Achieving Operational Excellence and Customer Intimacy: Enterprise Applications

Part III

Key System Applications for the Digital Age

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Information Systems

Topic 9

Part III

Key System Applications for the Digital Age

Learning Objectives

1. How do enterprise systems help businesses achieve operational excellence?
2. How do supply chain management systems coordinate planning, production, and logistics with suppliers?
3. How do customer relationship management systems help firms achieve customer intimacy?
4. What are the challenges that enterprise applications pose, and how are enterprise applications taking advantage of new technologies?
5. How will MIS help my career?

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- Case 1: CRM Helps Adidas Know Its Customers One Shoe Buyer at a Time

- *Practical Case:* Summit Electric Lights Up with a New ERP System

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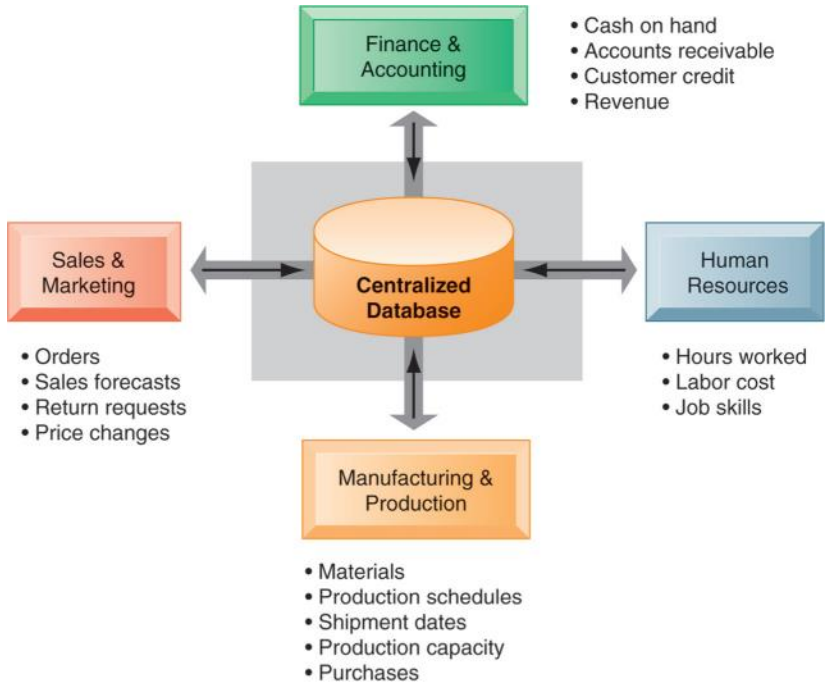
Enterprise Systems

- **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**



How Enterprise Systems Work

Enterprise Software

- **Built around thousands of predefined business processes that reflect best practices**
  - **Finance and accounting**
  - **Human resources**
  - **Manufacturing and production**
  - **Sales and marketing**
- **To implement, firms:**
  - **Select functions of system they wish to use**
  - **Map business processes to software processes**
    - Use software's configuration tables for customizing

