

Chapter Fourteen

Business Process Management

AIS in the Business World

Employee Expense and Vendor Invoice Processing at America Online

America Online (AOL) describes itself as “a leading global advertising-supported Web company, with the most comprehensive display advertising network in the U.S., a substantial worldwide audience, and a suite of popular Web brands and products. The company’s strategy focuses on increasing the scale and sophistication of its advertising platform and growing the size and engagement of its global online audience through leading products and programming” (<http://corp.aol.com/about-aol/company-overview>).

Given the size of its staff and operations, you can probably imagine the transaction volume AOL’s accounting information system handles on a daily basis. In 2004, AOL used the principles and processes of business process management to develop an electronic funds transfer system (EFTS) for processing employee expense reimbursements and vendor invoices. Prior to the EFTS, such requests were processed manually, consuming a lot of time and resources while offering very little flexibility for customers.

AOL’s management used two pieces of software from Interfacing (www.interfacing.com) in its BPM project: Charter (an add-on for Visio) and Designer (process simulation software). As a result of the EFTS implementation, AOL experienced improvements in time, cost, customer satisfaction, and management control.

Discussion Questions

1. What is business process management?
2. Does business process management always involve information technology?
3. Why should accounting students learn about business process management?

Source: America Online, Inc. Financial Services white paper, <http://interfacing.com/uploads/File/aol.pdf> (September 9, 2008).

In prior chapters, we've looked at generic business processes: sales/collection, acquisition/payment, and others. But organizations are dynamic; they must adapt to changes in their environment. So what happens when managers need to change business processes? Changes can be as simple as redesigning a form to make it more useful or as complex as introducing some new form of information technology to streamline a business process. **Business process management** (BPM) gives managers some guidelines to help them with that sometimes daunting task. As an accounting professional, you may be called upon to help organizations manage their business processes so that they can create value for their stakeholders more efficiently and effectively.

Like so many things in AIS, business process management is at least as much “art” as “science.” This chapter will provide some basic principles and ideas about BPM that you'll be able to apply in various organizational contexts. When you complete your study of this chapter, you should be able to:

1. Explain what business process management is and how it is related to your study of accounting information systems.
2. List and discuss some basic principles of business process management.
3. Identify and describe tools and techniques commonly used in managing business processes.
4. Apply the basic principles, tools, and techniques in diverse organizational contexts.

In addition to presenting brand new material in this chapter, I'll also draw on some of the things you've learned already about AIS: business processes, information technology, and systems documentation techniques.

NATURE OF BUSINESS PROCESS MANAGEMENT

Business process management has been defined in many different ways, including

- A business improvement strategy based on documenting, analyzing, and redesigning processes for greater performance (SmartDraw.com, 2008).
- A method of efficiently aligning an organization with the wants and needs of clients (Wikipedia.com, 2008).
- A systematic approach to analyzing, redesigning, improving and managing a specific process (Harmon and Wolf, 2008, p. 12).

Notice the important ideas in each definition of BPM: improving performance, promoting efficiency, responding to the needs of clients, and analyzing processes systematically and strategically.

Reflection and Self-Assessment

14.1

Consult at least two other sources that provide definitions of business process management. Based on those

sources and what you've just read, develop your own definition of BPM.

Although every BPM project is unique in some way, certain generic activities are common to most of them. Seppanen, Kumar, and Chandra (2005) suggested the following sequence as a **generalized model of BPM**.

1. Select the process and define its boundaries.
2. Observe, document, and map the process steps and flow.
3. Collect process-related data.
4. Analyze the collected data.
5. Identify and prioritize potential process improvements.
6. Optimize the process.
7. Implement and monitor process improvements.

How is BPM related to your study of accounting information systems? Good question! Consider the following points to help understand why AIS students should know something about business process management:

1. BPM can assist managers in providing accounting information that conforms to elements of the FASB Conceptual Framework. Refer back to Figure 1.1, which illustrates the conceptual framework. Managing business processes can ensure that relevant, reliable information is furnished in a cost-effective way.
2. BPM can help managers promote strong internal control. You probably recall from Chapter 4 that internal control has four main purposes, one of which is enhancing operating efficiency. Periodically examining business processes to see how they can be improved helps achieve that goal.
3. BPM frequently involves strategic uses of information technology, such as those discussed in Chapter 8: relational databases, enterprise resource planning systems, and general ledger software. In addition, the 2008 list of AICPA Top Ten Technologies includes business process improvement.
4. BPM is a natural outgrowth of accountants' intimate involvement with business processes. As a future accounting professional, your work will frequently focus on business processes: documenting them (flowcharts, data flow diagrams, REAL models), designing inputs and outputs for them (sales invoices, purchase requisitions, production cost reports), and auditing them (financial, operational, compliance).

Next, let's turn our attention to some fundamental ideas associated with business process management.

