



Chapter 9

Achieving Operational Excellence and Customer Intimacy: Enterprise Applications

Video Cases

Video Case 1a: What Is Workday: Enterprise Software as a Service (SaaS)

Video Case 1b: Workday: Mobile Solutions for iPad

Video Case 2: Evolution Homecare Manages Patients with Microsoft CRM (2011)

Video Case 3: Sinosteel Strengthens Business Management with ERP Applications (2008)

Instructional Video 1: Zara's: Wearing Today's Fashions with Supply Chain Management




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LEARNING OBJECTIVES

- Describe how businesses use enterprise systems to achieve operational excellence.
- Explain how supply chain management systems coordinate planning, production, and logistics with suppliers.
- Describe how customers relationship management systems help firms achieve customer intimacy.
- Explain the challenges posed by enterprise applications.
- Describe the new technologies used by enterprise applications.




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Technology Helps Nvidia Anticipate the Future

- **Problem:** Volatile demand for chips, long production lead times, and manual planning processes
- **Solution:** System to forecast demand and reduce forecast planning time
 - SAP tools, including advanced planning and optimization (APO) system
- **Demonstrates use of technology to reduce costs, increase sales, and increase customer satisfaction**

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Enterprise Systems

- **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

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Enterprise Systems

- **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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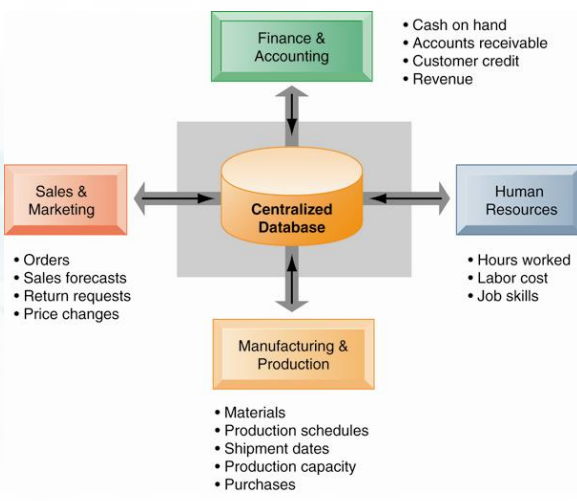
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How Enterprise Systems Work

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

Figure 9-1



```

graph TD
    CM[Centralized Database] <--> SM[Sales & Marketing]
    CM <--> FA[Finance & Accounting]
    CM <--> HR[Human Resources]
    CM <--> MP[Manufacturing & Production]
  
```

Sales & Marketing

- Orders
- Sales forecasts
- Return requests
- Price changes

Finance & Accounting

- Cash on hand
- Accounts receivable
- Customer credit
- Revenue


Human Resources

- Hours worked
- Labor cost
- Job skills

Manufacturing & Production

- Materials
- Production schedules
- Shipment dates
- Production capacity
- Purchases

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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

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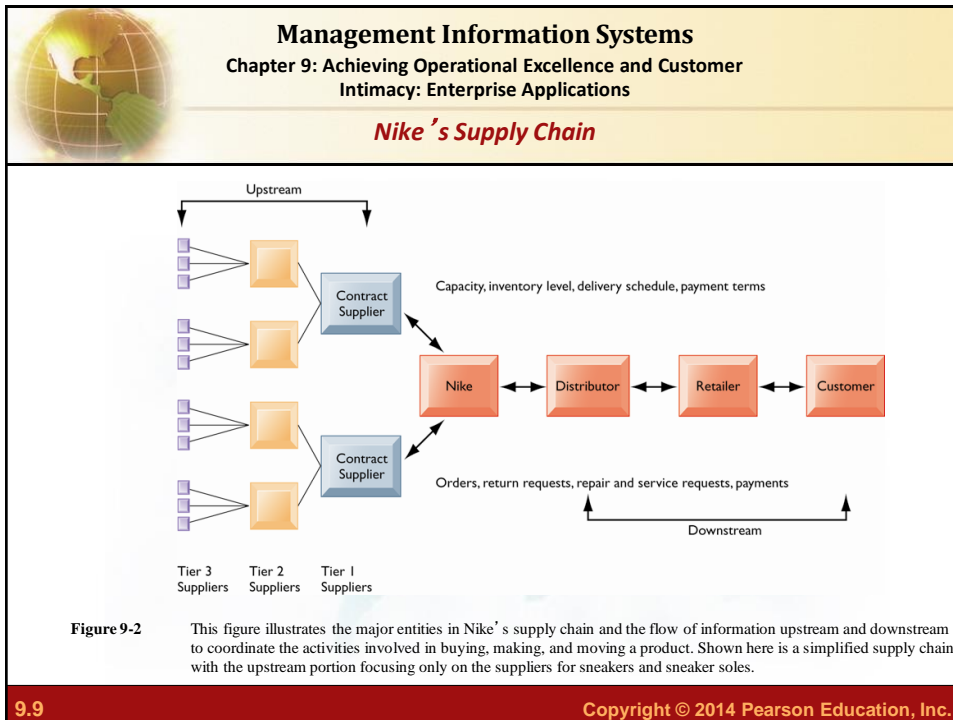