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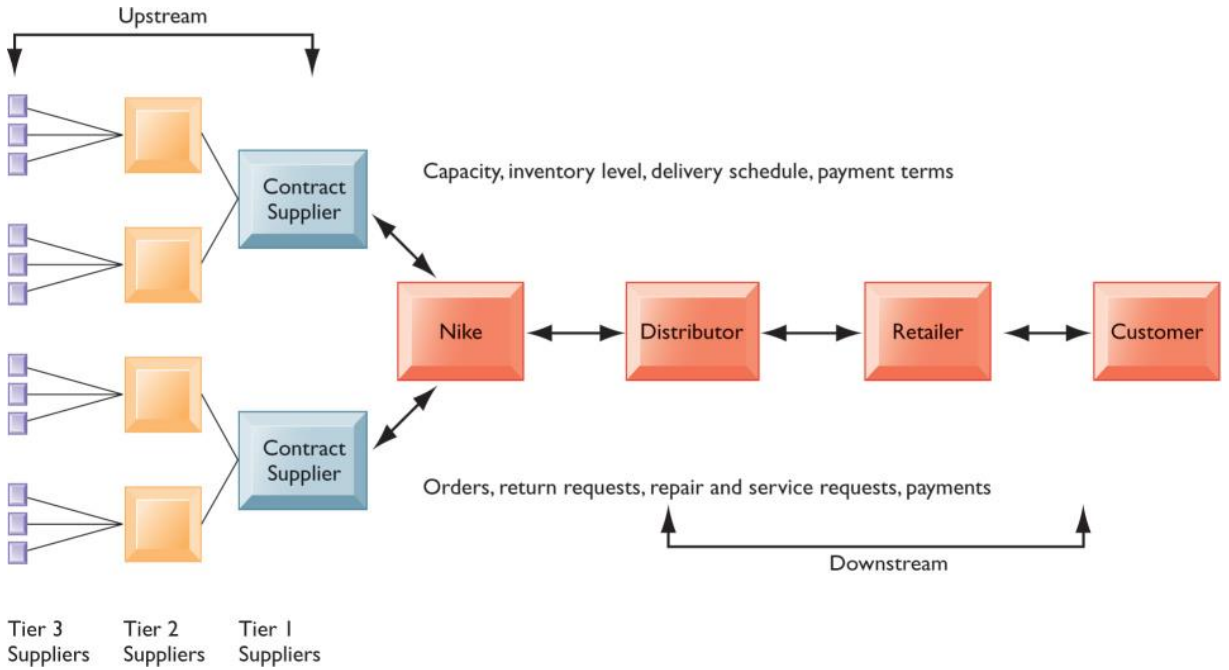
Business Value of Enterprise Systems

- **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**

The Supply Chain

- **Network of organizations and processes for:**
  - **Procuring materials, transforming them into products, and 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**
- **Internal supply chain**



Nike's Supply Chain

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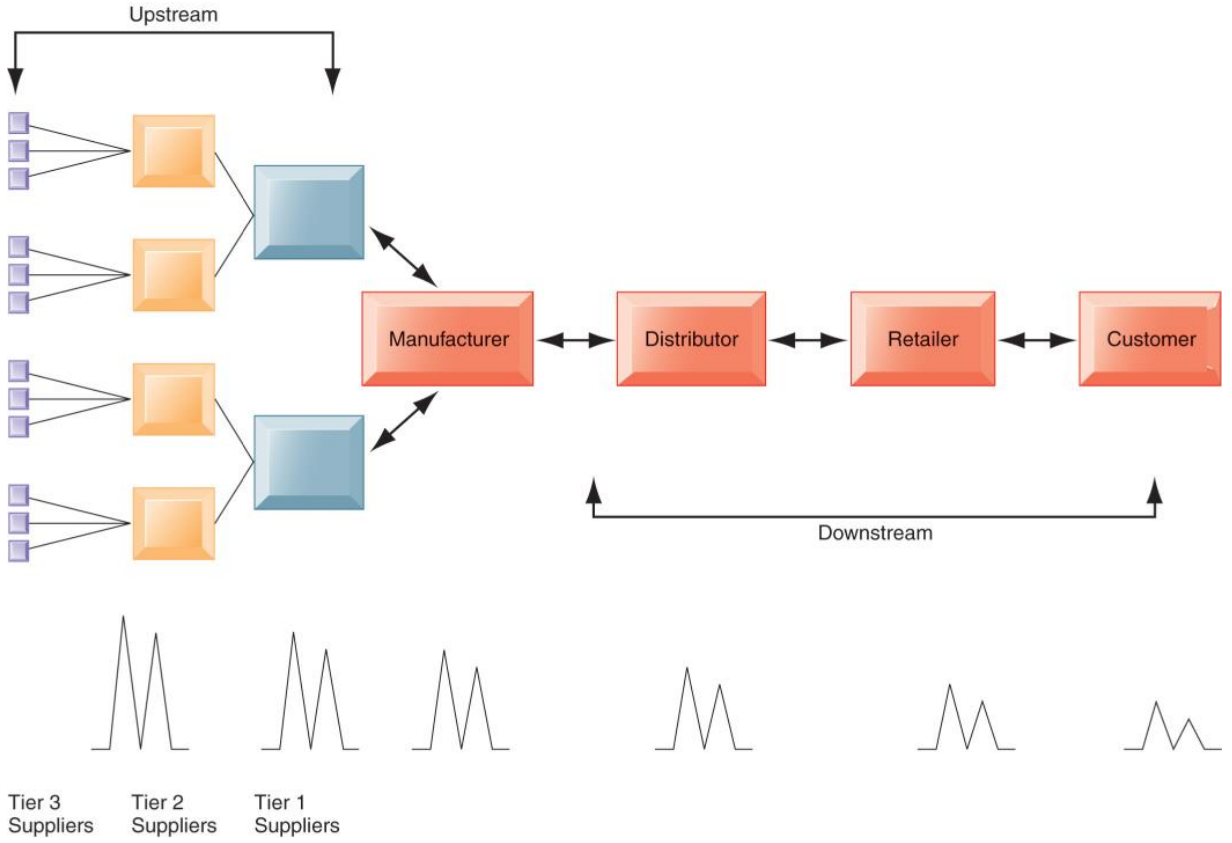
Supply Chain Management