BASIC PRINCIPLES

You can learn more about Robert's company on its Web site: www.ersolutions.net.

You learned about Porter's value chain in Chapter 11. His book, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, is considered a classic work on strategy.

As part of my background research for this chapter, I interviewed my friend and former student, Robert J. Eppel II. Robert is the chief information officer (CIO) for ERP Solutions LLC. He shared these important ideas about business process management:

1. *Understand how business processes interact with/support organizational strategy.* As you may have learned in a management class, "strategy" refers to the ways an organization gains a competitive advantage in its markets. In today's on-demand, knowledge-driven economy, organizations' business processes can be key to creating and sustaining a competitive advantage in the marketplace.
2. *Move away from the "we've always done it this way" mentality. Be open to alternatives.* Business processes often originate based on some organizational need. For example, in the

Accounting Department at Cal Poly Pomona, we monitor students' progress through upper-division accounting courses independently of the university's recordkeeping system. Until recently, that process required faculty to report students' grades to the department office in addition to reporting them to the university. That process had a clearly defined reason when it was developed over 20 years ago; within the last year, however, through the innovative thinking and expertise of the department administrative support coordinator (Ms. Nan Miller), we streamlined the process while still achieving the same goal.

3. *Enlist top management support; ensure that top management can describe current business processes before trying to reengineer/maintain/modify the processes.* In Chapter 4, you learned about the COSO frameworks for internal control and enterprise risk management; in both frameworks, the “tone at the top” is an important factor. The same is true for BPM: Without top management support, most efforts will be doomed to failure. In addition, to support and lead BPM efforts effectively, top management needs to understand the way things currently work in the organization.
4. *Managing business processes is fundamentally about people, not technology/documents. It's important to hire people who can think beyond their little piece of the world and see how what they do fits into the “bigger picture.”* In the next section of this chapter, we'll look at some of the tools managers can use to improve business processes; however, all the tools in the world won't help without a good team of people to use them! BPM requires a holistic view of the organization—one that moves beyond thinking about what's best for your department to thinking about how the organization as a whole can create value for its stakeholders.
5. *Don't rely on external consultants to the exclusion of internal employees, Value the experience of people in the organization who are close to the process.* This point might strike you as a bit odd, since both Robert and I have worked as external consultants in many organizations. But it is 100 percent true! Far too many managers, when confronted with a complex problem, advocate hiring an external consultant as a first step. While doing so has many advantages, external consultants rarely have the intimate familiarity of internal employees when it comes to BPM. I've often found that a team approach, combining both employees and consultants, produces very positive results.
6. *When using consultants, make sure the task is well defined, with specific deliverables defined by the company.* This idea reminds me of something Lewis Carroll wrote in *Alice's Adventures in Wonderland*: “If you don't know where you are going, any road will take you there.” In other words, outcomes for a BPM project should be defined in advance; otherwise, the project may grow out of control, costing both time and money without achieving solid results.
7. *Communicate early; communicate often. Deal immediately with objections/issues as they arise.* BPM, like most important organizational initiatives, needs to be an open, transparent process. The best plans are developed by a team of people through a process of dialogue and feedback, not by one or two people sitting in an office for several hours.

As we look at specific tools and techniques for BPM in the next section of this chapter, please keep those **basic principles** in mind.

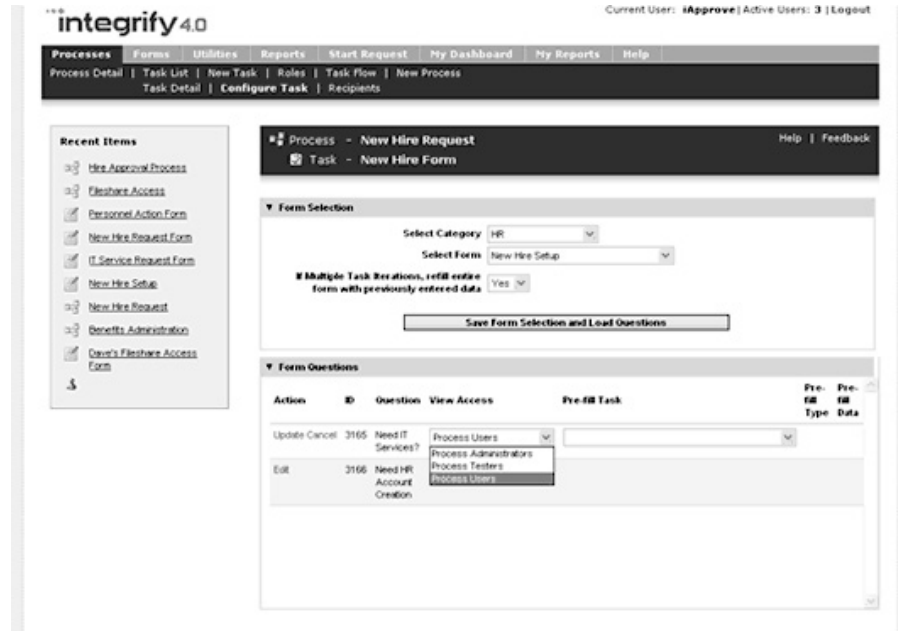
BPM TOOLS AND TECHNIQUES

Keeping in mind that the overall goal of BPM is to enable an organization to create more value for its stakeholders, managers have many options when it comes to improving organizational processes. In this section, we'll look at information technology, activity-based management, and flowcharting and their applications in BPM.