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Supply Chain Management Systems

- **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**

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Supply Chain Management Systems

- **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

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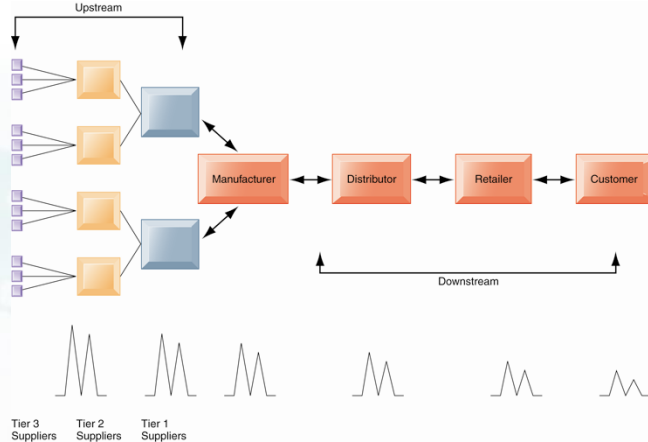
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The Bullwhip Effect

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.

Figure 9.3



Upstream

Downstream

Tier 3 Suppliers Tier 2 Suppliers Tier 1 Suppliers

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Supply Chain Management Systems

- **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

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Interactive Session: Management

Land O' Lakes Butter Becomes Fresher with Demand Planning
Read the Interactive Session and discuss the following questions

- Why are inventory management and demand planning so important for Land O' Lakes? What is the business impact of not being able to manage inventory or predict demand for this company?
- What management, organization, and technology issues had to be considered when selecting Oracle's Demantra as a solution for Land O' Lakes?
- How did implementing Demantra change management decision making and the way that Land O' Lakes ran its business?
- Describe two decisions that were improved by implementing Demantra.

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Supply Chain Management Systems

- **Global supply chain issues**
 - Greater geographical distances
 - Greater 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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Supply Chain Management Systems

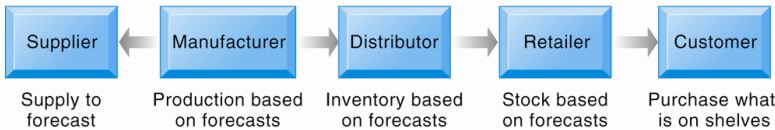
- **Supply chain management**
 - **Push-based model (build-to-stock)**
 - Earlier SCM systems
 - Schedules based on best guesses of demand
 - **Pull-based model (demand-driven)**
 - Web-based
 - Customer orders trigger events in supply chain
 - **Internet enables move from *sequential* supply chains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

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Push- Versus Pull-Based Supply Chain Models

Push-Based Model



Pull-Based Model

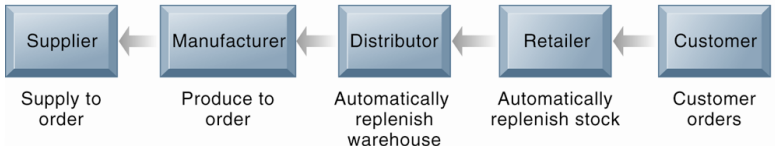



Figure 9-4 The difference between push- and pull-based models is summarized by the slogan "Make what we sell, not sell what we make."

