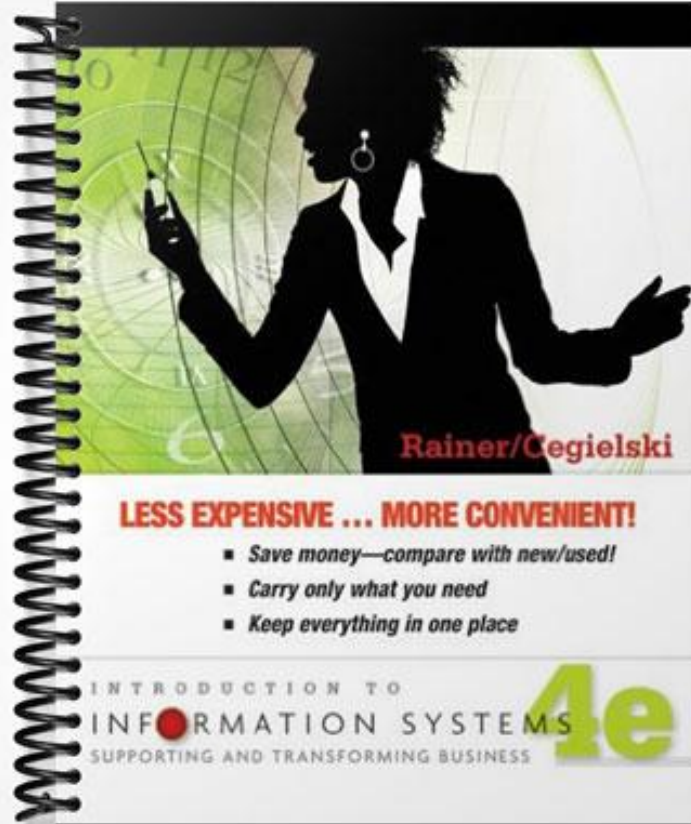


SOLUTIONS MANUAL



Rainer/Cegielski

LESS EXPENSIVE ... MORE CONVENIENT!

- *Save money—compare with new/used!*
- *Carry only what you need*
- *Keep everything in one place*

INTRODUCTION TO
INFORMATION SYSTEMS
SUPPORTING AND TRANSFORMING BUSINESS

4e

CHAPTER 2: Information Systems and the Modern Organization

Chapter Outline

- 2.1 Business Processes
- 2.2 Business process reengineering and business process management
- 2.3 Business Pressures, Organizational Responses, and Information Technology Support
- 2.4 Competitive Advantage and Strategic Information Systems
- 2.5 Business – Information Technology Alignment

Learning Objectives

1. Understand the concept of business processes, and provide examples of business processes in the functional areas of an organization.
2. Differentiate between the terms business process reengineering and business process management.
3. List and provide examples of the three types of business pressures, and describe one IT response to each.
4. Identify the five competitive forces described by Porter, and explain how the Web impacts each one.
5. Describe the strategies that organizations typically adopt to counter the five competitive forces and achieve competitive advantage.
6. Define business – information technology alignment, and describe the characteristics of effective alignment.

Teaching Tips and Strategies

In this chapter, the student is introduced to the basic concepts of information systems in the organization and we explore how businesses use information systems in every facet of their operations.

The role of information systems in helping a company to obtain and maintain a competitive edge is explained. Examples of failed IS efforts are given. It is very important for students to make the connection between information systems and a company's success. Mentioning that companies have failed when they do not keep state of the art information systems is a point that helps to get the student's attention.

One way to exemplify this is to illustrate how universal Information Technology is in companies today. Students will work with companies that utilize a variety of technologies at various levels of the organization. Instructors might want to open the lecture with a class discussion about the universal use of information technologies in many aspects of American life. Some examples are:

- ATM machines and banks in general.

- Grocery store checkout line cash registers with bar code scanners and the ability to use bank cards and credit cards for purchases.
- Educational institutions rely on IT. The registrar's office, financial aid office and the library are just a few examples.

You might want to explain to students that your University/College uses information technology in different ways. Use examples of how the office that handles registration/grades is on a different network, because this helps limit the number of users that can modify grades or view students' records. A discussion could be introduced regarding computer labs and how and when they are used.

