Enterprise Systems

ACHIEVING OPERATIONAL EXCELLENCE AND CUSTOMER INTIMACY: 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

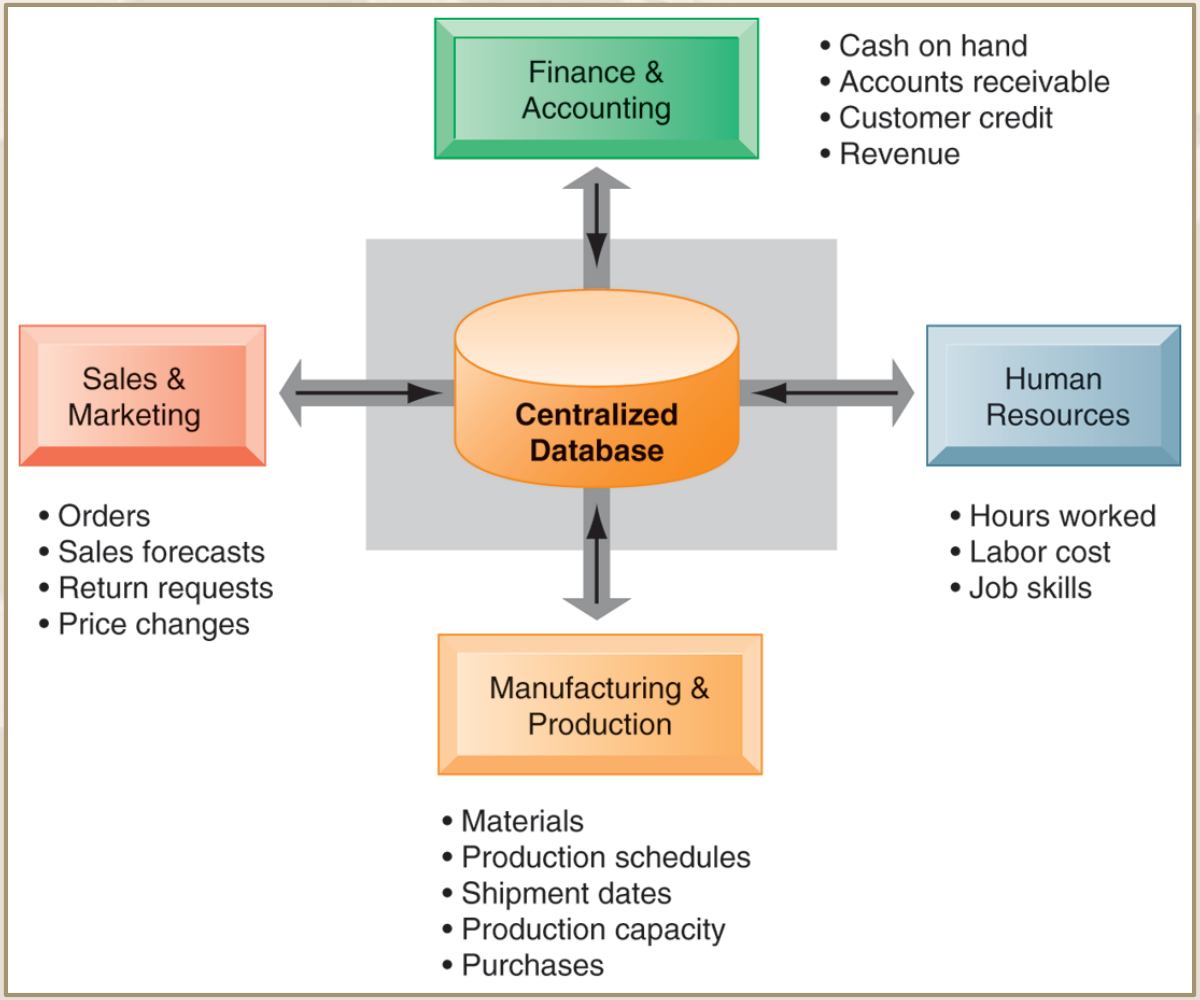
Enterprise Systems

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

HOW ENTERPRISE SYSTEMS WORK

Enterprise systems feature a set of integrated software modules and a central database that enables data to be shared by many different business processes and functional areas throughout the enterprise.



