

UR UMUC Healthy Fitness Center Case Study

In 1980, the UR UMUC Healthy Fitness Center was opened in a growing area of a bedroom community, by Tom Ellington, a UMUC Business Management graduate after he retired from the US Marine Corps. It has an exercise room with many different kinds of specialized equipment, rooms for various exercise and martial arts classes, and locker rooms with showers for men and women. In addition, there is a small snack area where members can buy bottled water, soda, fruit juices and snacks, with tables and chairs where people can relax. There are several part time staff members that man the counter where people check in; they also sell memberships and collect payments. There are trained exercise room attendants to assist members, and a maintenance staff to ensure cleanliness of the facility and minor maintenance of the equipment. Recently you were hired by the owner and founder as the manager, and you are very excited about this opportunity!

UR UMUC Healthy is a for-profit Fitness Center and must cover its variable costs, fund future improvements and produce a reasonable profit for the owners. Unfortunately, business has been steadily declining over the last five years. Although your predecessor did a good job at the Center, it has become out-dated. You recognize that some of the equipment really needs to be replaced, but you are not sure which equipment should be replaced first. The classes and exercise programs available have also become out-dated. There is little known about the makeup of the membership (age, sex, goals, interests, problems, complaints, etc.). You don't know if there are long waits for particular equipment. If you had more information in these areas you feel that you could increase membership and income. For instance, if you knew which equipment was most heavily used, perhaps you would opt to replace that first, or add more similar equipment. The membership fee structure has not been reviewed in many years, and your contracts with outside firms that perform preventative and major maintenance, and those that provide cleaning supplies, vending machines, and towels have not been reviewed in a number of years. Recently, there have been weeks when the Center has run out of clean towels and the vending machines were out of the most popular items. In addition, customers have been requesting WiFi reception in the Center as well as cardio monitoring features on the cardio equipment.

The Center is open from 5 AM to 10 PM and is busy most of the day; however, the make-up of the people differs over the course of the day and each group has its own characteristics. The early group, 5 – 8 AM are the heavy workout members who speed through their exercises and head out for work or school. The next group, 8 AM -2 PM are older and take their time exercising and attending classes and spend a lot of time in social interaction; they are generally either retired or moms with their kids in school. The period from 2 – 4 PM is the least busy and is made up largely of high school students and others who like a less crowded environment. From 4 - 7 PM the group is made up of workers on their way home who want to get their workout in before dinner. The last group, 7 – 10 PM, is young single people who want show themselves off and attract the opposite sex, while exercising or taking classes.

One problem that you notice immediately is that you do not know which employees are scheduled to work each day, and there is no way to quickly get a substitute if one is needed. All employees require annual training and certifications in CPR, Safety, First Aid and the use of AED Defibrillators, while the contract trainers require various additional certifications periodically based on their specialty. All of the membership records, orders for towels and snack bar items, and financial and payroll accounts are kept on paper. The Center does not have a Web site, and uses very little marketing except word-of-mouth, and essentially still operates the same as it did in 1980.

Throughout this course you will manage the UR UMUC Healthy Fitness Center, taking advantage of business practices discussed in the class, the Course Modules and the textbook to increase revenue, keep the business running, and bring the Center into the 21st century. You will identify one area that is in need of improvement and that can be improved through the use of technology. You are not expected to

solve all of the problems identified or address all improvements that could be made at the UR UMUC Healthy Fitness Center. Note: We're looking for a technology solution. While installing a handball court may attract new customers, it is not a technology solution.

The following is an example of how you will identify a business need and a technology solution: Last year, the Fitness Center had no effective way to communicate with its members. Notices were posted on the lobby bulletin board but many members ignored that, and of course those that hadn't come to the Center recently had no way of receiving the information. To address the business need of effectively communicating with members, a simple database was developed to capture customers' email and cell phone information as well as their preferred method of receiving notifications.

Note: As you approach these assignments, you will find it helpful to think about your own experiences with a fitness center or gym. Making a trip to a local fitness center may help you think about the processes, challenges, and opportunities.

Upon completion of these assignments you will have performed an array of activities to demonstrate your ability to apply the course content to a "real world situation" to:

- Analyze the business environment and identify a strategic area for improvement (Stage 1)
- Propose an appropriate technology solution to improve a selected business process (Stage 2)
- Evaluate various IT considerations of the proposed technology solution (Stage 3)
- Communicate your solution and the IT considerations to stakeholders using a presentation format (Stage 4)
- Identify and explain the next steps in implementing the solution (Stage 5)

The case study and assignments address the Course Outcomes to enable you to:

- analyze business strategy to recognize how technology solutions enable strategic outcomes
- analyze internal and external business processes to identify information systems requirements
- identify and plan IT solutions that meet business objectives.

STAGED ASSIGNMENTS

The staged assignments are designed to follow the relevant course modules and chapters of the textbook in the class schedule, and are due on the dates shown in the Syllabus.

Stage 1 Project: Business Environment Analysis (Word document with analysis)

Stage 2 Project: Business Process Model and Technology-Supported Solution Proposal (Word document with proposed solution and process diagram)

Stage 3 Project: Template for IT Considerations (Word table)

Stage 4 Project: Executive Briefing Presentation (PowerPoint Presentation on proposed solution)

Stage 5 Project: Outline of Next Steps (Word document outline with next steps)

The weight of the assignments is shown in the Course Syllabus. The due dates are shown in the Course Schedule.

Assignments for stages 1, 2 and 5 require **external research**, outside of the textbook. The **grading rubric** is included with each assignment.

These assignments are designed to help you identify how to effectively analyze and interpret information to improve the business. This is an opportunity for you to apply critical thinking skills and think like a business professional. When you are writing a paper or developing a presentation, prepare it as if it is

going to the owner, Mr. Ellington, whom you want to impress with your knowledge and abilities. Don't just go through the mechanics of pulling together information -- think about what you are doing, why you're doing it, whether it make sense, whether the information seems realistic, and what the results show. Support your recommendations with your research. It's important that you identify relevant, timely resources that specifically support the points or information you provide in your assignment. You should read the source and assimilate the information first, and then put it into your own words and incorporate it into the flow of your writing (with an appropriate in-text APA citation and a list of references at the end of your paper). Direct quotes should be used very sparingly—only when the author's own words uniquely present a concept that would be lost if paraphrased by you.

One of the prerequisites for this course is that you have a fundamental working knowledge of word processing and presentation software. Detailed instructions for each Staged Project, 1 through 5, are posted in the designated area of the classroom. You must prepare each assignment in the indicated format (i.e., table, outline, report, presentation or other specified format) and submit it as an attachment through your individual Assignments Folder in WebTycho. **No credit will be given for assignments submitted in file formats other than those stated in the assignment instructions.**

Because these assignments require you to use Microsoft Word and PowerPoint (as indicated in the instructions), you may need to "brush up" on your familiarity with these or use functions that perhaps are new to you. Therefore, **do not wait until the last minute** to begin an activity. You should read through all the assignments in advance to ensure you (1) understand what is expected, and (2) allow enough time to effectively create the information being requested.

Additional Information

There is a significant amount of information available to you to assist in developing your skills in using the Microsoft Office Products. MS Word and PowerPoint are required for these exercises. The textbook comes with access to the publisher's website (<http://www.mhhe.com/baltzan>) where there are a number of resources, including Tech Plug-Ins for Office 2003, 2007 and 2010. Don't hesitate to use the on-line help and wizard tools built into the MS Office applications for help as you work with the software tools. There are also other web sites, such as www.eHow.com, and www.microsoft.com that provide tips. Even YouTube has some useful videos demonstrating various techniques.

Case Study, Stage 2: Business Process Analysis and Technology Solution Proposal

Before you begin this assignment, be sure you have read the "UR UMUC Healthy Fitness Center Case Study", "UR UMUC Stage 1 Project" and the WALMART EXAMPLE. Also, you must incorporate any feedback you received on your graded Stage 1 assignment as needed before proceeding. You will use the strategic area and process that you selected in Stage 1; review the feedback you received for any recommended changes prior to starting this assignment.

Purpose of this Assignment

This assignment gives you the opportunity to apply your analysis skills to model a business process. Modeling the process as it exists (and as it will exist) will aid in the analysis, design, development and implementation of the technology solution. This assignment also gives you the opportunity to apply your knowledge of technology solutions to improve a business process. This assignment specifically addresses the following course outcomes to enable you to:

- analyze internal and external business processes to identify information systems requirements.
- identify and plan IT solutions that meet business objectives.