- **Inefficiencies cut into a company's operating costs**
  - **Can waste up to 25 percent 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**



The Bullwhip Effect

Supply Chain Management Software

- **Supply chain planning systems**
  - **Model existing supply chain**
  - **Enable 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**

Global Supply Chains and the Internet

- **Global supply chain issues**
  - **Greater geographical distances, time differences**
  - **Participants from different countries**
    - Different performance standards
    - Different legal requirements
- **Internet helps manage global complexities**
  - **Warehouse management**
  - **Transportation management**
  - **Logistics**
  - **Outsourcing**

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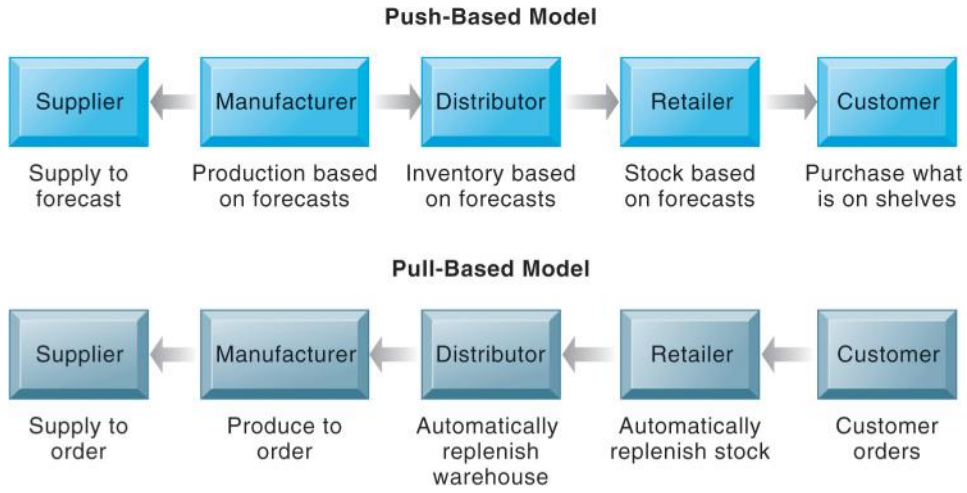
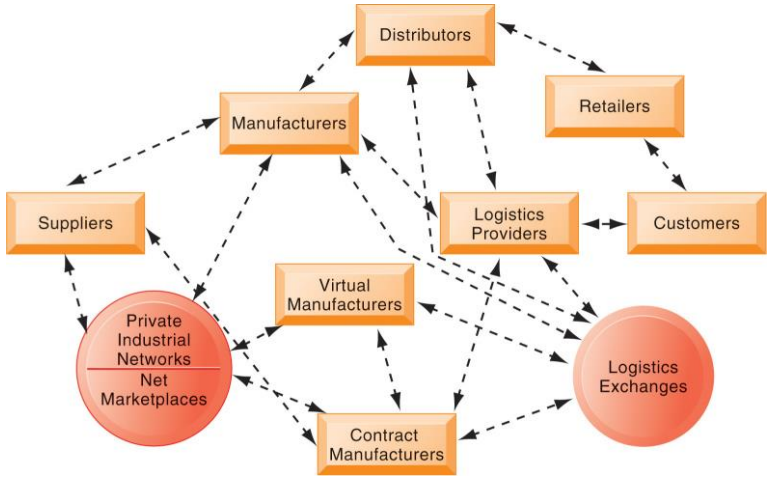
Demand-Driven Supply Chains: From Push to Pull Manufacturing and Efficient Customer Response