Hamel and Prahalad's 1989 article in *Harvard Business Review*, “Strategic Intent,” has a lot to say about this point.

FIGURE 14.1
Integrify BPM
Software Screen Shot

Source: www.integrify.com.



Information Technology

If you do a Web search on BPM, you'll most likely come up with several Web sites that talk about **software**; Harmon and Wolf (2008, p. 31) found that 74 percent of their survey respondents use at least a graphics modeling tool (like Visio) for BPM. Companies also use information technology specifically designed for business process modeling (such as Case-wise, ProVision, or Integrify).

Figure 14.1 shows a screen shot from Integrify.

Reflection and Self-Assessment

14.2

Do a Web or literature search for process modeling tools like those mentioned above (or others). What features

do they offer that differentiate them from simpler graphics modeling tools like Visio or SmartDraw?

Refer back to Chapter 2 for a discussion of people- versus IT-related tasks in transaction processing.

Although IT can be useful for BPM, keep in mind the fourth principle above: managing business processes is fundamentally about *people*, not technology/documents. Just as general ledger software can assist in maintaining an organization's accounting records but cannot replace human thinking and judgment, IT for business process management is only a tool—not an end in itself.

Activity-Based Management

If you've had an introductory course in management or cost accounting, you're probably familiar with activity-based costing (ABC). ABC is a method of assigning overhead costs to products and services that is more rational and accurate than traditional labor-based allocation methods. But using ABC to compute product costs is only the beginning!

Brewer, Garrison, and Noreen (2008, p. 132) offered the following comments about **activity-based management**. “Basically, activity-based management involves focusing on activities to eliminate waste, decrease processing time, and reduce defects. Activity-based management is used in organizations as diverse as manufacturing companies, hospitals and the U.S. Marine Corps.” ABM projects focus on differentiating value-added from non-value-added activities—a process that involves significant amounts of judgment. Once non-value-added activities have been identified, managers can look for ways to redesign or eliminate them using the principles of business process management.

Reflection and Self-Assessment

14.3

How would you decide the extent to which a process is “value added”?

Cost Management: Strategies for Business Decisions (4th ed.) by Hilton, Maher, and Selto (Irwin/McGraw-Hill, 2008) discusses this topic in much greater depth.

Consider the following example: CHR Corporation’s activity-based costing system includes a pool called “order taking,” which CHR’s managers further subdivided into several activities. Managers ranked each activity on a three-point scale, where “3” stood for an activity with very high value and “1” stood for an activity with very low value. Note: Three-point scales are just one good option for the ranking. While a two-point classification (value-added or non-value-added) may be too restrictive, scales might include four or more points. The activities, their costs, and rankings are shown below:

Activity Name	Total Cost for a Typical Order	Ranking
Take phone order	\$30	3
Input phone order to computer system	10	1
Correct errors	15	1
Transmit order information to warehouse	5	2
Transmit order information to accounting	5	1
	<u>\$65</u>	

Notice that “level one” activities (those that add the least value) constitute nearly half of the total cost for a typical order!

Ranking	Cost	Percent of Total Cost
3	\$30	46%
2	5	8
1	30	46

If CHR used business process management to reduce, or even eliminate, the three lowest-ranked activities, its product cost would decline significantly, enabling it to compete more effectively in its markets.

For example, CHR could eliminate “input phone order to computer system” as a separate activity if the people taking the orders completed that task as part of the order-taking

process. Various IT controls, such as echo checks and limit checks, would be useful in reducing the number of input errors; thus, the need to correct errors would be reduced/eliminated. And, if the organization kept its records in a relational database or enterprise resource planning system, managers could assign access privileges that would eliminate the need to transmit orders. “Access privileges” means limiting systems users’ ability to look at various parts of a system. For example, as a faculty advisor, there are things I can see in my school’s ERP system that students cannot see; likewise, there are things my department chair can see that I cannot see.

