Operations/Production

Operations management (also called ***production management***) is the management of systems or processes that convert or transform resources (including human resources) into goods and services. The operations department oversees the transformation of input resources (i.e., labor, materials, and machines) into output resources (i.e., products and services). The operations department is critical because it manages the physical processes by which companies take in raw materials, convert them into products, and distribute them to customers. The operations department generally ranks high in the responsibilities of general management.

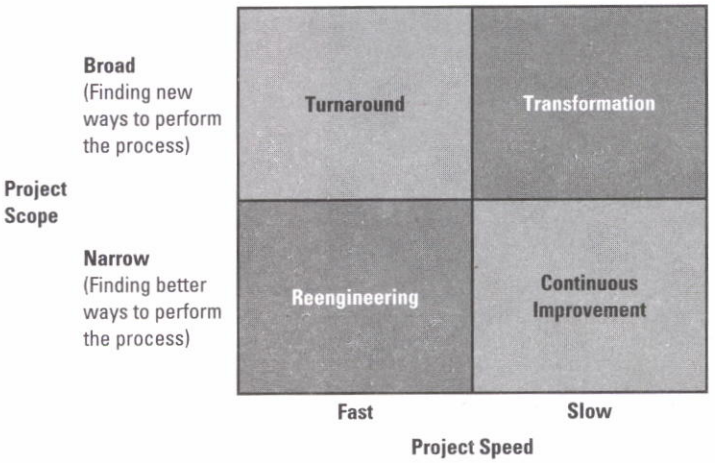
TRANSFORMING CORPORATIONS

Complete transformation of an organization, or an entire industry, is the ultimate goal of successful business process reengineering. Figure B1.14 displays a matrix that has project scope on one axis and project speed on the other. For a project with a relatively narrow scope where the speed is fast, reengineering occurs. Fast speed with broad scope may be a turnaround situation requiring downsizing and tough decision making. A project with a relatively slow speed and narrow scope results in continuous improvement. In the upper right-hand corner of Figure B1.14, where the project scope is broad and the time frame for achieving that change is longer, the term *transformation* is appropriate.

Progressive Insurance offers a great example of a corporation that transformed its entire industry by reengineering the insurance claims process. Progressive Insurance has seen phenomenal growth in an otherwise staid auto insurance market. Progressive's growth came not through acquisitions or mergers—the stuff that puts CEOs on the front page of *The Wall Street Journal*—but through substantial innovations in everyday operations. Progressive reengineered the insurance claim process. When a customer has an auto accident, Progressive representatives are on hand 24 hours a day to take the call and schedule a claims adjustor. The claims adjustor works out of a mobile van, enabling a nine-hour turnaround rather than the industry standard of 10 to 17 days. The Progressive adjustor prepares an estimate on the spot and will, in most cases, write the customer a check immediately and even offer a ride home.

What provoked this innovation? Progressive says it was the strong connection it has to its customers, its willingness to listen to customers' frustrations, and the common sense to act on those frustrations by changing the core of its business operations. As a result of customer feedback, the company did not merely tweak the details of the claims adjustment process. It dramatically rewrote the process, resulting in significant cost savings for the company. More important, however, the hassle-free claims process keeps customers happy and loyal, reducing the significant burden of constantly replacing lapsed customers with new ones.

FIGURE B1.14
Organizational Transformation through BPR



Management Information Systems

Information technology (IT) is a field concerned with the use of technology in managing and processing information. Information technology is a broad subject concerned with technology and other aspects of managing and processing information, especially in large organizations. In particular, IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information. For that reason, computer professionals are often called IT

PLUG-IN

B2 Business Process

LEARNING OUTCOMES

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

LO 1. **Describe business processes and their importance to an organization.**

Introduction

The benefits of business process improvement vary, but a rough rule of thu it will, at a minimum, double the gains of a project by streamlining outdated enhancing efficiency, promoting compliance and standardization, and maki nization 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 organizati and define complete business processes, implement those processes inte existing systems, and provide business leaders with the ability to analyze, m 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 im In this case, the "process" is called checkout, and the purpose is to pay for a ceries. The process begins when a customer steps into line and ends when t receives the receipt and leaves the store. The *process* steps are the activities t and store personnel do to complete the transaction. A ***business process*** is a s

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 B2.1 displays several sample business processes.

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 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 ecommerce 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 ecommerce.