Enterprise Systems

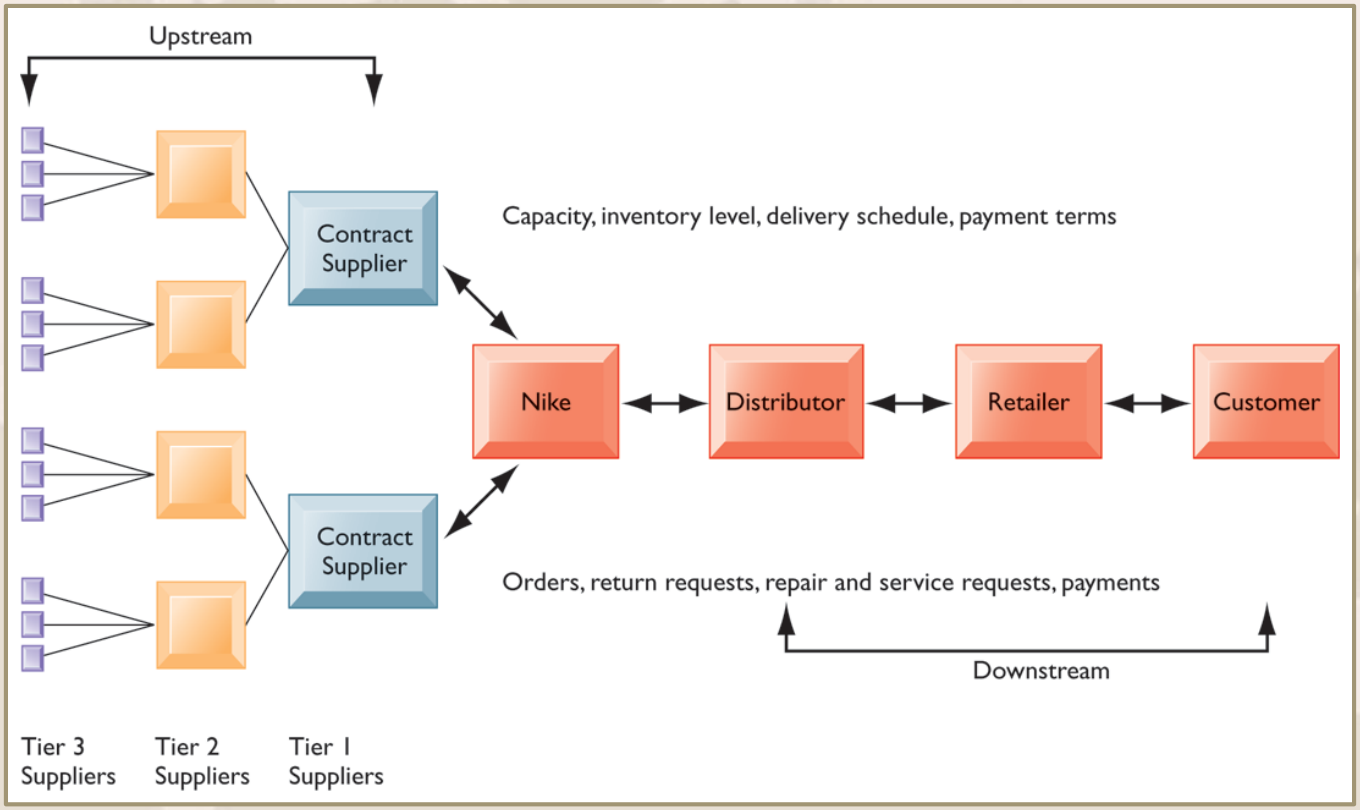
- **Business value of enterprise systems**
  - Increase operational efficiency
  - Provide firm wide information to support decision making
  - Enable rapid responses to customer requests for information or products
  - Include analytical tools to evaluate overall organizational performance

Supply Chain Management Systems

- **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

NIKE'S SUPPLY CHAIN



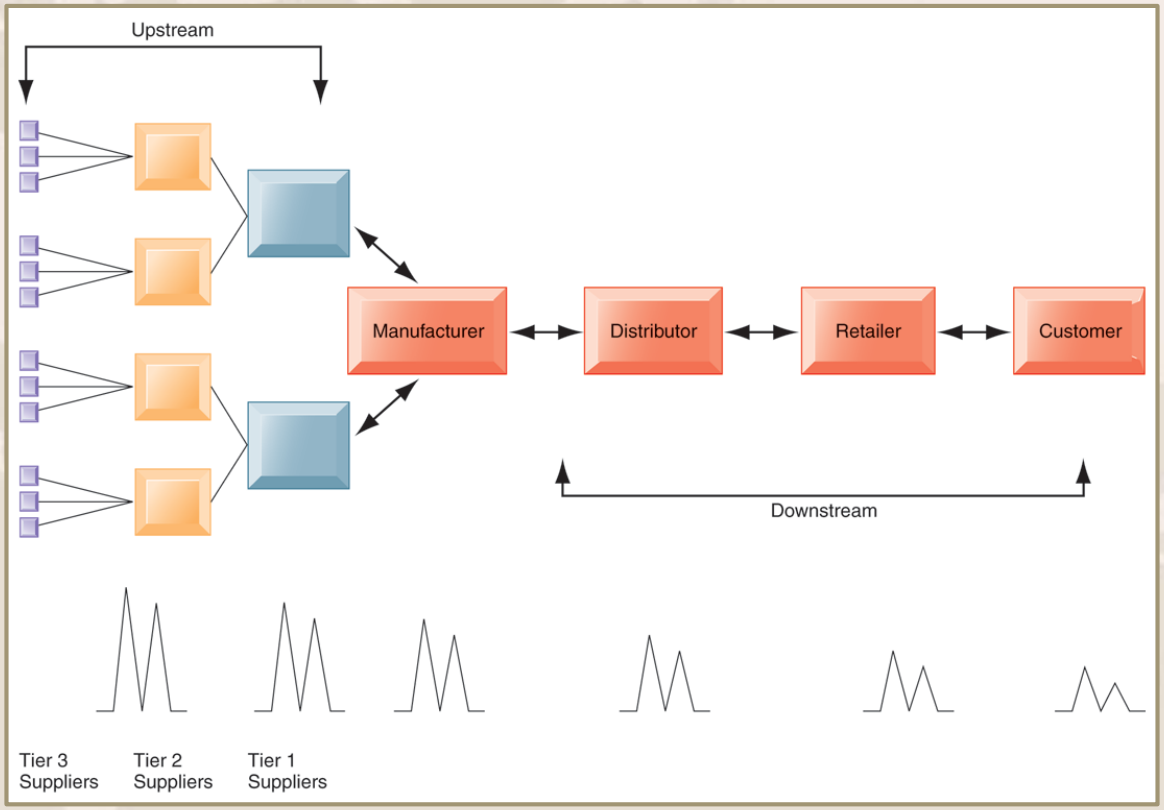
This figure illustrates the major entities in Nike's supply chain and the flow of information upstream and downstream to coordinate the activities involved in buying, making, and moving a product. Shown here is a simplified supply chain, with the upstream portion focusing only on the suppliers for sneakers and sneaker soles.

