SFA)
 - ◆ Sales prospect/contact information, sales quote generation
 - ◆ Salesperson efficiency ↑, Cost per sale ↓
- Tools to optimize cross-/up-selling
 - ◆ **Cross-selling** is trying to sell a customer of one product with a related product
 - ◆ **Up-selling** is trying to sell customer a better product than they are currently seeking

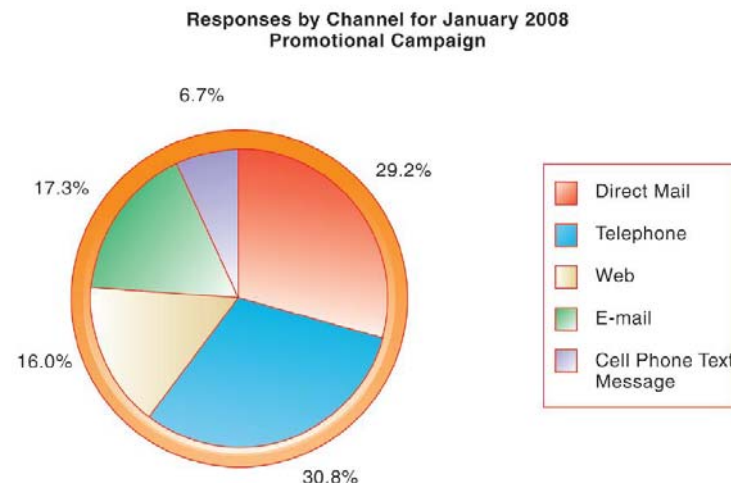
➤ Marketing and Fulfillment

- Help marketing professionals accomplish direct marketing campaigns
- *Qualifying leads* for targeted marketing and *scheduling* and *tracking* direct marketing mailings

CRM Applications

➤ Customer Service and Support

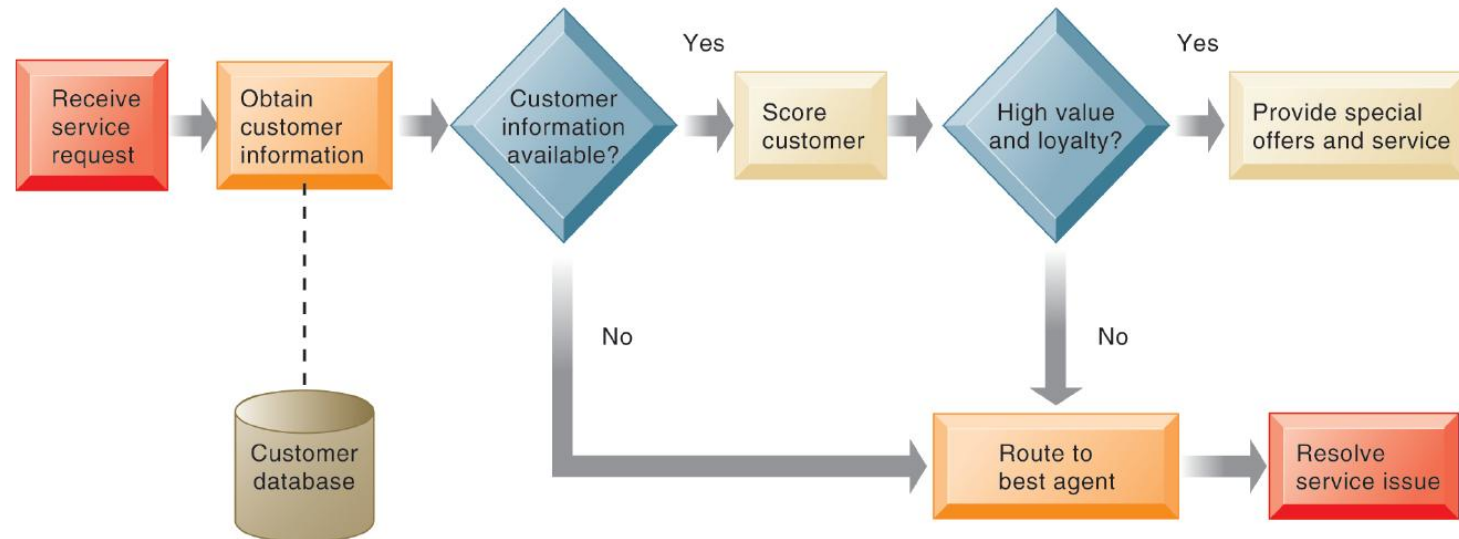
- Provides sales reps with software tools and database access (customer database) shared by sales and marketing professions
- Helps create, assign and manage requests for service
- **Call center** software → *Routes* calls to customer support agents based upon their skills and type of call
- **Help desk** software → Provides relevant *service data/suggestions* for resolving problems for customer service representatives helping customers with problems