FIGURE B2.1
Sample Business Processes

Sample Business Processes
ACCOUNTING BUSINESS PROCESSES
■ Accounts payable
■ Accounts receivable
■ Bad/NSF checks
■ Bank account reconciliation
■ Cash receipts
■ Check requests
■ Check signing authority
■ Depreciation
■ Invoice billings
■ Petty cash
■ Month-end closing procedures
CUSTOMER SERVICE BUSINESS PROCESSES
■ Customer satisfaction survey
■ Customer service contact/complaint handling
■ Guarantee customer service satisfaction
■ Postsale customer follow-up
■ Warranty and service policies
ENVIRONMENTAL BUSINESS PROCESSES
■ Environmental protection
■ Hazardous waste management
■ Air/water/soil resource management
FINANCE BUSINESS PROCESSES
■ Account collection
■ Bank loan applications
■ Banking policy and relations
■ Business plans and forecasts
■ Customer credit approval and credit terms
■ Exercise of incentive stock options
■ Property tax assessments
■ Release of financial or confidential information
■ Stock transactions
■ Weekly financial and six-week cash flow reports
HUMAN RESOURCES BUSINESS PROCESSES
■ Board of directors and shareholders meetings, minutes, and protocol
■ Disabilities employment policies
■ Drug-free workplace employment policies
■ Employee hiring policies
■ Employee orientation
■ Family and medical leave act
■ Files and records management
■ Health care benefits
■ Paid and unpaid time off
■ Pay and payroll matters
■ Performance appraisals and salary adjustments
■ Resignations and terminations
■ Sexual harassment policies
■ Training/tuition reimbursement
■ Travel and entertainment
■ Workplace rules and guidelines
■ Workplace safety

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
■ Email 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 B2.1
(Continued)

Business Process Improvement

LO 2. **Compare the continuous process improvement model and business process reengineering.**

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 B2.2 displays several opportunities for business process improvement.

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 B2.3

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

FIGURE B2.2

Opportunities for Business Process Improvement

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 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 this 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).

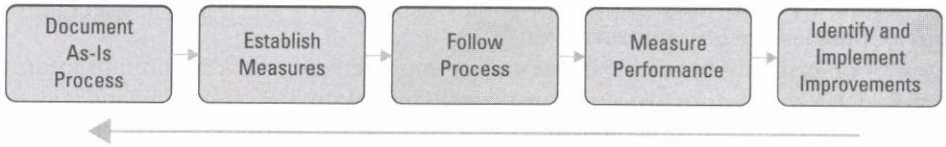
BUSINESS PROCESS REENGINEERING (BPR)

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 B2.4 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, noncompetitors, 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, and 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 processes. Figure B2.5 highlights the Department of Defense's best-in-class suggestions for a managerial approach to a reengineering effort.

FIGURE B2.3

Continuous Process Improvement Model



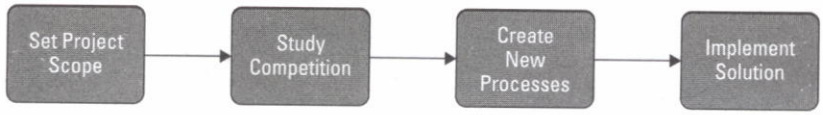


FIGURE B2.4
Business Process Reengineering Model

Managerial Approach to Reengineering Projects
1. **Define the scope.** 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. **Analyze.** 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. **Evaluate.** Conduct a preliminary, functional, economic analysis to evaluate alternatives to baseline processes and select a preferred course of action.
4. **Plan.** Develop detailed statements of requirements, baseline impacts, costs, benefits, and schedules to implement the planned course of action.
5. **Approve.** 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. **Execute.** Execute the approved process and data changes, and provide functional management oversight of any associated information system changes.

FIGURE B2.5
Managerial Approach to Reengineering Projects

Business Process Design

LO 3. **Describe the importance of business process modeling (or mapping) and business process models.**

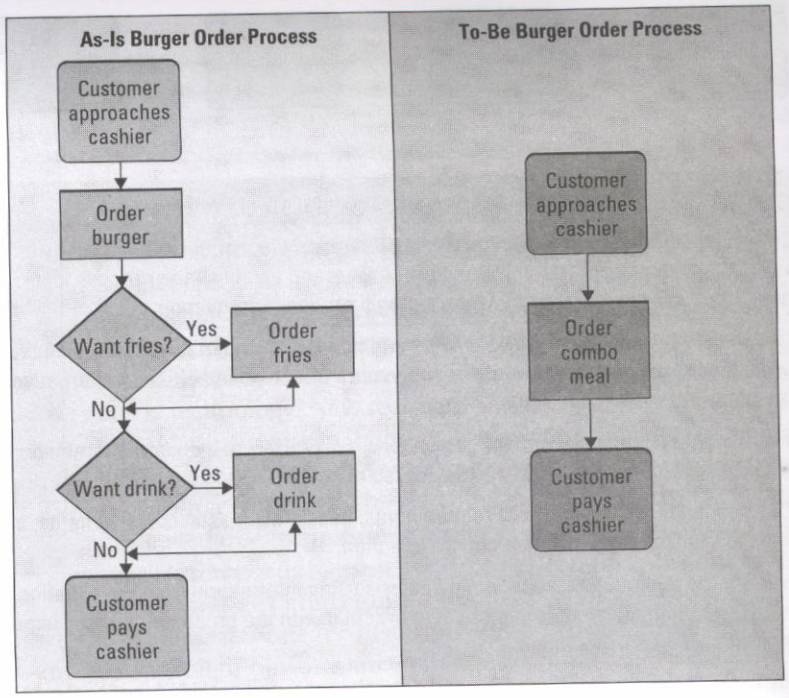
After choosing the method of business process improvement that is appropriate for the organization, the process designers must determine the most efficient way to begin revamping the processes. To determine whether each process is appropriately structured, organizations should create a cross-functional 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 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.