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



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
    - Identifying transportation modes
  - **Supply chain execution systems**
    - Manage flow of products through distribution centers and warehouses

Supply Chain Management Systems

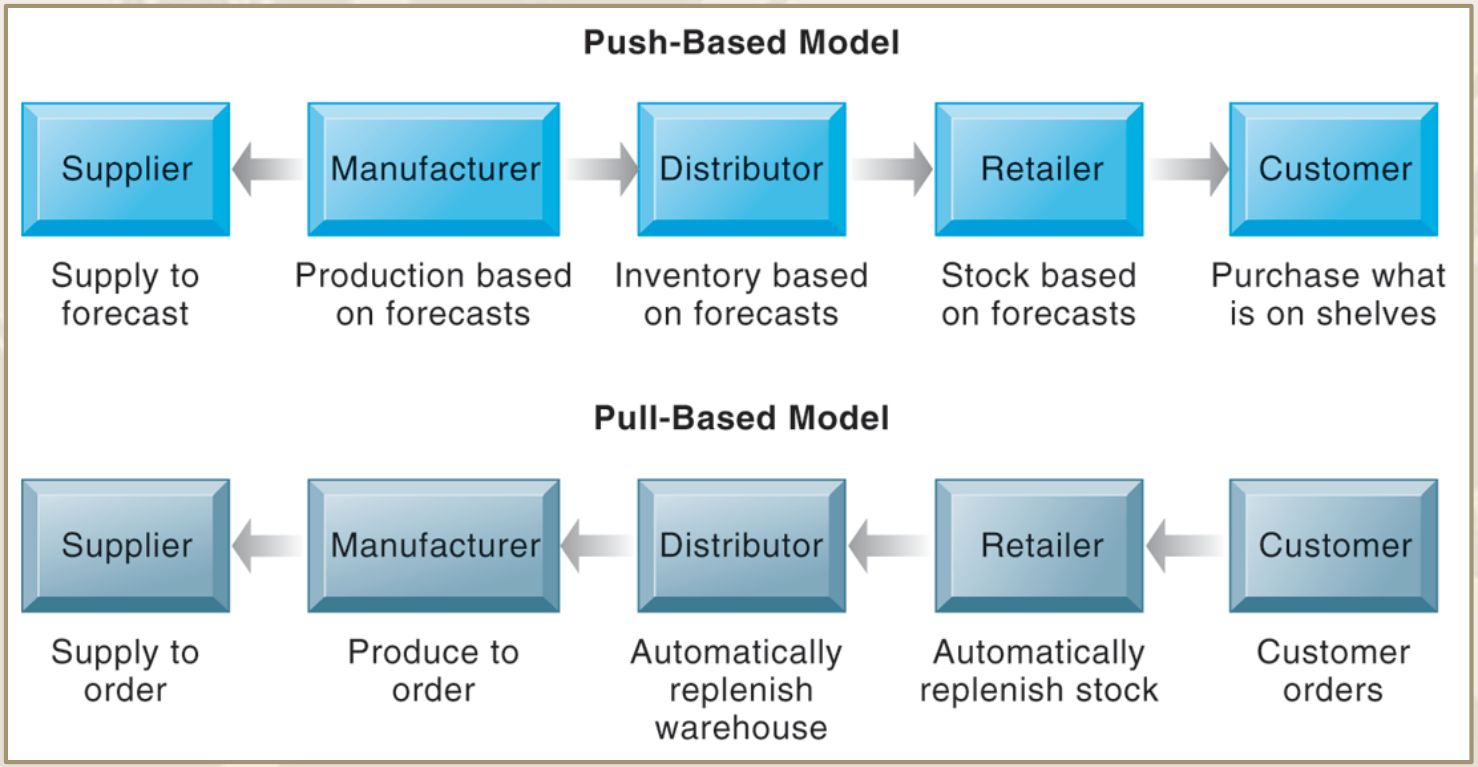
- **Global supply chain issues**
  - Global supply chains typically span greater geographic distances and time differences
  - More complex pricing issues (local taxes, transportation, etc.)
  - Foreign government regulations
- **Internet helps companies manage many aspects of global supply chains**
  - Sourcing, transportation, communications, international finance