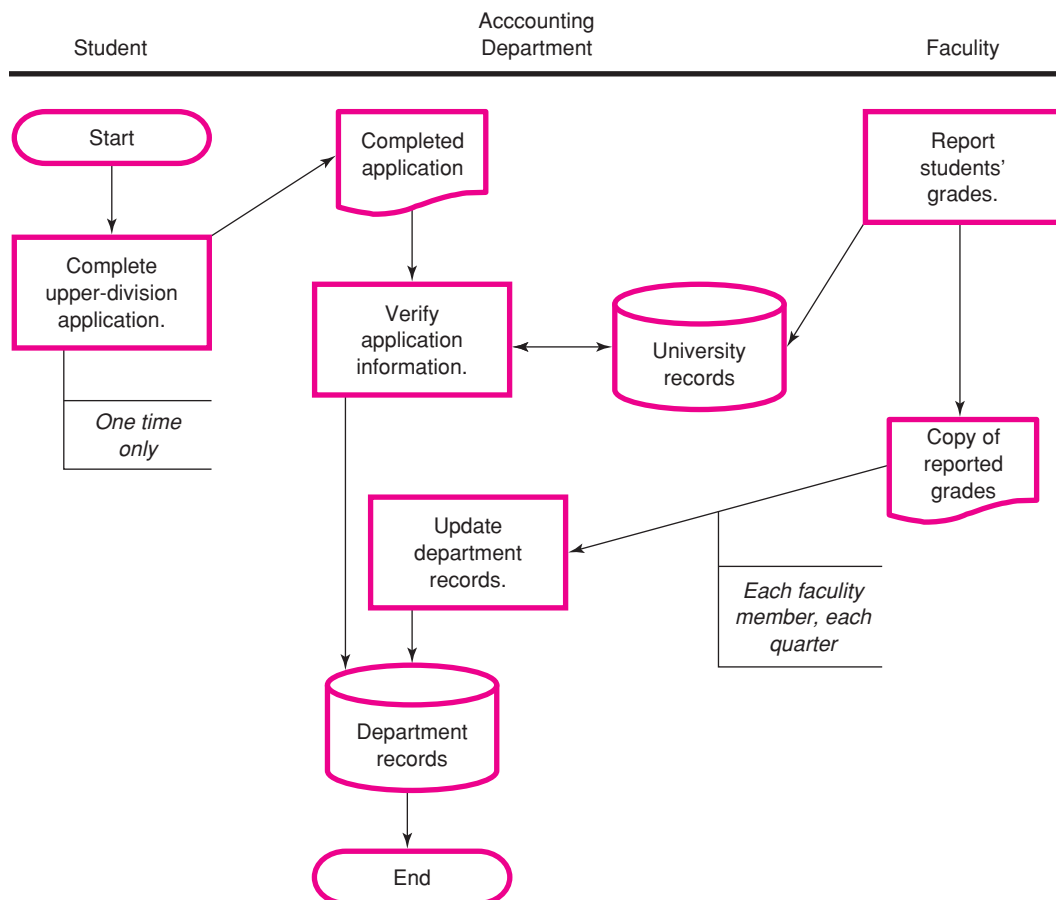
Flowcharting

You might find it helpful to review “Flowcharting and Accounting Information Systems” in Chapter 5.

A well-designed **flowchart** also can help with managing business processes. Flowcharts, as you’re aware, require attention to detail and precision; they typically involve dialogue about business processes and several drafts before they are complete. The dialogue alone can help managers focus on ways to improve business processes, particularly for those that have “been around” in organizations for extended periods of time.

In the list of basic principles above, I mentioned a process redesign for grade reporting in the Accounting Department at Cal Poly Pomona. Figure 14.2 shows a systems flowchart of the old process.

FIGURE 14.2 Original Grade Update Process



Can you spot the redundancy in the original process? Faculty were submitting grades twice: once to the university's database and separately to the Accounting Department. Frequently, the Accounting Department staff had to make multiple requests for copies of reported grades—an especially difficult task at the start of long breaks (like the summer). When our new department secretary, Ms. Nan Miller, came on board, she figured out a way to extract the grades directly from university records, thus removing the redundancy.

Next, let's look at some additional examples of actual BPM projects.

CASE STUDIES

We'll look at three specific **examples of BPM** in this section: governmental activities in Tyler, Texas; enterprise design team project at a large midwestern hospital; and special order processing in a Swiss bank.

Tyler, Texas

You can see some of the results of the city's efforts at www.tylertexas.com

Fagan (2006, p. 104) described how the City of Tyler implemented “e-government initiatives that involve city, county and state government entities along with a number of local citizens and community organizations.” One initiative focused on providing information via the Web; the project involved BPM in the sense that the city was changing the way people accessed information about economic issues, tourism, and business in the area. In addition to information gathering, people using the Web site can download commonly used forms (such as building permits), query the local library database, and pay traffic tickets online.

After describing the Web portal and two other BPM projects in Tyler, Fagan concluded (p. 107): “Future efforts to improve the online offerings available through the Tyler Texas portal will require new approaches to identify the specific services that citizens need. An approach based upon a BPM mindset can help the diverse participants work toward breaking down organizational and departmental barriers in order to focus on their client's needs.”