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 B2.6 displays the As-Is and To-Be process models for ordering a hamburger.

FIGURE B2.6
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 B2.7 illustrates an As-Is process 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 B2.8 displays sample disconnects in the order filling process in Figure B2.7.

The team then creates a To-Be process model, which reflects a disconnect-free order fulfillment process (see Figure B2.9). 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.

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

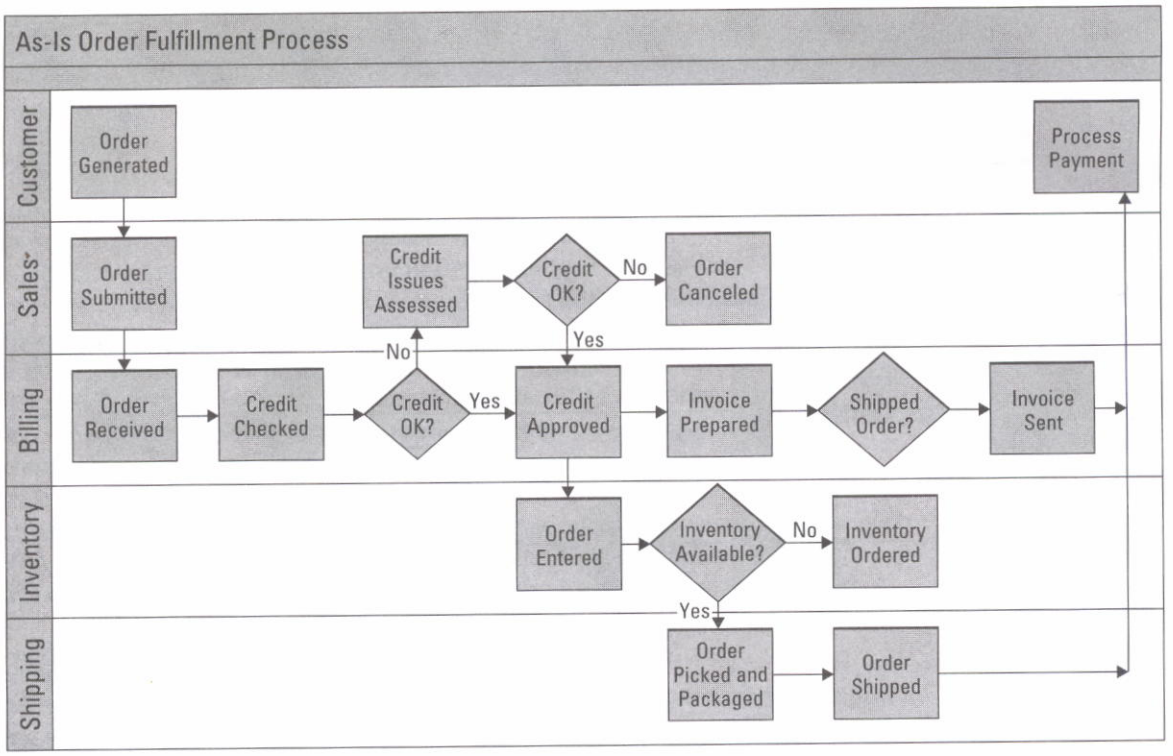


FIGURE B2.7
As-Is Process Model for Order Entry

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."

Business Process Management (BPM)

LO 4. Explain business process management along with the reason for its importance to an organization.

