



Chapter 10

Enterprise Applications and Business Process Integration



Objectives

1. How do enterprise systems provide value for businesses? How does enterprise software work?
2. How do supply chain management systems provide value for businesses? What does supply chain management software do?



Objectives

3. How do customer relationship management systems provide value for businesses? What does customer relationship management software do?
4. How can enterprise applications be used in platforms for new cross-functional services?
5. What are the challenges of implementing and using the various enterprise applications?



Management Challenges

1. Thinking beyond the walls of corporation
2. Obtaining value from enterprise applications





Enterprise Systems

How Enterprise Systems Work

- Enterprise Software: Set of integrated software modules for finance and accounting, human resources, manufacturing and production, and sales and marketing that allows data to be used by multiple functions and business processes



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Enterprise Systems

Enterprise system architecture

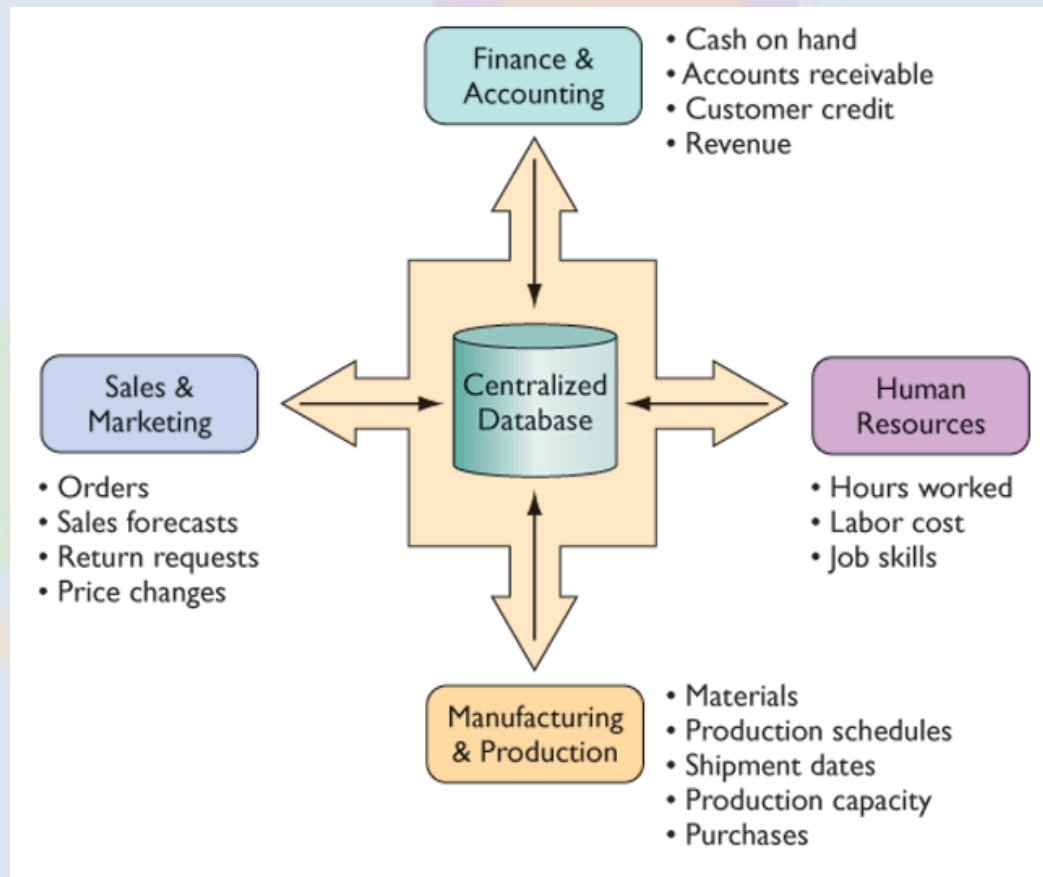


Figure 10-1



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Enterprise Systems

Process map for procuring new equipment

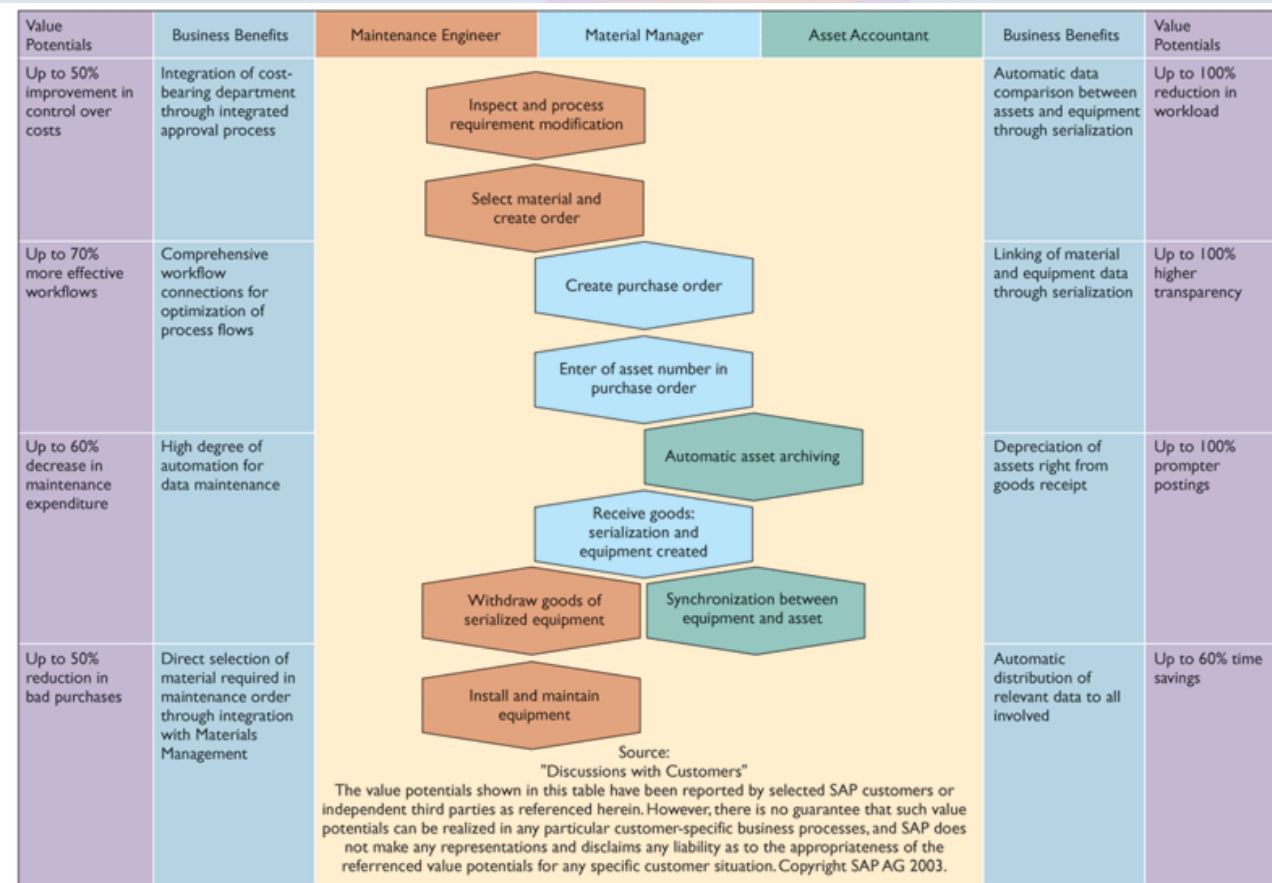


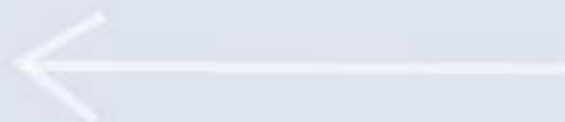
Figure 10-2



Enterprise Systems

How Enterprise Systems Work

- **Best Practices:** The most successful solutions or problem-solving methods for consistently and effectively achieving a business objective