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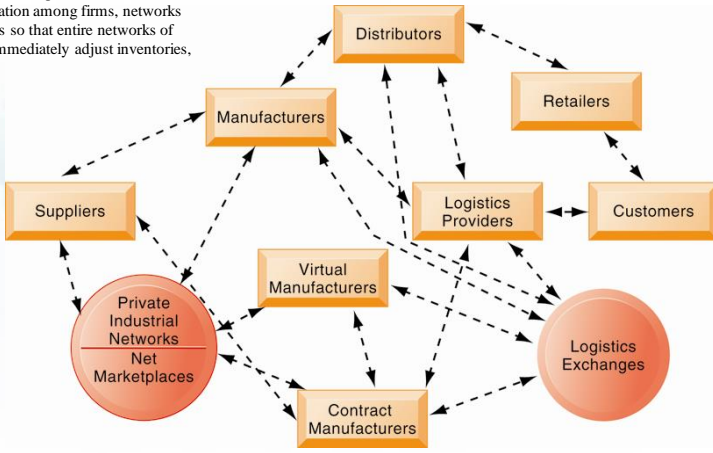
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The Future Internet-Driven Supply Chain

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 9-5



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

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Customer Relationship Management Systems

- **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

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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 9-6



Sales

- Telephone sales
- Web sales
- Retail store sales
- Field sales


Marketing

- Campaign data
- Content
- Data analysis

Service

- Call center data
- Web self-service data
- Wireless data

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Customer Relationship Management Systems

- **CRM Software**
 - 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)
 - Setting objectives, employee performance management, performance-based compensation, employee training

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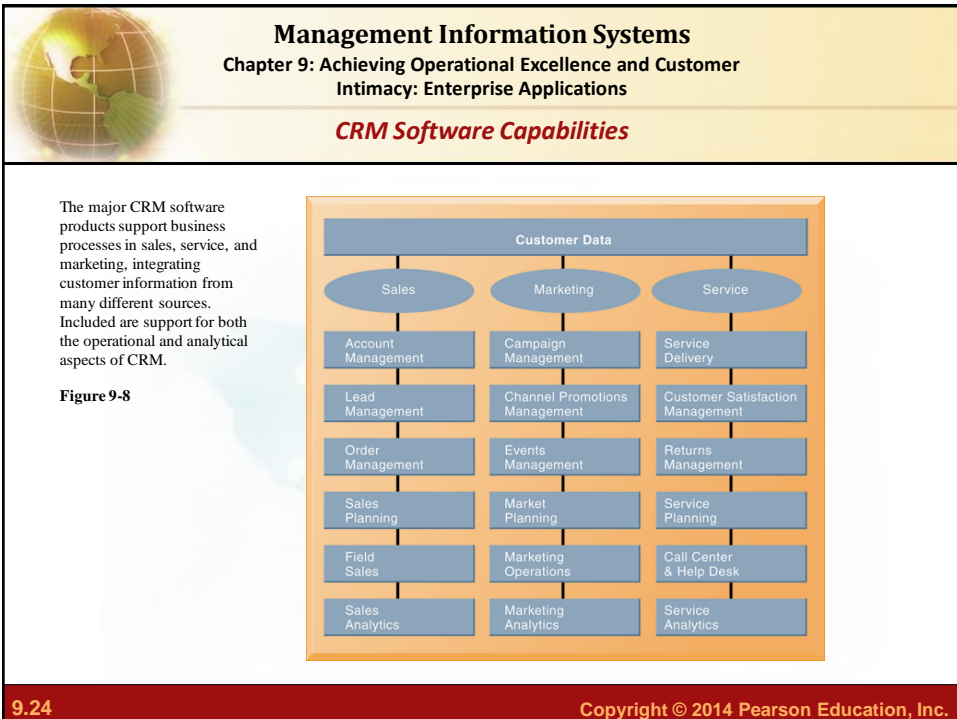
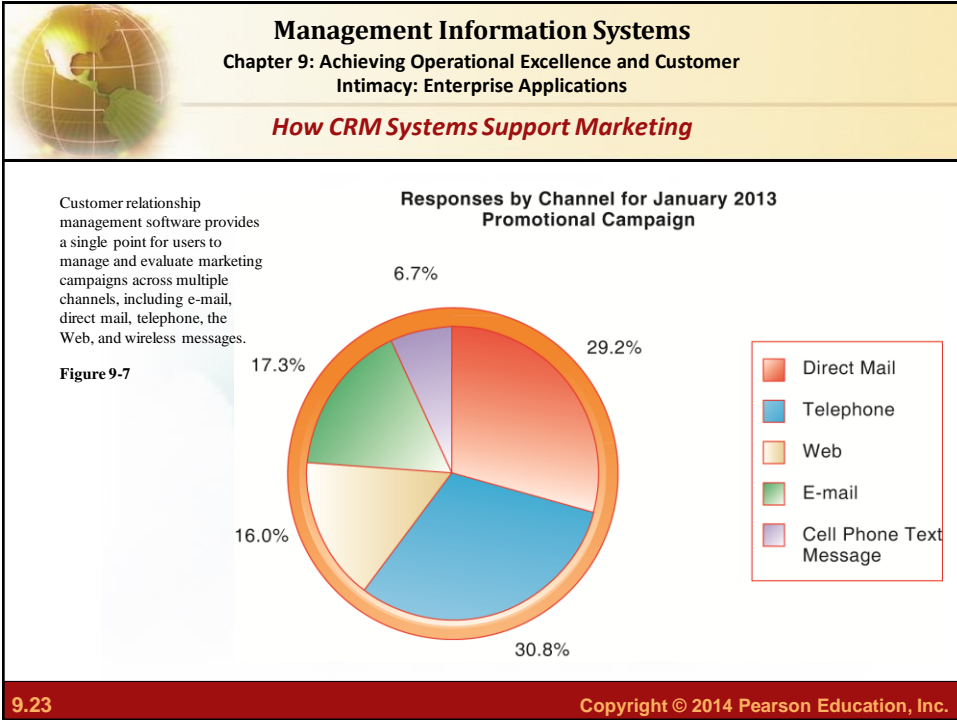