- **Push-based model (build-to-stock)**
  - **Earlier SCM systems**
  - **Schedules based on best guesses of demand**
- **Pull-based model (demand-driven)**
  - **Web-based**
  - **Customer orders trigger events in supply chain**
- **Internet enables move from sequential supply chains to concurrent supply chains**
  - **Complex networks of suppliers can adjust immediately**



Push- Versus Pull-Based Supply Chain Models



The Emerging Internet-Driven Supply Chain

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**
  - **Total supply chain costs can be 75 percent of operating budget**
- **Increase sales**

What is Customer Relationship Management?

- **Customer relationship management (CRM)**
  - **Knowing the customer**
  - **In large businesses, too many customers and too many ways customers interact with firm**
- **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**

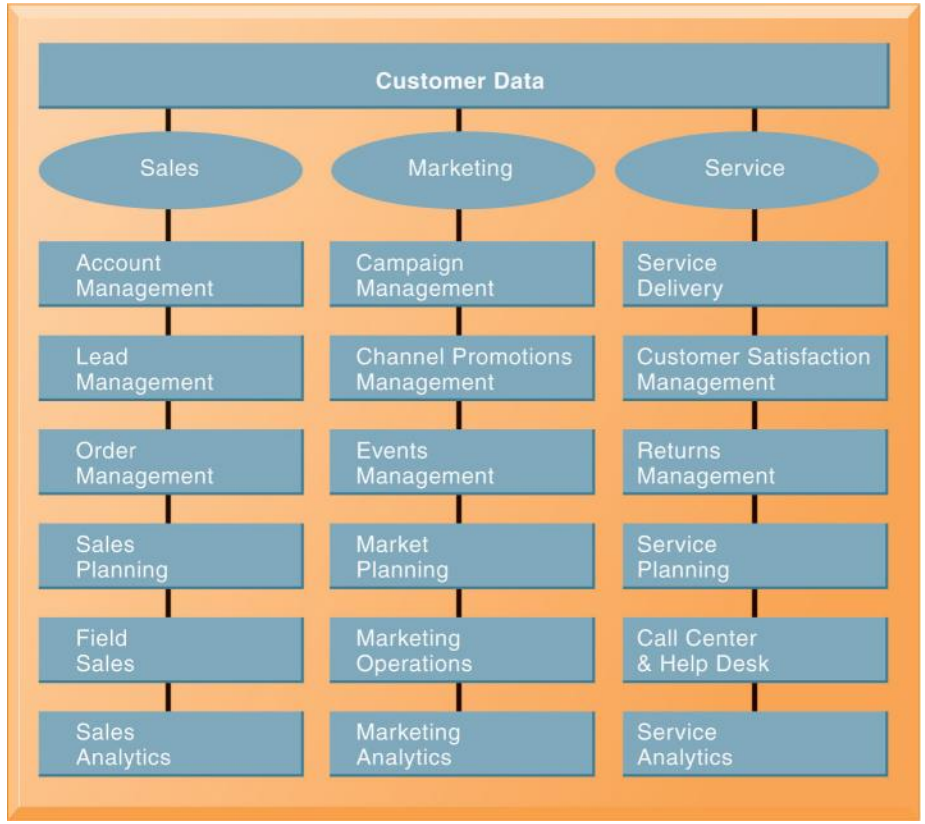
Customer Relationship Management (CRM)

Customer Relationship Management Software (1 of 2)

- **Packages range from niche tools to large-scale enterprise applications**
- **More comprehensive packages 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)**
    - Setting objectives, employee performance management, performance-based compensation, employee training