Enterprise Systems

Benefits and Challenges of Enterprise Systems

Benefits of Enterprise Systems

- Firm Structure and Organization: **One Organization**
- Management: **Firmwide Knowledge-Based Management Processes**



Enterprise Systems

Benefits and Challenges of Enterprise Systems

Benefits of Enterprise Systems

- Technology: **Unified Platform**
- Business: **More Efficient Operations and Customer-Driven Business Processes**



Enterprise Systems

Benefits and Challenges of Enterprise Systems

Enterprise System Challenges

- Daunting Implementation
- High Up-Front Costs and Future Benefits
- Inflexibility
- Realizing Strategic Value



Supply Chain Management Systems

Supply Chain Processes

- **Plan:** Balances aggregate demand and supply to develop a course of action
- **Source:** Processes that procure goods and services needed to create a specific product or service
- **Make:** Processes that transform a product into a finished state to meet planned or actual demand



Supply Chain Management Systems

Supply Chain Processes

- **Deliver:** Processes that provide finished goods and services to meet actual or planned demand
- **Return:** Processes associated with returning products or receiving returned products



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Supply Chain Management Systems

Key supply chain management processes

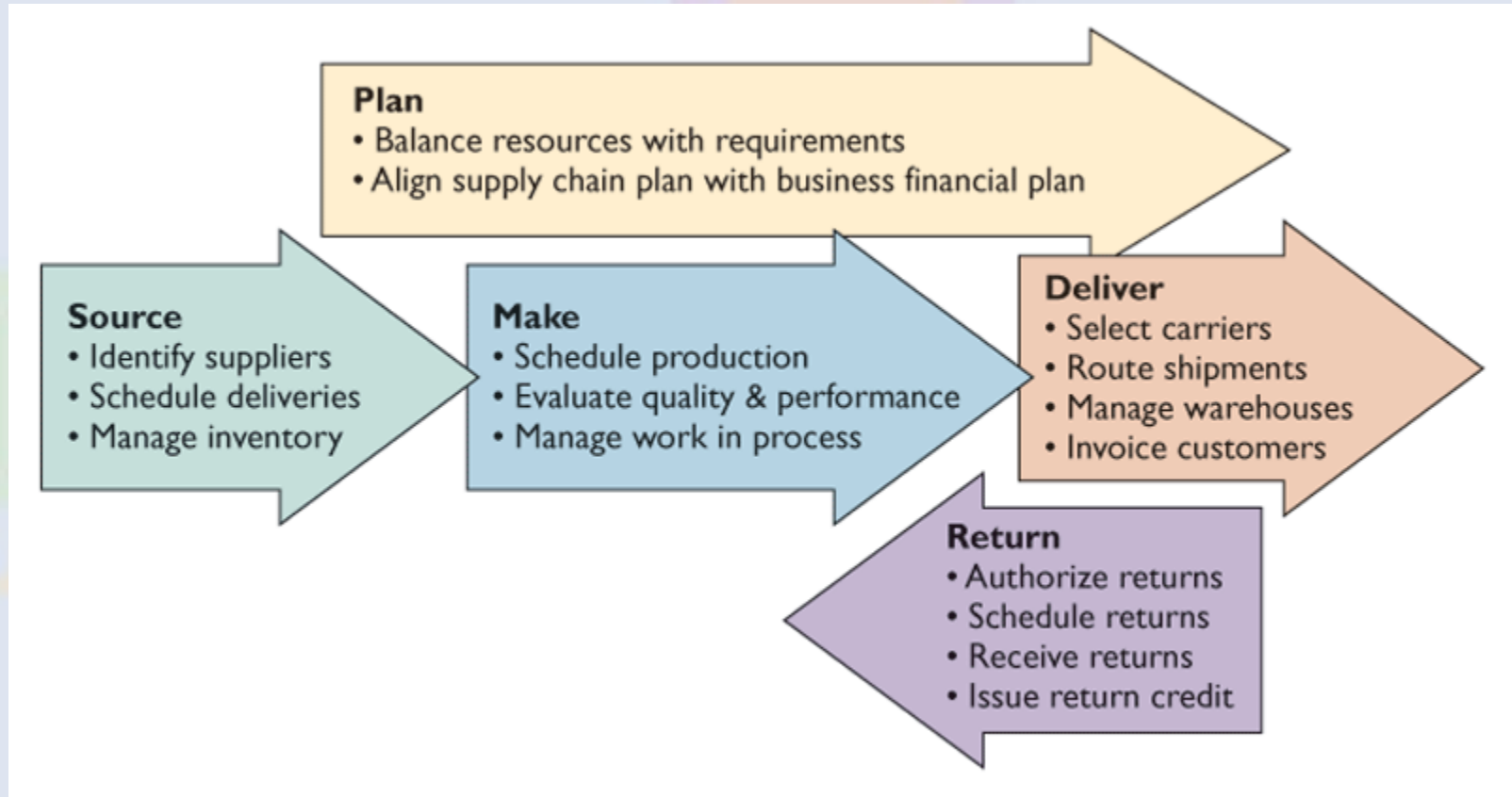


Figure 10-3



Supply Chain Management Systems

Supply Chain Processes

- **Logistics:** Planning and control of all factors that will have an impact on transporting a product or service