Supply Chain Management Systems

- **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

THE BULLWHIP EFFECT



The difference between push- and pull-based models is summarized by the slogan, “Make what we sell, not sell what we make.”

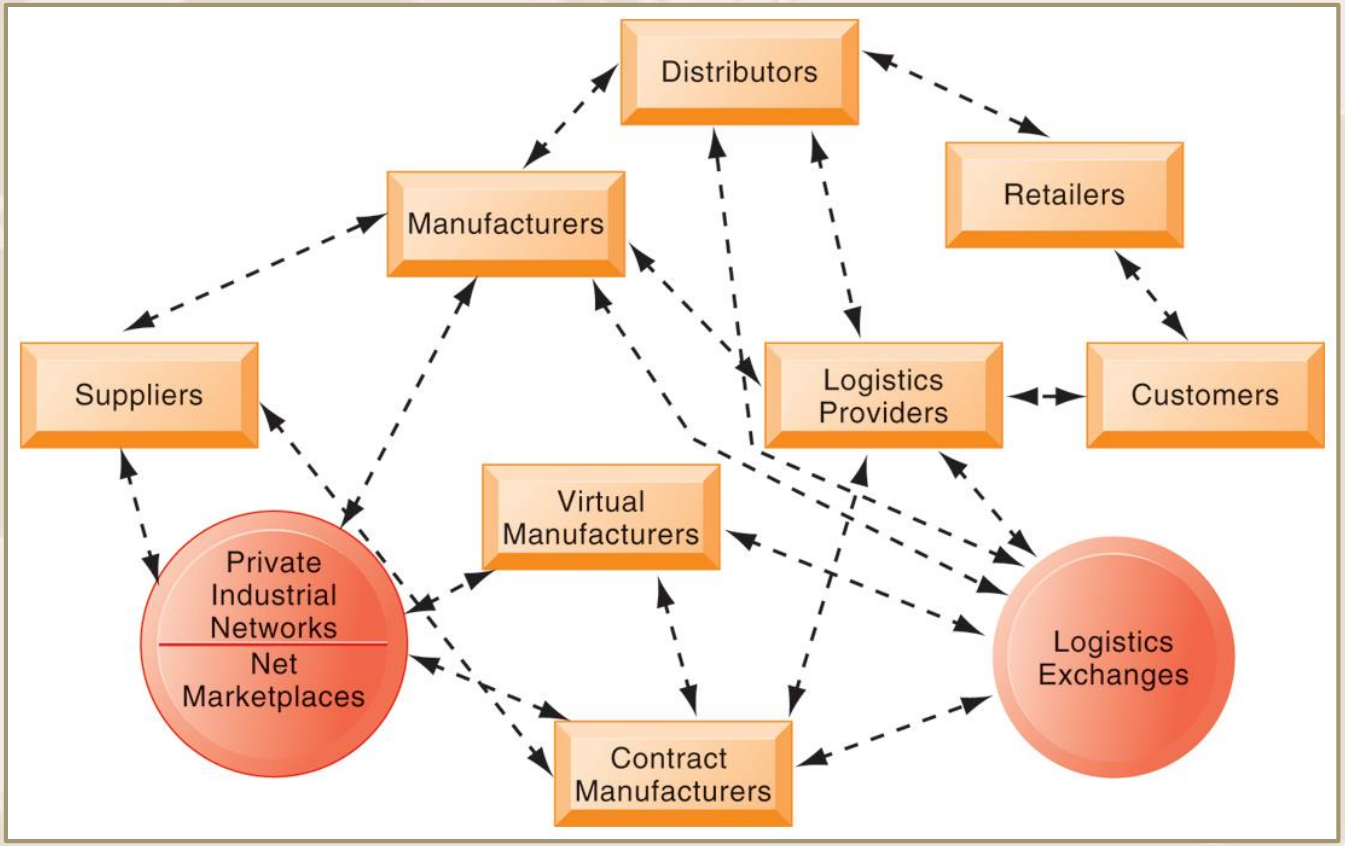
Supply Chain Management Systems

- **Business value of SCM 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
  - Increased 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.