Customer Relationship Management Software (2 of 2)

- **CRM packages typically include tools for:**
  - **Sales force automation (SFA)**
    - Sales prospect and contact information
    - Sales quote generation capabilities
  - **Customer service**
    - Assigning and managing customer service requests
    - Web-based self-service capabilities
  - **Marketing**
    - Capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail
    - Cross-selling



CRM Software Capabilities

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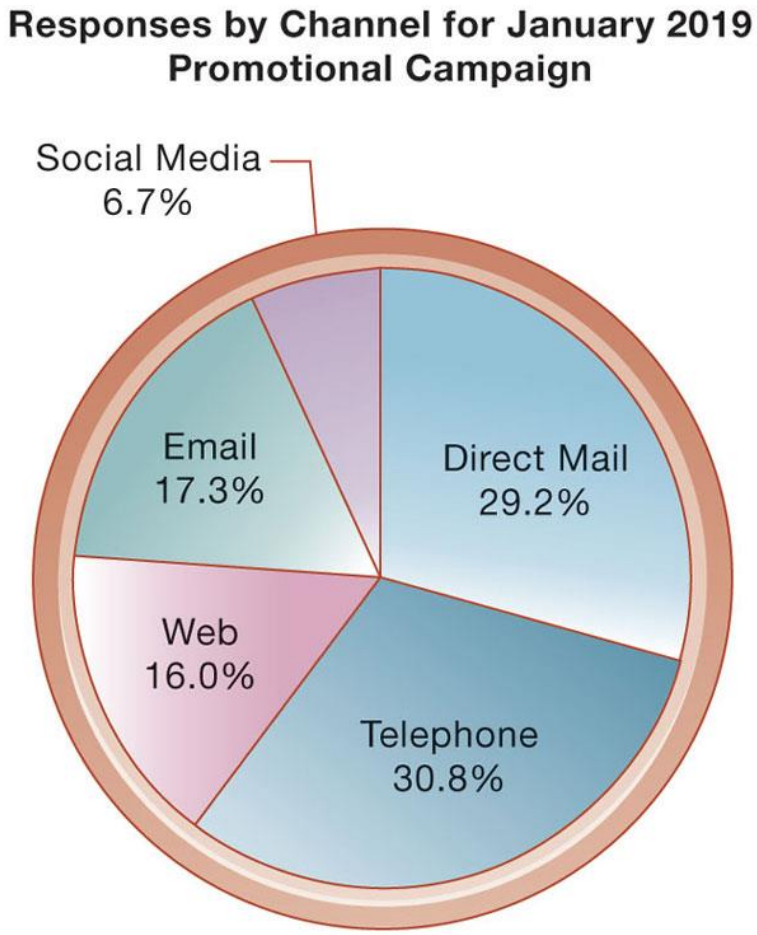
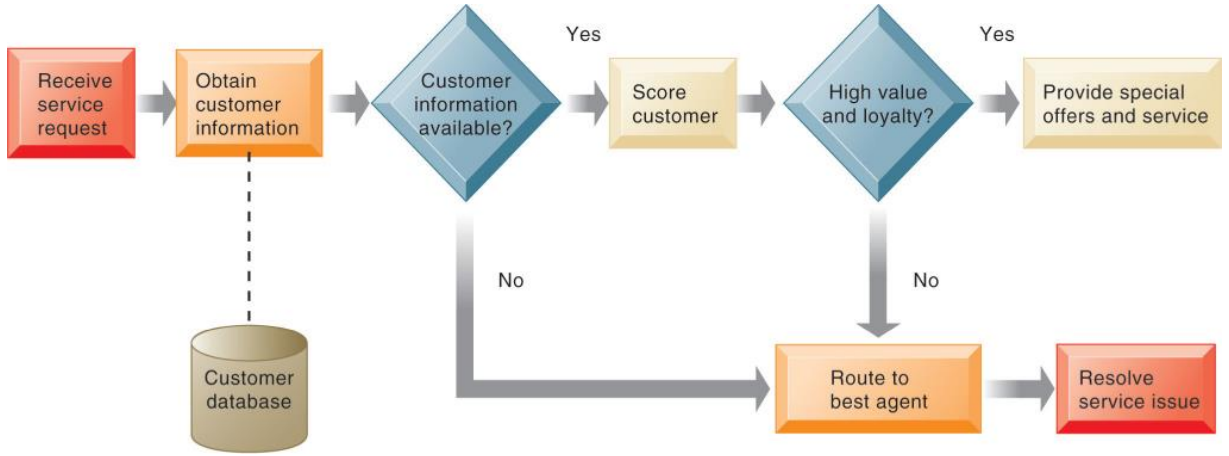