Business Process Analysis for the UR UMUC Healthy Fitness Center

In order to apply technology to a process, the process must be thoroughly understood and models are used for this purpose. The model also supports business process analysis and redesign when the process is deemed to be inefficient or ineffective. Models are also used to design the "to-be" process that describes the desired end state after the technology solution is developed.

For your Stage 1 Project of the Case Study, you identified a strategic area for improvement of your UMUC Fitness Center's business and you identified a process that could be improved with the use of technology. In this stage, you will create a model of that process that will define in detail the steps in the process as it is done today to aid in the analysis of the problem, model the proposed new process and explain the proposed IT solution.

The proposed technology solution should address the new business process, should be appropriate to the UR UMUC Healthy Fitness Center, should be briefly described, its major components listed, and an explanation should be given for why and how this proposed solution will improve the business process. Be sure to read the instructions for the remaining projects in this Case Study (Stages 3-5) to get an understanding of the future projects that build on the proposed solution and to help you in deciding upon your solution. You want to propose a solution that can be used in the assignments that follow this one, so be selective and choose an appropriate solution.

Assignment

For this assignment you will use the process identified for improvement in your Stage 1 Project. There are 2 parts to this assignment.

Part 1: Business Process Analysis - Models of the AS IS Process and the TO BE Process. In the textbook, on pages 63-67 several different methods of modeling business processes are illustrated. You may use any of the models shown (or one suggested by the instructor), to analyze the process you identified for improvement, breaking it down into sequential steps and modeling it. You may use Microsoft Word, Excel or Power Point or clearly hand-draw your model and scan it into an electronic file format. Which model format you choose to use is not as important as making sure you have included all

the major steps in the process and appropriately sequenced them. The process that you model must be the one you identified in your Stage 1 Project (or the one suggested by the instructor) and it needs to be appropriate to the UR UMUC Healthy Fitness Center. First, you will model the process as it is currently performed at the Fitness Center; this is the AS IS Process. Then you will model the way that you expect the new process to function; this is the TO BE Process. **Note: A process is defined in your textbook as “a standardized set of activities that accomplish a specific task, such as processing a customer’s order.” (Baltzan, 2012, p. 20).**

The following are two URL’s that have a more detailed description of Flow Charting and its uses:
<http://www.hci.com.au/hcisite2/toolkit/flowchar.htm>

<http://asq.org/learn-about-quality/process-analysis-tools/overview/flowchart.html>

Create a flow chart or process map in Excel: http://www.youtube.com/watch?v=9_R73RVfHI0

Create a flow chart in Word 2007 and 2010: <http://www.youtube.com/watch?v=RkN0dekcmw>

Create a flow chart in PowerPoint: <http://www.youtube.com/watch?v=s8erOL-3Bho>

Business Process Example: If a grocery store had a need to reduce expenses and improve customer satisfaction, a process needing improvement might be improving the inventory process to ensure availability of products for customers as well as to reduce cost related to spoiled inventory. Your model could include the steps necessary to record inventory information, update inventory when merchandise is sold, place orders for additional inventory from suppliers, etc.

Part 2: Technology Solution Proposal. Using the textbook and external resources, write a short paper 1-2 pages in length, not including References page and cover sheet, responding to the bulleted items below. Remember to correctly cite and reference your sources with APA format. Use the Grading Rubric to be sure you have covered everything.

Create a document that includes the following:

1. At the end of your Stage 1 assignment, you listed the strategy, business area and process selected. These should be provided at the beginning of this paper to set the stage. Be sure to incorporate any recommended changes, and show:
 GENERIC STRATEGY:
 STRATEGIC BUSINESS AREA:
 PROCESS TO BE IMPROVED:
2. Briefly explain the business process identified in Stage 1 and why it could benefit from a technology solution.
3. Propose a specific technology solution, describing it in a few sentences. **Note: It’s tempting to proposing integrating lots of new technology but focus on a single one that is easily supportive of your proposed strategy and improvement.**
4. List the major hardware, software and communications components that will be needed. How many of each you list is dependent on the solution you propose, but the important components needed to implement your proposed solution should be included. Your list should be applicable to your proposed solution and be appropriate for the UR UMUC Healthy Fitness Center. (If you are planning on integrating with existing components, please list those so it’s clear that complete hardware, software, and communications environment exists to implement your solution.)
5. Explain how the proposed technology solution will improve the process.
6. Explain how the proposed technology solution will support at least one strategic objective identified through the Porters Five Forces Analysis conducted in Stage 1.

Technology Solution Example: If a grocery store had a need to reduce expenses and improve customer satisfaction, a proposed technology solution might be the implementation of hand-held scanners for customers. The hand-held scanners could update inventory real-time and update customers' loyalty accounts also. This solution would require purchase of hand-held scanner devices and software that can interface with existing systems, appropriate wireless network, etc.

Submit your Part 1 and Part 2 paper via your Assignment Folder Stage 2 as an attached document (or documents) with your last name included in the filename(s). If possible combine Part 1 and Part 2 into one file; otherwise be sure each file is clearly labeled identifying the Part of Stage 2 it represents.

Your model will be evaluated on whether it is applicable to the process identified, all major steps in the process are included and correctly modeled, and it is appropriate to the UR UMUC Healthy Fitness Center.

Note: Your paper will be evaluated on whether or not you correctly incorporated the course concepts from the textbook and addressed all parts of the questions. You need to do some **external research** on at least one aspect of the assignment - your choice - and incorporate it and cite (and reference) it in APA format in your response. What, exactly, you propose as a technology solution will be evaluated as to whether it is appropriate for the UR UMUC Healthy Fitness Center and could actually improve the process identified, and whether it is fully thought-out and supported with application of course concepts and research. Use the Rubric below to be sure you have covered all aspects.

GRADING RUBRIC:

Attribute	Full Points	Partial Points	No points	Possible Points	Points Earned
Model Completeness	The models present all of the major steps in the process. Both the AS IS and the TO BE processes are included.	The models present most of the major steps in the processes and/or only the AS IS or the TO BE process is modeled.	No models are included.	10	

Comments:

Organization of Steps	Steps in the processes are organized in a logical flow and demonstrate sophisticated analysis and critical thinking.	Steps may not be organized in a logical flow or may be lacking in demonstration of analysis, and/or critical thinking.	Process steps are not organized at all.	10	
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Comments:

Model Presentation	Models are professionally presented; use a logical structure, and spelling is correct.	Models are adequate, or not professionally presented, and/or contain spelling errors.	Models are extremely poorly presented and do not convey the information.	10	
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Comments:

Business Process Explanation	Business process is identified and explained in terms of how a technology solution could improve it; explanation demonstrates understanding of course concepts, sophisticated analysis and critical thinking.	Business process is adequately explained, or may be lacking in terms of how a technology solution could improve it; and/or may be lacking in demonstration of understanding of course concepts, analysis, and/or critical thinking.	Business process is not identified or explained.	7	
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Comments:

Proposed Technology Solution	Proposed technology solution is clearly identified and is appropriate to the UR UMUC Healthy Fitness Center and to improve the process identified; and demonstrates understanding of course concepts, sophisticated analysis, and critical thinking.	Proposed technology solution adequate, or may not be identified and/or not appropriate to the UR UMUC Healthy Fitness Center or to improve the process identified; may be lacking in demonstration of understanding of course concepts, analysis, and/or critical thinking.	Proposed technology solution is not included.	15	
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Comments:

List of components	Major hardware, software and communications components from all aspects of the IT infrastructure to implement the proposed solution are listed and are applicable to the proposed solution and appropriate to the UR UMUC Healthy Fitness Center.	Hardware, software and communications components listed may be incomplete, may not apply to the proposed solution and/or do not address all aspects of the IT infrastructure and/or may not be appropriate for the UR UMUC Healthy Fitness Center.	Component list is not provided.	15	
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Comments:

How the solution will improve the process	A correct, well-supported and convincing explanation of how the proposed solution will improve the process is provided.	The explanation of how the proposed solution will improve the process is adequate, or may be inaccurate and/or incomplete and/or not well supported.	An explanation of how the proposed solution will improve the process is not provided.	10	
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Comments:

Support for strategic objective	A convincing explanation is provided for how the proposed solution will support at least one of the strategic objectives identified in Stage 1.	The explanation of how the proposed solution will support at least one strategic objective from Stage 1 is incomplete and/or not convincing.	Explanation of support for a strategic objective is not provided.	7	
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Comments:

External Research	At least one source other than the textbook is incorporated and used effectively. Source(s) used are relevant and timely and contribute to the analysis and support conclusions.	A source other than the textbook may be used, but is not properly incorporated or used to contribute to the analysis or support conclusions, and/or is not effective or appropriate and/or is not relevant or timely.	No external research is incorporated.	6	
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Comments:

Report Format	Report is professionally presented using sophisticated writing and is effectively organized; uses correct sentence structure, grammar, and	Report is adequate or may not be well organized and professionally presented; and/or contains grammar and/or spelling errors; and/or does not	Report is extremely poorly written and does not convey the information.	10	
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	spelling; references are appropriately incorporated and cited using APA style.	follow APA style for references and citations.			
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Comments:

			TOTAL Points	100	
		100 points = 15% of final course grade	Points Recorded (total points x .15)		

Recommendations:

For Stage 2 of the Case Study: Analysis and Recommendation, you will ensure you cover the requirements by *reviewing the assignment details and scoring rubric*. You will (from the rubric):

- Design the AS-IS and TO-BE models for the process you identified in Stage 1, showing most of the major steps required. (10 points)
- Provide a logical flow of the process steps. (10 points)
- Model is presented professionally. (10 points)
- Briefly explain the business process chosen in Case Study Stage 1 and explain how a technology solution can improve the process. (7 points)
- Propose a specific technology solution, describing it, which should be appropriate to the Fitness Center and improves the process identified in Case Study Stage 1. (15 points)
- List the **major** hardware, software and communications components that will be needed. How many of each is dependent on the proposed solution, but more importantly, the key components should be included. Your list should be applicable to your proposed solution and related to the case facts (15 points). For the software you choose, research online to find a package that will meet your solution's needs. For example, if you choose a POS system, find a package that will meet a small business' needs. For a Customer Relationship Management solution, find software that you can integrate with the system you choose. Some POS systems have a CRM option. If a network is designed, will it be wired or wireless? Anti-virus software should be considered if the system will communicate with the Internet. A backup solution should be included if the software you choose doesn't have backup features. Again, only the major items need to be mentioned.
- Explain how the proposed technology solution will improve the process (10 points). Note the old process and improved process with specific examples on how the proposed solution (technology) will improve it.
- Explain how the proposed solution will support at least one strategic objective identified through the Porter's Five Forces Analysis conducted in Case Study, Stage 1 (7 points). Include one of Porter's Five Forces and/or the generic strategy you chose in Case Study, Stage 1, to discuss.
- External research (outside of the textbook) conducted. (6 points)
- Report format. (10 points)

Hardware Examples which may be applicable to our solution (among others)

- PCs/laptops/smartphones
- Printers/scanners
- Servers: email, FTP, backup
- Database
- Security components

- Procedure manuals
- Security cameras
- Backup media
- Uninterruptible power supply
- Surge protectors
- Cash registers/Point-of-sales terminal
- Credit card machines

Software Examples which may be applicable to our solution (among others)

- Databases
- Point-of-sales software
- Firewall software
- Server software
- Application software
- Business software
- E-mail software
- SSL technology (encryption)
- Credit card machine software
- Antivirus software
- Operating system software
- Cloud computing solution

Communications Examples which may be applicable to our solution (among others)

- VPN
- Internet access
- Satellite cards
- DSL
- Cable access

- Routers (hardware)
- Switches (hardware)
- Intranet
- Extranet
- Local area network

Concepts

Defining a technological solution

We will use the example of Progressive Insurance on page 73 of the textbook and how a technological solution improved a business process. With Company A's scenario, a customer gets into an accident, has the car towed to a garage and gets a ride home where he/she calls the insurance company and starts the claim process. The insurance company sends a representative to evaluate the damage, assign fault, estimates the cost of repairs. These steps take about a month. With Progressive Insurance, a mobile claims process is utilized. The customer calls the claim into Progressive at the accident scene. The claims adjuster offers the customer on-site payment, towing services and a ride home. Digital photographs are taken at the scene and transmitted to the company immediately.

How technology solutions improve business processes

In the case of the above example, resolution time for a claim can take 3 – 8 weeks with the standard method. With the mobile claim service offered by Progressive, the resolution time is decreased to 30 minutes – 3 hours.

Define major components/relate them to the case and how they support strategic objectives

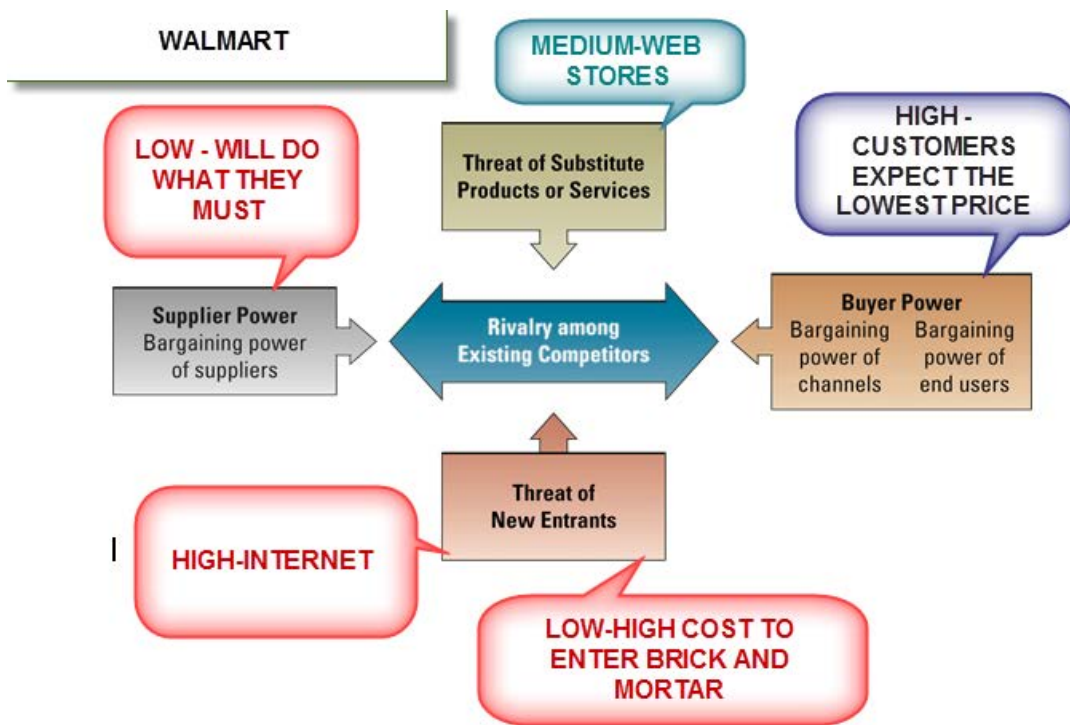
In Progressive's situation, they utilize smartphones and cameras as well as wireless transmission, printers, and systems with the participating body shops to provide better customer service. Their business philosophy is to provide insurance in an innovative way. Various developments and achievements resulted from that mindset:

<http://www.progressive.com/progressive-insurance/history.aspx>.

Some firsts: <http://www.progressive.com/progressive-insurance/first.aspx>.

Some honors and recognition: <http://www.progressive.com/progressive-insurance/honors-recognition.aspx>.