Supply Chain Management Systems

Information and Supply Chain Management

- **Just-in-Time:** Scheduling system for minimizing inventory by having components arrive exactly at the time they are needed and finished goods shipped as soon as they leave the assembly line
- **Bullwhip Effect:** Distortion of information about demand for a product as it passes from one entity to the next across the supply chain



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Supply Chain Management Systems

The bullwhip effect

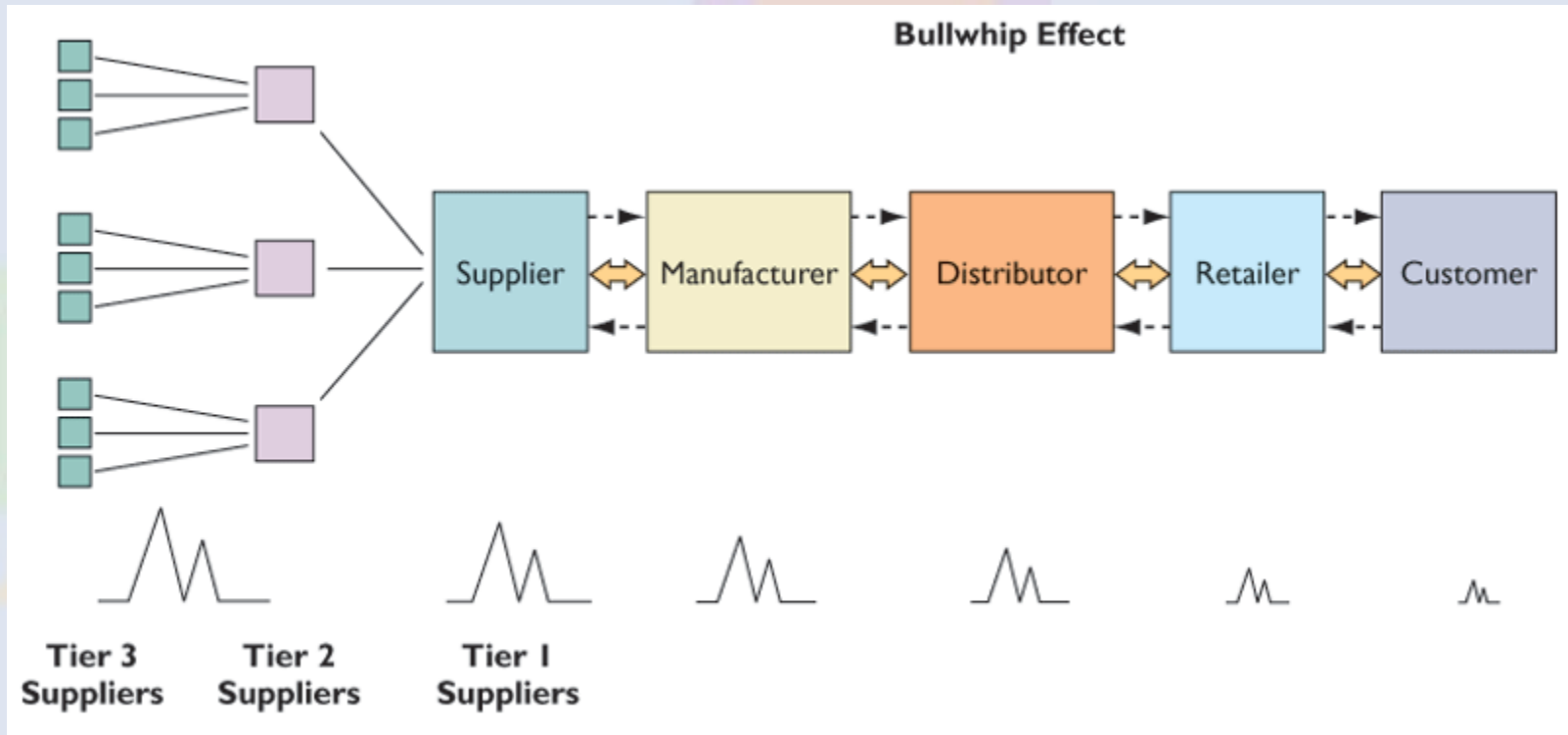


Figure 10-4



Supply Chain Management Systems

Supply Chain Management Applications

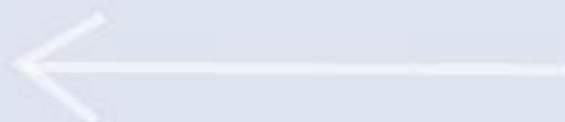
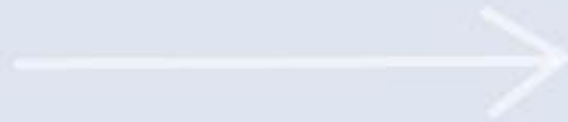
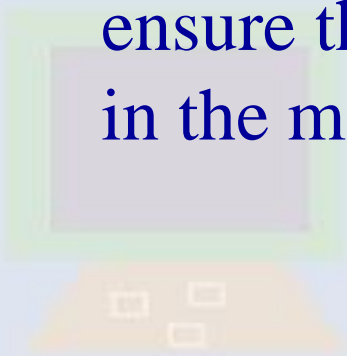
- Supply Chain Planning Systems: Enable a firm to generate demand forecasts for a product and to develop sourcing and manufacturing plans
- Demand Planning: Determining how much product a business needs to make to satisfy all its customers' demands



Supply Chain Management Systems

Supply Chain Management Applications

- Supply Chain Execution Systems: Manage the flow of products through distribution centers to ensure that they are delivered to the right locations in the most efficient manner





Supply Chain Management Systems

Supply Chain Management Applications

Supply Chain Strategy

- **Functional Products:** Typical offerings that have predictable demand, high lifecycles, and often low profit margins
- **Innovative Products:** Products with more unpredictable demand and short product lifecycles, but higher profit margins

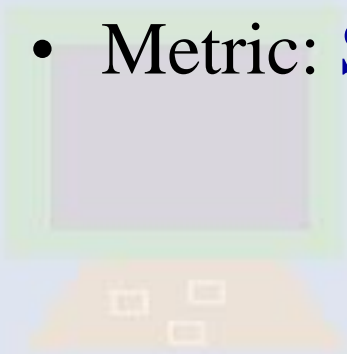


Supply Chain Management Systems

Supply Chain Management Applications

Supply Chain Performance Measurement →

- Metric: Standard measurement of performance





Supply Chain Management Systems

Supply Chain Management Applications

Supply Chain Management and the Internet →

- Intranet: Improve coordination among internal supply chain processes →
- Extranet: Coordinates supply chain processes shared with an organization's business partners ←