By utilizing a network, the school saves money and has the ability to control what information or programs students and faculty members can access. One method companies have used to manage information through the use of IT is to limit access. For example in most organizations, each user has a pass code and linked to that pass code is a level of security clearance which limits what information the employee can access. That access is based on a user's need which ensures that they can accomplish the work that they need to complete, yet cannot access other parts of the system.

Many tasks performed by an employee are the same every week (such as payroll) and that process can be automated including time sheets etc. Mentioning payroll often gets students interested in information systems since it has a universal interest for all employees, whether they are an MIS major or not.

In today's interconnected world, we have access to so much data that it is often overwhelming for managers to know where the best data resides, and how to access it.

With the advent of sophisticated computer systems, managers can now view a worker's Internet use by the click of a button. Managers can see what products are selling and what products are not. This information can be used to better help management run the day-to-day operations of a business. For example: A hotel manager finds that he is almost sold out of rooms for the month of May. It might behoove him/her to raise the prices of the vacant rooms left to increase revenue for the hotel. This strategy can also be implemented when the manager notices vacancies are running at a higher rate than normal.

This chapter is important in that it sets the foundation for the importance of information systems. Students should begin to realize that this is important for them to understand and use in their careers. Once students start to understand that information technologies not only change the way business is done in organizations, but also help organizations to share information and make better-educated decisions that help their companies thrive in a competitive environment, they can apply this knowledge to their specific major.

The phrase "information technology systems in an organization" is composed of three distinct parts: (1) an organization and its structure, (2) the data and information in an organization, and (3) information technology hardware software and connectivity in an organization. What is less clear about information technology is how business executives can ensure that their

organizations benefit from new opportunities afforded by information technology and avoid its well-known, often-repeated pitfalls. Some of the pitfalls or some of the problems companies have had as a result of utilizing IT are:

- botched development projects
- escalating costs with no apparent benefits
- organization disruption
- support problems
- technical glitches.

Managing information technology is not an easy task. The information systems function has implementation problems in many organizations. In many documented cases, the promised benefits of information technology have not occurred.

It is important for students to understand that there is a great need for management to understand what is involved with IT because of the interdependence that exists between business and technology. IT is now being used in all aspects of business. There are very few transactions in business that are not in one way or another directly affected by IT.

It is also important to emphasize that technology has slowly evolved into open systems. This means that industries now expect information technology solutions to be seamlessly interconnected and upgradeable.

This chapter helps students to realize that when looking at adapting or changing technology in an organization it is not as easy as just installing new hardware or a software program. They must consider and analyze future needs and make sure that the programs/technologies they are implementing will not only work today, but be able to integrate with new technologies in the future.

Review Questions

Section 2.1 ... Before You Go On.....

1. *What is a business process?*

A **business process** is an ongoing collection of related activities that create a product or a service of value to the organization, its business partners, and/or its customers. A process has inputs and outputs, and its activities can be measured. Many processes cross functional areas in an organization. For example, product development involves research, design, engineering, manufacturing, marketing, and distribution.

2. *Describe several business processes carried out at your university.*

These include Accounts receivable (tuition), registration, payroll, human resources, etc...

3. *Define a cross-functional business process, and provide several examples of such processes.*

This is a process in which no single functional area is responsible for its completion; multiple functional areas collaborate to perform the function. The cross-functional processes identified in the chapter are product development, procurement, and fulfillment. Other examples are production, human relations management, material planning, and inventory and warehouse management.

Section 2.2 ... Before You Go On.....

1. What is business process reengineering?

A strategy for improving the efficiency and effectiveness of an organization's business processes. The key to BPR is for enterprises to examine their business processes from a "clean sheet" perspective and then determine how they can best reconstruct those processes to improve their business functions.

2. What is business process management?

is a management technique that includes methods and tools to support the design, analysis, implementation, management, and optimization of business processes.

Section 2.3 Before you go on...

1. What are the characteristics of the modern business environment?

It is a combination of social, legal, economic, physical, and political factors in which businesses conduct their operations

2. Discuss some of the pressures that characterize the modern global business environment.

Market pressures are generated by the global economy, intense competition, the changing nature of the workforce, and powerful customers.