Core values include integrity, Golden Rule, objectives, excellence and profit. Progressive's vision is to reduce human trauma and economic costs related to auto accidents and provide excellent customer service to achieve those goals: <http://www.progressive.com/progressive-insurance/core-values.aspx>



When we look at the Five Forces model as applied to Walmart, we can determine that the Buyer Power of their customers is high because patrons have many other choices. However, customers expect and demand the lowest prices from Walmart, and they are willing to overlook, but not ignore, other factors like customer service, store location, and atmosphere

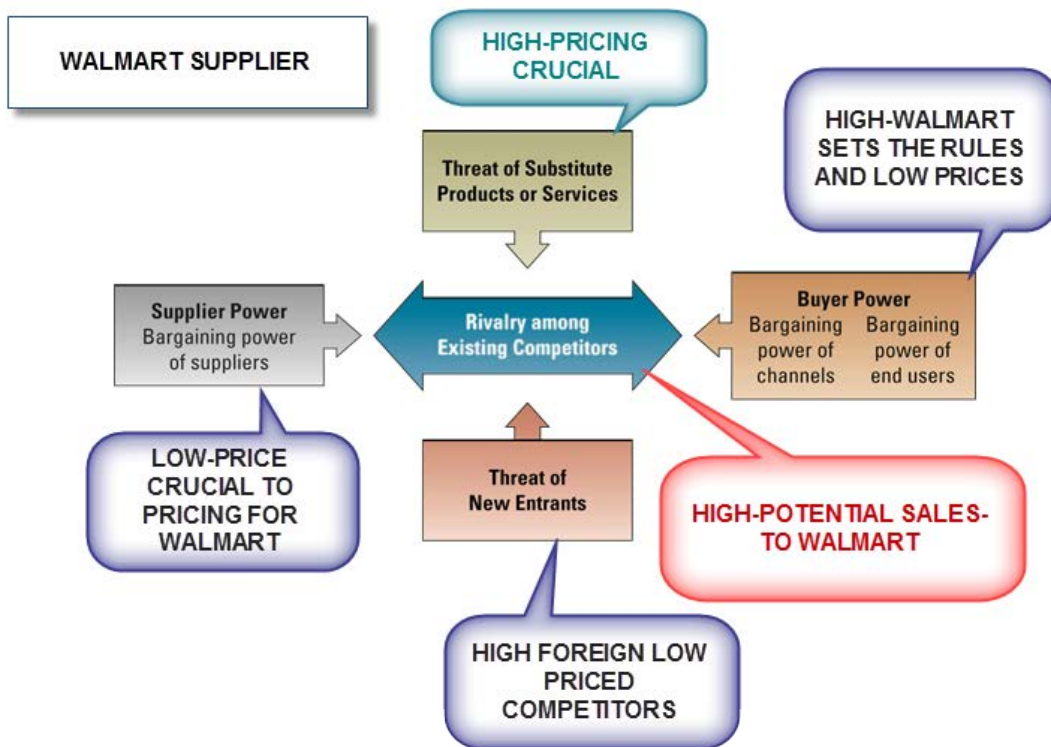
Walmart's Suppliers have little power because of the sheer size of Walmart, and because being a Walmart supplier can provide huge sales potential. The suppliers must do what Walmart wants regarding business processes and technical requirements. They will also be pressured for lower prices, which may cause the suppliers to move production to lower priced labor markets.

The threat of substitute products means that customers can go elsewhere for the same or substitute items. There could be some threat here only because of web based stores as they may be able to have lower prices because of low overhead,

Threat of new entrants in the Brick and Mortar Store area is low, because of the costs involved in building stores and the infrastructure to support the business processes. New entrants in the Internet market would be high, because of the low costs involved and the potential to specialize in different areas with especially low prices.

Rivalry between competitors at a store level would be high and could be affected by the breadth of products and quality of customer service or even the cleanliness and appearance of the store. On a company level, Walmart's Sales are \$418 Billion and Target, their closest competitor's has annual sales of \$67 Billion, so while it may seem there is a large rivalry, the size of Walmart limits the threat.

For new entrants to compete with the Supplier:



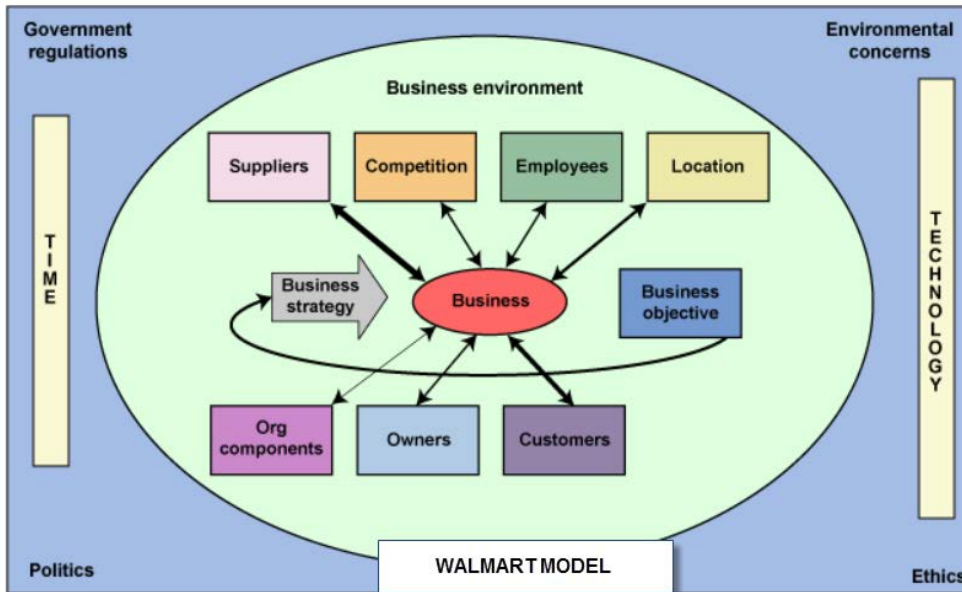
If we look at the Five Forces Model from a Walmart Supplier's perspective, we see that the Buyer Power that Walmart exerts is very high, because they will switch suppliers or eliminate the product if the pricing and process are not what they want.

The Supplier Power of the Supplier's Supplier is low, because if they do not adhere to economic processes and furnish their products at low prices the Walmart Supplier cannot meet the requirements of Walmart.

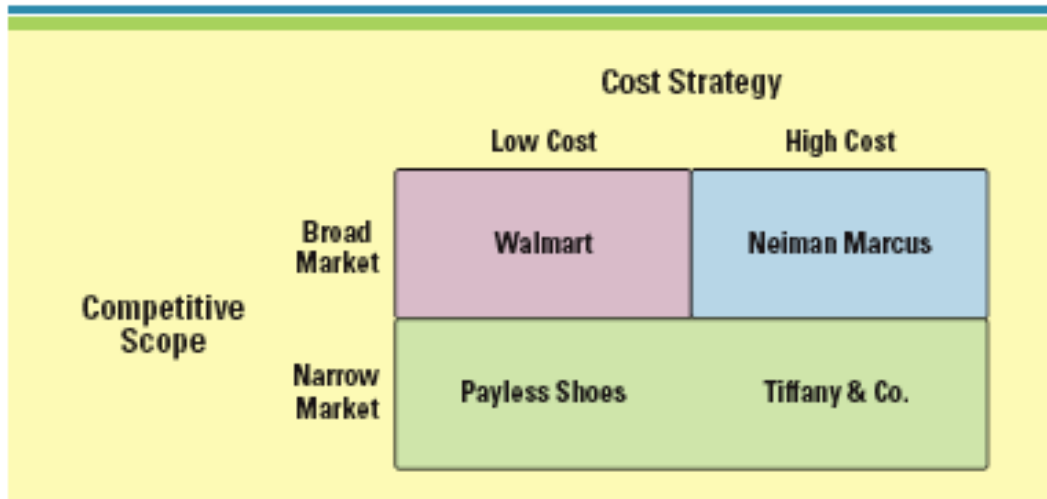
Threat of new entrants will be high, because in this case we are not talking about new startup companies, but rather companies that want to enter the competition for sales to Walmart or foreign affiliates of US companies that can supply the same items cheaper. These would be existing companies who can supply products the same or similar to the ones that we supply. School supplies, clothing, shoes and healthcare products for instance.

Threat of substitute products is high because of Walmart's concentration on price, low cost domestic and foreign substitutes would provide a significant concern.

Rivalry, would be high with similar companies because of the size of the potential sales and the limited shelf space. Faster service, better processes, lower prices or higher quality would be areas where the rivalry would take place.



When we looked at the Walmart Business Model we identified the relative importance of the Direct Variables and noted that the two most important are Suppliers and Customers. If we look at page 20 in the text, we can see that the Generic Strategy for Walmart is in the upper left quadrant, Broad Market and Low Cost, and these make sense looking at the variables, Customers and Suppliers.



(Baltzan, 2012)

The broad market will bring in the largest number of buyers, which would have the effect of lowering buyer power. The Low Cost indicates that many things could affect Walmart's costs, but their biggest Cost is for the goods that they sell and therefore the Suppliers are important and Walmart uses their size to decrease the Supplier power. The Generic Strategy identified makes sense.

