

## LEARNING OUTCOMES

1. Describe business processes and their importance to an organization.
2. Differentiate between customer facing processes and business facing processes.
3. Compare the continuous process improvement model and business process reengineering.
4. Describe the importance of business process modeling (or mapping) and business process models.
5. Explain business process management along with the reason for its importance to an organization.

## Introduction

The benefits of business process improvement vary, but a rough rule of thumb is that it will, at a minimum, double the gains of a project by streamlining outdated practices, enhancing efficiency, promoting compliance and standardization, and making an organization more agile. Business process improvement involves three key steps:

1. Measure what matters to most customers.
2. Monitor the performance of key business processes.
3. Assign accountability for process improvement.

Comprehensive business process management systems help organizations model and define complete business processes, implement those processes integrated with existing systems, and provide business leaders with the ability to analyze, manage, and improve the execution of processes in real time.

## Examining Business Processes

Waiting in line at a grocery store is a great example of the need for process improvement. In this case, the “process” is called checkout, and the purpose is to pay for and bag groceries. The process begins when a customer steps into line and ends

when the customer receives the receipt and leaves the store. The *process* steps are the activities the customer and store personnel do to complete the transaction. A **business process** is a standardized set of activities that accomplish a specific task, such as processing a customer's order. Business processes transform a set of inputs into a set of outputs (goods or services) for another person or process by using people and tools. This simple example describes a customer checkout process. Imagine other business processes: developing new products, building a new home, ordering clothes from mail-order companies, requesting new telephone service from a telephone company, administering Social Security payments, and so on.

Examining business processes helps an organization determine bottlenecks and identify outdated, duplicate, and smooth running processes. To stay competitive, organizations must optimize and automate their business processes. To identify which business processes need to be optimized, the organization must clearly understand its business processes, which typically have the following important characteristics:

- The processes have internal and external users.
- A process is cross-departmental. Departments are functional towers of expertise, but processes cut across departments.
- The processes occur across organizations.
- The processes are based on how work is done in the organization.
- Every process should be documented and fully understood by everyone participating in the process.
- Processes should be modeled to promote complete understanding.

A business process can be viewed as a “value chain.” By contributing to the creation or delivery of a product or service, each step in a process should add value to the preceding step. For example, one step in the product development process consists of conducting market acceptance tests. This step adds value by ensuring that the product meets the needs of the market before the product or service is finalized. A tremendous amount of learning and improvement can result from the documentation and examination of the input-output linkages. However, between every input and every output is a process. Knowledge and improvement can only be completed by peeling the layers of the onion and examining the processes through which inputs are converted into outputs. Figure T12.1 displays several sample business processes.

Some processes (such as a programming process) may be contained wholly within a single department. However, most processes (such as ordering a product) are cross-departmental, spanning the entire organization. Figure T12.2 displays the different categories of cross-departmental business processes. **Customer facing processes** result in a product or service that is received by an organization's external customer. **Business facing processes** are invisible to the external customer but essential to the effective management of the business and include goal setting, day-to-day planning, performance feedback, rewards, and resource allocation.

## UNDERSTANDING THE IMPORTANCE OF BUSINESS PROCESSES

Organizations are only as effective as their business processes. Developing logical business processes can help an organization achieve its goals. For example, an automobile manufacturer might have a goal to reduce the time it takes to deliver a car to a customer. The automobile manufacturer cannot hope to meet this goal with an inefficient ordering process or a convoluted distribution process. Sales representatives might be making mistakes when completing order forms, data-entry clerks might not accurately code order information, and dock crews might be inefficiently loading cars onto trucks. All of these errors increase the time it will take to get the



**FIGURE T12.1**

Sample Business Processes

Sample Business Processes
<b>ACCOUNTING BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>■ Accounts payable</li><li>■ Accounts receivable</li><li>■ Bad/NSF checks</li><li>■ Bank account reconciliation</li><li>■ Cash receipts</li><li>■ Check requests</li><li>■ Check signing authority</li><li>■ Depreciation</li><li>■ Invoice billings</li><li>■ Petty cash</li><li>■ Month-end closing procedures</li></ul>
<b>CUSTOMER SERVICE BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>■ Customer satisfaction survey</li><li>■ Customer service contact/complaint handling</li><li>■ Guarantee customer service satisfaction</li><li>■ Postsale customer follow-up</li><li>■ Warranty and service policies</li></ul>
<b>ENVIRONMENTAL BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>■ Environmental protection</li><li>■ Hazardous waste management</li><li>■ Air/water/soil resource management</li></ul>
<b>FINANCE BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>■ Account collection</li><li>■ Bank loan applications</li><li>■ Banking policy and relations</li><li>■ Business plans and forecasts</li><li>■ Customer credit approval and credit terms</li><li>■ Exercise of incentive stock options</li><li>■ Property tax assessments</li><li>■ Release of financial or confidential information</li><li>■ Stock transactions</li><li>■ Weekly financial and six-week cash flow reports</li></ul>
<b>HUMAN RESOURCES BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>■ Board of directors and shareholders meetings, minutes, and protocol</li><li>■ Disabilities employment policies</li><li>■ Drug-free workplace employment policies</li><li>■ Employee hiring policies</li><li>■ Employee orientation</li><li>■ Family and medical leave act</li><li>■ Files and records management</li><li>■ Health care benefits</li><li>■ Paid and unpaid time off</li><li>■ Pay and payroll matters</li><li>■ Performance appraisals and salary adjustments</li><li>■ Resignations and terminations</li><li>■ Sexual harassment policies</li><li>■ Training/tuition reimbursement</li><li>■ Travel and entertainment</li><li>■ Workplace rules and guidelines</li><li>■ Workplace safety</li></ul>

### Sample Business Processes

#### MANAGEMENT INFORMATION SYSTEMS BUSINESS PROCESSES

- Disaster recovery procedures
- Backup/recovery procedures
- Service agreements, emergency services, and community resources
- Emergency notification procedures
- Office and department recovery
- User workstation standards
- Use of personal software
- Computer security incident reporting
- Control of computer virus programs
- Computer user/staff training plan
- Internet use policy
- E-mail policy
- Computer support center

#### MANUFACTURING BUSINESS PROCESSES

- Assembly manuals
- Bill of materials
- Calibration for testing and measuring equipment
- FDA inspections
- Manufacturing change orders
- Master parts list and files
- Serial number designation
- Quality control for finished goods
- Quality assurance audit procedure

#### SALES AND MARKETING BUSINESS PROCESSES

- Collection of sales tax
- Copyrights and trademarks
- Marketing plans model number
- Designation public relations
- Return of goods from customers
- Sales leads
- Sales order entry
- Sales training
- Trade shows

#### SHIPPING, PURCHASING, AND INVENTORY CONTROL BUSINESS PROCESSES

- Packing, storage, and distribution
- Physical inventory procedures
- Purchasing procedures
- Receiving, inspection, and stocking of parts and materials
- Shipping and freight claims
- Vendor selection, files, and inspections

FIGURE T12.1

(Continued)

car to the customer. Improving any one of these business processes can have a significant effect on the total distribution process, made up of the order entry, production scheduling, and transportation processes.