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

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 B2.8
Issues in the As-Is Process Model for Order Entry

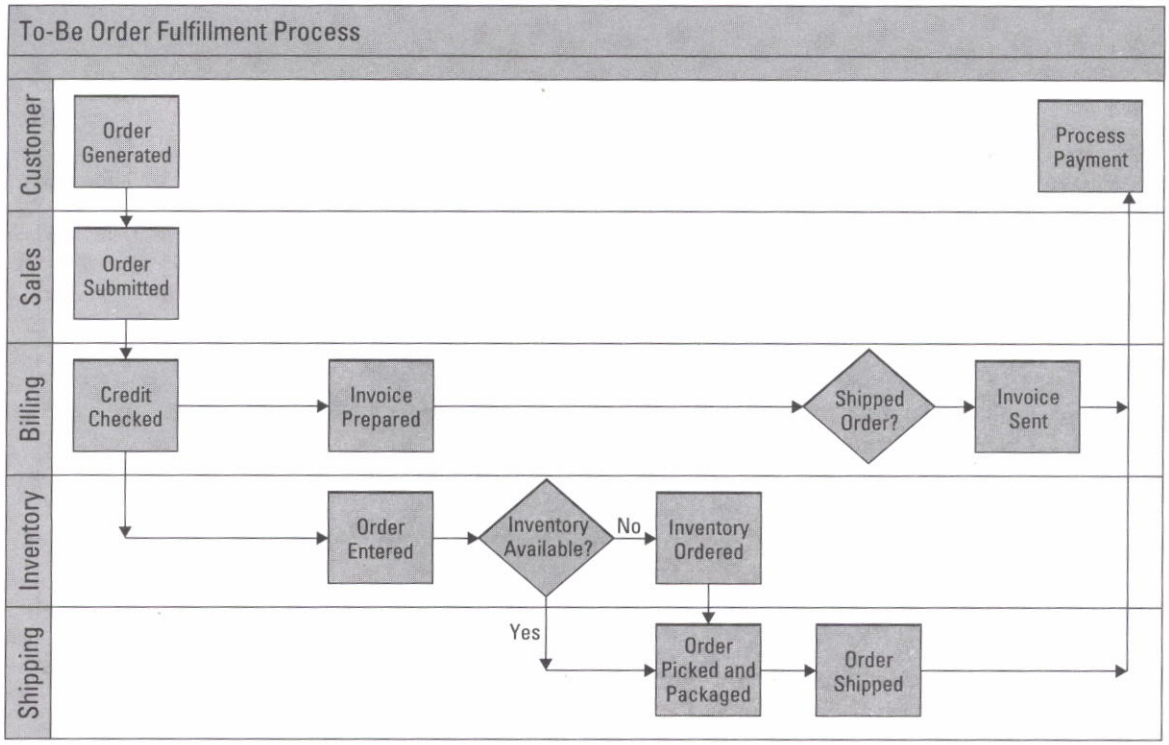


FIGURE B2.9

To-Be Process Model for Order Entry

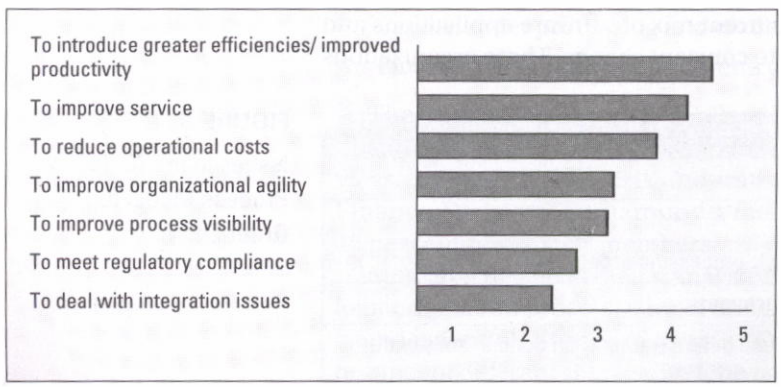
are turning to BPM systems that can flexibly automate their processes and glue their enterprise applications together. Figure B2.10 displays the key reasons organizations are embracing BPM technologies.

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 B2.11 for BPM benefits). BPM not only allows a business process to be executed more efficiently, but 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.

FIGURE B2.10

Key Reasons for BPM



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

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 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.

BPM Benefits
■ Update processes in real time
■ Reduce overhead expenses
■ Automate key decisions
■ Reduce process maintenance cost
■ Reduce operating cost
■ Improve productivity
■ Improve process cycle time
■ Improve forecasting
■ Improve customer service

FIGURE B2.11
Benefits of BPM

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.

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 the BPM tool creates an application that coordinates the manual and automated tasks. Figure B2.12 displays several 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, now a new group is 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.

FIGURE B2.12
Popular BPM Tools

Tool Name	Company Name
BPM Suite	Ultimus
Process Suite	Stalfware
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

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 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."

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 B2.13).