Therefore, that would indicate that two strategic areas of higher concern for Walmart would be Supplier related activities like Supply Chain Management (SCM), supplier training, supplier selection, supplier facilitation and Customer related activities, like easy payment, easy return of merchandise, hours of operation, web purchasing with free delivery to the nearest store, stocking the items wanted in the community. Either of these strategic areas would help achieve the Generic Strategy.

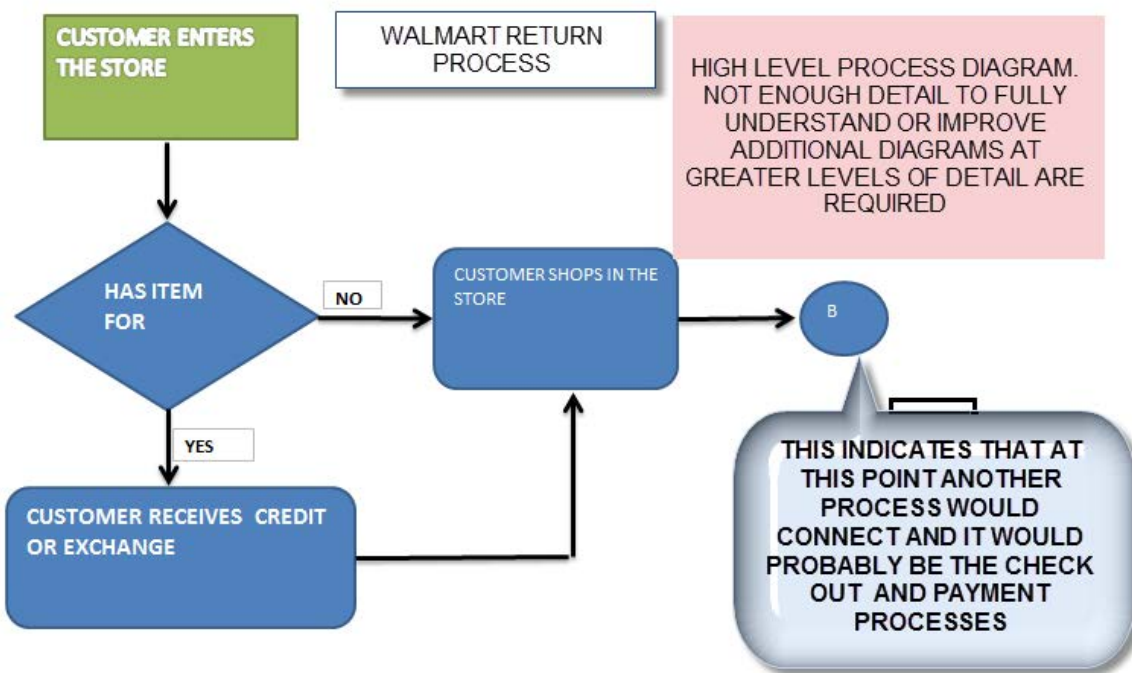
The processes designed for suppliers to use are necessary for Walmart to achieve their objective of low costs leading to everyday low prices. For it to be effective and achieve the desired results all suppliers must adhere to the process as laid out by Walmart and use the required technology that enables the processes to function at the required level to achieve their goals.

Each of these strategic areas is made up of many different things, but both have processes that support them. Some of the Supplier related processes would be inventory replenishment, supplier payment, supplier qualification or supplier quality management. Some of the related customer related processes would be in-store purchase processing, in-store and online payment process, returned item process and customer Internet sale pickup.

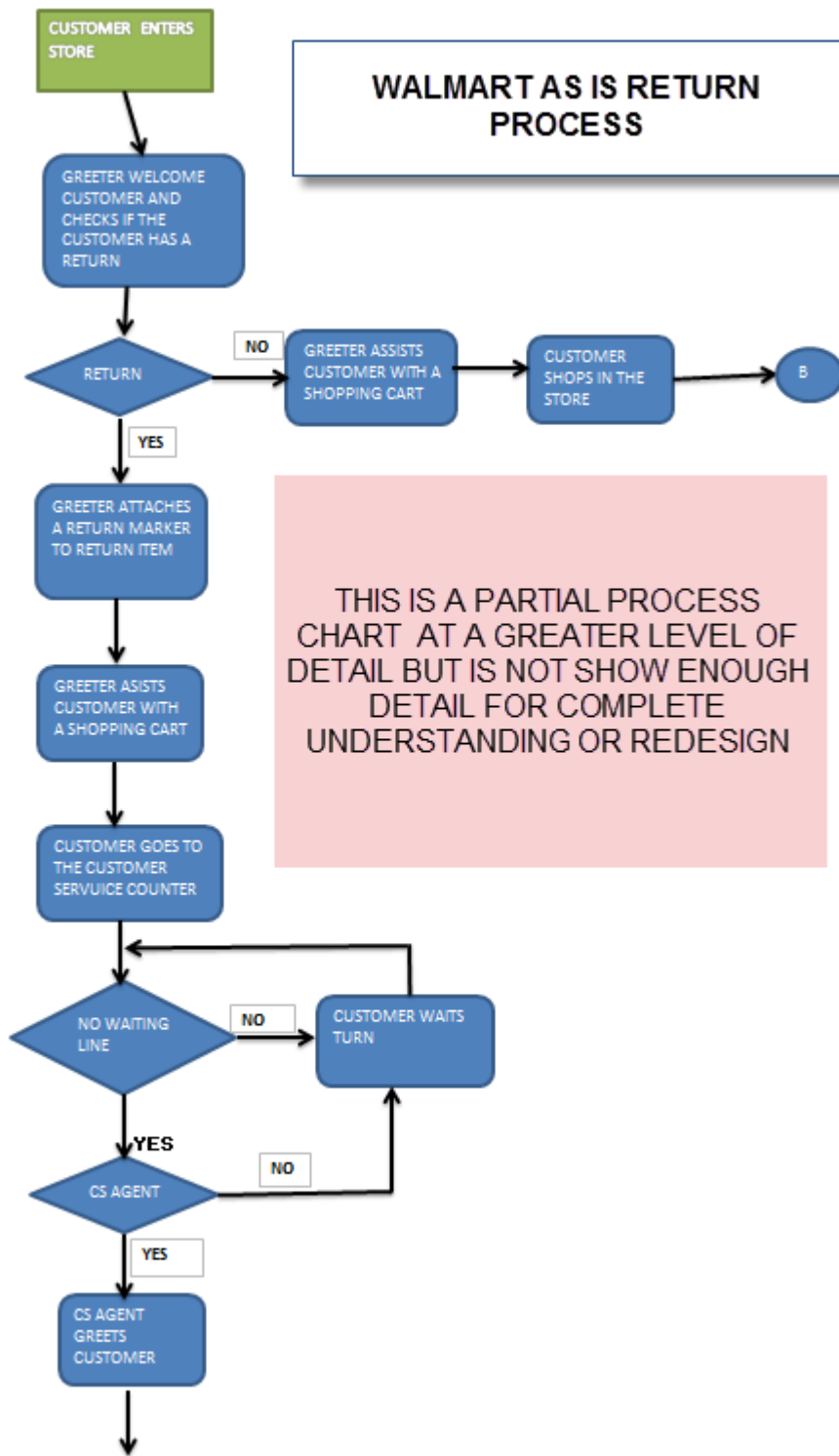
Note that in the Model and in the Strategic Areas there is no mention of IT or computer systems for two reasons, they are not a strategic area and our focus is improving the business processes, which may or may not have anything to do with IT.

Now, Walmart would assemble a team of individuals from different areas that are involved in the process, and are familiar with the current process. Each process that needs to be improved would have its own team. The next step is for the team to document the As Is process, its objective, its inputs and outputs and the steps in the process.. This is usually done with some kind of a process diagram or written step by step description of the how the process works.

Below is a partial sample:



Below is a partial diagram at a greater level of detail.



Once this analysis is complete, it is reviewed to determine where and how it can be improved. At this point technology can be added as an enabler to the business process that has been reengineered.