IBM Business Consulting Services helped Bank of America's card services division identify \$40 million of simplification and cost savings projects over two years by improving business processes to identify opportunities, eliminate redundancies, consolidate systems/applications, and remove duplicate processes. Within the card services and e-commerce division were several fragmented strategies and IT architectures. These were consolidated and simplified to streamline the business area and provide better and faster response to customer demand.

The scope of the IT strategy and architecture business process realignment project included all consumer card segments (including military, school, airlines, etc.), ATM cards and services, and e-commerce.<sup>1</sup>

**FIGURE T12.2**

Customer Facing, Industry-Specific, and Business Facing Processes

Customer Facing Processes	Industry-Specific Customer Facing Processes	Business Facing Processes
Marketing and sales	Banking—loan processing	Strategic planning
Product development	Insurance—claims processing	Tactical planning
Service development	Government—grant allocation	Budgeting
Manufacturing	Retail—merchandise return	Training
Distribution	Restaurant—food preparation	Purchasing
Billing	Airline—baggage handling	
Order processing	Hotel—reservation handling	
Customer service		

## Business Process Improvement

Improving business processes is paramount for businesses to stay competitive in today’s marketplace. Over the past 10 to 15 years, companies have been forced to improve their business processes because customers are demanding better products and services; if they do not receive what they want from one supplier, they have many others to choose from (hence the competitive issue for businesses). Figure T12.3 displays several opportunities for business process improvement.

Business Process Improvement Examples
Eliminate duplicate activities
Combine related activities
Eliminate multiple reviews and approvals
Eliminate inspections
Simplify processes
Reduce batch sizes
Process in parallel
Implement demand pull
Outsource inefficient activities
Eliminate movement of work
Organize multifunctional teams
Design cellular workplaces
Centralize/decentralize

Many organizations began business process improvement with a continuous improvement model. A **continuous process improvement model** attempts to understand and measure the current process, and make performance improvements accordingly. Figure T12.4 illustrates the basic steps for continuous process improvement. Organizations begin by documenting what they do today, establish some way to measure the process based on what customers want, perform the process, measure the results, and then identify improvement opportunities based on the collected information. The next step is to implement process improvements, and then measure the performance of the new process. This loop repeats over and over again and is called continuous process improvement. It might also be called business process improvement or functional process improvement.

This method for improving business processes is effective to obtain gradual, incremental improvement. However, several factors have accelerated the need to improve business processes. The most obvious is technology. New technologies (like the Internet and wireless) rapidly bring new capabilities to businesses, thereby raising the competitive bar and the need to improve business processes dramatically.

Another apparent trend is the opening of world markets and increased free trade. Such changes bring more companies into the marketplace, adding to the competition. In today’s marketplace, major changes are required just to stay in

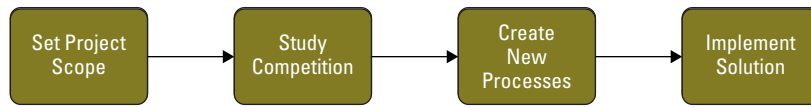
**FIGURE T12.3**

Opportunities for Business Process Improvement

**FIGURE T12.4**

Continuous Process Improvement Model





**FIGURE T12.5**  
Business Process Reengineering Model

the game. As a result, companies have requested methods for faster business process improvement. Also, companies want breakthrough performance changes, not just incremental changes, and they want it now. Because the rate of change has increased for everyone, few businesses can afford a slow change process. One approach for rapid change and dramatic improvement is business process reengineering (BPR).

## BUSINESS PROCESS REENGINEERING (BPR)

An organization must continuously revise and reexamine its decisions, goals, and targets to improve its performance. A bank may have many activities, such as investing, credit cards, loans, and so on, and it may be involved in cross-selling (e.g., insurance) with other preferred vendors in the market. If the credit card department is not functioning in an efficient manner, the bank might reengineer the credit card business process. This activity, **business process reengineering (BPR)**, is the analysis and redesign of workflow within and between enterprises. BPR relies on a different school of thought than continuous process improvement. *In the extreme*, BPR assumes the current process is irrelevant, does not work, or is broken and must be overhauled from scratch. Such a clean slate enables business process designers to disassociate themselves from today's process and focus on a new process. It is like the designers projecting themselves into the future and asking: What should the process look like? What do customers want it to look like? What do other employees want it to look like? How do best-in-class companies do it? How can new technology facilitate the process?

Figure T12.5 displays the basic steps in a business process reengineering effort. It begins with defining the scope and objectives of the reengineering project, then goes through a learning process (with customers, employees, competitors, non-competitors, and new technology). Given this knowledge base, the designers can create a vision for the future and design new business processes by creating a plan of action based on the gap between current processes, technologies, structures, and process vision. It is then a matter of implementing the chosen solution. The Department of Defense (DoD) is an expert at reengineering business process. Figure T12.6 highlights the Department of Defense's best-in-class suggestions for a managerial approach to a reengineering effort.

## Business Process Design

After choosing the method of business process improvement that is appropriate for the organization, the process designers must determine the most efficient way to begin revamping the processes. To determine whether each process is appropriately structured, organizations should create a cross-functional team to build process models that display input-output relationships among process-dependent operations and departments. They should create business process models documenting a step-by-step process sequence for the activities that are required to convert inputs to outputs for the specific process.

