



Chapter 2

E-Business: How Businesses Use Information Systems



Essentials of Business Information Systems

Chapter 2 E-Business: How Businesses Use Information Systems

STUDENT OBJECTIVES

- **Identify and describe the major features of a business that are important for understanding the role of information systems.**
- **Describe the information systems supporting the major business functions: sales and marketing, manufacturing and production, finance and accounting, and human resources.**
- **Evaluate the role played by systems serving the various levels of management in a business and their relationship to each other.**



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STUDENT OBJECTIVES (Continued)

- **Explain how enterprise applications and intranets promote business process integration and improve organizational performance.**
- **Assess the role of the information systems function in a business.**



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Information Systems Help Kia Solve Its Quality Problems

- **Problem:** High level of defects in product, new government requirements for reporting defects.
- **Solutions:** Improve quality and monitor defects so that defects and quality problems are easily identified.
- **Infogain data repository and Clarify CRM system** link results in reduced costs and increased sales .
- Demonstrates IT's role in centralizing data, interfacing with customers, and improving production processes.
- Illustrates digital technology's role in improved quality and lower rate of defects leading to customer satisfaction and repeat business.



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Information Systems Help Kia Solve Its Quality Problems

Interactive Session: Kia Motors

- Use the Internet to find the latest data on defects per vehicle in the automobile industry. Look for new articles on Kia's use of information systems.
- What new data are available?
- Has Kia's ranking changed?
- If so, what factors may have contributed to the change?
- What kinds of warranties is Kia offering on its vehicles these days?
- How do these warranties affect Kia's ability to be profitable?



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Components of a Business

A business is a formal organization that makes products or provides a service in order to make a profit.

Organizing a Business: Basic Business Functions

- **Four basic business functions: manufacturing and production, sales and marketing, finance and accounting, and human resources**
- **Five basic business entities: suppliers, customers, employees, invoices/payments, and products and services**



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Components of a Business

Business Processes

- **What tasks does each employee perform, in what order, and on what schedule?**
- **How are raw materials transformed into products?**
- **How are orders fulfilled?**
- **How are bills paid?**
- **How are products marketed?**
- **How are employees hired?**