3. Identify some of the organizational responses to these pressures. Are any of these responses specific to a particular pressure? If so, which ones?

Organizations are responding to the various pressures by implementing IT such as strategic systems, customer focus, make-to-order and mass customization, and e-business.

Section 2.4 Before you go on...

1. What are strategic information systems?

Any information system which helps an organization gain a competitive advantage or reduce a competitive disadvantage is a strategic information system.

2. *According to Porter, what are the five forces that could endanger a firm's position in its industry or marketplaces?*

- The threat of entry of new competitors.
- The bargaining power of suppliers
- The bargaining power of customers
- The threat of substitute products or services
- The rivalry among existing firms in the industry

3. *Describe Porter's value chain model. Differentiate between Porter's competitive forces model and his value chain model.*

Porter's competitive forces model is focused on analyzing the company's external environment and how competitive the industry is. The value chain model is focused on the internal operations of the company and is a model to allow the firm to analyze its own processes.

4. *What strategies can companies use to gain competitive advantage?*

- Cost leadership
- Differentiation
- Innovation
- Operational effectiveness

Section 2.5 ... Before You Go On.....

1. *What is business – IT alignment?*

Business-IT alignment is the tight integration of the IT function with the strategy, mission, and goals of the organization. That is, the IT function directly supports the business objectives of the organization

2. *Give examples of business – IT alignment at your university, regarding student systems. (Hint: What are the "business" goals of your university with regard to student registration, fee payment, grade posting, etc.?)*

Responses will depend on the amount of IT support provided at your school. Hopefully that support is high and link to the overall business strategy of the institution.

IT's About Business Questions

IT's About Business 2.1 Before the Stores

1. *Provide specific examples of the services that Fulfillment by Amazon provided for Amar.*

Fulfillment by Amazon provides businesses with an easy method of listing products, inventories, and prices; taking orders; accepting payment; and, ultimately, scheduling deliveries.

2. *Provide specific examples of the value that Amar provides his customers.*

Amar utilized the Fulfillment by Amazon (FBA) service offered to Amazon's business customers. This service will provide Amar with an easy method of listing products, inventories, and prices; taking orders; accepting payment; and, ultimately, scheduling deliveries. It will also make it easy for Amar's customers to find the product information they need and to make online purchases.

IT's About Business 2.2

Sleek Audio

1. *Which of Friedman's flatteners apply to Sleek Audio's decision to bring its manufacturing back to the United States? Support your answer.*

The company changed from an offshoring model to a model using outsourcing, supply chaining,

2. *Identify some potential negative implications of Sleek Audio's increasing reliance on robots in its manufacturing processes.*

Negative implications could include:

- Technical issues that could bring production line down.
- Time constraints – It could take longer to make process or production changes.

IT's About Business 2.3

The Internet Facilitates Generosity

1. *Discuss why people will give away their time and knowledge for free.*

Sociologists contend that contributing to such communities helps people gain self-esteem by donating their time and experiences to people in need. People will most readily share information, followed by time, and then physical goods.

2. *Describe the various ways in which the Internet can facilitate generosity.*

People use the Internet to give away something that has little marginal cost in exchange for the opportunity to meet people from all over the world. The article lists the following sites as examples..

- GiftFlow (www.giftflow.org): GiftFlow is a virtual community where you can obtain things you need for free and find people who need the "stuff" you have to give away.

GiftFlow connects community organizations, businesses, governments, and neighbors in a network of reciprocity, where they can share resources, meet one another's needs, and coordinate their efforts to build a better world.

- OurGoods (www.ourgoods.org): OurGoods enables creative people to help one another produce independent projects. More work is accomplished in networks of shared respect and shared resources than in competitive isolation.
- Sparked (www.sparked.com): Sparked is an online “microvolunteering” Web site where large and small organizations list opportunities for people looking to volunteer.
- Thredup (www.thredup.com): Thredup is a Web site where parents trade children's clothing and toys.
- Collaborative Consumption (www.collaborativeconsumption.com): This Web site is an online hub for discussions about the growing business of sharing, resale, reuse, and barter (with many links to Web sites engaged in these practices).
- Kiva (www.kiva.org): Kiva is a nonprofit enterprise that provides a link between lenders in developed countries and entrepreneurs in developing countries. Users pledge interest-free loans rather than tax-deductible donations. Kiva directs 100 percent of the loans to borrowers.
- DonorsChoose (www.donorschoose.org): DonorsChoose is an education-oriented Web site that functions entirely within the United States. Users make donations rather than loans. The Web site addresses the huge problem of underfunded public schools.