Customer Relationship Management Systems

- **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.



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

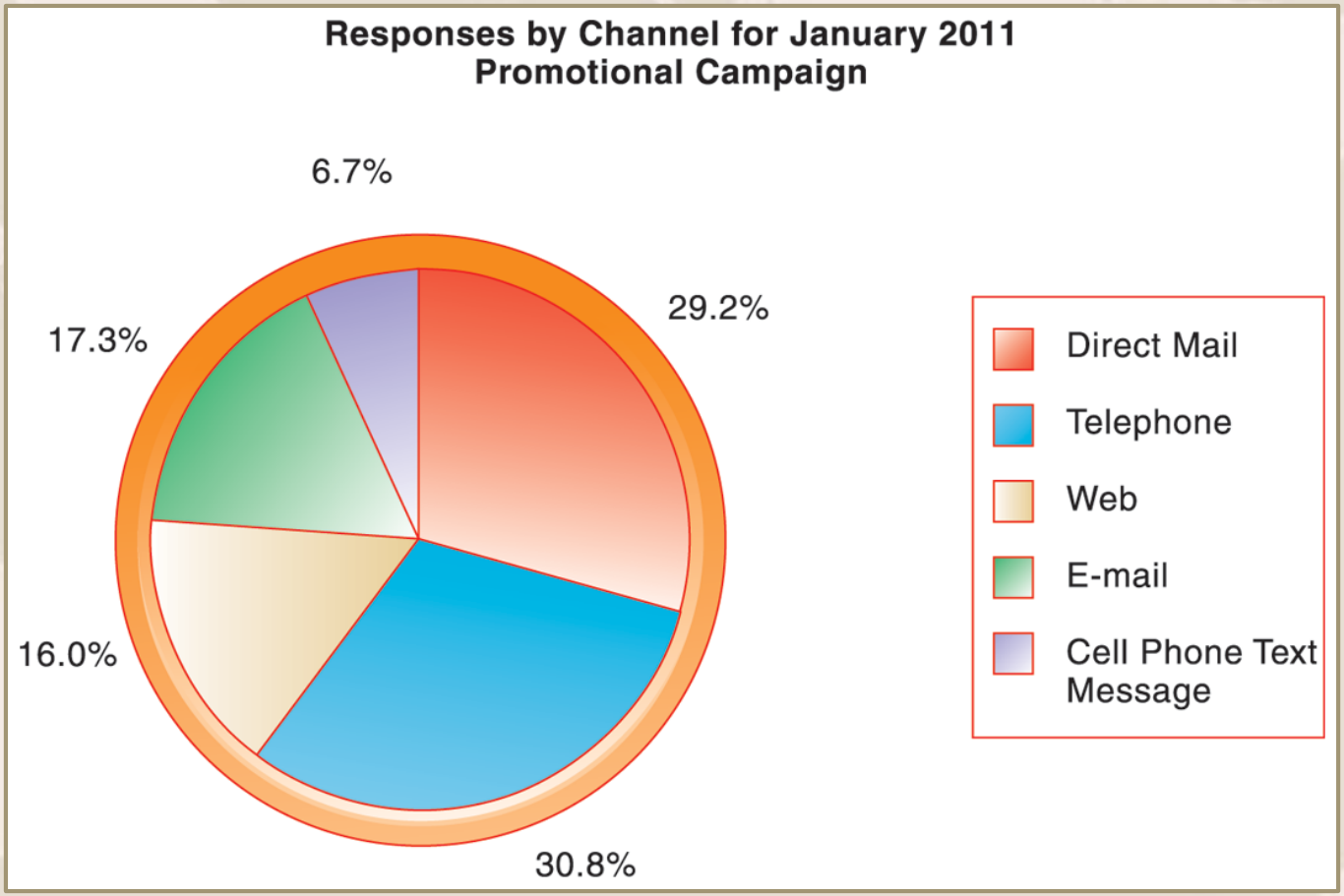
Customer Relationship Management Systems

