

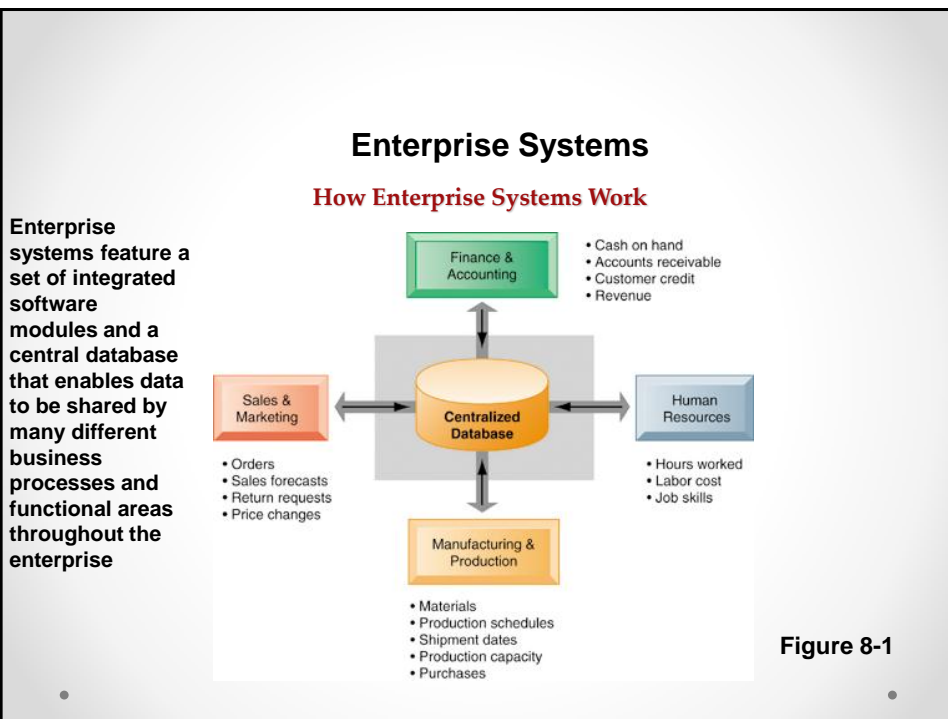
Enterprise Applications

Enterprise Systems

- Enterprise Systems
 - Also called “enterprise resource planning (ERP) systems”
 - Suite of integrated software modules and 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, and so on
 - Human resources: personnel administration, payroll, and so on
 - Manufacturing/production: purchasing, shipping, and so on
 - Sales/marketing: order processing, billing, sales planning, and so on
 - To implement, firms:
 - Select functions of system they wish to use.
 - Map business processes to software processes.
 - Use software's configuration tables for customizing.