**Business process modeling** (or **mapping**) is the activity of creating a detailed flow chart or process map of a work process showing its inputs, tasks, and activities, in a structured sequence. A **business process model** is a graphic description of a process, showing the sequence of process tasks, which is developed for a specific

**FIGURE T12.6**

Managerial Approach to Reengineering Projects

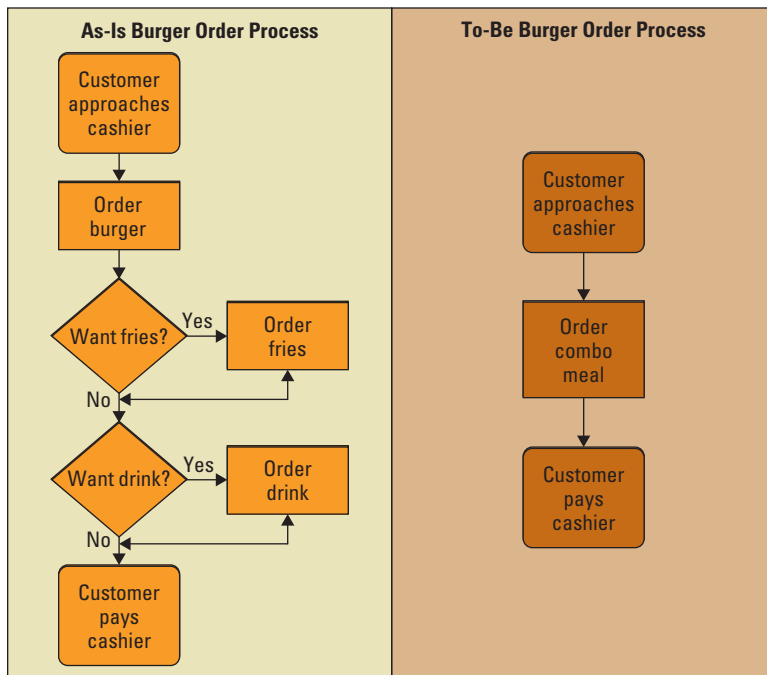
Managerial Approach to Reengineering Projects	
1.	<b>Define the scope.</b> Define functional objectives; determine the management strategy to be followed in streamlining and standardizing processes; and establish the process, data, and information systems baselines from which to begin process improvement.
2.	<b>Analyze.</b> Analyze business processes to eliminate non-value-added processes; simplify and streamline processes of little value; and identify more effective and efficient alternatives to the process, data, and system baselines.
3.	<b>Evaluate.</b> Conduct a preliminary, functional, economic analysis to evaluate alternatives to baseline processes and select a preferred course of action.
4.	<b>Plan.</b> Develop detailed statements of requirements, baseline impacts, costs, benefits, and schedules to implement the planned course of action.
5.	<b>Approve.</b> Finalize the functional economic analysis using information from the planning data, and present to senior management for approval to proceed with the proposed process improvements and any associated data or system changes.
6.	<b>Execute.</b> Execute the approved process and data changes, and provide functional management oversight of any associated information system changes.

purpose and from a selected viewpoint. A set of one or more process models details the many functions of a system or subject area with graphics and text and its purpose is to:

- Expose process detail gradually and in a controlled manner.
- Encourage conciseness and accuracy in describing the process model.
- Focus attention on the process model interfaces.
- Provide a powerful process analysis and consistent design vocabulary.

**FIGURE T12.7**

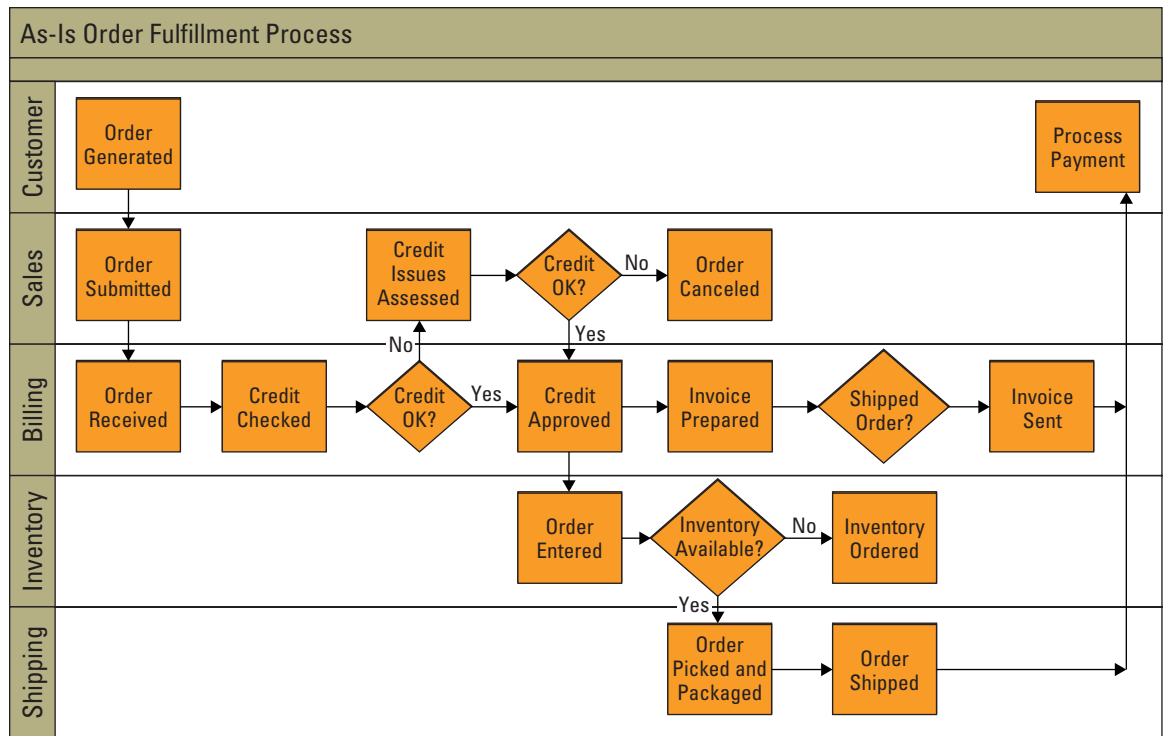
As-Is and To-Be Process Model for Ordering a Hamburger



A process model typically displays activities as boxes and uses arrows to represent data and interfaces. Process modeling usually begins with a functional process representation of *what* the process problem is or an As-Is process model. **As-Is process models** represent the current state of the operation that has been mapped, without

any specific improvements or changes to existing processes. The next step is to build a To-Be process model that displays *how* the process problem will be solved or implemented. **To-Be process models** show the results of applying change improvement opportunities to the current (As-Is) process model. This approach ensures that the process is fully and clearly understood before the details of a process solution are decided. The To-Be process model shows *how* the *what* is to be realized. Figure T12.7 displays the As-Is and To-Be process models for ordering a hamburger.