Hospital

Since the Tyler example focused on information technology, this case will describe the top-down BPM effort.

Huq and Martin (2006) studied BPM efforts in a large midwestern hospital. They discuss two different projects at the hospital; the first used a top-down approach while the second focused more on information technology as a tool for BPM. The hospital's management surveyed its customers to find out the extent to which customers were pleased with the hospital's products and services. Based on those results (p. 580), “the hospital noted that their major weaknesses were inflexibility, poor service delivery performance, bureaucracy, lack of cross training and high cost of services.” Management established a cross-functional team (the “Enterprise Design Team”) to address customers' concerns. The team then identified eight processes split into two categories: (a) core and (b) management and support. After working with that structure for six months, the hospital completed a major merger; the new executive team dismantled the Enterprise Design Team and started a technology-based approach for BPM.

Reflection and Self-Assessment

14.4

The hospital's top-down BPM effort was largely viewed as a failure, leading to the change in approach. What

factors might have contributed to the failure, and how could they have been addressed successfully?

Swiss Bank

Kung and Hagen (2007) looked at four BPM efforts in a Swiss bank, one of which was a “special orders” process. Many banking transactions can be accomplished in a fairly routine way: opening accounts, cashing checks, receiving deposits, and such. But customers often request products and services that fall outside those routine transactions. Prior to its BPM effort, the Swiss bank’s special order processing presented several challenges (Kung and Hagen, pp. 483–84):

- Involvement of many different functions and roles throughout the bank.
- Unique steps, often requiring different tools and methods of communication.
- Long cycle times.

To address those challenges and provide better customer service, the bank designed a loosely structured, generic process for handling special orders. Customers’ special orders are managed via a database that tracks both progress and the people involved. According to Kung and Hagen (p. 485), “This setup makes it possible that responsibility of each special order is determined and for each case the current state as well as the currently involved agent can be identified.” The BPM effort resulted in reduced cycle times, faster task completion, and improved productivity; employees were therefore able to focus more on providing excellent customer service.

CRITICAL THINKING

So far in this chapter, we’ve looked at some basic principles and tools for business process management, along with a few case examples. But, like nearly everything in organizations, business process management isn’t a simple matter of deciding to do something. Especially in tight economic times (such as we’re experiencing as I write this in January 2009), every new idea needs to pass a cost-benefit test. So, let’s take a look in this section at how you might conduct such an analysis for a BPM project.

At least three important principles govern most cost–benefit analyses:

- Only incremental costs and benefits are financially relevant in decision making.
- Not all costs and benefits can be expressed financially, so every analysis involves some subjectivity and judgment.
- For projects that will span more than one year, cash flows should be discounted to their present value.

By this time in your accounting education, you’ve probably had at least one introductory management accounting course; the first two principles should seem familiar from there. You probably applied those principles in short-term decision contexts, such as make or buy, special orders, and product discontinuance. Because I’m fairly certain you’ve studied that material, I’m not going to talk more about it here; if you need a review, check out a management or cost accounting text.

If you’ve had a finance and/or intermediate accounting class, you’ve probably run across the idea of the “time value of money” and how to discount future cash flows. In case you haven’t, here’s a *very* brief overview of the basic concepts:

- Money has a time value, meaning that a fixed amount of cash received today is worth more than the same amount of cash received in the future. Why? Because the cash today can be invested so that it will be greater in the future.
- The time value of money is unrelated to the idea of inflation. Even in an inflation-free economy, money would still have a time value.

- *Present value* refers to money exchanged today, while *future value* refers to money exchanged at some point in the future. A *discount rate* is the assumed interest rate at which money will be invested.

If you received \$100 today and invested it at 10 percent, how much money would you have in a year? \$110, calculated as $\$100 + \$100 \times 10\%$, or $\$100 \times 1.1$. If you left the \$110 for another year, how much would you have? \$121, calculated as $\$110 + \$110 \times 10\%$, or $\$110 \times 1.1$, or $\$100 \times 1.1^2$. Here's how it would look in equation form:

$$\$121 = \$100 \times 1.1^2$$

In that equation:

- \$100 is the present value
- \$121 is the future value
- 10% is the discount rate
- 2 is the number of periods

So, in a more generalized format, the equation would look like this:

$$\text{Future value} = \text{Present value} \times (1 + \text{Interest rate})^{\text{Number of periods}}$$

or

$$\text{FV} = \text{PV} \times (1 + i)^n$$

or

$$\text{FV} / (1 + i)^n = \text{PV}$$

I'm sure your head is spinning right about now—that's some pretty technical information in a really summarized format. So, you might want to take a minute to reread it before we look at an example.