Supply Chain Management Systems

Intranets and extranets for supply chain management

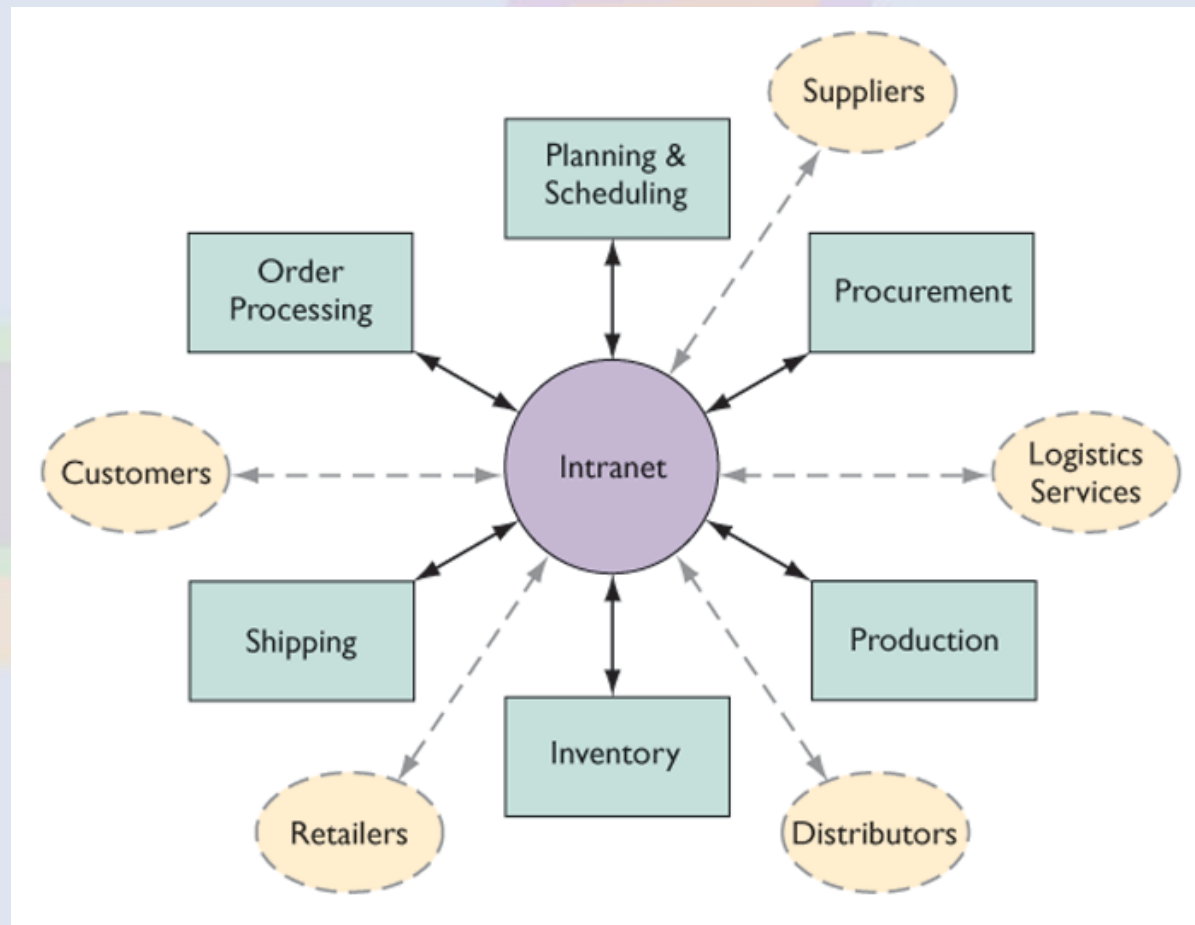


Figure 10-5



Supply Chain Management Systems

Window on Organizations

Collaborative Logistics Pays Off for Land O'Lakes

- What are the advantages and drawbacks of collaborative logistics?
- How do firms obtain value from using load-sharing systems?
- Why is Web technology so helpful?



Supply Chain Management Systems

Supply Chain Management Applications

Global Supply Chain Issues

- Typically span greater geographic distances and time differences than domestic supply chains
- Strategy may need to reflect foreign government regulations and cultural differences



Supply Chain Management Systems

Supply Chain Management Applications

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

- Push-Based Model: Supply chain driven by production master schedules based on forecasts of demand, and products are “pushed” to customers
- Pull-Based Model: Supply chain driven by actual customer orders so that members only produce what is ordered



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Supply Chain Management Systems