How CRM Systems Support Marketing



Customer Loyalty Management Process Map

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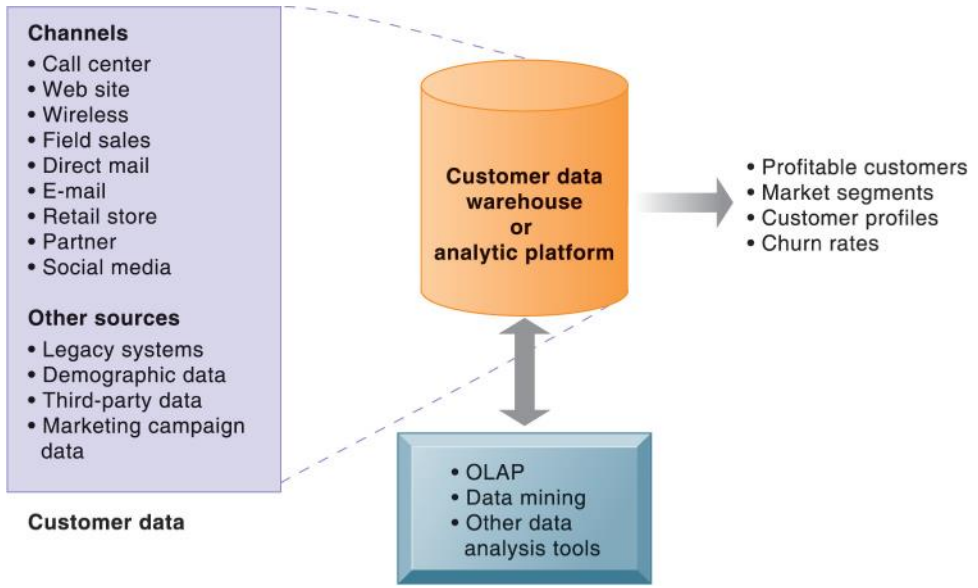
Operational and Analytical CRM

- **Operational CRM**
  - **Customer-facing applications**
  - **Sales force automation**
    Call center and customer service support
  - **Marketing automation**
- **Analytical CRM**
  - **Based on data warehouses populated by operational CRM systems and customer touch points**
  - **Analyzes customer data (OLAP, data mining, etc.)**
    - Customer lifetime value (CLTV)



Analytical CRM Data Warehouse

Business Value of Customer Relationship Management Systems

- **Business value of CRM systems**
  - 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 Application Challenges

- **Highly expensive to purchase and implement enterprise applications**
  - **Average cost of ERP project in 2015—$6.1 million (Multi-million dollar projects in 2018)**
  - **Long development times**
- **Technology changes**
- **Business process changes**
- **Organizational learning, changes**
- **Switching costs, dependence on software vendors**
- **Data standardization, management, cleansing**

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Next-Generation Enterprise Applications

- **Enterprise solutions/suites**
  - Make applications more flexible, web-enabled, integrated with other systems
- **SOA standards**
- **Open-source applications**
- **On-demand solutions**
- **Cloud-based versions**
- **Functionality for mobile platform**
- **Social CRM**
  - Incorporating social networking technologies
  - Company social networks
  - Monitor social media activity; social media analytics
  - Manage social and web-based campaigns
- **Business intelligence**
  - Inclusion of BI with enterprise applications
  - Flexible reporting, ad hoc analysis, "what-if" scenarios, digital dashboards, data visualization

Part III

Key System Applications for the Digital Age

Next Steps

- Answer the Moodle quiz
- Prepare for 6th chapter