IT's About Business 2.4 ***Progressive and Zappos***

1. Consider the cases of Progressive and Zappos. What does it mean that the business strategy and information technology go hand-in-hand? (That is, neither comes before the other.)

In both cases the companies used the electronic data they already possessed to better the customer experience, which in turn increased business.

2. Provide specific examples of problems that could occur at Progressive and Zappos if the firms' business strategy and information technology are not aligned.

Progressive would not have been able to provide its customers with rate quotes based on the information provided by the customers. It would also not have been able to quickly extract pricing data needed to file with government regulators.

In the case of Zappos, customers themselves would not have been able to check for the availability of specific items and sizes that were in stock. There were also able to use technology to better organize their distribution facilities.

Discussion Questions

1. Consider the student registration business process at your university:

- Describe the steps necessary for you to register for your classes each semester.

- Describe how information technology is used in each step of the process (or is not used).

The responses to this question will be different depending on your school's processes.

2. *Why is it so difficult for an organization to actually implement business process reengineering?*

There are various internal and external factors that make it difficult to do BPR. These include technical limitations, cost factors, management support, legal and political issues, etc.

3. *Explain why IT is both a business pressure and an enabler of response activities that counter business pressures.*

Rapid changes in information technology and capabilities force business to adapt or go out of business. On the other hand, IT assists companies in their efforts to stay up on the latest strategies to provide the best customer service, to provide better quality products, new and different delivery methods..

4. *What does a flat world mean to you in your choice of a major? In your choice of a career? Will you have to be a "lifelong learner"? Why or why not?*

It means that you need to think about who across the world you might be competing against. You not only will have to think about those in your immediate vicinity, but due to the far reaching impact of the new global, Web-based platform which will continue to grow, you will be competing with anyone who has access to a cell phone or a computer.

You clearly will be a lifelong learner since there will be new devices, new applications and new ways in which they are used. Anyone who stops learning will be left behind very quickly..

5. *What might the impact of a flat world be on your standard of living?*

Resources that were previously very expensive or unattainable will become increasingly available. In addition, technological innovations could enable students to access vast amounts of information and to communicate with people around the world. From a different perspective, however, offshoring to low-wage countries, coupled with an increasing reliance on labor-saving technologies, could have negative effects on wages/benefits and the availability of jobs. Moreover, students likely will have to become lifelong learners in order to remain productive (and employed).

6. *Is IT a strategic weapon or a survival tool? Discuss.*

It is both. Used to establish a competitive advantage in an industry, IT helps an organization implement its strategic goals and increase its performance and productivity. As a survival tool, it is used to fend off various threats such as new entrants, suppliers and customers

bargaining power, substitute products or services, and rivalries among existing firms in the industry.

7. *Why might it be difficult to justify a strategic information system?*

SISs are often very complex and very expensive to develop and outcomes may take years to observe and measure.

8. *Describe the five forces in Porter's competitive forces model, and explain how the Internet has affected each one.*

- The threat of entry of new competitors.
For most firms, the Web increases the threat that new competitors will enter the market because it sharply reduces traditional barriers to entry, such as the need for a sales force or a physical storefront.
- The bargaining power of suppliers
The Internet's impact on suppliers is mixed. On the one hand, it enables buyers to find alternative suppliers and to compare prices more easily, thereby reducing the supplier's bargaining power. On the other hand, as companies use the Internet to integrate their supply chains, participating suppliers prosper by locking in customers.
- The bargaining power of customers
Customers' power has increased tremendously with the availability of information on the Internet. Much the same as suppliers above, they have a much more information about sources of goods and services and pricing to help them when they are making purchasing decisions. For example, college students have greater power because they can purchase textbooks from sources other than their college bookstore.
- The threat of substitute products or services
Any industry which is primarily based on digitized information is at risk, and must take the threat of Internet delivered products and services seriously.
- The rivalry among existing firms in the industry
The Internet makes competition more intense. Keeping anything secret is impossible once it is available on the Internet. Companies can see their competitors' systems and match their features to remain competitive.