Push versus pull-based supply chain models

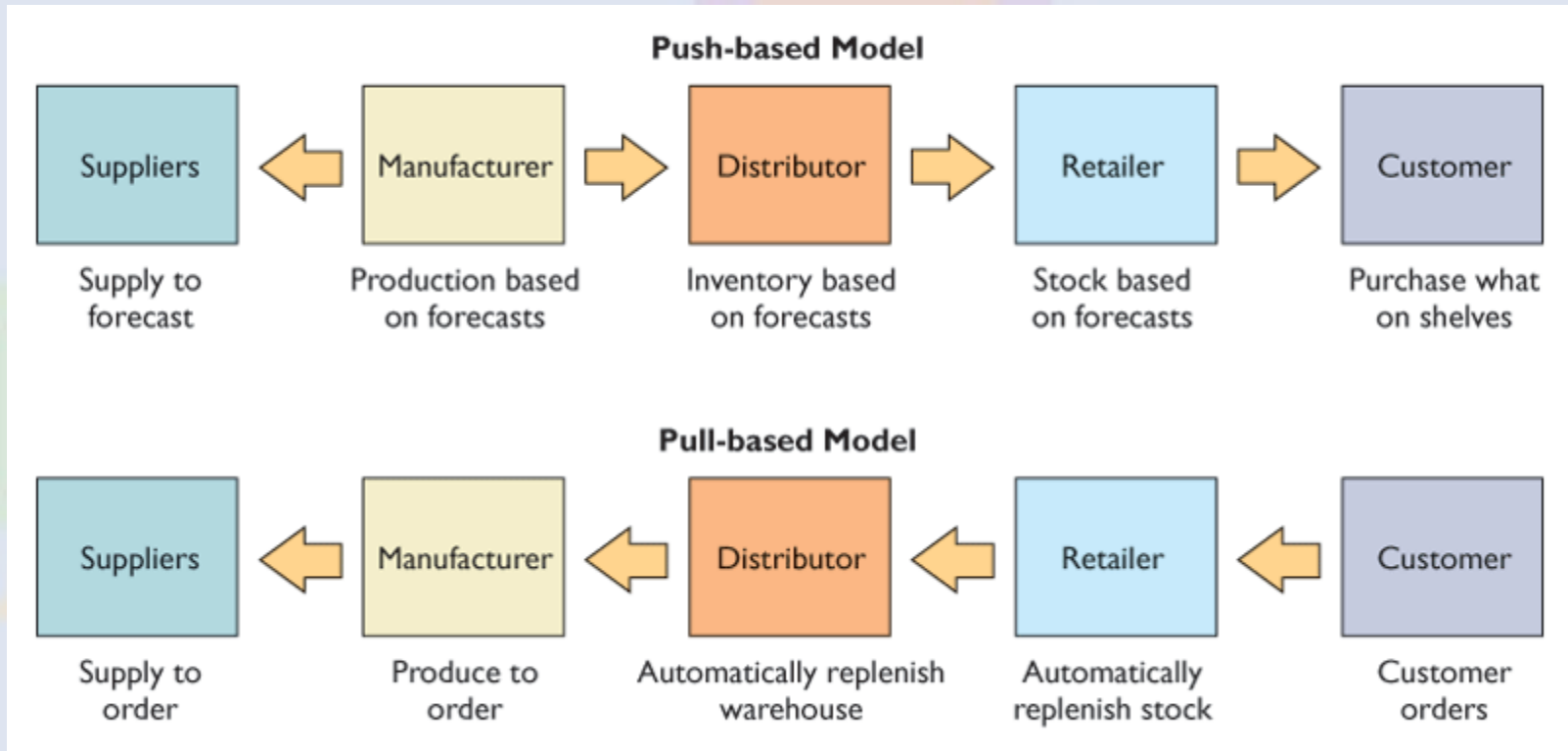


Figure 10-6



Supply Chain Management Systems

Benefits and Challenges of Supply Chain Management Systems

Supply Chain Management Benefits

- Improved customer service and responsiveness
- Cost reduction
- Cash utilization



Supply Chain Management Systems

Benefits and Challenges of Supply Chain Management Systems

Supply Chain Management Challenges

- If the software is implemented atop flawed processes, it can actually make matters worse
- Businesses must identify exactly how processes must change to take advantage of the software



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Supply Chain Management Systems

The future Internet-driven supply chain

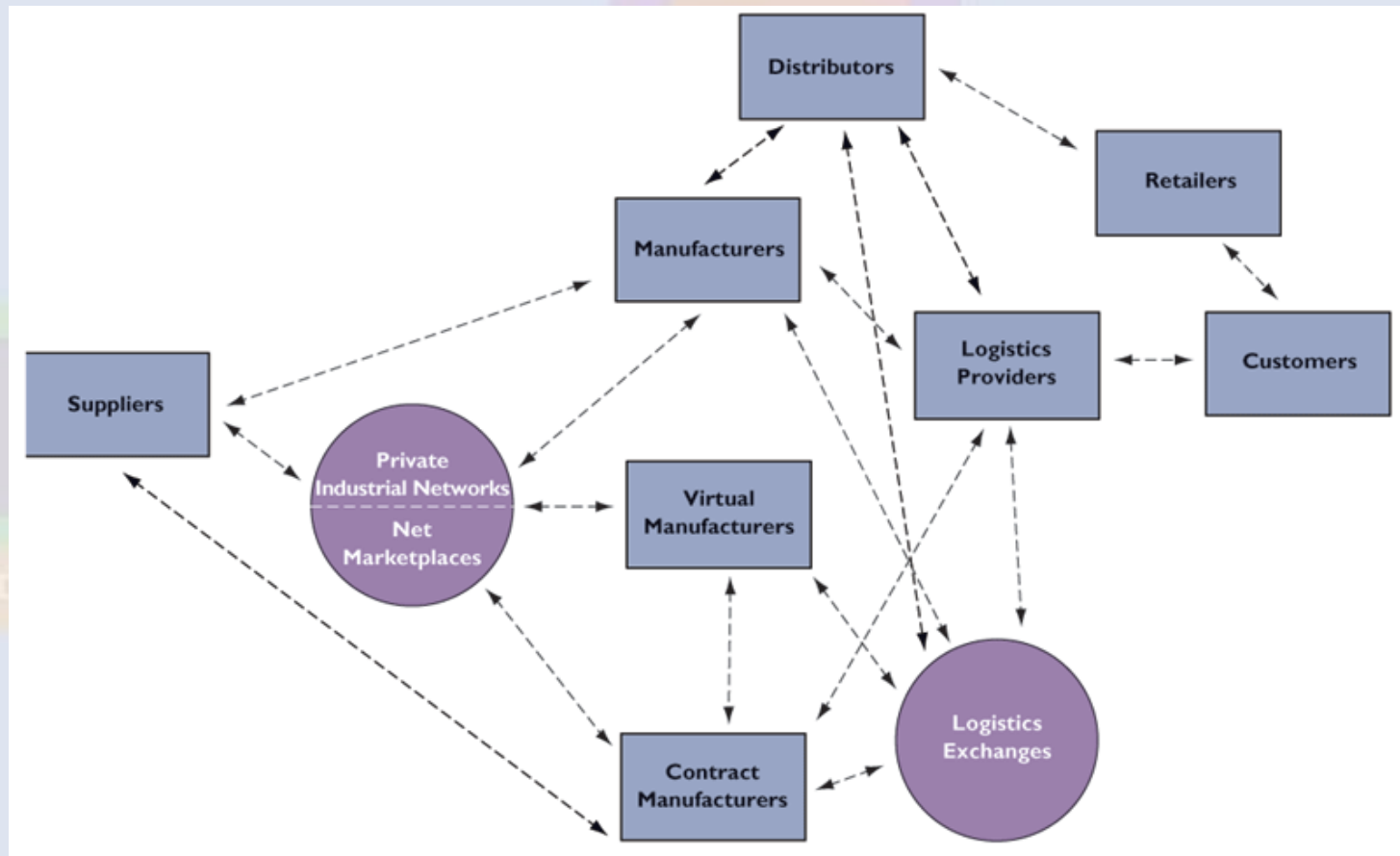


Figure 10-7



Customer Relationship Management Systems

Customer Relationship Management and Partner Relationship Management

- Customer Relationship Management (CRM):
Helps firms maximize the benefits of their customer assets
- Partner Relationship Management (PRM):
Automation of the firm's relationships with its selling partners using customer data and analytical tools



Customer Relationship Management Systems

Customer Relationship Management Applications

- Touch Point: Method of firm interaction with a customer, such as telephone, e-mail, customer service desk, conventional mail, or point-of purchase





Customer Relationship Management Systems

Customer Relationship Management Applications

Customer Data May Come From:

- Responses to direct mail campaigns
- Web site interactions
- Bricks-and-mortar stores or branches
- Call centers
- Sales force staff



Customer Relationship Management Systems

Customer Relationship Management Applications

Customer Data May Come From:

- Advertising and marketing activities
- Sales and purchase data
- Account data
- Service and support records
- Legacy data



Customer Relationship Management Systems

Customer Relationship Management Applications

Customer Data May Be Acquired
From External Sources

A diagram illustrating the flow of customer data. A large white arrow points from the text 'From External Sources' towards the right. Below this, three bullet points are listed, each with a smaller white arrow pointing from the text to the right. The background features faint, stylized images of a laptop and a desktop monitor.