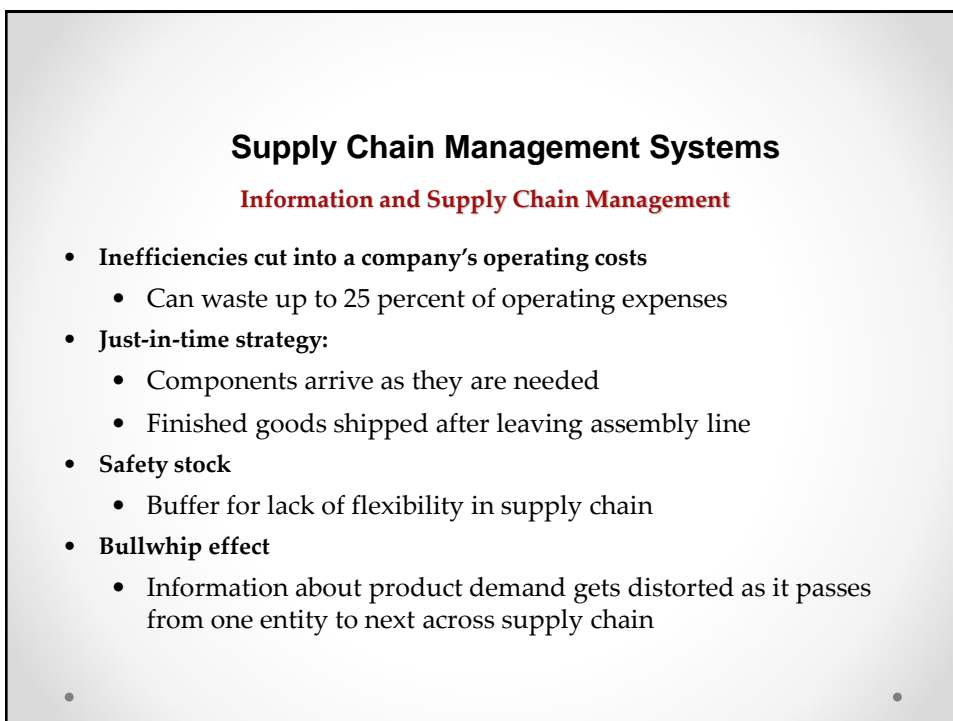
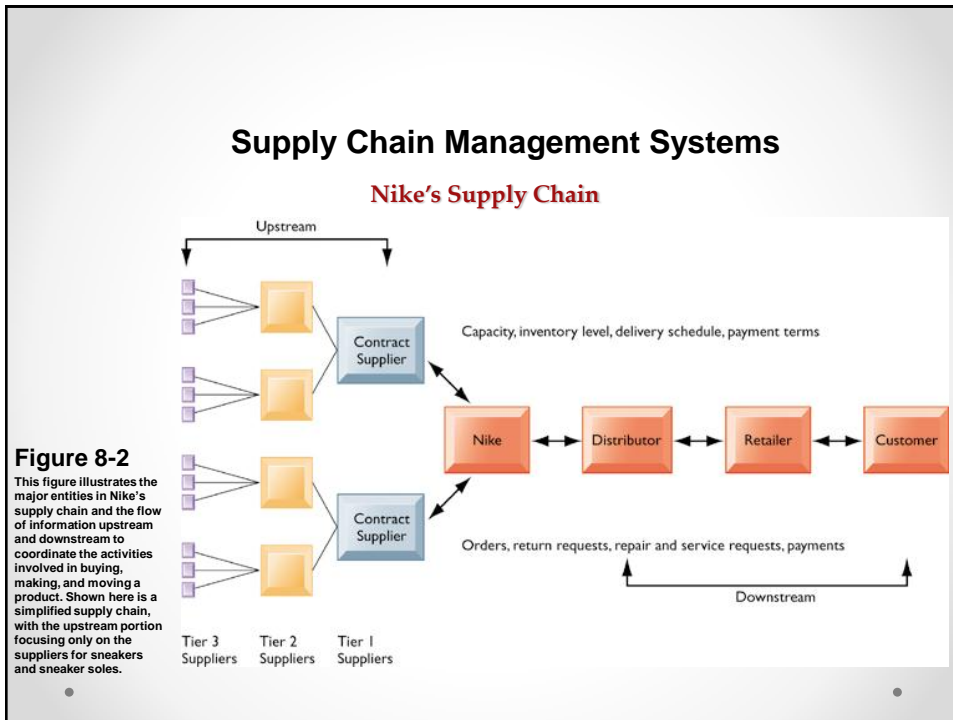
Enterprise Systems

- **Business value of enterprise systems**
 - **Increase operational efficiency.**
 - **Provide firm wide 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

The Supply Chain

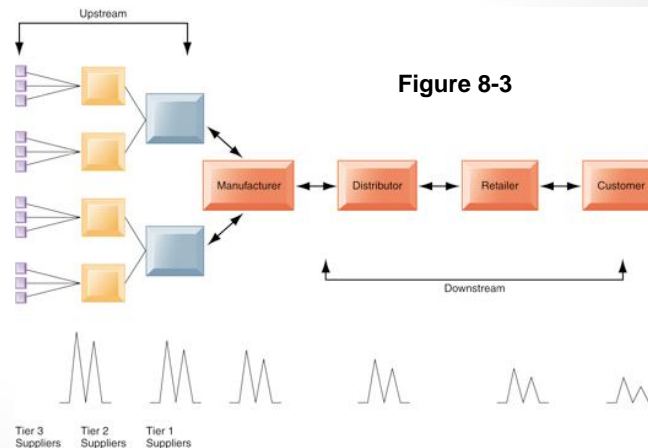
- **Network of organizations and processes for:**
 - Procuring raw materials
 - Transforming them into products
 - Distributing the products
- **Upstream supply chain:**
 - Firm's suppliers, suppliers' suppliers, processes for managing relationships with them
- **Downstream supply chain:**
 - Organizations and processes responsible for delivering products to customers



Supply Chain Management Systems

The Bullwhip Effect

Inaccurate information can cause minor fluctuations in demand for a product to be amplified as one moves further back in the supply chain. Minor fluctuations in retail sales for a product can create excess inventory for distributors, manufacturers, and suppliers.