Analyzing As-Is business process models leads to success in business process reengineering since these diagrams are very powerful in visualizing the activities, processes, and data flow of an organization. As-Is and To-Be process models are integral in process reengineering projects. Figure T12.8 illustrates an As-Is process



**FIGURE T12.8**  
As-Is Process Model for Order Entry

model of an order-filling process developed by a process modeling team representing all departments that contribute to the process. The process modeling team traces the process of converting the input (orders) through all the intervening steps until the final required output (payment) is produced. The map shows how all departments are involved as the order is processed.

It is easy to become bogged down in excessive detail when creating an As-Is process model. The objective is to aggressively eliminate, simplify, or improve the To-Be processes. Successful process improvement efforts result in positive answers to the key process design or improvement question: Is this the most efficient and effective process for accomplishing the process goals? This process modeling structure allows the team to identify all the critical interfaces, overlay the time to complete various processes, start to define the opportunities for process simulation, and identify disconnects (illogical, missing, or extraneous steps) in the processes. Figure T12.9 displays sample disconnects in the order filling process in Figure T12.8.

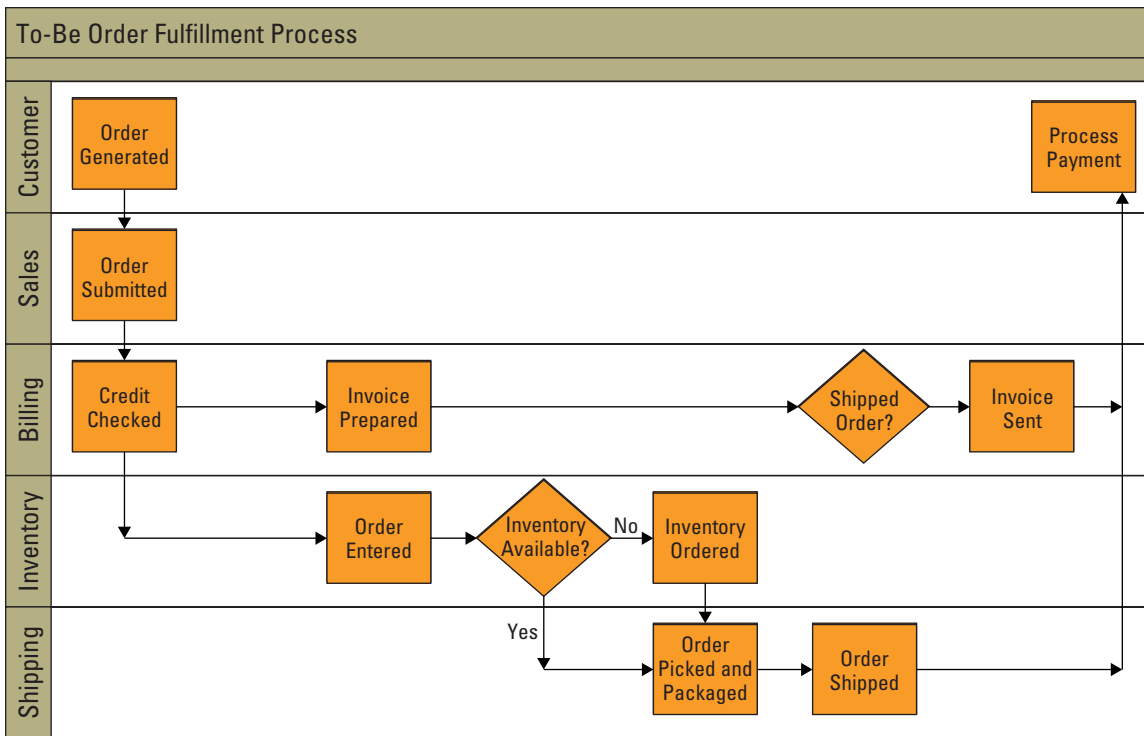
The team then creates a To-Be process model, which reflects a disconnect-free order fulfillment process (see Figure T12.10). Disconnects fixed by the new process include

- Direct order entry by sales, eliminating sales administration.
- Parallel order processing and credit checking.
- Elimination of multiple order-entry and order-logging steps.

Issues in the As-Is Order Process Model
■ Sales representatives take too long to submit orders.
■ There are too many process steps.
■ Sales administration slows down the process by batch-processing orders.
■ Credit checking is performed for both old and new customers.
■ Credit checking holds up the process because it is done before (rather than concurrently with) order picking.

**FIGURE T12.9**  
Issues in the As-Is Process Model for Order Entry





**FIGURE T12.10**  
To-Be Process Model  
for Order Entry

The consulting firm KPMG Peat Marwick uses process modeling as part of its business reengineering practice. Recently the firm helped a large financial services company slash costs and improve productivity in its Manufactured Housing Finance Division. Turnaround time for loan approval was reduced by half, using 40 percent fewer staff members.

Modeling helped the team analyze the complex aspects of the project. “In parts of the loan origination process, a lot of things happen in a short period of time,” according to team leader Bob Karrick of KPMG. “During data capture, information is pulled from a number of different sources, and the person doing the risk assessment has to make judgment calls at different points throughout the process. There is often a need to stop, raise questions, make follow-up calls, and so on and then continue with the process modeling effort. Modeling allows us to do a thorough analysis that takes into account all these decision points and variables.”<sup>2</sup>

### SELECTING A PROCESS TO REENGINEER

An organization can reengineer its cross-departmental business processes or an individual department’s business processes according to its needs. When selecting a business process to reengineer, wise organizations will focus on those core processes that are critical to their performance, rather than marginal processes that have little impact. Reengineering practitioners can use several criteria to determine the importance of the process:

- Is the process broken?
- Is it feasible that reengineering of this process will succeed?
- Does it have a high impact on the agency’s strategic direction?
- Does it significantly impact customer satisfaction?
- Is it antiquated?
- Does it fall far below best-in-class?
- Is it crucial for productivity improvement?
- Will savings from automation be clearly visible?
- Is the return on investment from implementation high and preferably immediate?