- Customer lists from direct marketing campaigns
- Demographic data
- Psychographic data



Customer Relationship Management Systems

Customer Relationship Management Applications

Customer Relationship Management (CRM) Application Software

- Packages contain modules for partner relationship management (PRM) and employee relationship management (ERM)



Customer Relationship Management Systems

Customer Relationship Management Applications

- Cross-Selling: Marketing complimentary products to customers
- Up-Selling: Marketing higher-value products or services to new or existing customers
- Bundling: Cross-selling in which a combination of products is sold as a bundle at a lower price



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Customer Relationship Management Systems

CRM software capabilities

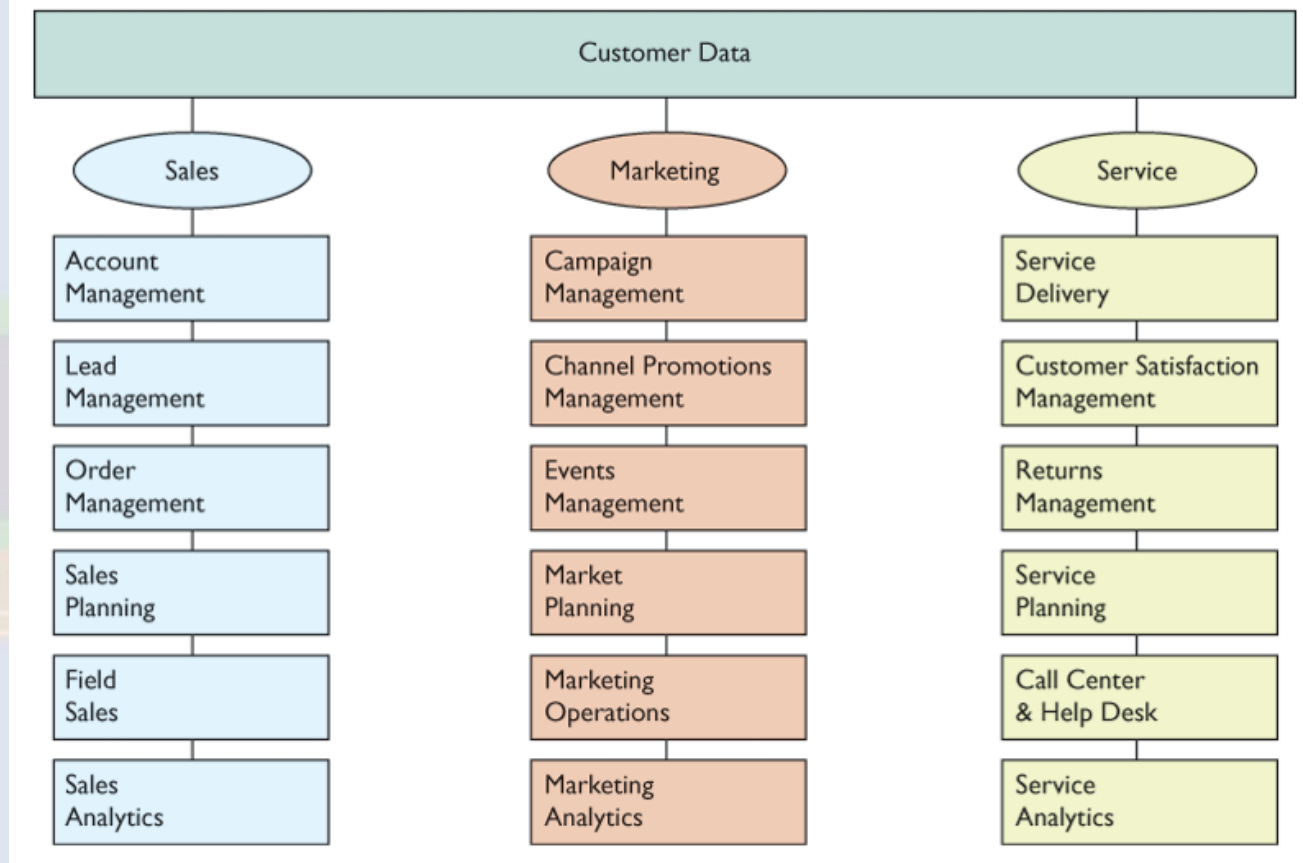


Figure 10-8



Customer Relationship Management Systems

Operational and Analytical CRM

- **Churn Rate:** Measurement of number of customers who stop using or purchasing products or services from a company
- **Operational CRM:** Customer-facing applications, such as sales force automation, call center and customer service support, and marketing automation



Customer Relationship Management Systems

Operational and Analytical CRM

- Analytical CRM: Application dealing with the analysis of customer data to provide information for improving business performance