9. *Describe Porter's value chain model. What is the relationship between the competitive forces model and the value chain model?*

The competitive forces model is useful for designing *general* competitive strategies. Organizations use the value chain model to identify *specific* activities where they can use competitive strategies for greatest impact. The value chain model also identifies points where an organization can use IT to achieve a competitive advantage.

10. *Discuss the idea that an information system by itself can rarely provide a sustainable competitive advantage.*

Information technology is a tool. It is management's responsibility to use it to the best advantage in order to sustain a competitive advantage.

Problem Solving Activities

1. *Surf the Internet for information about the Department of Homeland Security. Examine the available information, and comment on the role of information technologies in the department.*

Obviously the best starting point for this exercise is the DHS Web site. Students also might search for articles on the use of technology by DHS. There probably is a substantial literature on this topic, especially having just observed the tenth anniversary of 9/11.

2. *Experience customization by designing your own shoes at www.nike.com, your car at www.jaguar.com, your CD at www.easternrecording.com, your business card at www.iprint.com, and your diamond ring at www.bluenile.com. Summarize your experiences.*

Before starting this activity, you might consider asking the students if any have already used any of these sites and discuss their experiences.

3. *Access www.go4customer.com. What does this company do and where is it located? Who are its customers? Which of Friedman's flatteners does this company fit? Provide examples of how a U.S. company would use its services.*

The company operates call centers located in India. They do everything from market surveys and debt collections to inbound call center operations. Using Friedman's model, they would be a global company handling outsourced services. A U.S. company could use them for a number of things, including operating their customer call center, telephone marketing, and market surveys.

4. *Enter Wal-Mart China (www.wal-martchina.com/english/index.htm). How does Wal-Mart China differ from your local Wal-Mart (consider products, prices, services, etc.)? Describe these differences.*

This site is more of a corporate information site than a marketing site. No products are listed for sale; however, there is some information about a few product lines.

5. *Apply Porter's value chain model to Costco (www.costco.com). What is Costco's competitive strategy? Who are Costco's major competitors? Describe Costco's business model. Describe the tasks that Costco must accomplish for each primary value chain activity. How would Costco's information systems contribute to Costco's competitive strategy, given the nature of its business?*

Costco's business model is to sell premium merchandise at a lower price to members (captive group of shoppers). Sam's club is their biggest competitor. They need to procure the right merchandise mix targeting their members by building a strong understanding of their base of members. They need to have an efficient supply chain and then be able to track the success of their promotions and marketing efforts.

6. *Apply Porter's value chain model to Dell (www.dell.com). What is Dell's competitive strategy? Who are Dell's major competitors? Describe Dell's business model. Describe the tasks that Dell must accomplish for each primary value chain activity. How would Dell's information systems contribute to Costco's competitive strategy, given the nature of its business.*

Dell's strategy is to offer high end computers with premium features and components at a lower price and allow for customers to customize their systems using a web based interface. Dell must support a highly efficient supply chain system and reduce their inventory costs. They need to track new components and offer them to their customers and then track the quality of their components as they are introduced into their systems.

7. *The market for optical copiers is shrinking rapidly. It is expected that by 2010 as much as 90 percent of all duplicated documents will be done on computer printers. Can a company such as Xerox Corporation survive?*
- Read about the problems and solutions of Xerox from 2000-2010 at www.fortune.com, www.findarticles.com, and www.google.com.
 - Identify all the business pressures on Xerox.
 - Find some of Xerox's response strategies (see www.xerox.com, www.yahoo.com, and www.google.com).
 - Identify the role of IT as a contributor to the business technology pressures (for example, obsolescence).
 - Identify the role of IT as a facilitator of Xerox's critical response activities.

Xerox needs to identify new business models and new ways to introduce their technology into products that can support their customers.