Supply Chain Management Systems

Supply Chain Management Software

- **Supply chain planning systems**
 - Model existing supply chain.
 - Demand planning.
 - Optimize sourcing, manufacturing plans.
 - Establish inventory levels.
 - Identify transportation modes.
- **Supply chain execution systems**
 - Manage flow of products through distribution centers and warehouses.

Supply Chain Management Systems

Global Supply Chains and the 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

Intranets and Extranets for Supply Chain Management

Intranets integrate information from isolated business processes within the firm to help manage its internal supply chain. Access to these private intranets can also be extended to authorized suppliers, distributors, logistics services, and, sometimes, to retail customers to improve coordination of external supply chain processes.

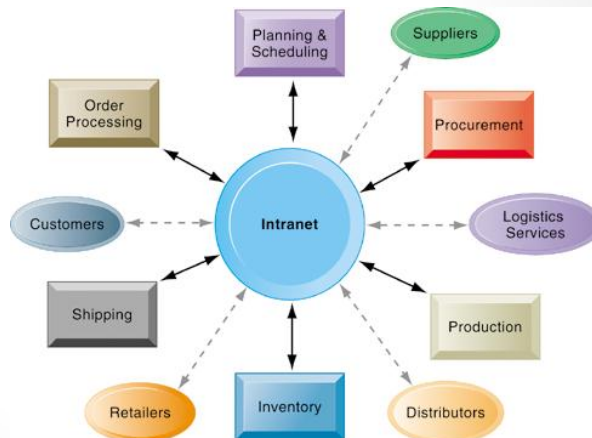


Figure 8-4

Customer Relationship Management Systems

Interactive Session: Technology Procter & Gamble Tries to Optimize Inventory

- Read the Interactive Session and then discuss the following questions:
 - Why are larger supply chains more difficult to manage? List several reasons.
 - Why is supply chain management so important at a company such as P&G?
 - How did inventory optimization impact operations and decision making at P&G?
 - Why wouldn't a small company derive as much benefit from multi-echelon inventory optimization?

Supply Chain Management Systems

Global Supply Chains and the Internet

- 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 Chains and the Internet

- Supply chain management systems
 - Push-based model (build-to-stock)
 - 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

Push- Versus Pull-Based Supply Chain Models

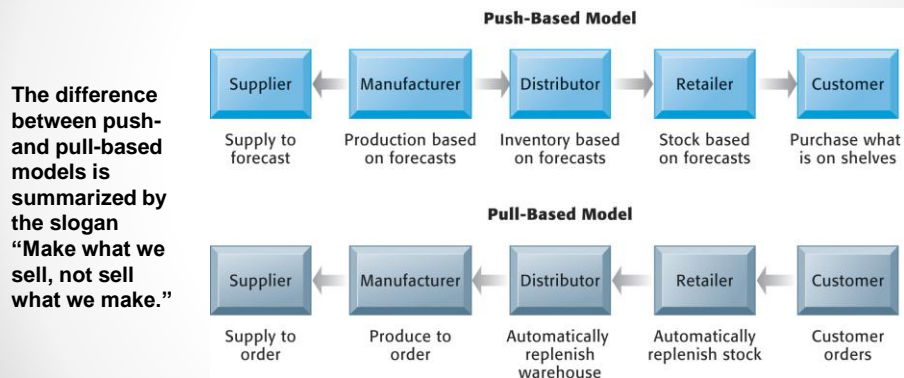


Figure 8-5

Supply Chain Management Systems

Business Value of Supply Chain Management Systems

- 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.
- Increase sales.

Supply Chain Management Systems

The Future Internet-Driven Supply Chain

The future Internet-driven supply chain operates like a digital logistics nervous system. It provides multidirectional communication among firms, networks of firms, and e-marketplaces so that entire networks of supply chain partners can immediately adjust inventories, orders, and capacities.