Customer Relationship Management Systems

Customer loyalty management process map

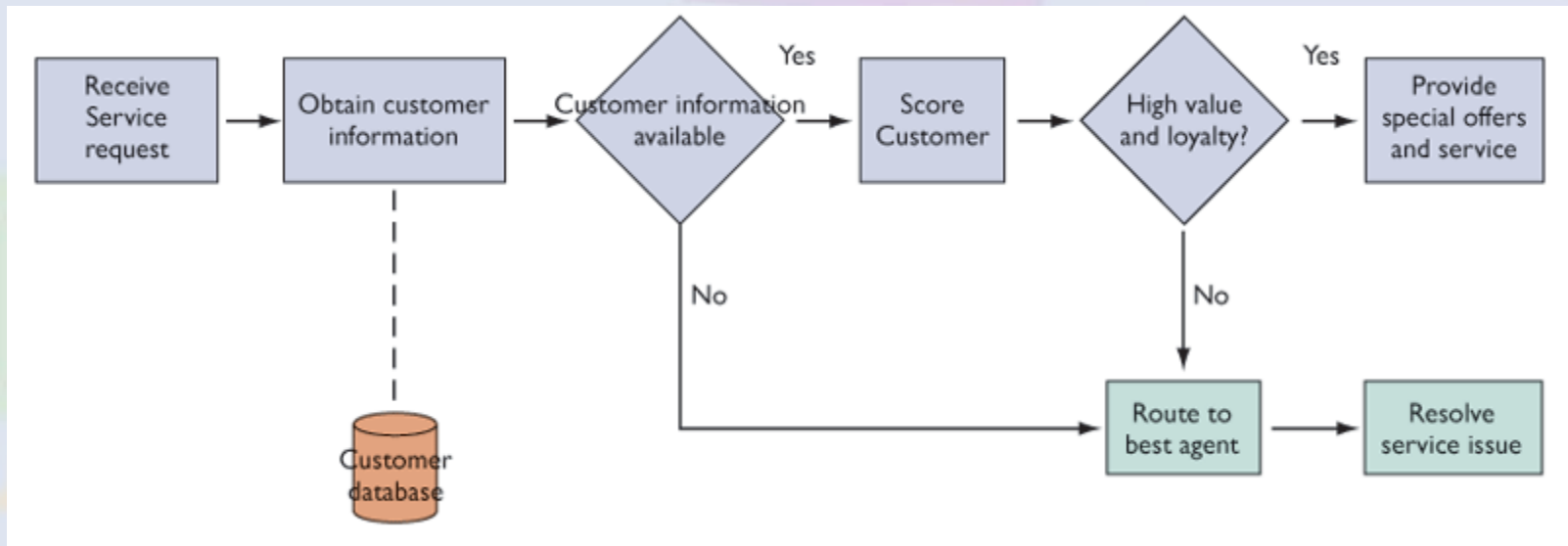


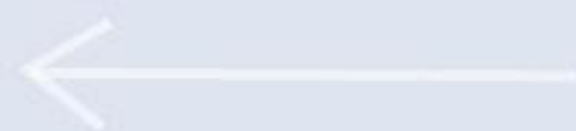
Figure 10-9



Customer Relationship Management Systems

Operational and Analytical CRM

- Market Segmentation: Dividing a heterogeneous market into smaller, more homogeneous subgroups where marketing efforts can be more specifically targeted and effective





Customer Relationship Management Systems

Analytical CRM data warehouse

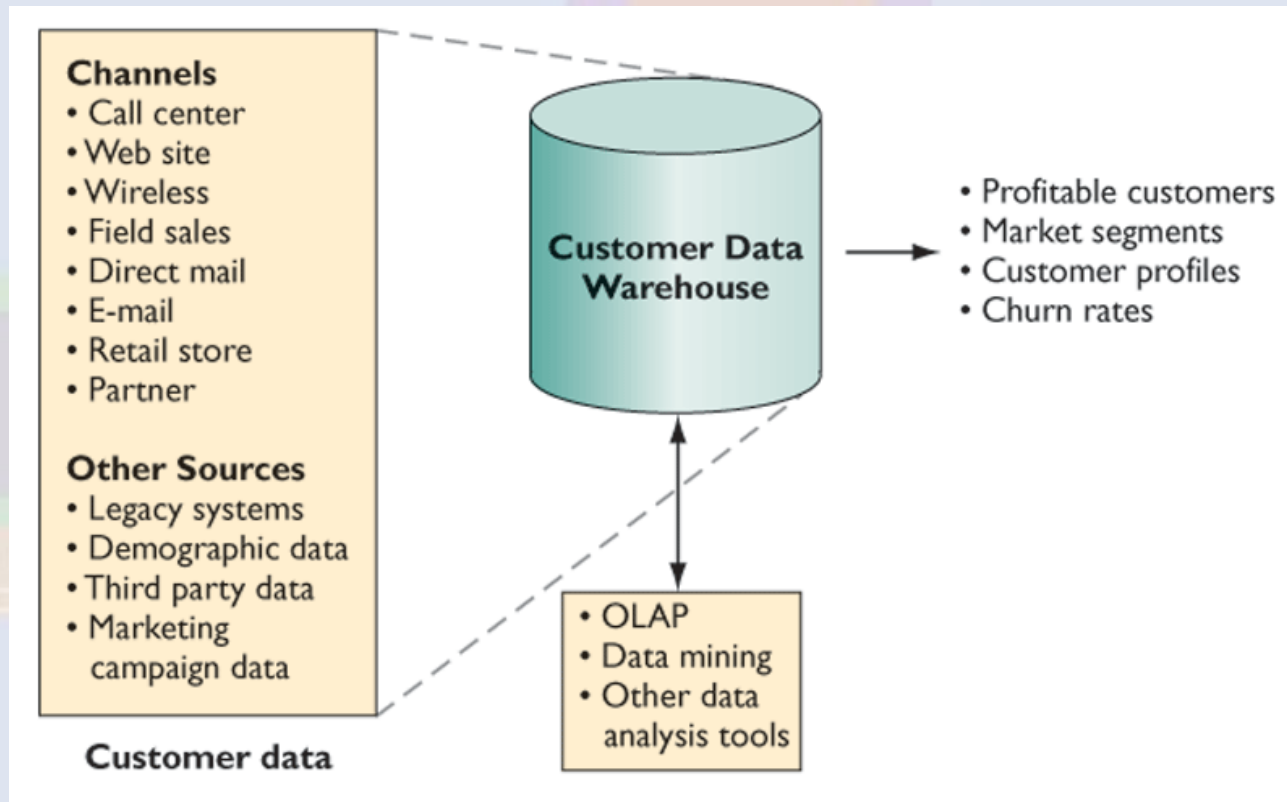


Figure 10-10



Customer Relationship Management Systems

Operational and Analytical CRM

Firms could analyze customer data to focus on:

- Profitability levels
- Numbers, types, or usage of multiple products
- Product pricing
- Total revenue anticipated
- Likelihood of acquiring a new product



Customer Relationship Management Systems

Benefits and Challenges of Customer Relationship Management Systems

Benefits of Customer Relationship Management Systems

- Increased customer satisfaction
- Reduced marketing costs and more effective marketing
- Lower costs for customer acquisition and retention



Customer Relationship Management Systems

Benefits and Challenges of Customer Relationship Management Systems

Customer Relationship Management Systems Challenges

- Costs run higher for organizations with global operations
- Failure rate for CRM systems can run as high as 55% to 75% because of cost overruns, integration challenges, and poor user acceptance of the new system



Customer Relationship Management Systems

Benefits and Challenges of Customer Relationship Management Systems

Metrics for Customer Relationship Management

- Cost per lead
- Cost per sale
- Number of repeat customers
- Reduction of churn



Customer Relationship Management Systems

Benefits and Challenges of Customer Relationship Management Systems

Metrics for Customer Relationship Management

- Customer satisfaction
- Number or percentage of problems/complaints
- Lead generation rate
- Lead conversion rate
- Sales closing rate



Customer Relationship Management Systems

Benefits and Challenges of Customer Relationship Management Systems

- Customer Lifetime Value (CLTV): Difference between revenues produced by a specific customer and the expenses for acquiring and servicing that customer minus the cost of promotional marketing over the lifetime of the customer relationship expressed in today's dollars



Customer Relationship Management Systems

Window on Management

Canadian Firms Show How to Succeed with Customer Relationship Management

- What management and organizational factors explain these companies' success with customer relationship management?
- Why is it that all companies cannot duplicate their success?