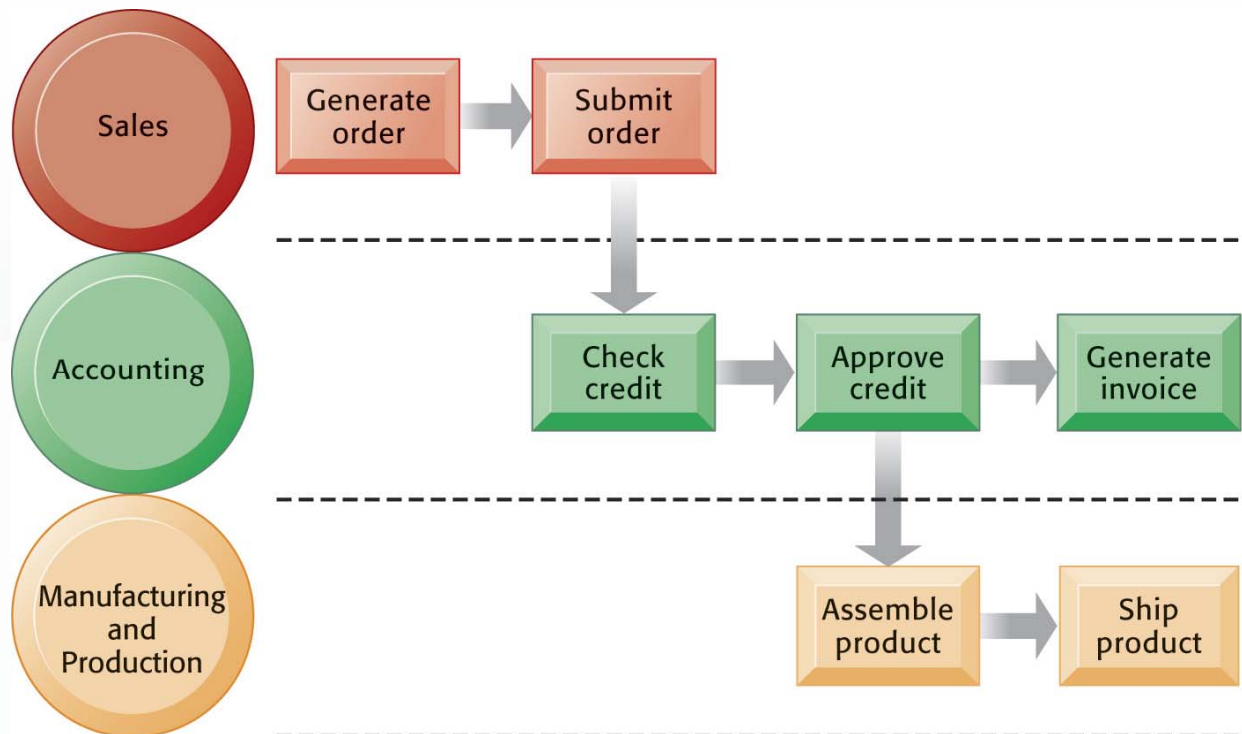


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Components of a Business

The Order Fulfillment Process



Fulfilling a customer order involves a complex set of steps that requires the close coordination of the sales, accounting, and manufacturing functions.

Figure 2-2



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Components of a Business

Managing a Business and Firm Hierarchies

- **Senior management**
- **Middle management**
- **Operational management**
- **Knowledge workers**
- **Data workers**
- **Production or service workers**



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Components of a Business

The Business Environment

- **Global environment factors**
 - **Technology and science**
 - **Economy**
 - **Politics**
 - **International change**
- **Immediate environment factors**
 - **Customers**
 - **Suppliers**
 - **Competitors**
 - **Regulations**
 - **Stockholders**



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Components of a Business

The Role of Information Systems in a Business

- Information systems relate to the following business objectives:
 - Achieving operational excellence
 - Developing new products and services
 - Attaining customer intimacy and service
 - Improving decision making
 - Promoting competitive advantage
 - Ensuring survival



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Types of Business Information Systems

Systems from a Functional Perspective

- **Sales and marketing systems**
- **Manufacturing and production systems**
- **Finance and accounting systems**
- **Human resources systems**



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Types of Business Information Systems

Systems from a Constituency Perspective

- **Transaction processing systems**
- **Management information systems and decision-support systems**
- **Executive support systems**



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Types of Business Information Systems

Managing Employee Incentives: Wachovia's Strategic Weapon

- Read the Focus on Organizations and then discuss the following questions:
 - What problems did First Union and Wachovia face when they merged?
 - What solutions were available to Wachovia to solve its problems and meet its goals?
 - What did the TrueComp EIM system do for Wachovia?
 - How did the system benefit the business?



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Types of Business Information Systems

Interactive Session: Wachovia

- Visit Wachovia's Web site at www.wachovia.com
- What is your impression of the site? Does it make you think “customer service” or “lean selling machine?” Is there a good balance? Why or why not?
- What features of the site seem geared toward first-rate customer service?
- Discuss whether Wachovia's site would be appealing to you if you were looking to open an account, invest, or apply for a loan.