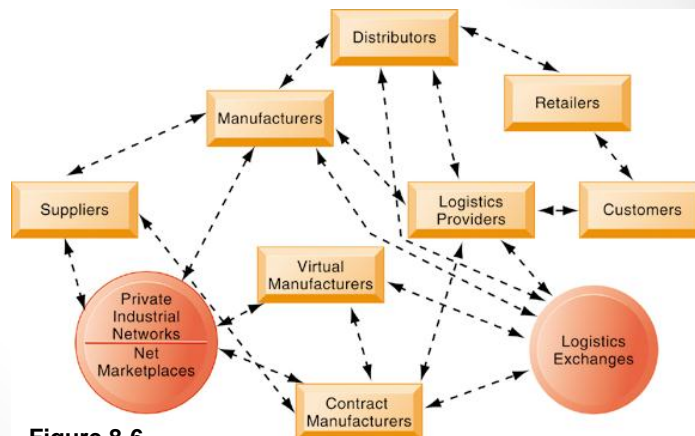


Figure 8-6

Customer Relationship Management Systems

What Is 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.

Customer Relationship Management Systems

Customer Relationship Management (CRM)

CRM systems examine customers from a multifaceted perspective. These systems use a set of integrated applications to address all aspects of the customer relationship, including customer service, sales, and marketing.



Figure 8-7

Customer Relationship Management Systems

CRM Software

- CRM packages range from niche tools to large-scale enterprise applications.
- More comprehensive have modules for:
 - **Partner relationship management (PRM)**
 - Integrating lead generation, pricing, promotions, order configurations, and availability
 - Tools to assess partners' performances
 - **Employee relationship management (ERM)**
 - E.g., setting objectives, employee performance management, performance-based compensation, employee training

Customer Relationship Management Systems

CRM Software

- CRM packages typically include tools for:
 - **Sales force automation (SFA)**
 - E.g., sales prospect and contact information, and sales quote generation capabilities
 - **Customer service**
 - E.g., assigning and managing customer service requests; Web-based self-service capabilities
 - **Marketing**
 - E.g., capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail

Customer Relationship Management Systems

How CRM Systems Support Marketing

Customer relationship management software provides a single point for users to manage and evaluate marketing campaigns across multiple channels, including e-mail, direct mail, telephone, the Web, and wireless messages.

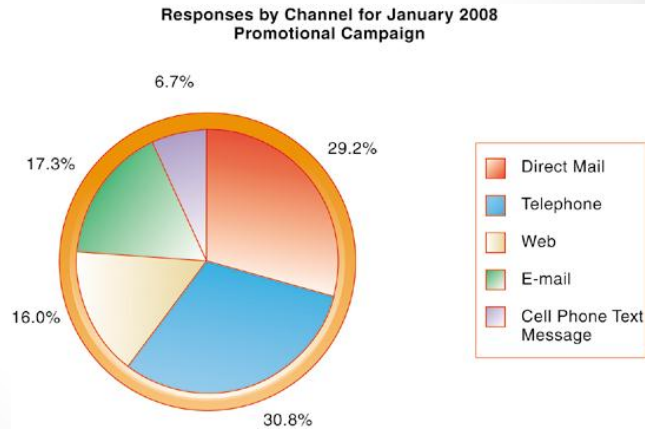


Figure 8-8

Enterprise Systems

Interactive Session: Organizations CRM Helps Chase Card Services Manage Customer Calls

- Read the Interactive Session and then discuss the following questions:
 - Why is the call center so important for Chase Card Services? How could Chase's call centers help it improve relationships with customers?
 - Describe the problem at Chase call centers. What management, organization, or technology factors contributed to the problem?
 - How did using Enkata improve operational performance and decision making?

Customer Relationship Management Systems

CRM Software Capabilities

The major CRM software products support business processes in sales, service, and marketing, integrating customer information from many different sources. Included are support for both the operational and analytical aspects of CRM.