To Be Process and Solution-Walmart Expedited Return Process (WERP)

When a purchase is processed at the POS, the printed receipt will include the Sales Receipt Number and the Product Bar Code. When a customer enters the store and meets the Greeter, who determines if the customer has a return. If there is no return, he assists the customer with a cart. If there is a return necessary he inquires if the customer has a receipt, If the customer says no, the Greeter attaches a "To be returned tag" to the item and assists the customer with a cart. If the customer has a receipt, the Greeter scans the Sales Receipt Number on a hand held wireless POS and if the item(s) are Bar Coded, the Greeter will scan the Bar Codes of all items to be returned into the hand held and indicate return. If there is no Bar Code on the item the Greeter will select the appropriate item from the Sales Receipt image on the hand held and indicate return. If he cannot identify the item, he will attach a "To be returned tag" to the item process the other items and assist the customer with a cart. If the item was purchased using a Debit or Credit Card the system will credit the card used for the purchase, if the purchase was made for cash or check the hand held will print a Cash Credit slip that can be redeemed at any cashier. The handheld will also print 2 copies of a return receipt attach one with the returned items and give one to the customer along with the original receipt with the returned items crossed out. The greeter will assist the customer with a cart. The greeter will attach the appropriate documents to the returned items and places them in a cart for later processing.

This new process will minimize the customer wait time at the Customer Service Counter and require them to process only the more difficult returns. Since the Customer Service Counter staff is relieved of some processing they can spend that time preparing the returned items for restocking and sorting them by department including those items collected by the Greeter. During peak periods, additional staff may be required to assist the Greeter. The Customer Service return programs will use the same crediting rules as the hand held.

No new technology will be needed as the hand held POS that is used for inventory has the necessary capabilities, but 3 additional units will be required. Programming changes will be required to enable the printing of the Bar Code on the receipt and enable the hand held to access the programs needed for returned and the algorithm for how the credit is processed will need to be programmed and implemented. The WiFi needed for this process is currently available in all stores.

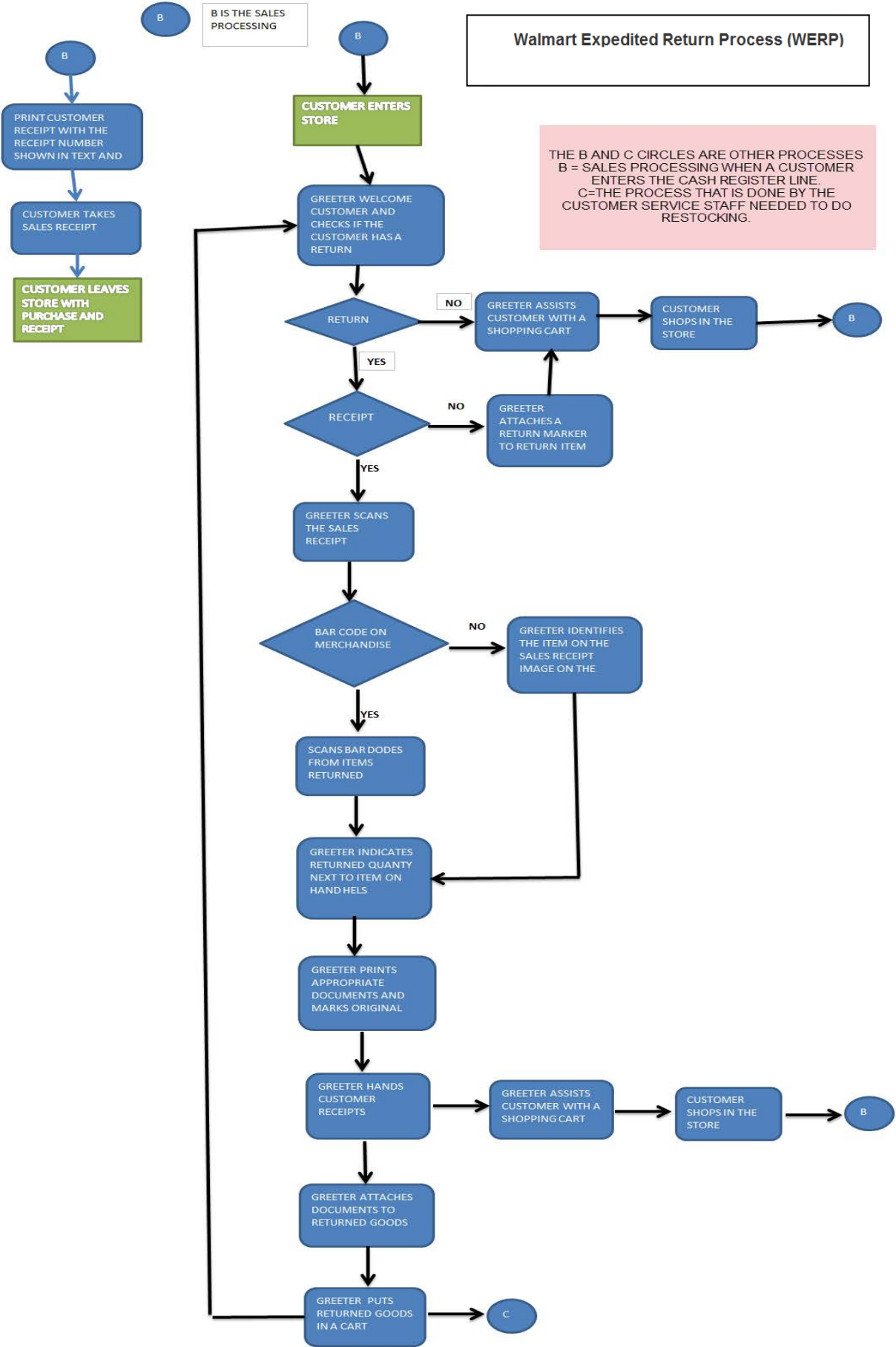
This process change will not **provide any** manpower savings but will decrease overtime, and it will support our strategic objective of improving the customer experience, but could expedite the restocking of returned items or determining their final disposition. The costs are minimal and the equipment purchased could provide back up for handhelds used for taking inventories. The cost of the programming changes would be minor as they would be done by existing programming staff.

The To Be Process is shown below:

Walmart Expedited Return Process (WERP)

THE B AND C CIRCLES ARE OTHER PROCESSES
 B = SALES PROCESSING WHEN A CUSTOMER ENTERS THE CASH REGISTER LINE.
 C=THE PROCESS THAT IS DONE BY THE CUSTOMER SERVICE STAFF NEEDED TO DO RESTOCKING.

B IS THE SALES PROCESSING



When a new IT solution is being developed, a number of areas must be considered. Their importance determined, an explanation provided for that ranking and ultimately the design of the overall new process adjusted to mitigate the major concerns.

Area	Explanation of Area	High/Medium/Low Importance or Relevance or Not Applicable (N/A)	Explanation for Ranking
Accessibility	Varying levels that define what a user can access, view or perform when operating the system	HIGH	Access must be highly controlled because of financial impact of transaction
Availability	Timeframe when the system is operational	HIGH	Must be available during the store hours
Maintainability	Or flexibility how quickly a system can transform to support environmental changes	LOW	Process is required and should not significantly change
Portability	Ability of a system to operate on different platforms or devices like different operating systems	N/A	Equipment and software standard
Reliability	Ensures a system is functioning correctly and providing accurate information	HIGH	Financial transactions and Customer involved
Scalability	How well the system can adapt to increased demands of growth	N/A	Transactions should not increase markedly and scalability included in the major system
Usability	The degree to which a system is easy to learn and efficient and satisfying to use.	HIGH	Greeters should not fumble around and be fast so that the customer is not delayed.
Disaster Recovery Plan	A detailed process for recovering information or a system in the event of a disaster.	N/A	Since this is merely a part of the major store system it will be encompassed in the system wide plan as it cannot function on its own..
Authentication & Authorization	Method to confirm the user's identity and process of providing access needed to perform tasks required.	HIGH	Financial system
Prevention & Resistance (Security)	Prevention of unauthorized use and resistance to intrusion	HIGH	Financial system
Detection & Response (Security)	Being able to detect and respond to unauthorized use.	HIGH	Financial system
Grid Computing	Collection of computers, often geographically dispersed that are coordinated to solve a problem	N/A	Not complex computing
Cloud Computing	Use of resources and applications hosted remotely on the Internet	N/A	Is part of the larger system that does not use cloud
Virtualized	Creates multiple virtual	N/A	Not required by application

Computing	machines on a single computing device		
Communications Architecture	The design of the communication equipment and network protocols.	HIGH	Wireless communication within the store and hard wired communication to central system is needed to operate, but nothing unique for the application
Database Architecture	The structure of the database	N/A	Part of larger system and does not determine architecture
Decision Support	Ability to model information to assist in evaluating different courses of action.	LOW	Supports the Greeter knowing what can be returned
Artificial Intelligence	Simulates human thinking and behavior	N/A	Real intelligence required in the Greeter
Business-to-Business eCommerce	Businesses buying and selling to one another over electronically	N/A	No requirement
Business-to-Consumer eCommerce	Business buying and selling from consumers.	N/A	No requirement

The above IT considerations are evaluated above, there are only a few unique to the customer return module solution, because the considerations are determined by the large transaction processing system and inventory system. This solution is merely expanding the capability by making the return process portable and increase the number of returns that can be processed at one time with no increase in people. Its use could be expanded further to the Customer Service counter if the lines are long by providing the hand held to a supervisor who could make the non-standard decisions. It also is important to note that some of the areas will not be solely a system (IT) issue, but could be a business process or physical issue.