FIGURE B2.13
Critical Success Factors for BPM Projects

Critical Success Factors for BPM Projects
1. Understand reengineering. ■ Understand business process fundamentals. ■ Know what reengineering is. ■ Differentiate and integrate process improvement approaches.
2. Build a business and political case. ■ Have necessary and sufficient business (mission delivery) reasons for reengineering. ■ Have the organizational commitment and capacity to initiate and sustain reengineering. ■ Secure and sustain political support for reengineering projects.
3. Adopt a process management approach. ■ Understand the organizational mandate and set mission strategic directions and goals cascading to process-specific goals and decision making across and down the organization. ■ Define, model, and prioritize business processes important for mission performance. ■ Practice hands-on senior management ownership of process improvement through personal involvement, responsibility, and decision making. ■ Adjust organizational structure to better support process management initiatives. ■ Create an assessment program to evaluate process management.
4. Measure and track performance continuously. ■ Create organizational understanding of the value of measurement and how it will be used. ■ Tie performance management to customer and stakeholder current and future expectations.
5. Practice change management and provide central support. ■ Develop human resource management strategies to support reengineering. ■ Build information resources management strategies and a technology framework to support process change. ■ Create a central support group to assist and integrate reengineering efforts and other improvement efforts across the organization. ■ Create an overarching and project-specific internal and external communication and education program.
6. Manage reengineering projects for results. ■ Have a clear criterion to select what should be reengineered. ■ Place the project at the right level with a defined reengineering team purpose and goals. ■ Use a well-trained, diversified, expert team to ensure optimum project performance. ■ Follow a structured, disciplined approach for reengineering.

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 B2.14 through B2.20 offer examples of business process models.