CRM Applications

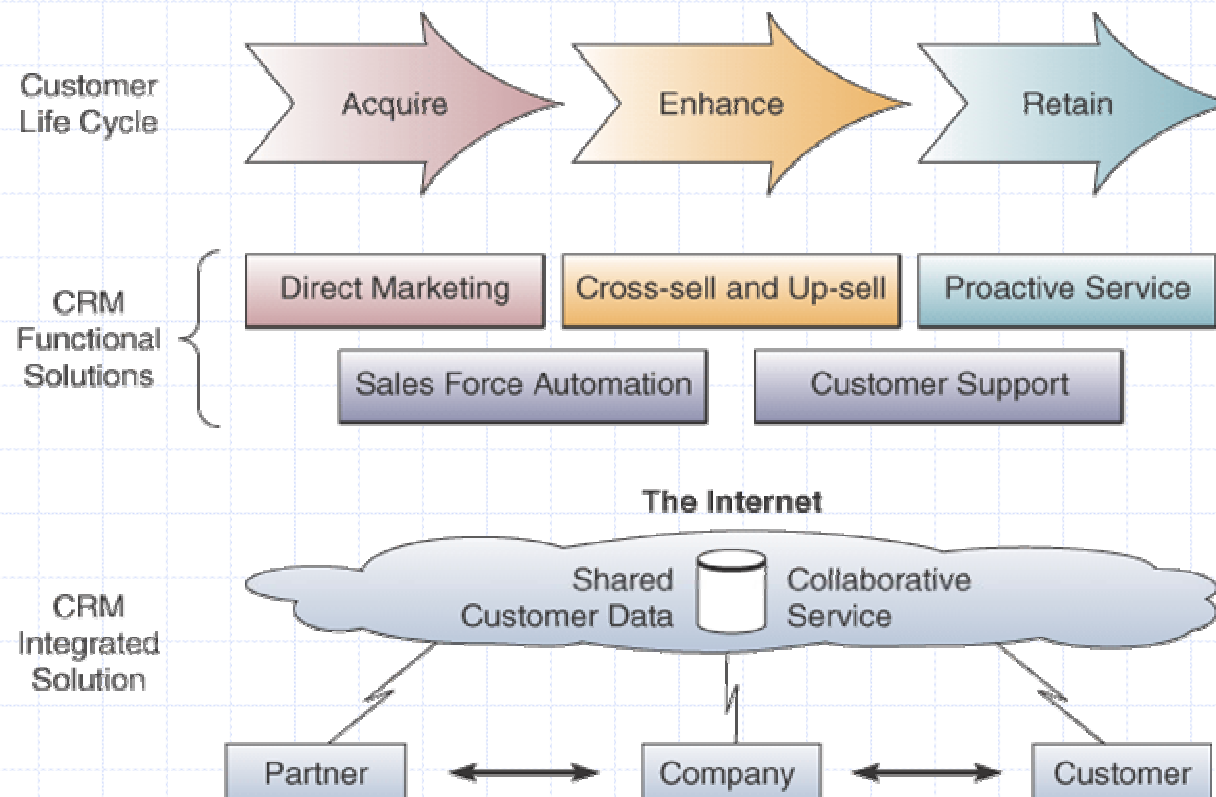
➤ Retention and Loyalty Programs

- Motivation
 - ◆ It costs 6 times more to sell to a new customer than existing one
 - ◆ A typical dissatisfied customer tells 8-10 people about his/her experience
 - ◆ Profit can be boost up to 85% by increasing annual customer retention by 5%
 - ◆ 70% of firms product again if quickly taken care of their problems
- Try to help a company identify, reward, and market to their most loyal and profitable customers
- Customer data warehouse
- Data mining tools, analytical software → Identify Profitable customers



CRM Applications

➤ CRM Supports Customer Life Cycle



Benefits of CRM

➤ Benefits of CRM

- Identify and target best customers
- Track when a customer contacts a company
- Increased customer satisfaction
- Reduced direct-marketing costs
- More effective marketing
- Lower costs for customer acquisition/retention
- Increased sales revenue

➤ Churn rate

- Number of customers who stop using or purchasing products or services from a company.
- Indicator of growth or decline of firm's customer base

Benefits of CRM

➤ Reasons of CRM Failure

- Rely on application to solve a problem without first changing the business processes
- Business stakeholders not participating and not prepared
- Lack of understanding and preparation
- Some firms experiences enormous operating problems and losses → Organizational changes
 - ◆ Kmart (SCMS from *i2 Technologies*) – problems with promotion driven business model, spikes, number of products

Enterprise Application Challenges

➤ Challenges

- Highly expensive to purchase and implement
- May take several years to complete
- Total cost may be 4 to 5 times the price of software
- Technology changes
- Business process changes
- Organizational changes
- Employees must accept new functions & responsibilities
- Switching costs, dependence on software vendors
- Data standardization, management, cleansing