- **CRM 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

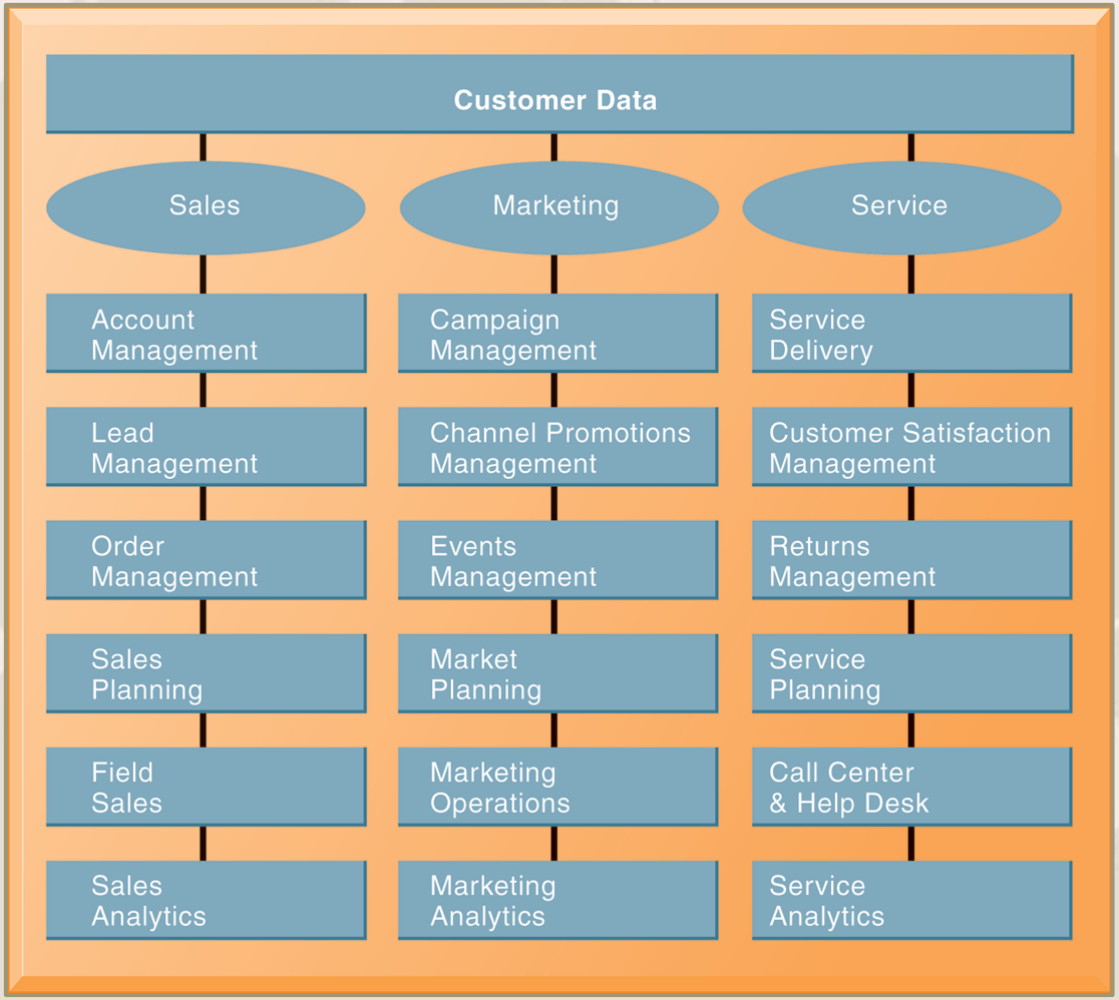
Customer relationship management software provides a single point for users to manage and evaluate marketing campaigns across multiple channels, including e-mail, direct mail, telephone, the Web, and wireless messages.