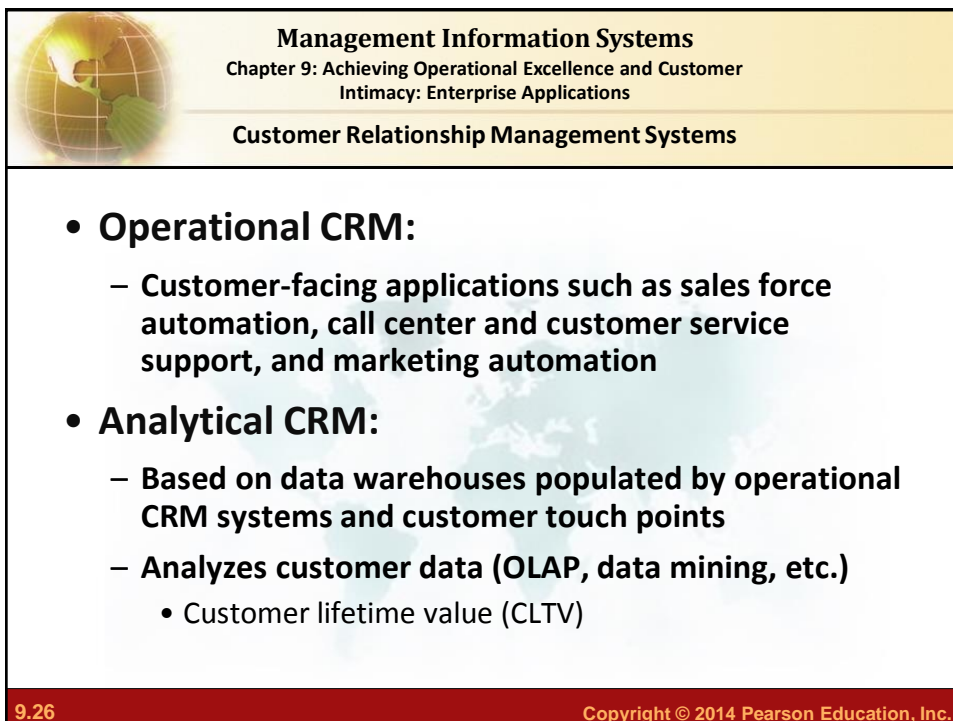
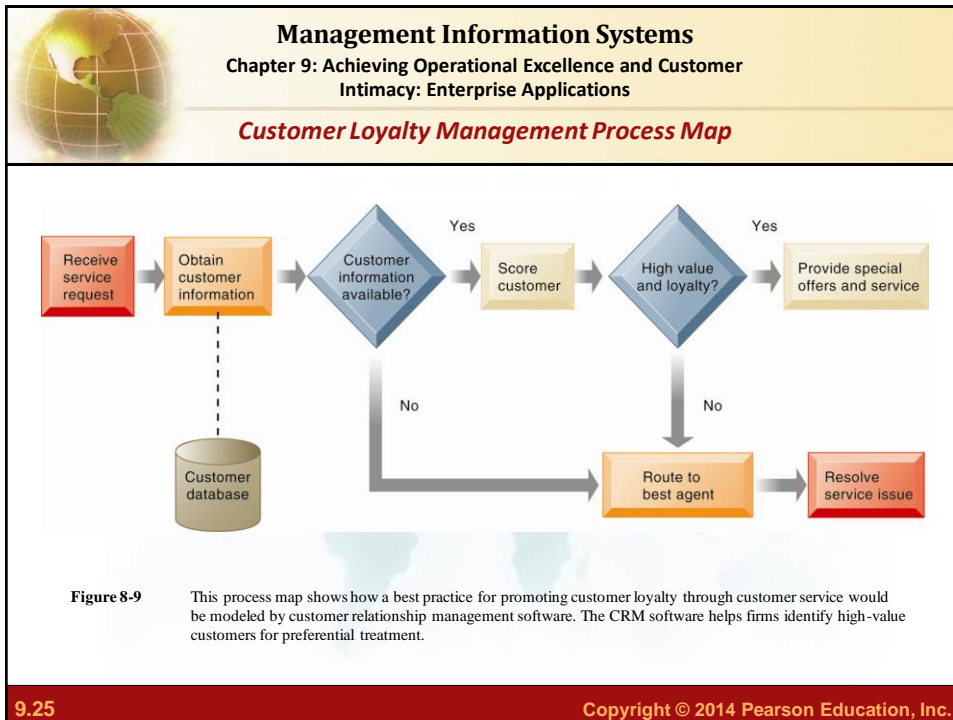
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Customer Relationship Management Systems