Prior to beginning the project management approval must be obtained for the allocation of resources and to start the project. This is done using a Power Point Presentation.



WERP

Project Funding Presentation

Ray Whitney January 2012

WERP Walmart Expedited Return Process and the purpose of this presentation is to explain the project and its benefits and the required resources and seek your approval of funding so that we might proceed with the project.



Solution

1. Simplify the return process
2. Purchase receipt
3. Paid by credit card
4. Greeter
5. Hand Scanner
6. New capabilities

The solution that we are proposing would eliminate the need for all customers who are returning merchandise from standing in line at the Customer Service Counter who have their purchase receipt and paid by credit card. We would modify the customer receipt adding a bar code identifying the purchase record , When the customer enters the store they are greeted by our Greeters who currently tag all returns and send the customers to the Customer Service Counter where the return would be processed. When the Greeter met the customer who wants to make a return they will enquire if the customer has the receipt and paid by credit card. If the answer is no the customer will be sent to the Customer Service Counter and a tag attached to their return. If the answer is yes ,the Greeter will use new capabilities that have been added for the hand scanner to scan the receipt into our system and the scanner will show the items on the receipt from which the Greeter will select the items being returned and the system will credit the credit card used for the purchase and print a credit receipt for the customer and the Greeter will mark through the items that were returned..



Benefits

Support our strategic objective of improving the customer experience:

- Decrease Time For Returns
- Ensure Accurate Credits
- Greeter Relationship

The proposed solution will support our strategic objective to improve the customer experience by decreasing the time that it takes for a customer to return goods and minimize the time that they will spend in line waiting for service. Since the solution is using data already available and controlled the credits will be accurate, which is important to our customers. Customers have seen our Greeters for years and they have a relationship with them and this solution will increase the customer relationship with our Greeters which will decrease the tension that some experience when they make returns.



Benefits (Cont.)

- Customer Service Staff Availability
- Quicker Availability of Returned Goods
- Decreased Overtime
- Peak Periods
- Existing Technology
- Programming Modifications
- Wi-Fi Availability
- Minimal Cost
- Inventory Backup

This new process will minimize the customer wait time at the Customer Service Counter . The Customer Service Staff will be able to concentrate on the more difficult returns and in effect not making the customer with an easy return wait while difficult returns are processed. Since the Customer Service Counter staff is relieved of some processing they can spend that time preparing the returned items for restocking and sorting them by department including those items collected by the Greeter. The decrease in Customer Service Staff workload could result in a decrease in overtime During peak periods, additional staff may be required to assist the Greeter. The simplicity of the system will allow other employees to be trained and help during peak periods.. No new technology will be needed as the hand held POS that is used for inventory has the necessary capabilities, but 3 additional units will be required. Programming changes will be required to enable the printing of the Bar Code on the receipt and enable the hand held to access the programs needed for returned and the algorithm for how the credit is processed will need to be revised and implemented. The Wi-Fi needed for this process is currently available in all stores as it is used for inventories. Expediting the availability of returned items could result in increased sales. The costs are minimal and the equipment purchased could provide back up for handhelds used for taking inventories. The cost of the programming changes would be minor as they would be done by existing programming staff.



Important Considerations

- **Accessibility**
- **Availability**
- **Reliability**
- **Usability**
- **Communication Architecture**

There are some important considerations in our design of WERP that are created by the new application that are internal to the system, while others are external to the actual application and part of the business environment and procedures and in addition to those already addressed in the other applications that are integrated with WERP.

Accessibility to the scanner and then to the system functions must be controlled because this application allows access to financial transactions. The scanners will be kept under the control of the shift manager who will sign them out to the authorized employees who will have individual logon. And passwords. The system must be available during the store hours so that returns can be accepted. The application, being part of the larger sales system will be available during store hours and Greeters must be at their post from store opening, which is no change from current practice. Since Financial transactions are involved the application must be reliable to ensure correct transaction processing. The use of scanning and transaction data that is already in the sales system and no creation of new data the reliability is ensured. The application must be simple and easily learned so that all employees can become proficient and able to provide help when the volume is high. Most employees are familiar with the scanners as they are used during inventories and the new steps using scanning will make training easy. The Wi-Fi communication architecture that will be needed is currently available and is robust and proven, no new capabilities will be required.



Important Considerations (Cont.)

- **Security**
 - Authentication & Authorization
 - Prevention & Resistance
 - Detection & Response

The various aspects of Security are important, since this is a financial system that affects sales revenue and inventory control, will be met using physical controls and security of hardware and password protection. Since the receipt is required for these transactions nothing new can be entered and once an item is credited it cannot be credited again without management approval. There will be checks in the software that will monitor the credit card numbers used in the returns for an imbalance between purchases and credits . Security staff will monitor the security measures based on their normal procedures used for financial applications.



Next Steps

- Project Manager
- Schedule
- Resources
- Deliverables
- System Development Life Cycle (SDLC)
- Change Management
- Training

Once we have the funding approved we will select a qualified Project Manager who will be responsible for developing a Project Plan that will include a preliminary schedule and identify the required resources identify the deliverables to get the project started. Begin the SDLC finalizing the schedule, resources and deliverables. Change management issues will be addressed, both those affecting the employees and ease the migration to the new application and the policy and procedures for changes to the requirements or the application. Training while addressed in the SDLC, training will be an ongoing need as new employees are hired and to ensure that current employees are updated on any system changes.



Conclusion

Approve WERP Now

Questions

Now that you have heard the benefits of WERP and how it supports our strategy and if you have ever stood in line for an extended period to return some item, when you have all of the paperwork needed and you support our strategy to improve the customer experience, you will approve WERP this morning.

I will be happy to answer any question that you may have.

Now that we have achieved Management's approval of WERP, the project must be initiated and a Project Manager assigned and resources assigned. We have briefly indicated the Next Steps in our presentation, but now we must develop a document of the Next Steps that can be used operationally.

Next Steps for WERP

I. Proposed Technology

- A. Utilize the Greeters to process returns from customers who have their receipts and used a credit card.
- B. Utilize Bar Coding technology will be used to print a transaction identification on the purchase receipt so that the receipt for the returned goods can be scanned and pull up the transaction.
- C. Utilize existing wireless scanning equipment to access the main transaction system and existing software to access the transactions and process credits.
- D. Modify existing transactional software to accept credit transactions from a wireless hand scanner.
- E. Implement the successful WERP solution throughout Walmart.

II. Project Management

A. Project team

1. Project Manager: Store Accounting Manager
2. Executive Sponsor: Store Manager
3. Project Team Members: Greeters, Cashiers, Programmers and Customer Service Staff
4. Supplementary Staff, as and when needed.

B. Schedule

1. A detailed Schedule will be established by the Project Manager for WERP based on planning that will be completed by the development team.
2. It will include all required activities that will lead to project success.
3. It will include the detailed actions required by the steps of the SDLC and identify deliverables and dates that they must be completed.

C. Resources

1. Initial monetary resource has been authorized for WERP by Corporate Management that will cover the costs of the manpower resources, program changes and new equipment purchases.
2. Based on the schedule and the tasks required at various times the project team will need augmentation from the Store Staff for specific activities, for example accountants and auditors.
3. A test environment must be established for development and testing of WERP within the transaction system.
4. In store, access to the test environment must be available on identified nights to duplicate actual operation.