# Business Process Management (BPM)

A key advantage of technology is its ability to improve business processes. Working faster and smarter has become a necessity for companies. Initial emphasis was given to areas such as production, accounting, procurement, and logistics. The next big areas to discover technology's value in business process were sales and marketing automation, customer relationship management, and supplier relationship management. Some of these processes involve several departments of the company and some are the result of real-time interaction of the company with its suppliers, customers, and other business partners. The latest area to discover the power of technology in automating and reengineering business process is business process management. **Business process management (BPM)** integrates all of an organization's business process to make individual processes more efficient. BPM can be used to solve a single glitch or to create one unifying system to consolidate a myriad of processes.

Many organizations are unhappy with their current mix of software applications and dealing with business processes that are subject to constant change. These organizations are turning to BPM systems that can flexibly automate their processes and glue their enterprise applications together. Figure T12.11 displays the key reasons organizations are embracing BPM technologies.

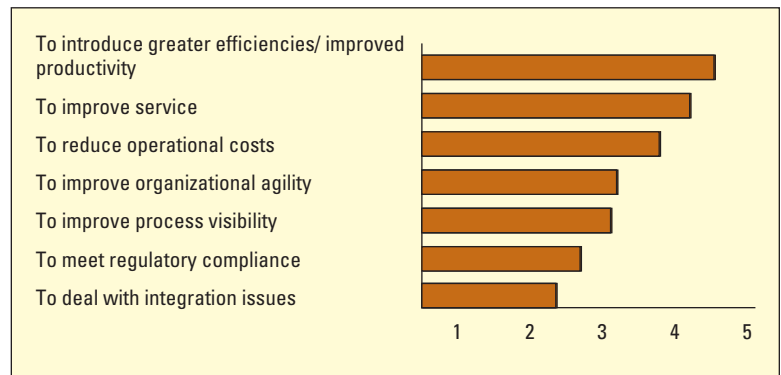
BPM technologies effectively track and orchestrate the business process. BPM can automate tasks involving information from multiple systems, with rules to define the sequence in which the tasks are performed as well as responsibilities, conditions, and other aspects of the process (see Figure T12.12 for BPM benefits). BPM not only allows a business process to be executed more efficiently, but it also provides the tools to measure performance and identify opportunities for improvement—as well as to easily make changes in processes to act upon those opportunities such as:

- Bringing processes, people, and information together.
- Identifying the business processes is relatively easy. Breaking down the barriers between business areas and finding owners for the processes are difficult.
- Managing business processes within the enterprise and outside the enterprise with suppliers, business partners, and customers.
- Looking at automation horizontally instead of vertically.

## IS BPM FOR BUSINESS OR IT?

A good BPM solution requires two great parts to work together as one. Since BPM solutions cross application and system boundaries, they often need to be sanctioned and implemented by the IT organization, while at the same time BPM products are business tools that business managers need to own. Therefore, confusion often arises in companies as to whether business or IT managers should be responsible for driving the selection of a new BPM solution.

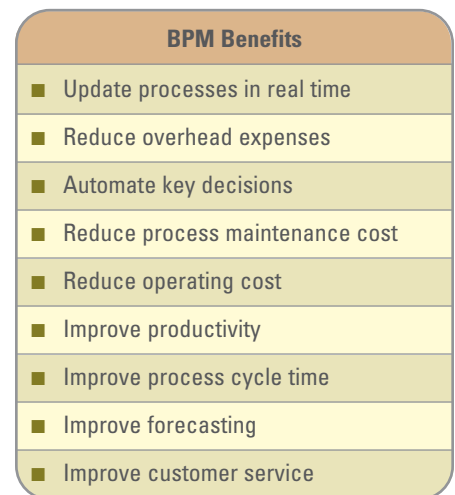
The key requirement for BPM's success in an organization is the understanding that it is a collaboration of business and IT, and thus both parties need to be involved in evaluating, selecting, and implementing a BPM solution. IT managers need to understand the business drivers behind the processes, and business managers need to understand the



Scale 1 to 5 where 1 = not important and 5 = very important

**FIGURE T12.11**  
Key Reasons for BPM

**FIGURE T12.12**  
Benefits of BPM



impact the BPM solution may have on the infrastructure. Generally, companies that have successfully deployed BPM solutions are those whose business and IT groups have worked together as a cohesive team.

All companies can benefit from a better understanding of their key business processes, analyzing them for areas of improvement and implementing improvements. BPM applications have been successfully developed to improve complex business issues of some medium- to large-sized companies. Like many large-scale implementation projects, BPM solutions are most successful in companies with a good understanding of their technology landscape and management willing to approach business in a new way. BPM solutions are truly driven by the business process and the company's owners.

Effective BPM solutions allow business owners to manage many aspects of the technology through business rules they develop and maintain. Companies that cannot support or manage cultural and organizational changes may lack positive BPM results.

Tool Name	Company Name
BPM Suite	Ultimus
Process Suite	Staffware
Business Manager	Savvion
Pega Rules Process Commander	PegaSystem
E Work Vision	MetaStorm
Team Works	Lombardi Software
Intalio	Intalio
Bizflow	Handysoft
FugeoBPM	Fugeo
Business Process Manager	Filenet

## BPM TOOLS

**Business process management tools** are used to create an application that is helpful in designing business process models and also helpful in simulating, optimizing, monitoring, and maintaining various processes that occur within an organization. Many tasks are involved in achieving a goal, and these tasks are done either manually or with the help of software systems. For example, if an organization needs to buy a software application that costs \$6 million, then a request has to be approved by several authorities and managers. The request approval may be done manually. However, when a person applies for a loan of \$300,000, several internal and external business processes are triggered to find out details about that person before approving the loan. For these activities, BPM tool creates an application

that coordinates the manual and automated tasks. Figure T12.13 displays several popular BPM tools.

**FIGURE T12.13**  
Popular BPM Tools

## BPM RISKS AND REWARDS

If an organization is considering BPM, it must be aware of the risks involved in implementing these systems. One factor that commonly derails a BPM project has nothing to do with technology and everything to do with people. BPM projects involve cultural and organizational changes that companies must make to support the new management approach required for success. Where 10 area leaders once controlled 10 pieces of an end-to-end process, there is now a new group involved in implementing a BPM solution across all these areas. Suddenly the span of control is consolidated and all are accountable to the whole process, not just one piece of the puzzle.