Now, consider the following example: The management at TBL Corporation wants to make changes to its product shipment process; they're considering closing their internal shipping department and outsourcing shipping to a firm specializing in that element of the value chain. If TBL keeps the shipping department as it is, the annual cost to operate it is \$12,000. If TBL follows through with the idea of outsourcing, management plans to phase out the shipping department, gradually decreasing its costs over the next few years; at the same time, the cost of outsourcing will increase. Here are some numbers:

Year	Cost of:		
	Shipping Department	Outsourcing	Total
0	\$12,000	\$3,000	\$15,000
1	9,000	4,000	13,000
2	6,000	5,000	11,000
3	3,000	6,000	9,000
4	3,000	6,000	9,000

Year 0 is the current year. The cost of the shipping department might decrease as a result of employee layoffs or retirements; the cost of outsourcing might increase as more packages are shipped in that way. So, if the annual cost of keeping things the same is \$12,000, the incremental benefit/(cost) of outsourcing would be

Year	Incremental Benefit/ (Cost) of Outsourcing
0	\$(3,000)
1	(1,000)
2	1,000
3	3,000
4	3,000

If TBL's discount rate is 8 percent, the present value of those future cash flows would be

Year	Present Value of Incremental Benefit/(Cost)
0	\$(3,000)
1	(926)
2	857
3	2,381
4	2,205

The sum of the present value of the cash flows is \$1,518. From a strictly financial perspective, TBL would be better off from outsourcing. After conducting the quantitative analysis, though, TBL management should consider qualitative issues such as service quality and the impact on shipping department employees. They also must consider how accurate the estimates of future cash flows are, as well as whether 8 percent is the appropriate discount rate.

Summary

Here's a summary of the chapter's main points, as usual, structured according to its objectives:

1. *Explain what business process management is and how it is related to your study of accounting information systems.* Companies create value for their stakeholders via their business processes. And, as stakeholders' needs change, managers should update their business processes, too. BPM, therefore, refers to the tools and techniques managers use to adapt and change their business processes.

In the most generic sense, BPM comprises seven basic steps: (a) Select the process and define its boundaries. (b) Observe, document, and map the process steps and flow. (c) Collect process-related data. (d) Analyze the collected data. (e) Identify and prioritize potential process improvements. (f) Optimize the process. (g) Implement and monitor process improvements.

BPM is an important part of accounting information systems for many reasons: (a) Business processes are at the heart of AIS study; (b) business professionals, including accounting professionals, must think critically to manage processes appropriately; and (c) BPM frequently, though not always, involves information technology.

2. *List and discuss some basic principles of business process management.* The chapter discussed seven principles managers should keep in mind when engaged in BPM activities: (a) Understand how business processes interact with/support organizational strategy. (b) Move away from the "we've always done it this way" mentality. Be open to alternatives. (c) Enlist top management support; ensure that top management can

describe current business processes before trying to reengineer/maintain/modify the processes. (d) Managing business processes is fundamentally about people, not technology/documents. It's important to hire people who can think beyond their little piece of the world and see how what they do fits into the "bigger picture." (e) Don't rely on external consultants to the exclusion of internal employees. Value the experience of people in the organization who are close to the process. (f) When using consultants, make sure the task is well defined, with specific deliverables defined by the company. (g) Communicate early; communicate often. Deal immediately with objections/issues as they arise.

3. *Identify and describe tools and techniques commonly used in managing business processes.* Although every BPM project has some unique characteristics, certain tools are common across a variety of them. Managers may use various forms of information technology for BPM; whether something as simple as flowcharting software, or something more complex like an enterprise resource planning system, IT can be an asset for business process management. Activity-based management, an extension of activity-based costing, also can help realign business processes, particularly with a view toward cost savings versus value added. Finally, systems documentation techniques, whether using information technology or not, can help see both opportunities for improvement and possible new process configurations.
4. *Apply the basic principles, tools, and techniques in diverse organizational contexts.* The chapter looked at three specific cases of BPM projects: the city of Tyler, Texas; a mid-western hospital; and a Swiss bank.

In completing the activities that follow, I hope you'll draw upon your prior study of systems documentation, information technology, and business processes.

Key Terms

activity-based management, 274
basic principles, 272
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generalized model of BPM, 271