Team Assignments

- (a) Create an online group for studying IT or a part of it you are interested in. Each member of the group must have a Yahoo e-mail account (free). Go to Yahoo: Groups (<http://groups.yahoo.com>) and at the bottom see a section titled "Create Your Own Group."

Step 1: Click on "Start a Group Now."

Step 2: Select a category that best describes your group (use the Search Group Categories, or use Browse Group Categories tool). You must find a category.

Step 3: Describe the purposes of the group and give it a name.

Step 4: Set up an e-mail address for sending messages to all group members.

Step 5: Each member must join the group (select a "profile"); click on "Join this Group."

Step 6: Go to Word Verification Section; follow the instructions.

Step 7: finish by clicking “Continue.”

Step 8: Select a group moderator. Conduct a discussion online of at least two topics of interest to the group.

Step 9: Arrange for messages from the members to reach the moderator at least once a week.

Step 10: Find a similar group (use Yahoo’s “find a group” and make a connection). Write a report for your instructor.

(b) Now follow the same steps for Google Groups.

(c) Compare Yahoo Groups and Google Groups.

2. Divide the class into teams. Each team will select a country government and visit its official Web site (for example, try the United States, Australia, New Zealand, Singapore, Norway, Canada, the United Kingdom, the Netherlands, Denmark, Germany, and France). For example, the official Web portal for the U.S. government is www.firstgov.gov. Review and compare the services offered by each country. How does the United States stack up? Are you surprised at the number of services offered by countries through Web sites? Which country offers the most services? The least?

Closing Case

Todd Pacific Shipyards Makes Effective Use of Information Systems

The Business Problem

Todd Pacific Shipyards (www.toddpacific.com) is a large operation that builds, maintains, and repairs ships for military and commercial customers on projects that range from overhauling nuclear aircraft carriers to building new ferries. The company needed to replace its old traditional time card system—punch cards and clocks—because it was slow and inaccurate, it did not provide the kinds of information the company needed, and it required too many clerical people to use it.

The IT Solution

Todd Pacific invested \$250,000 to replace its old system with personal digital assistants (PDAs), a wireless network, and a proprietary (developed in-house) software application called the Time Tracking application that securely records each employee’s time and work assignment. PDAs were chosen over laptops because PDAs are smaller, lighter, and easier to move from one job to the next.

The PDAs are placed in central work areas. When a worker arrives, he takes his identification card, which includes a bar code, and runs it through the reader on a PDA. This process acts as the time stamp, recording that the employee has started work. The PDA then transmits that information via the wireless network to a server that automatically updates payroll, accounts payable, and project management records, reporting the names of the employees, arrival and departure times, and the projects they are working on.

Todd Pacific developed its Time Tracking application inhouse and linked it to the company's project management application. The two applications play a key role in matching workers with assignments. Before the start of a workday, a project manager can designate how many people he needs to perform a particular task. Once the workers are hired for a particular task, the two applications automatically log their start times and charge them to the appropriate account so that clients can be charged correctly.

Todd Pacific did encounter some challenges in implementing the new system. To begin with, the PDAs had to operate in the challenging conditions of a shipyard, including dust, debris, and moisture. As a result, the PDAs had to be "hardened"—that is, they were required to survive heavy rain, dust, and being dropped onto concrete from up to 6 feet.

In addition, the Todd Pacific shipyard had many conditions that made wireless networks a problem. The 46-acre worksite includes multiple buildings and cranes, with workers often inside a ship's hull, where signals could not penetrate. To handle these problems, the shipyard set up two wireless networks—one outside the ships that connects to wireless networks inside the various ships.

The wireless network also had to meet tough security standards. Because the shipyard's customers include the U.S. Navy and Coast Guard, it has to ensure that all wireless transmissions are encrypted.

The Results

The new system, which paid for itself in less than one year, allows Todd Pacific managers to better plan and execute jobs. The system helps shipyard managers determine each day if they have the right number of machinists, pipefitters, electricians, and welders to work on each project. Project managers can immediately access the schedules and activities of approximately 800 employees, and learn which skilled workers are available for a particular assignment.