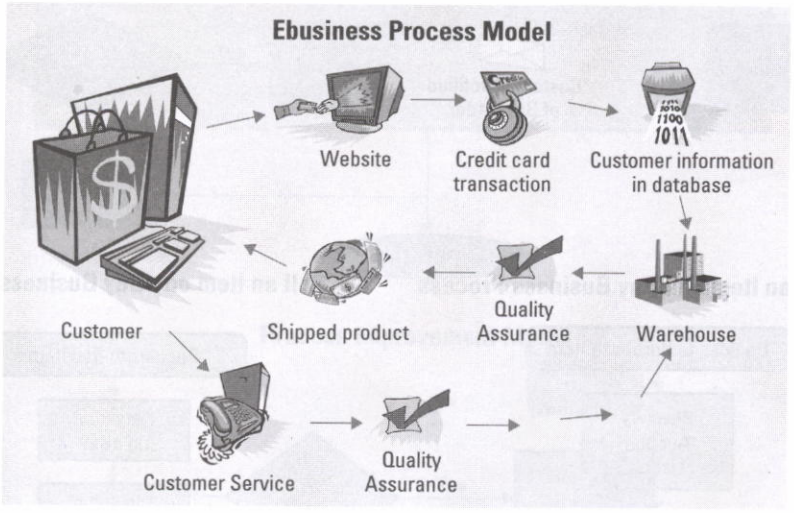


FIGURE B2.14
Ebusiness Process Model

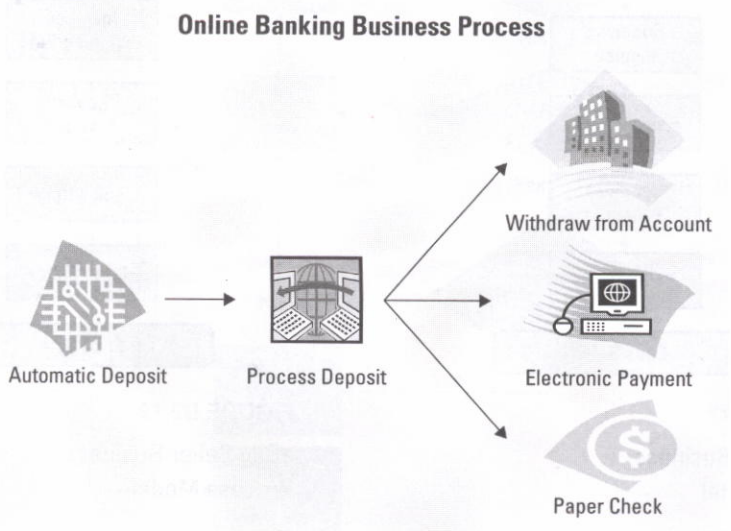


FIGURE B2.15
Online Banking Business Process Model

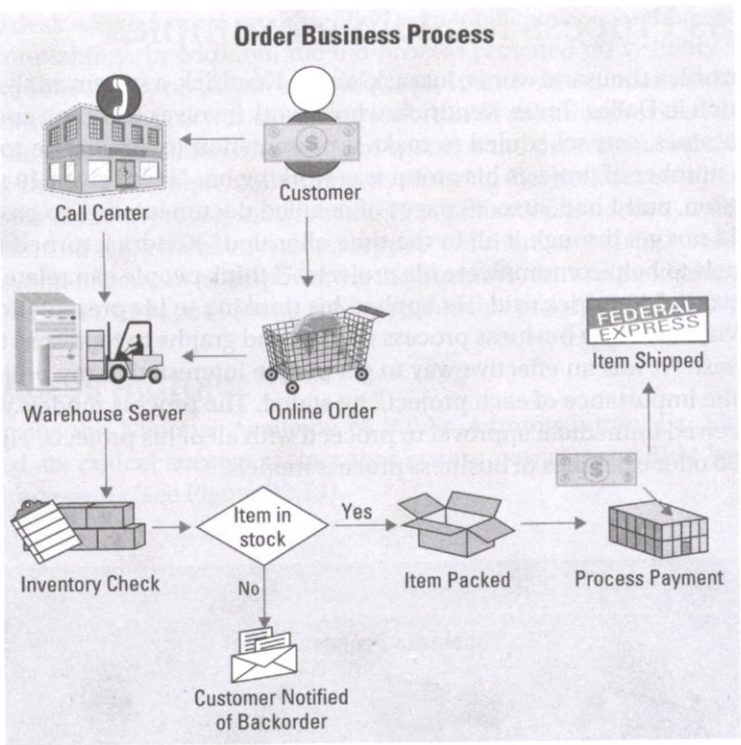


FIGURE B2.16
Customer Order Business Process Model

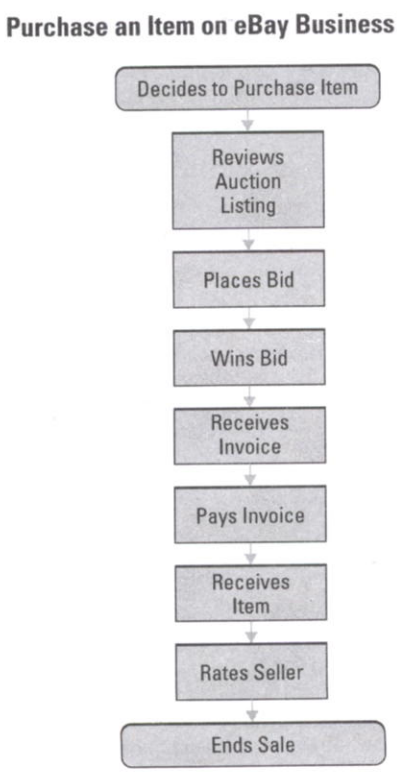


FIGURE B2.17
eBay Buyer Business Process Model

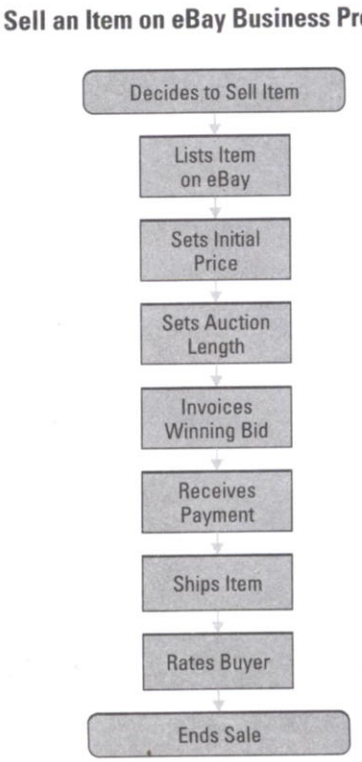


FIGURE B2.18
eBay Seller Business Process Model

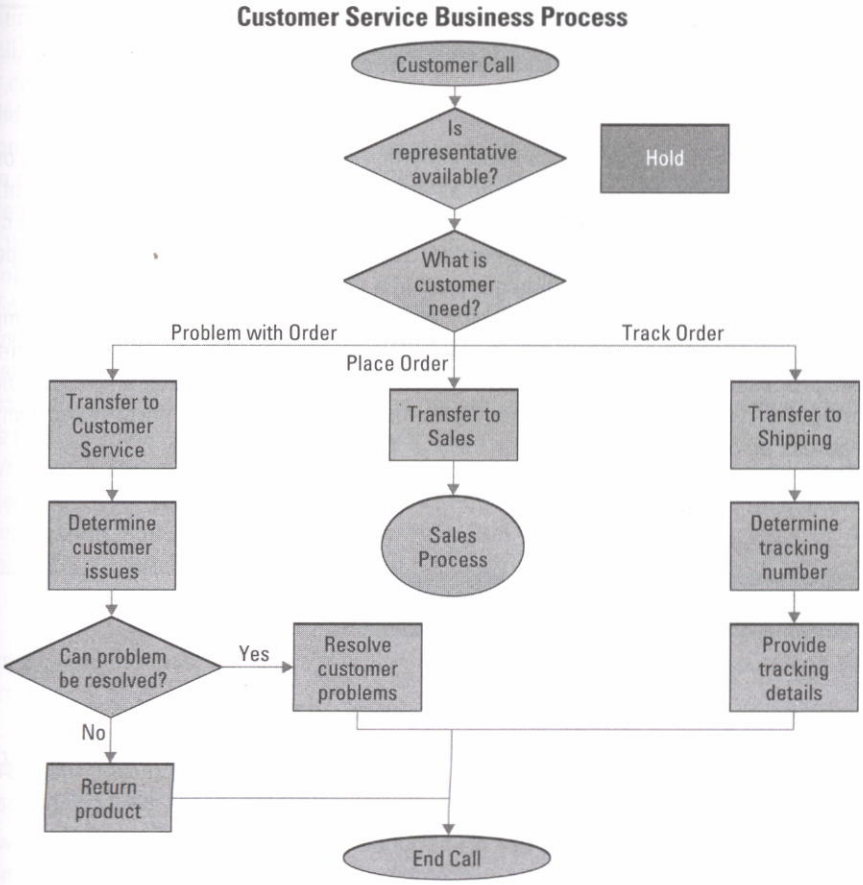


FIGURE B2.19
Customer Service Business Process Model

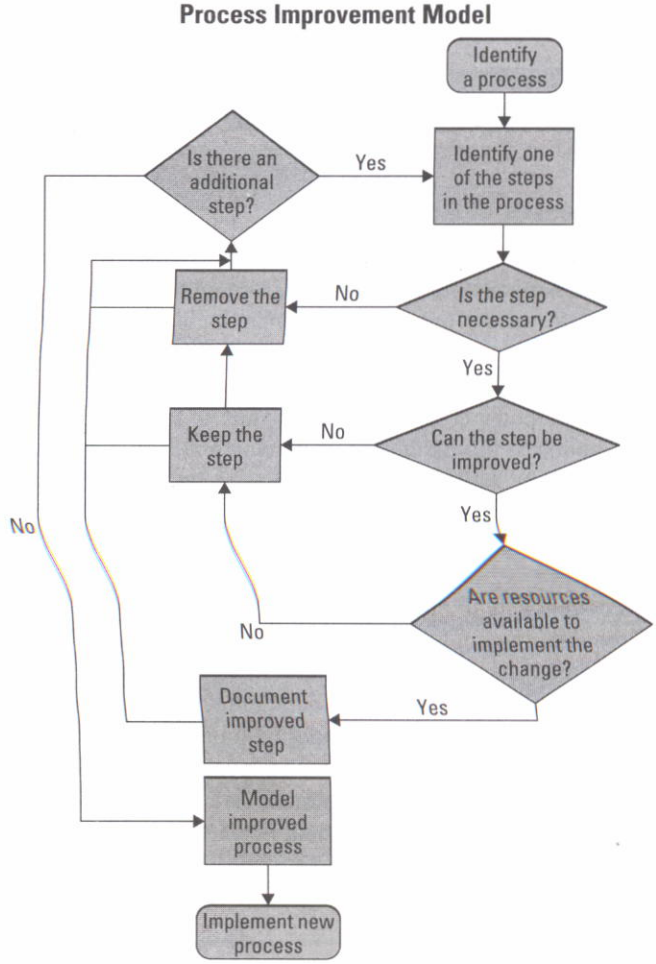


FIGURE B2.20
Business Process Improvement Model

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, 347
Business process, 342
Business process management (BPM), 349
Business process management tool, 351
Business process model, 347
Business process modeling (or mapping), 347
Business process reengineering (BPR), 346
Continuous process improvement model, 345
To-Be process model, 347

CLOSING CASE ONE

Streamlining Processes at Adidas

The Adidas name resonates with athletes and retail consumers worldwide. Registered as a company in 1949, the company differentiated itself during the 1960s by supporting all athletes who were committed to raising performance levels, including athletes in what some considered fringe sports such as high jumping. During a banner year in 1996, the "three stripes company" equipped 6,000 Olympic athletes from 33 countries. Those athletes won 220 medals, including 70 gold, and helped increase immediate apparel sales by 50 percent.

In 1997, Adidas acquired the Salomon Group, which included the Salomon, Taylor Made, and Bonfire brands. Today, Adidas-Salomon strives to be the global leader in the sporting goods industry with a wide range of products that promote a passion for competition and a sports-oriented lifestyle. Its strategy is simple: continuously strengthen its brands and products to improve its competitive position and financial performance.

Adidas-Salomon competes in an environment as relentless as that of the Olympics. Staying in the forefront requires the support of world-class technology. Over the past 15 years, Adidas-Salomon transformed itself from a manufacturing organization to a global sports brand manager with 14,000 employees located around the world. Previously, Adidas-Salomon operated in a decentralized manner, and each operating unit chose software that suited its geography and internal preferences. The company believed that implementing and creating common processes, especially in its sales organization, would help it establish global direction. With common processes, the company could streamline and automate its business

operations—improving flexibility, scalability, and visibility across the extended enterprise. Overall, system integration would translate into faster time to market, higher revenue, and lower costs.