The added benefit of BPM is not only a technology solution, but also a business solution. BPM is a new business architecture and approach to managing the process and enabling proactive, continuous improvement. The new organizational structure and roles created to support BPM help maximize the continuous benefits to ensure success.

An IT director from a large financial services company gave this feedback when asked about his experience in using a BPM solution to improve the company's

Critical Success Factors for BPM Projects	
<b>1. Understand reengineering.</b>	<ul style="list-style-type: none"> <li>■ Understand business process fundamentals.</li> <li>■ Know what reengineering is.</li> <li>■ Differentiate and integrate process improvement approaches.</li> </ul>
<b>2. Build a business and political case.</b>	<ul style="list-style-type: none"> <li>■ Have necessary and sufficient business (mission delivery) reasons for reengineering.</li> <li>■ Have the organizational commitment and capacity to initiate and sustain reengineering.</li> <li>■ Secure and sustain political support for reengineering projects.</li> </ul>
<b>3. Adopt a process management approach.</b>	<ul style="list-style-type: none"> <li>■ Understand the organizational mandate and set mission-strategic directions and goals cascading to process-specific goals and decision making across and down the organization.</li> <li>■ Define, model, and prioritize business processes important for mission performance.</li> <li>■ Practice hands-on senior management ownership of process improvement through personal involvement, responsibility, and decision making.</li> <li>■ Adjust organizational structure to better support process management initiatives.</li> <li>■ Create an assessment program to evaluate process management.</li> </ul>
<b>4. Measure and track performance continuously.</b>	<ul style="list-style-type: none"> <li>■ Create organizational understanding of the value of measurement and how it will be used.</li> <li>■ Tie performance management to customer and stakeholder current and future expectations.</li> </ul>
<b>5. Practice change management and provide central support.</b>	<ul style="list-style-type: none"> <li>■ Develop human resource management strategies to support reengineering.</li> <li>■ Build information resources management strategies and a technology framework to support process change.</li> <li>■ Create a central support group to assist and integrate reengineering efforts and other improvement efforts across the organization.</li> <li>■ Create an overarching and project-specific internal and external communication and education program.</li> </ul>
<b>6. Manage reengineering projects for results.</b>	<ul style="list-style-type: none"> <li>■ Have a clear criterion to select what should be reengineered.</li> <li>■ Place the project at the right level with a defined reengineering team purpose and goals.</li> <li>■ Use a well-trained, diversified, expert team to ensure optimum project performance.</li> <li>■ Follow a structured, disciplined approach for reengineering.</li> </ul>

**FIGURE T12.14**

Critical Success Factors for BPM Projects

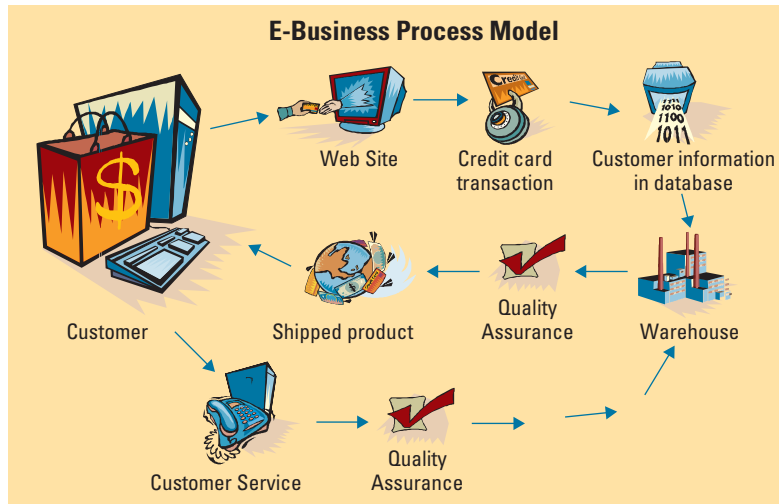
application help desk process. “Before BPM, the company’s application help desk was a manual process, filled with inefficiencies, human error, and no personal accountability. In addition, the old process provided no visibility into the process. There was absolutely no way to track requests, since it was all manual. Business user satisfaction with the process was extremely low. A BPM solution provided a way for the company to automate, execute, manage, and monitor the process in real time. The biggest technical challenge in implementation was ensuring that the user group was self-sufficient. While the company recognized that the IT organization is needed, it wanted to be able to maintain and implement any necessary process changes with little reliance on IT. It views process management as empowering the business users to maintain, control, and monitor the process. BPM goes a long way to enable this process.”<sup>3</sup>

## CRITICAL SUCCESS FACTORS

In a publication for the National Academy of Public Administration, Dr. Sharon L. Caudle identified six critical success factors that ensure government BPM initiatives achieve the desired results (see Figure T12.14).