Electronic collection of an employee's daily activities makes it easier to prepare payroll and bill customers for work. In fact, Todd Pacific no longer needed four data-entry clerks to review the work hours shown on a time card and then type that information into a payroll application. The company also eliminated one position in the payroll department, because the system generated electronic reports showing labor costs by project, employee, task, and other factors.

Essentially, the system gives Todd Pacific the ability to have personnel data—name, age, specialty, preferred hours, special skills and experience, assignment location, and expected completion date for current project—available instantly, as well as having a real-time report on where all workers are supposed to be and what they are supposed to be doing.

The system also helps the shipyard manage contract requirements for 11 labor unions. There are about 25 situations in which workers get paid a higher hourly wage while performing tasks that are unpleasant or dangerous, or require unusual skills. Those types of tasks warrant extra pay. The shipyard incorporated the logic for the union rules into the PDAs, so extra pay could be awarded without any paperwork.

An unexpected benefit of the system was a 50 percent reduction in workplace injuries. With the PDAs and wireless networks, an inspector or supervisor can immediately disseminate information via e-mail if he sees a hazardous condition that threatens worker safety or actually results in an injury. With the old system, an inspector or manager filled out a three-part form and filed copies with the safety department and an employee's supervisor, a process that could take as long as three days. Today, the entire process takes just minutes.

Questions

1. If you are the CIO at Todd Pacific, to what other applications could you link the Time and Tracking application?
 - The time and attendance system could be linked to an activity scheduling system, a productivity reporting system, customer billing and a payroll system
2. Skilled union workers typically have a degree of autonomy. If you are a skilled worker at Todd Pacific, do you have any privacy concerns about being wirelessly monitored? Why or why not?
 - While employees might have some concerns initially, once they see the 50 percent reduction in workplace injuries and other benefits to having the new system, they should realize the tradeoff.
3. Would the new system at Todd Pacific improve or damage the company's relationship with its unions? Support your answer.
 - It would improve the relationship. In addition to the safety issues, wages were considered. The shipyard incorporated the logic for the union wage payment rules into the PDA so that extra pay can be awarded without any extra paperwork.

Glossary

business environment: the combination of social, legal, economic, physical, and political factors in which businesses conduct their operations.

business – information technology alignment: the tight integration of the IT function with the strategy, mission, and goals of the organization.

business process: a collection of related activities that produce a product or a service of value to the organization, its business partners, and/or its customers.

business process management (BPM): a management technique that includes methods and tools to support the design, analysis, implementation, management, and optimization of business processes.

business process reengineering (BPR): a radical redesign of a business process that improves its efficiency and effectiveness, often by beginning with a “clean sheet” (from scratch).

competitive advantage: An advantage over competitors in some measure such as cost, quality, or speed; leads to control of a market and to larger-than-average profits.

- competitive forces model:** A business framework devised by Michael Porter, that analyzes competitiveness by recognizing five major forces that could endanger a company's position.
- cross-functional business process:** a process in which no single functional area is responsible for its completion; multiple functional areas collaborate to perform the function.
- digital divide:** the gap between those who have access to information and communications technology and those who do not.
- entry barrier:** Product or service feature that customers expect from organizations in a certain industry; an organization trying to enter this market must provide this product or service at a minimum to be able to compete.
- Globalization:** the integration and interdependence of economic, social, cultural, and ecological facets of life, enabled by rapid advances in information technology.
- individual social responsibility:** See **organizational social responsibility**
- make-to-order:** The strategy of producing customized products and services.
- mass customization:** A production process in which items are produced in large quantities but are customized to fit the desires of each customer.
- organizational social responsibility (also individual social responsibility):** Efforts by organizations to solve various social problems.
- primary activities:** Those business activities related to the production and distribution of the firm's products and services, thus creating value.
- strategic information systems (SISs):** Systems that help an organization gain a competitive advantage by supporting its strategic goals and/or increasing performance and productivity.
- support activities:** Business activities that do not add value directly to a firm's product or service under consideration but support the primary activities that do add value.
- value chain model:** Model that shows the primary activities that sequentially add value to the profit margin; also shows the support activities.
- value system:** Includes the producers, suppliers, distributors, and buyers, all with their value chains.