Adidas-Salomon reviewed its IT systems and associated information. One finding was that the company needed to develop a better solution for business process integration and establish an easy way to automate new applications throughout the enterprise. Such an infrastructure required Adidas-Salomon to impose a common business process platform that would allow the company's operating units to remain flexible in meeting their own particular needs and goals.

Adidas-Salomon identified several major business requirements for the project. First, it wanted to automate business events and reduce the manual effort required to exchange data between internal and external parties. Second, Adidas-Salomon needed to develop a cost-effective solution that would be simple to use, maintain, and update in the future. Last, the company wanted to enable real-time data exchange among the key Adidas-Salomon business processes.

"We considered many metrics, and it was clear that TIBCO Software had the breadth and depth of product offering backed by a strong reputation," said Garry Semetka, head of development and integration services in global application development at Adidas-Salomon. With its desired infrastructure in place, Adidas-Salomon standardized on TIBCO products and moved toward real-time business process management of its internal supply chain. The company now publishes and makes the most of events when they occur on key systems, giving the most current, valuable information to business processes and decision makers.

Questions

1. Describe business processes and their importance for Adidas-Salomon.
2. How could Adidas-Salomon use continuous process improvement and business process reengineering to remain competitive?
3. How can a business process management tool help Adidas-Salomon remain at the top of its game?

CLOSING CASE TWO

3Com Optimizes Product Promotion Processes

Product promotions, such as rebates or subsidized promotional items, can serve as excellent marketing and sales tools to drive increased revenues by providing incentives for customers to purchase select items. However, when you are a leading global networking provider like 3Com that serves thousands of channel partners and customers, such promotions must be easily managed and executed.

To gain better control over the creation and execution of its product promotions, 3Com used Savvion's business process automation and management platform to build a web-based system that streamlines the approval and management workflow of product promotions offered to distributors and resellers. "We needed to ensure that our product promotions were attractive to our channel partners while also being manageable in terms of execution," said Ari Bose, CIO at 3Com. "Using Savvion BusinessManager, we were able to quickly put a process in place that speeds approval and enhances awareness of product promotions to generate opportunities for increased revenue."

Promoting Effective Promotions

The Savvion BusinessManager-based promotions system provides significant time and cost savings by replacing former inefficient and uncontrollable email processes. Instead of

informally sending promotion ideas around for approval, employees now use the automated system as a centralized location to manage the workflow involved in proposing new promotions and ensuring all needed approvals are in place before promotion details are shared on the 3Com partner and reseller website.

The promotions system automatically routes proposed promotions to each department that is required to sign off on the promotion, including marketing, promotions communications, and claims administration. The streamlined system also immediately notifies all key parties once new promotions are approved, increasing visibility and revenue opportunities through improved communication with 3Com sales representatives, distributors, and resellers.

Adding Muscle to Management

An important feature of the new system is the automatic auditing of each step taken. The company can easily establish an audit trail, increasing accountability as approvals are given. The structured process also ensures that approved promotions are manageable from an administrative perspective.

In addition, the system tracks promotion fulfillment, enforcing associated terms and conditions such as purchasing limits or available supplies—tracking that was previously almost impossible to do, creating numerous management headaches. The promotions system is also integrated with another BusinessManager-developed process that generates special price quotes (SPQs) for 3Com channel partners, creating built-in checks and balances to prevent the approval of an SPQ while a promotion is being offered for the same product.

The system also provides extensive reporting capabilities that 3Com now uses to gain a better understanding of all offered promotions, authorizations, and potential financial impacts. These online reports replace manually created Excel spreadsheets, enabling departments to generate reports on the fly for enhanced strategic planning.

Bottom-Line Benefits

Greater visibility of product promotions is yielding significant opportunities for increased revenue at 3Com. Sales representatives are immediately notified when promotions are approved, improving internal communications and enabling representatives to share promotion details with resellers and distributors more quickly to foster increased sales. Other business benefits delivered by the automated promotions system include the following:

- Real-time monitoring features enable 3Com employees to check the status of a promotion's approval at any time.
- Greater efficiency in the approval cycle and streamlined communications increase employee productivity, providing significant time and cost savings.
- Claims processing is also more effective because of the structured approval process, delivering additional savings.
- Increased visibility enables 3Com to reduce reserve spending by having a clearer idea of channel response to each promotion.
- Order and efficiency come to previously chaotic manual processes.

Questions

1. Describe business processes and their importance to 3Com's business model.
2. How can 3Com use continuous process improvement to become more efficient?
3. How can 3Com use business process reengineering to become more efficient?
4. Describe the importance of business process modeling (or mapping) and business process models for 3Com.
5. How did 3Com use business process management software to revamp its business?

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 online mechanism such as a browser-based order form. The customer supplies his or her name, the appropriate email 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 email.
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.