- CRM software (cont.)
 - 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

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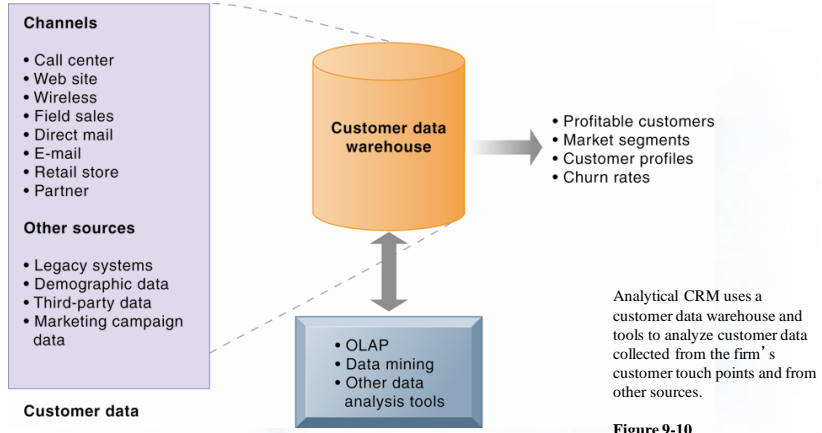






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Analytical CRM Data Warehouse



The diagram illustrates the flow of data into and out of a Customer data warehouse. On the left, a purple box labeled 'Customer data' lists 'Channels' (Call center, Web site, Wireless, Field sales, Direct mail, E-mail, Retail store, Partner) and 'Other sources' (Legacy systems, Demographic data, Third-party data, Marketing campaign data). Dashed lines connect these sources to a central orange cylinder labeled 'Customer data warehouse'. Below the warehouse is a blue box labeled 'Analysis tools' containing 'OLAP', 'Data mining', and 'Other data analysis tools', with a double-headed arrow connecting it to the warehouse. An arrow points from the warehouse to a list of outputs: 'Profitable customers', 'Market segments', 'Customer profiles', and 'Churn rates'. A text box on the right explains: '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 9-10

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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

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Enterprise Applications: New Opportunities and Challenges

- **Enterprise application challenges**
 - **Highly expensive to purchase and implement enterprise applications**
 - Average “large” system—\$12 million +
 - Average “small/midsize” system—\$3.5 million
 - **Technology changes**
 - **Business process changes**
 - **Organizational learning, changes**
 - **Switching costs, dependence on software vendors**
 - **Data standardization, management, cleansing**

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Enterprise Applications: New Opportunities and Challenges

- **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**

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Interactive Session: Technology

Customer Relationship Management Heads to the Cloud
Read the Interactive Session and discuss the following questions

- What types of companies are most likely to adopt cloud-based CRM software services? What companies might not be suited for this type of software?
- What are the advantages and disadvantages of using cloud-based enterprise applications?
- What management, organization, and technology issues should be addressed in deciding whether to use a conventional CRM system versus a cloud-based version?

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Enterprise Applications: New Opportunities and Challenges

- **Next-generation enterprise applications (cont.)**
 - **Social CRM**
 - Incorporating social networking technologies
 - Company social networks
 - Customer interaction via Facebook
 - For example: Buzzient platform integrates social media with enterprise applications
 - **Business intelligence**
 - Inclusion of BI with enterprise applications
 - Flexible reporting, ad hoc analysis, “what-if” scenarios, digital dashboards, data visualization

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