**FIGURE T12.15**

E-Business Process Model

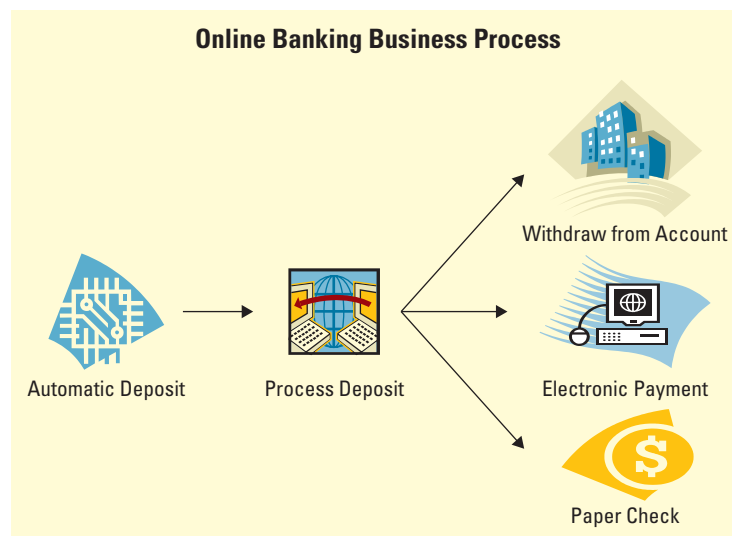


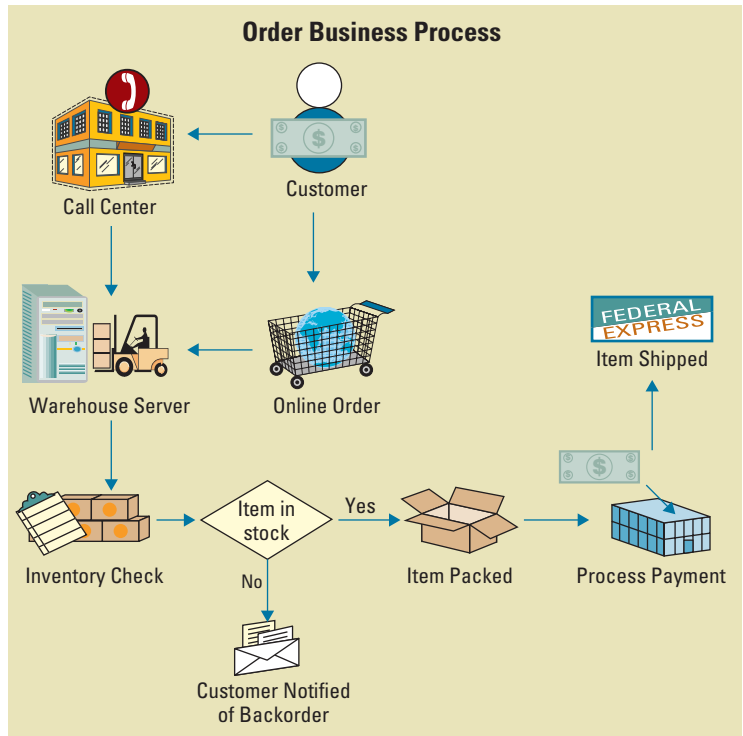
## Business Process Modeling Examples

A picture is worth a thousand words. Just ask Wayne Kendrick, a system analyst for Mobil Oil Corporation in Dallas, Texas. Kendrick, whose work involves planning and designing complex processes, was scheduled to make a presentation to familiarize top management with a number of projects his group was working on. "I was given 10 minutes for my presentation, and I had 20 to 30 pages of detailed documentation to present. Obviously, I could not get through it all in the time allocated." Kendrick turned to business process models to help communicate his projects. "I think people can relate to pictures better than words," Kendrick said. He applied his thinking to his presentation by using Microsoft's Visio to create business process models and graphs to represent the original 30 pages of text. "It was an effective way to get people interested in my projects and to quickly see the importance of each project," he stated. The process models worked and Kendrick received immediate approval to proceed with all of his projects. Figures T12.15 through T12.21 offer examples of business process models.<sup>4</sup>

**FIGURE T12.16**

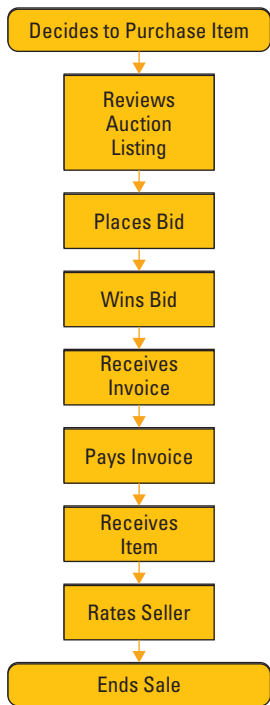
Online Banking Business Process Model





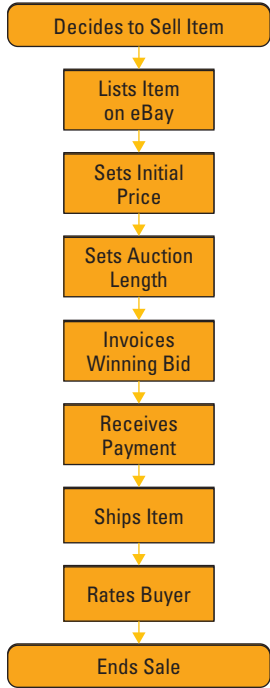
**FIGURE T12.17**  
Customer Order Business  
Process Model

**Purchase an Item on eBay Business Process**



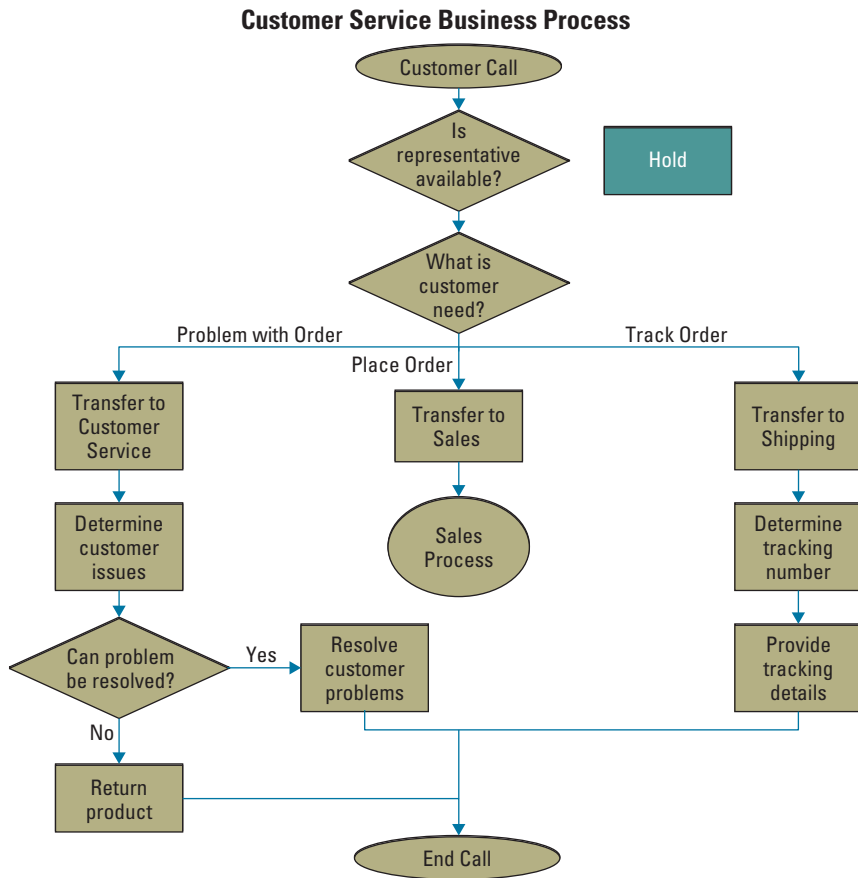
**FIGURE T12.18**  
eBay Buyer Business  
Process Model