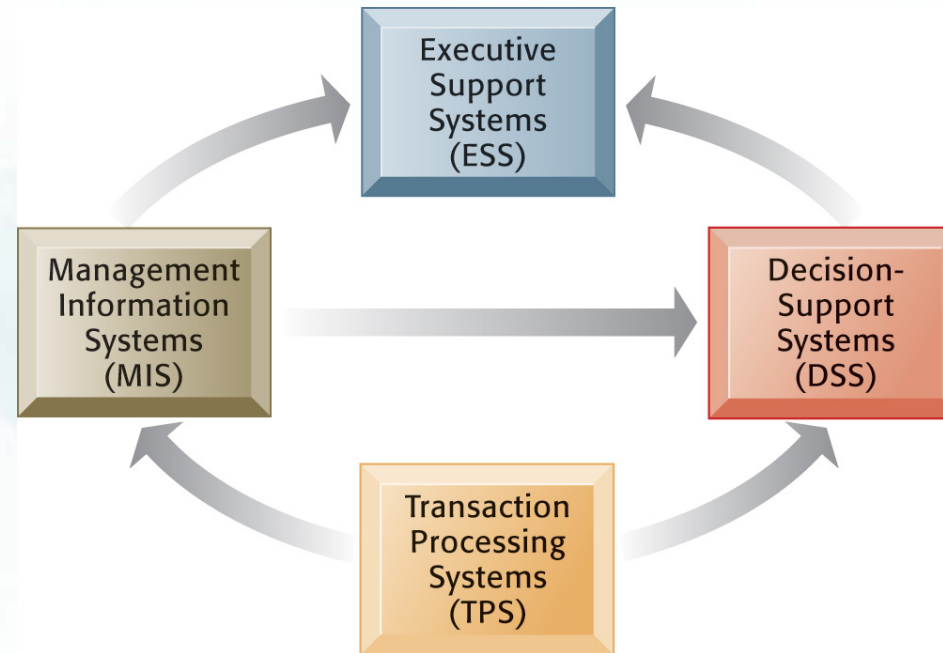


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Types of Business Information Systems

Interrelationships Among Systems



The various types of systems in the organization have interdependencies. TPS are major producers of information that is required by many other systems in the firm, which, in turn, produce information for other systems. These different types of systems have been loosely coupled in most organizations.

Figure 2-13



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Systems That Span the Enterprise

Enterprise Applications

- **Enterprise applications are systems that span functional areas and automate processes for multiple business functions and organizational areas; they include:**
 - **Enterprise systems**
 - **Supply chain management systems**
 - **Customer relationship management systems**
 - **Knowledge management systems**



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Systems That Span the Enterprise

Enterprise Systems

- **Also known as enterprise resource planning (ERP) systems**
- **Integrate key business processes of an entire firm into a single system enabling managers of large firms to assemble an overall view of operations**
- **Alcoa used ERP to eliminate redundancies and inefficiencies in its disparate systems**



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Systems That Span the Enterprise

Supply Chain Management Systems

- **Aim to move the correct amount of product from source to point of consumption as quickly as possible and at the lowest cost**
- **Used by firms to manage relationships with suppliers, purchasing firms, distributors, and logistics companies through shared information about orders, production, inventory levels, and more**
- **Automate the flow of information across organizational boundaries**



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Systems That Span the Enterprise

Customer Relationship Management Systems

- **Coordinate all of the business processes that deal with customers to optimize revenue and customer satisfaction, and increase sales**
- **Sales, marketing, and service record data from multiple communication channels can be combined**
- **Saab implemented CRM applications from Siebel Systems to achieve a 360° view of customers, resulting in a greater follow-up rate on sales leads and increased customer satisfaction**



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Systems That Span the Enterprise

Knowledge Management Systems

- **Intangible knowledge assets provide value to firms**
- **Knowledge management systems manage the capture, storage, distribution, and application of knowledge so that it can be leveraged for strategic benefit**



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Systems That Span the Enterprise

Haworth Overhauls Supply Chain Management

- **Read the Focus on Technology and then discuss the following questions:**
 - **What problems did Haworth face?**
 - **How did they affect the way the company ran its business?**
 - **How did the company solve these problems?**
 - **What people, organization, and technology issues did the solution have to address?**
 - **How successful was the solution?**



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Systems That Span the Enterprise

Intranets and Extranets

- **Technology platforms that increase integration and expedite the flow of information**
- **Intranets: internal networks based on Internet standards**
- **Extranets: intranets that are extended for authorized use outside the company**
- **Intranets often utilize a portal**
- **Extranets facilitate collaboration**



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Systems That Span the Enterprise

E-Business, E-Commerce, and E-Government

- **E-business refers to the use of digital technology and the Internet to drive major business processes**
- **E-commerce is a subset of E-Business that involves buying and selling goods and services through the Internet**
- **E-government refers to using Internet technology to deliver information and services to citizens, employees, and businesses**



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The Information System's Function in Business

The Information Systems Department

- **Programmers**
- **Systems analysts**
- **Information systems managers**
- **Chief information officer (CIO)**
- **End users**



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The Information System's Function in Business

Organizing the Information Systems Function

- **Small companies often rely on a single person for information technology services rather than an information systems department**
- **Some large firms with IS departments decentralize them so that each functional area of the business has its own information systems**
- **Other large firms may depend on a central department that makes technology decisions for the entire company**