Enterprise Integration Trends

Extending Enterprise Software

Major software vendors have developed Web-enabled software for:

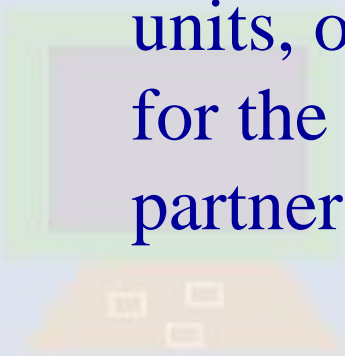
- Customer relationship management
- Supply chain management
- Decision support
- Enterprise portals



Enterprise Integration Trends

Service Platforms and Business Process Management

- Service Platform: Integration of multiple applications from multiple business functions, units, or partners to deliver a seamless experience for the customer, employee, manager, or business partner

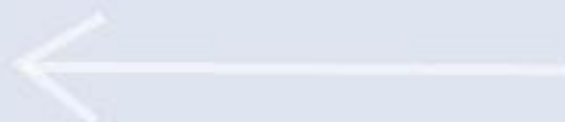
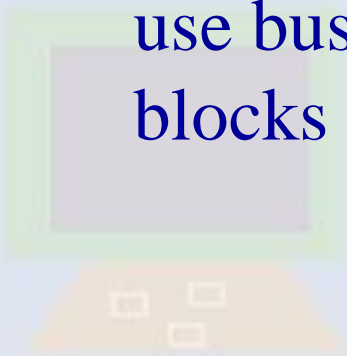




Enterprise Integration Trends

Service Platforms and Business Process Management

- Business Process Management: Methodology for revising the organization's business processes to use business processes as fundamental building blocks of corporate information systems





Enterprise Integration Trends

Enterprise Portals

- Enterprise Portal: Web interface providing a single entry point for accessing organizational information and services





Enterprise Integration Trends

Order-to-cash service

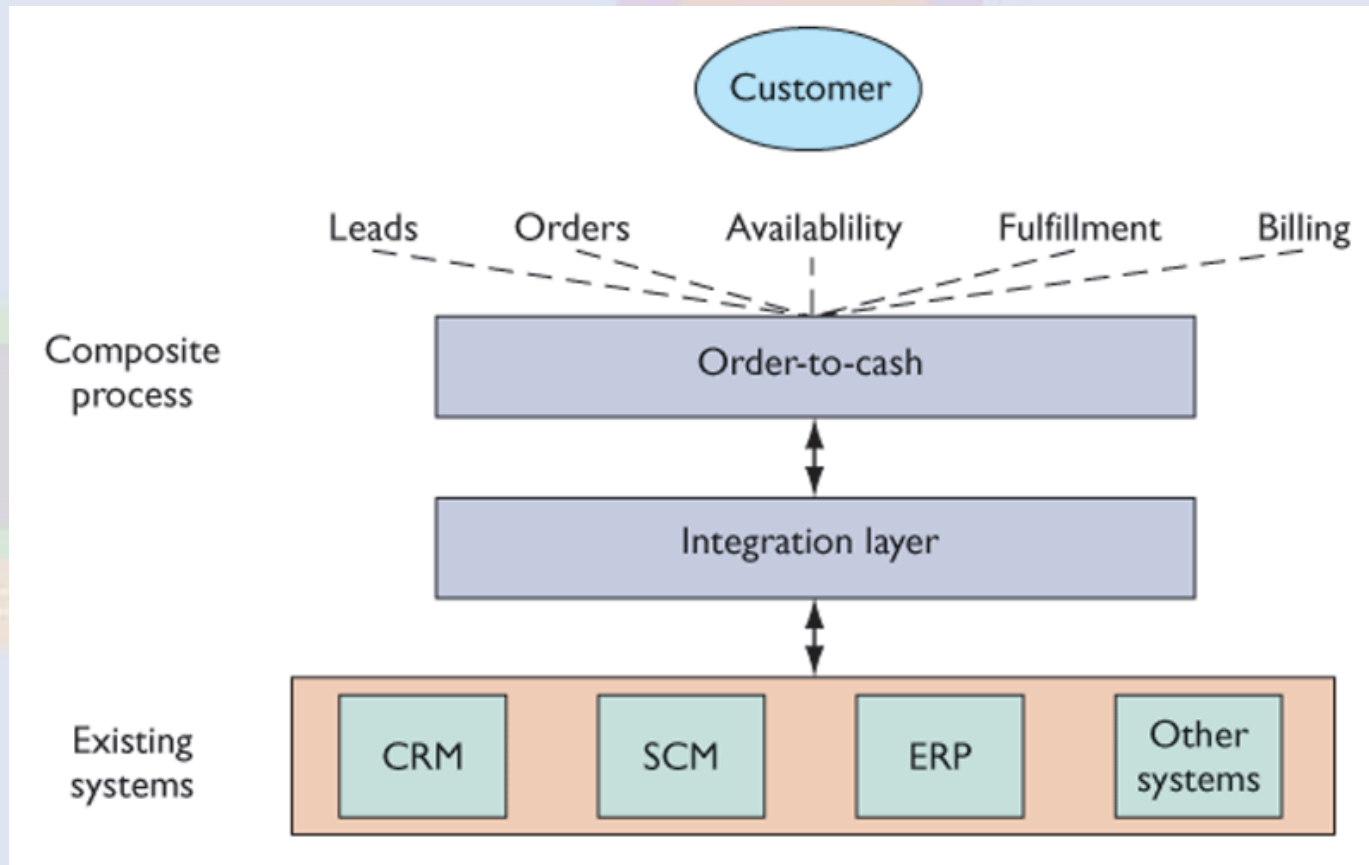


Figure 10-11



Chapter 10 Case Study

Enterprise Integration: The Pepsi Challenge

1. Analyze PepsiCo using the value chain and competitive forces models. How did the company respond to its competitive environment?
2. Were the “power of one” principle and preselling good ideas for PepsiCo? Why or why not?



Chapter 10 Case Study

Enterprise Integration: The Pepsi Challenge

3. What were the challenges the company faced in installing enterprise systems? Was PepsiCo successful in implementing these, and why?
4. Describe PepsiCo's attempt to change its delivery systems. What problems did it encounter? Do they relate to its challenges in attempting to install enterprise systems? Do you think it will be successful? Explain your answer.