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End-of-Chapter Activities

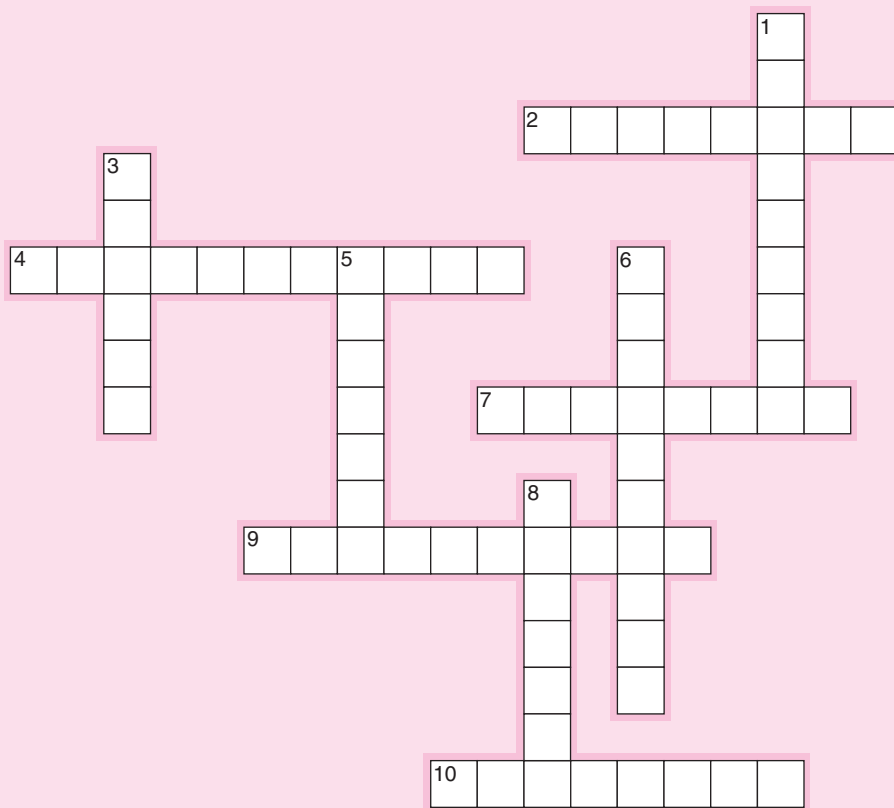
1. *Reading review questions.*
 - a. Define *business process management* in your own words. Explain why BPM can be considered part of accounting information systems.
 - b. List seven generic steps involved in many BPM projects.
 - c. List and discuss seven fundamental principles to keep in mind when undertaking a BPM initiative.
 - d. How can information technology, flowcharting, and activity-based management come into play in BPM?
 - e. Summarize the three BPM cases discussed in the chapter.
 - f. In a format specified by your instructor, respond to the questions for this chapter's "AIS in the Business World."
2. *Making choices and exercising judgment.* The chapter mentions three specific pieces of software organizations often use for BPM: Casewise, ProVision, and Integrify. Use the weighted rating methodology described in Chapter 8 to compare two of them *and* one other BPM software you find on your own. Use the following factors with the weights indicated: features (5), availability of successful case studies (3), and flexibility (4).
3. *Field exercises.*
 - a. Search the internet and/or your school's library to find an example of a successful BPM project. Summarize the project. To what extent does the case follow the seven basic steps suggested by Seppanen, Kumar, and Chandra?
 - b. Interview an accounting or other business professional who has participated in a BPM project. Ask your interviewee to describe the project and to comment on the basic BPM principles discussed in the chapter.
4. *BPM cases.* Read and summarize one of the following articles from the *Business Process Management Journal*. Be prepared to present and discuss your results in whatever form your instructor specifies.
 - a. Sentonin et al., "Business Process Management in a Brazilian Public Research Centre," *Business Process Management Journal* 14, no. 4.
 - b. Romero-Hernandez et al., "Business Process Modeling for a Central Securities Depository," *Business Process Management Journal* 14, no. 3.
 - c. Suhaimi et al., "Information Systems Outsourcing: Motivations and the Implementation Strategy in a Malaysian Bank," *Business Process Management Journal* 13, no. 5.
5. *Risk analysis.* Consider one of the cases described in the chapter and/or one that you summarized in Activity 3(b) above. Use Brown's risk taxonomy (Chapter 4) to identify and describe at least three risks associated with the case(s) you choose. How would you suggest managers address the risks?
6. *BPM applications.* Reexamine at least one of the following cases presented previously in the text. Make at least two suggestions for improvements in the business process described, then draw a flowchart depicting the new business process.
 - a. Chapter 5, Case 1: Cori's Catering Services.
 - b. Chapter 5, Case 2: University Bookstore.
 - c. Chapter 11, Activity 2, reading review problem: Dreambox Creations Inc.
 - d. Chapter 12, Activity 10, internal controls: Brock Company
7. *BPM information technology.* Point your Web browser to www.download.com and search for free software related to business process management. Could any of the forms of IT discussed previously in the text (spreadsheets, relational databases, general ledger, Web development, ERP) accomplish the same tasks? If so, how? If not, why not?