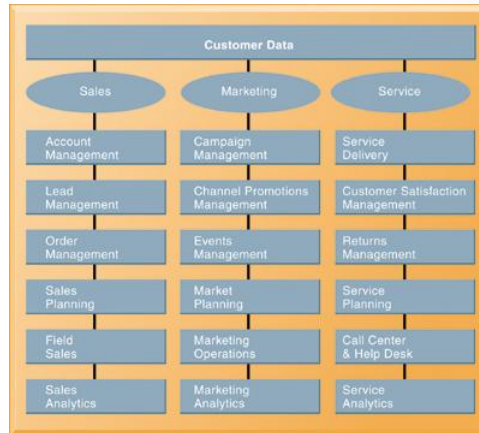


Figure 8-9

Customer Relationship Management Systems

Customer Loyalty Management Process Map

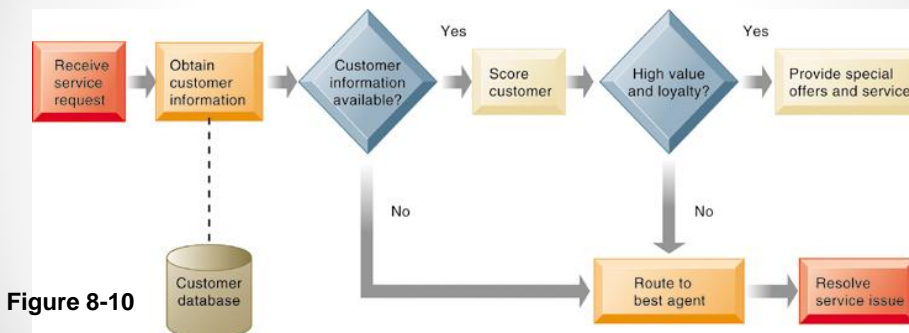


Figure 8-10

This process map shows how a best practice for promoting customer loyalty through customer service would be modeled by customer relationship management software. The CRM software helps firms identify high-value customers for preferential treatment.

Customer Relationship Management Systems

Operational and Analytical CRM

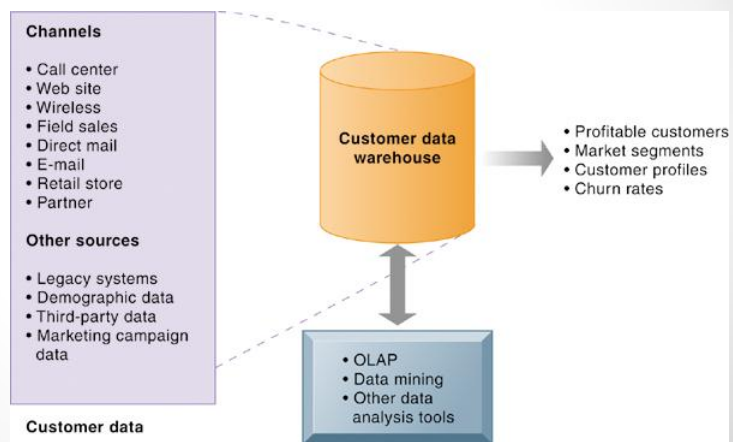
- **Operational CRM:**
 - Customer-facing applications such as sales force automation, call center and customer service support, and marketing automation
- **Analytical CRM:**
 - Analyzes customer data output from operational CRM applications
 - Based on data warehouses populated by operational CRM systems and customer touch points
 - Customer lifetime value (CLTV)

Customer Relationship Management Systems

Analytical CRM Data Warehouse

Analytical CRM uses a customer data warehouse and tools to analyze customer data collected from the firm's customer touch points and from other sources.

Figure 8-11



Customer Relationship Management Systems

Business Value of Customer Relationship Management

- **Business benefits:**
 - 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

Enterprise Applications: New Opportunities and Challenges

Enterprise Application Challenges

- **Highly expensive to purchase and implement enterprise applications—total cost may be four to five times the price of software**
- **Technology changes**
- **Business process changes**
- **Organizational changes**
- **Switching costs, dependence on software vendors**
- **Data standardization, management, cleansing**

Enterprise Applications: New Opportunities and Challenges

Extending Enterprise Software

- To bring greater value from enterprise applications
 - **Enterprise solutions/suites:** make applications more flexible, Web-enabled, integrated with other systems
 - **Service platform:** integrates multiple applications to deliver a seamless experience for all parties
 - **Order-to-cash process**
 - **Portal software**

Enterprise Applications: New Opportunities and Challenges

Order-to-Cash Service

Order-to-cash is a composite process that integrates data from individual enterprise systems and legacy financial applications. The process must be modeled and translated into a software system using application integration tools.

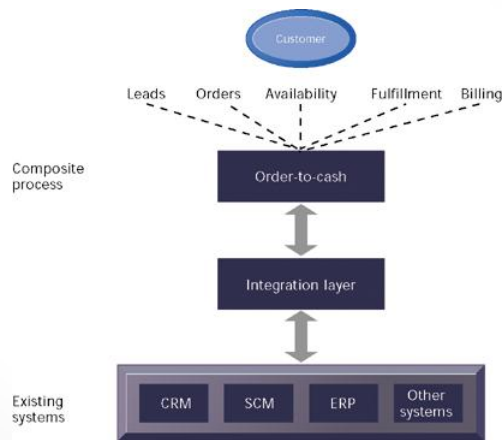


Figure 8-12