Customer Relationship Management Systems

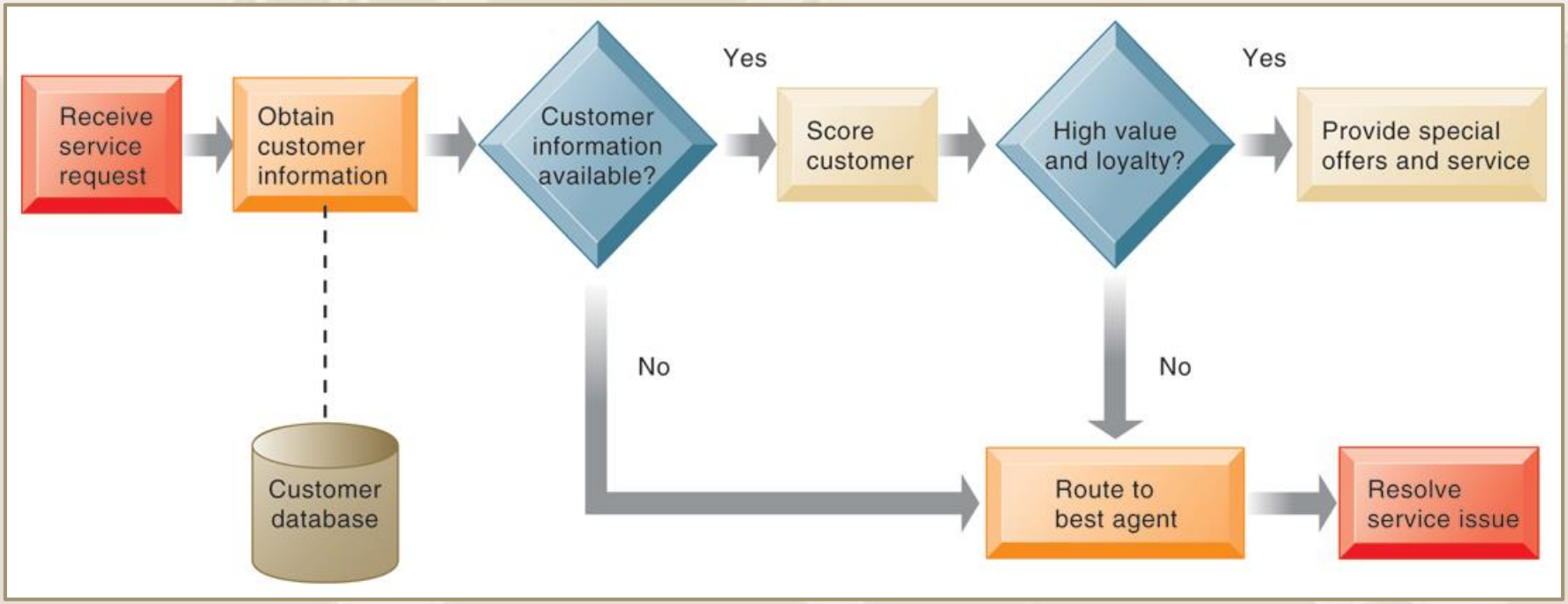
CRM SOFTWARE CAPABILITIES

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.



Customer Relationship Management Systems

CUSTOMER LOYALTY MANAGEMENT PROCESS MAP



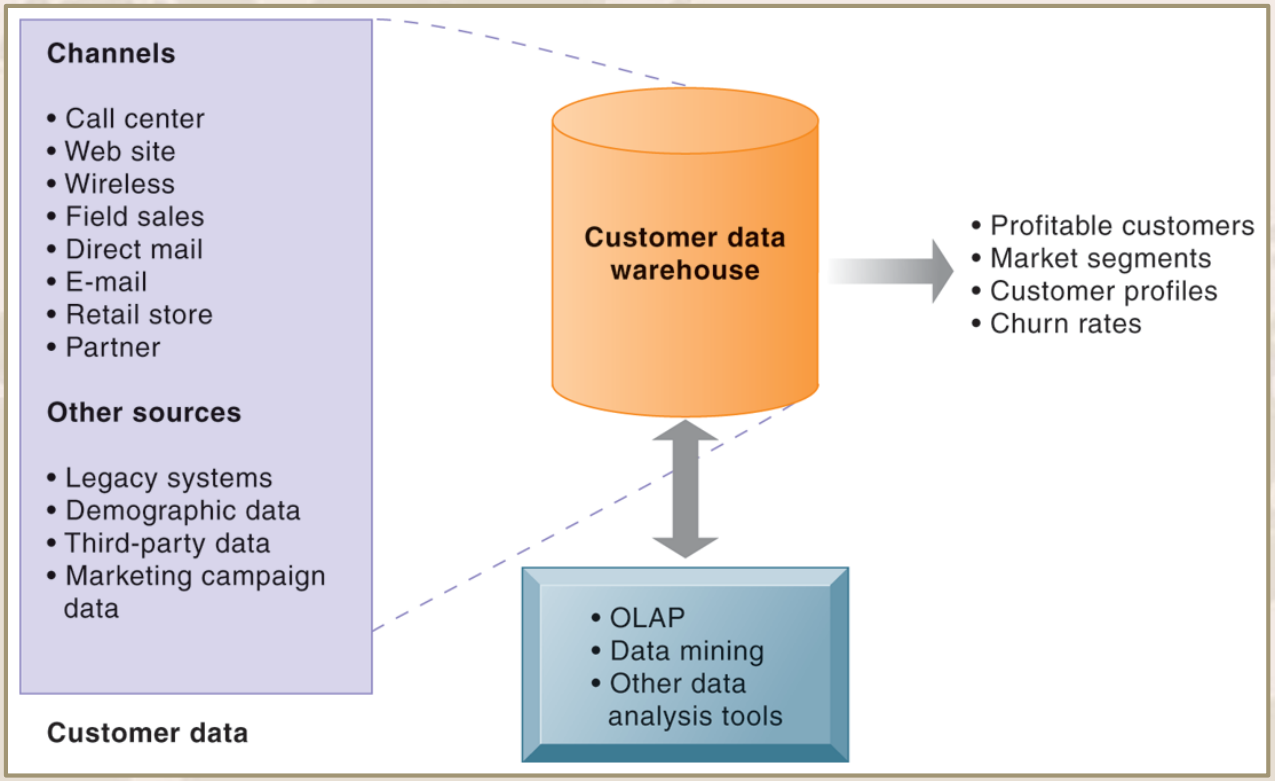
This process map shows how a best practice for promoting customer loyalty through customer service would be modeled by customer relationship management software. The CRM software helps firms identify high-value customers for preferential treatment.

Customer Relationship Management Systems

- **Operational CRM:**
  - **Customer-facing applications**
    - E.g. sales force automation, call center and customer service support, and marketing automation
- **Analytical CRM:**
  - Analyze 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.