**Sell an Item on eBay Business Process**

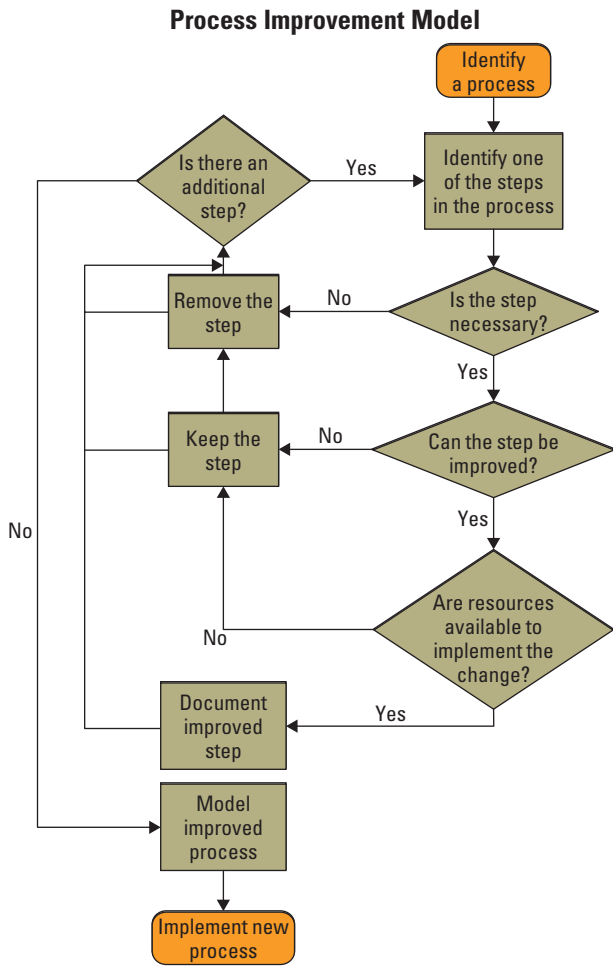


**FIGURE T12.19**  
eBay Seller Business  
Process Model

**FIGURE T12.20**  
Customer Service  
Business Process Model



**FIGURE T12.21**  
Business Process  
Improvement Model



## \* PLUG-IN SUMMARY

Investment in continuous process improvement, business process reengineering, or business process management is the same as any other technology-related investment. Planning the project properly, setting clear goals, educating those people who have to change their mind-set once the system is implemented, and retaining strong management support will help with a successful implementation generating a solid return on investment.

Organizations must go beyond the basics when implementing business process improvement and realize that it is not a one-time project. Management and improvement of end-to-end business processes is difficult and requires more than a simple, one-time effort. Continuously monitoring and improving core business processes will guarantee performance improvements across an organization.

## \* KEY TERMS

As-Is process model, 264

Business facing process, 259

Business process, 259

Business process management (BPM), 267

Business process management tool, 268

Business process model, 263

Business process modeling (or mapping), 263

Business process reengineering (BPR), 263

Continuous process

improvement model, 262

Customer facing process, 259

To-Be process model, 264

## \* MAKING BUSINESS DECISIONS

### 1. Discovering Reengineering Opportunities

In an effort to increase efficiency, your college has hired you to analyze its current business processes for registering for classes. Analyze the current business processes from paying tuition to registering for classes and determine which steps in the process are:

- Broken
- Redundant
- Antiquated

Be sure to define how you would reengineer the processes for efficiency.

### 2. Modeling a Business Process

Do you hate waiting in line at the grocery store? Do you find it frustrating when you go to the movie store and cannot find the movie you wanted to rent? Do you get annoyed when the pizza delivery person brings you the wrong order? This is your chance to reengineer the annoying process that drives you crazy. Choose a problem you are currently experiencing and reengineer the process to make it more efficient. Be sure to provide an As-Is and To-Be process model.



### 3. Revamping Business Processes

The following is the sales order business process for MusicMan. Draw the As-Is process model based on the following narrative:

1. A customer submits an order for goods to MusicMan, a music retailer, through an on-line mechanism such as a browser-based order form. The customer supplies his or her name, the appropriate e-mail address, the state to which the order will be shipped, the desired items (IDs and names), and the requested quantities.
2. The order is received by a processing system, which reads the data and appends an ID number to the order.
3. The order is forwarded to a customer service representative, who checks the customer's credit information.
4. If the credit check fails, the customer service representative is assigned the task of notifying the customer to obtain correct credit information, and the process becomes manual from this point on.
5. If the credit check passes, the system checks a database for the current inventory of the ordered item, according to the item ID, and it compares the quantity of items available with the quantity requested.
6. If the amount of stock is not sufficient to accommodate the order, the order is placed on hold until new inventory arrives. When the system receives notice of new incoming inventory, it repeats step 5 until it can verify that the inventory is sufficient to process the order.
7. If the inventory is sufficient, the order is forwarded simultaneously to a shipping agent who arranges shipment and an accounting agent who instructs the system to generate an invoice for the order.
8. If the system encounters an error in processing the input necessary to calculate the total price for the invoice, including state sales tax, the accounting agent who initiated the billing process is notified and prompted to provide the correct information.
9. The system calculates the total price of the order.
10. The system confirms that the order has been shipped and notifies the customer via e-mail.
11. At any point in the transaction before shipping, the order can be canceled by notification from the customer.

### 4. Revamping Accounts

The accounting department at your company deals with the processing of critical documents. These documents must arrive at their intended destination in a secure and efficient manner. Such documents include invoices, purchase orders, statements, purchase requisitions, financial statements, sales orders, and quotes.

The current processing of documents is done manually, which causes a negative ripple effect. Documents tend to be misplaced or delayed through the mailing process. Unsecured documents are vulnerable to people making changes or seeing confidential documents. In addition, the accounting department incurs costs such as preprinted forms, inefficient distribution, and storage. Explain BPM and how it can be used to revamp the accounting department.

## Notes

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