8. *Activity-based management.* BLZ Corporation designs and produces massively multi-player online role-playing games (MMORPG). Designing a completely new game can take up to two years, while expanding an existing game usually takes 8 to 10 months. Some of BLZ’s activities, with approximate costs, are shown below:

- Beta testing new games, \$2,400
- Developing content for expansions, \$7,680
- Fixing software bugs, \$16,470
- Manufacturing game software CDs, \$50,625
- Marketing and advertising, \$7,000
- Processing returned CDs, \$3,800
- Responding to player questions, \$1,900
- Shipping CDs to retail stores, \$8,100
- Writing instructional manuals, \$4,200
- Recording transactions in the accounting information system, \$9,430

- a. Use a four-point scale to categorize the value added by each process, where “1” stands for an activity with little or no value and “4” stands for an activity with very high value.
- b. Prepare a pie chart that shows the percentage of cost in each category.
- c. Consider at least two activities you classify as having the lowest value. For each activity, suggest at least two ways it could be improved. Explain your reasoning.

9. *Crossword puzzle.*



Across

2. Software that can be used in BPM.
4. Should be used cautiously in BPM, and always with well-defined outcomes.
7. ____-based management is one tool for BPM.
9. Must be defined at the start of a BPM project.
10. The “B” in BPM.

Down

1. The “M” in BPM.
 3. BPM is fundamentally about ____.
 5. BPM minimizes or eliminates processes that don’t do this (two words).
 6. Purpose of internal control closely related to BPM.
 8. The “P” in BPM.
- 10. Terminology.** Please match each item on the left with the most appropriate item on the right.

- | | |
|--|-------------------------------|
| 1. Best motivation for starting BPM | a. Activity-based management |
| 2. Essential element of all BPM projects | b. Boundaries |
| 3. Focuses on eliminating waste | c. Communication |
| 4. How an organization competes in its markets | d. Consultants |
| 5. Internal control purpose associated with BPM | e. Efficiency |
| 6. Must be defined before starting a BPM project | f. Information technology |
| 7. Often used in, but not essential to, BPM | g. Non-value-added activities |
| 8. Should be frequent in BPM | h. People |
| 9. Should be reduced or eliminated | i. Stakeholders’ needs |
| 10. Should be used cautiously in BPM | j. Strategy |

11. Multiple choice questions.

1. Business process management can be defined as
 - a. A business improvement strategy based on documenting, analyzing, and redesigning processes for greater performance.
 - b. A method of efficiently aligning an organization with the wants and needs of clients.
 - c. Both A and B.
 - d. Neither A nor B.
2. The first step in many BPM projects is selecting a process and defining its boundaries. Which of the following is the best example of a well-defined process?
 - a. Keeping clients happy
 - b. Motivating employees
 - c. Producing goods
 - d. Issuing capital stock
3. The fourth step in many BPM projects is analyzing data, which could be accomplished with
 - a. A flowchart.
 - b. A value-added study.
 - c. An analysis of the organization’s strategy.
 - d. The FASB Conceptual Framework.

4. Which of the following is the best example of a BPM project that promotes strong internal control?
 - a. Developing an online order-taking process
 - b. Drawing a flowchart of a company's new production process
 - c. Hiring an external consultant to make recommendations about internal control
 - d. Increasing supervision over employees
5. Accountants can be involved in business process management through
 - I. Documenting processes.
 - II. Designing process inputs and outputs.
 - III. Auditing.
 - a. I and II only
 - b. II and III only
 - c. I and III only
 - d. I, II, and III
6. Business processes should support
 - a. Organizational strategy.
 - b. Top management.
 - c. Information technology.
 - d. Employees.
7. All of the following are elements of a value-added activity except
 - a. A customer is willing to pay for it.
 - b. It involves a transformation of a process or activity.
 - c. It is performed correctly the first time.
 - d. It involves information technology.
8. Which of the following statements is most true?
 - a. Organizations that use activity-based costing must use activity-based management.
 - b. An organization must implement activity-based management before it can implement activity-based costing.
 - c. Organizations that use activity-based management are likely to use activity-based costing as well.
 - d. Activity-based management is the best way to manage business processes.
9. Examples of value-added activities include
 - I. Ordering raw materials.
 - II. Testing product quality.
 - III. Fueling delivery trucks.
 - a. I and II only
 - b. I and III only
 - c. II and III only
 - d. I, II, and III
10. Which of the following generic BPM steps occurs first?
 - a. Analyze process-related data.
 - b. Collect process-related data.
 - c. Identify potential improvements.
 - d. Optimize the process.

12. *Statement evaluation.* Indicate whether each statement below is (i) always true, (ii) sometimes true, or (iii) never true. For those that are (ii) sometimes true, explain when the statement is true.
- a. Information technology is an important part of business process management projects.
 - b. “Value added” is defined by external customers.
 - c. External consultants are always necessary for successful BPM projects.
 - d. A process can be value added if it helps employees work more efficiently.
 - e. Fixing product defects is not a value-added activity.
 - f. Many forms of information technology can be used in managing business processes.
 - g. Business processes are only value added if external customers are willing to pay for them.
 - h. A service-based business has more opportunities for BPM projects than a manufacturing business.
 - i. Managing business processes requires critical thinking and judgment.
 - j. Data flow diagrams are less useful than flowcharts in managing business processes.