Customer Relationship Management Systems

- **Business value of CRM**
  - Increased customer satisfaction
  - Reduced direct-marketing costs
  - More effective marketing
  - Lower costs for customer acquisition/retention
  - Increased sales revenue
  - **Reduce 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

- Highly expensive to purchase and implement
- Technological changes
- Business process changes
- Organizational changes
- Switching costs, dependence on software vendors
- Data standardization, management, cleansing

Enterprise Applications: New Opportunities and Challenges

- **Next-generation enterprise applications**
  - **Move is to make applications more flexible, Web-enabled, integrated with other systems**
  - **Enterprise suites**
    - Software to enable CRM, SCM, and enterprise systems work together and with suppliers and client systems
    - Utilize Web services, SOA
  - **Open source & on-demand solutions**
  - **Mobile compatible; Web 2.0 capabilities**
  - **Complementary analytics products**

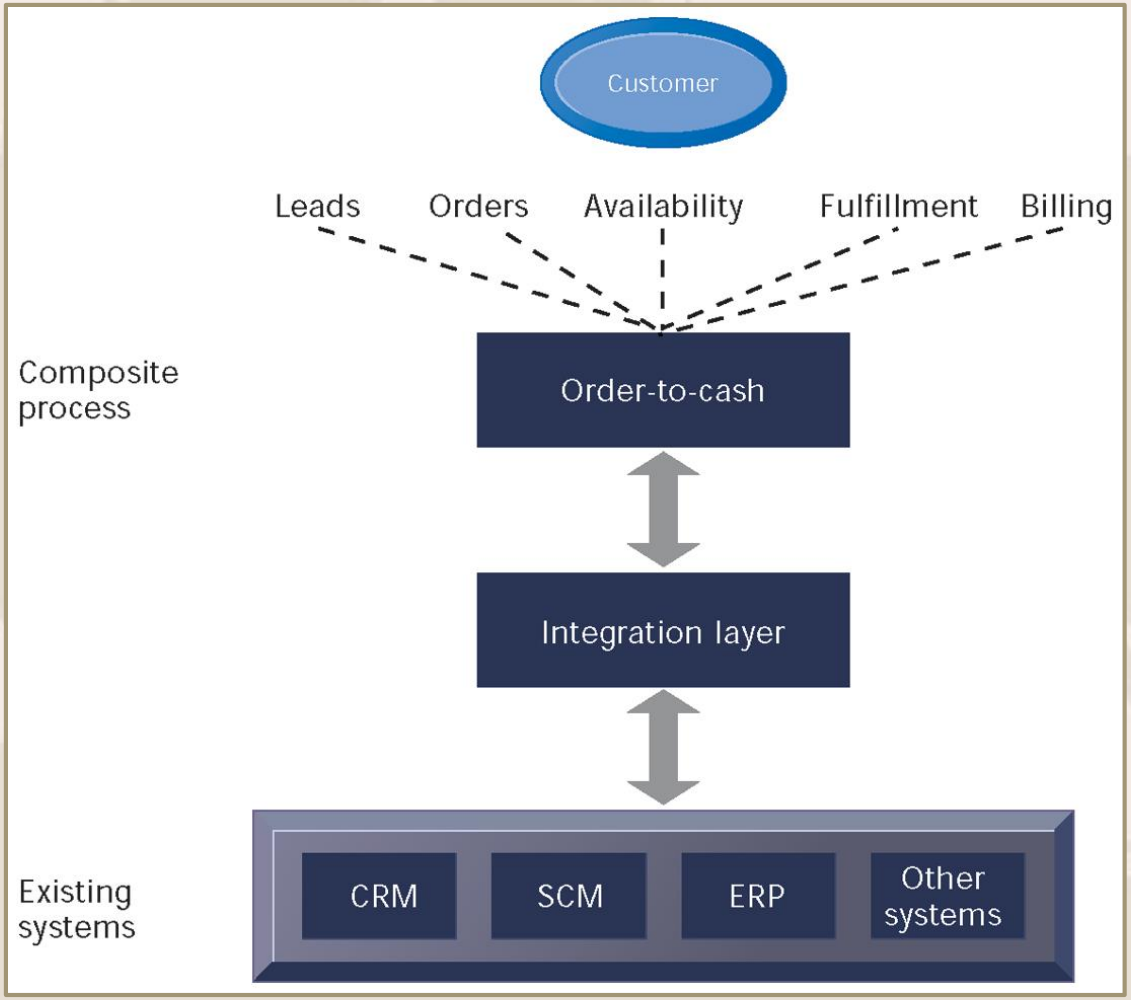
Enterprise Applications: New Opportunities and Challenges

- **Service platform:**
  - **Integrates multiple applications to deliver a seamless experience for all parties**
    - E.g. Order-to-cash process
  - **Portal software**
    - Used to integrate information from enterprise applications and legacy systems and present it as if coming from a single source

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.



Thank You

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