D. Deliverables

1. Deliverables are used to ensure that the WERP Project is on time and meeting the established schedule and are substantive items that indicate a completed activity.
2. They will include but are not limited to a document that be completed at each stage of the WERP SDLC that will be required to initiate the next step. For instance, the Project Plan, Detailed Requirements, Detailed Design Document, purchase of new equipment and etc.

3. The final deliverable will be the fully tested WERP System and trained employees ready to implement the WERP.
4. Develop a plan and tools to migrate WERP throughout Walmart.

III. SDLC

A. Planning

1. Develop a high-level plan of the WERP Project and its intended goals.
2. Develop a detailed plan that will be used to manage WERP.
3. Provide a completed Plan and Schedule approved by the Project Manager.

B. Analysis

1. Develop detailed user requirements for WERP.
2. Refine the goals into defined functions and operations of the WERP System.
3. Provide a completed Requirements Document including explanation of functions and operational requirements approved by the Project Manager.

C. Design

1. Describe the desired features and functions of WERP.
2. Develop screen layouts and receipt design.
3. Develop business rules, like WERP will only handle returns of goods that are accompanied by a receipt and where the credit goes to a credit card.
4. Develop process diagrams.
5. Design a security plan and audit plan.
6. Develop Pseudo Code and other documentation.
7. Develop a detailed Test Plan.
8. Provide a completed Detailed Design Document including all of the above, approved by the Project Manager.

D. Development

1. Transform the Detailed Design Document into the WERP System.
2. Provide detailed documentation of the work performed to meet the Design Document requirements, approved by the Project Manager

E. Testing

1. Collecting all aspects of the WERP System together in the special test environment and testing for errors, bugs, interoperability and usability.
2. Verify that all of the requirements and goals stated in the Requirements Document are met.
3. Provide documentation of the completed Test Plan, approved by the Project Manager.

F. Implementation

1. Implement WERP
2. Obtain User sign off that the system meets the requirements.
3. Begin realizing the benefits.

G. Operations and Maintenance Maintenance

1. Provide ongoing support to allow for changes, corrections additions and upgrades to ensure that the WERP System continues to meet the business goals established.
2. Operate system effectively.

IV. Change Management

- A. Establish policies and procedures to request changes to requirements or business functions that allow the Project Manager to ensure that the requirements are met and the scope does not expand, beyond the plan and budget.
- B. Ensure that required expected and unexpected changes, by government mandates, organizational changes or resource unavailability are identified and documented and if there is a requirement for schedule changes and increased funding, management approval is obtained and the key stakeholders are made aware of the changes.
- C. Establish a process that will help employees understand the changes, impact on their jobs, their scope, objective and benefits to obtain their support and minimize concern and resistance to change.

V. Employee Training

- A. A detailed training program that can be used at our store for all employees who will be part of the WERP process will be developed.
- B. All personnel at our store who will be involved with WERP will be trained in their particular function as well as in the overall WERP process.
- C. Part of the training will be a refresher in the use of the wireless scanning equipment since all employees are familiar with its basic operation as it is used for inventory activities.
- D. Ongoing monitoring of the initial implementation will allow the ability to monitor the employees in the correct WERP operation and assist them with correct usage and make adjustments to the training to emphasize areas that need reinforcement.
- E. Prepare the training program for use at other stores and refine a process for training trainers at other stores.
- F. Modify existing new employee training programs to include WERP training.

VI. Leadership Expectations

- A. The project will meet the stated user requirements.
- B. Project will be completed on time and on budget.
- C. A document containing equipment needs and training program that can be used at other Walmart Stores will be completed and adjusted for lessons learned.
- D. Customers wait time, when returning goods, will be decreased, which will improve customer satisfaction.

VII. Defining Success

- A. User requirements and functions perform as desired and expected.
- B. Project is completed on time and on budget.

- C. Users accept the new process and find that it improves the images of Walmart in the customers' eyes as being concerned about customer satisfaction.

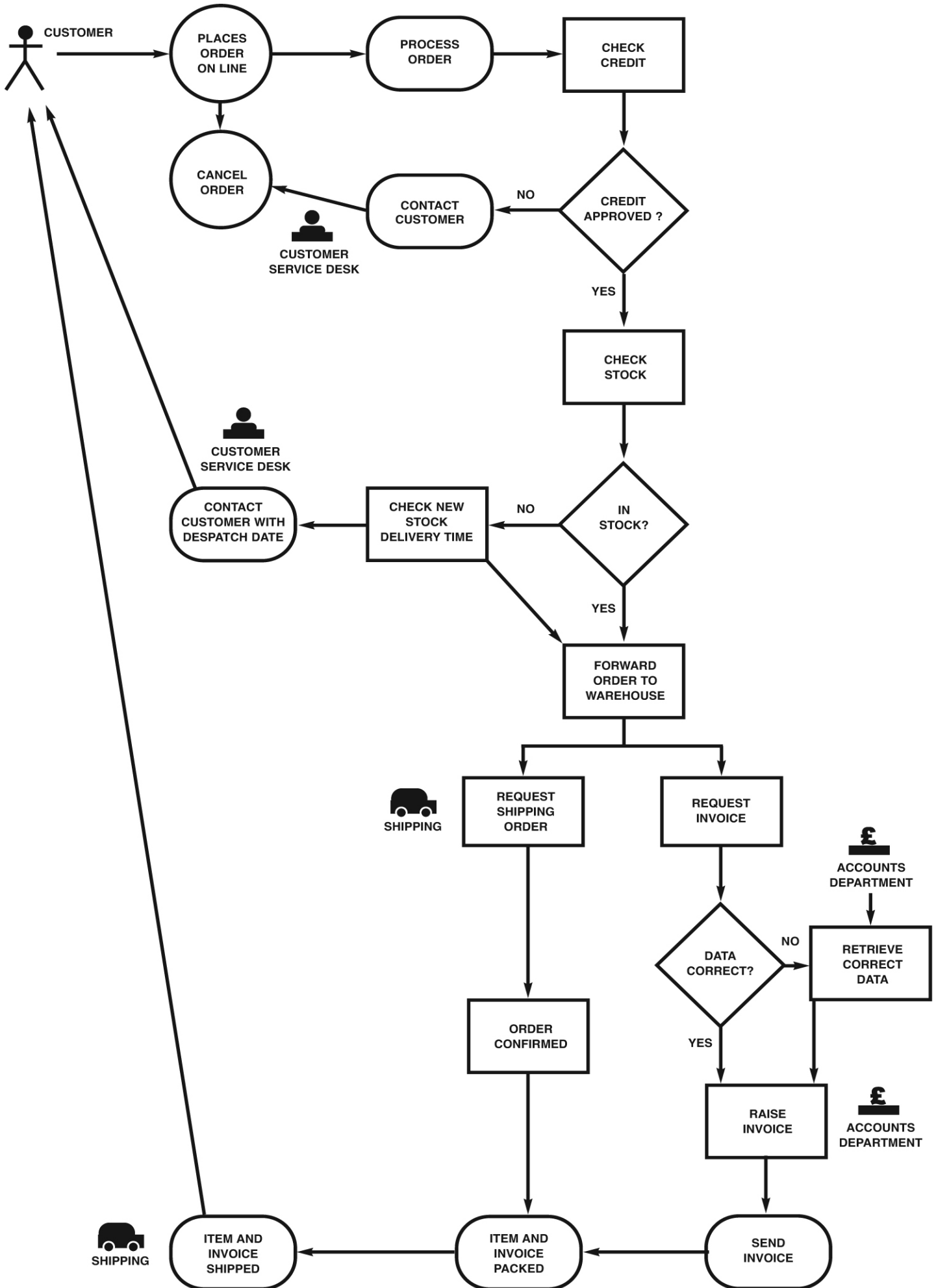
'As is' and 'To be' models - The common two perspectives of a modeling exercise - Where are we now?, and Where do we want to be? -

- The 'as is' or baseline model is an accurate depiction of what actually happens now. Once the model is developed, it is used to analyze and improve the process.
- The 'to be' model is a proposed diagram of how the future process could look, incorporating improvements. This is used to demonstrate, model and test the new process and then implement it.

The below link provides additional information into designing and developing an As-is and To-be model. The link is from a European site so words may be spelled differently, such as "modelling" or "analyse".

<http://www.businessballs.com/business-process-modelling.htm>

Example of Business Process Model Diagram. (Basic online order-delivery process.)



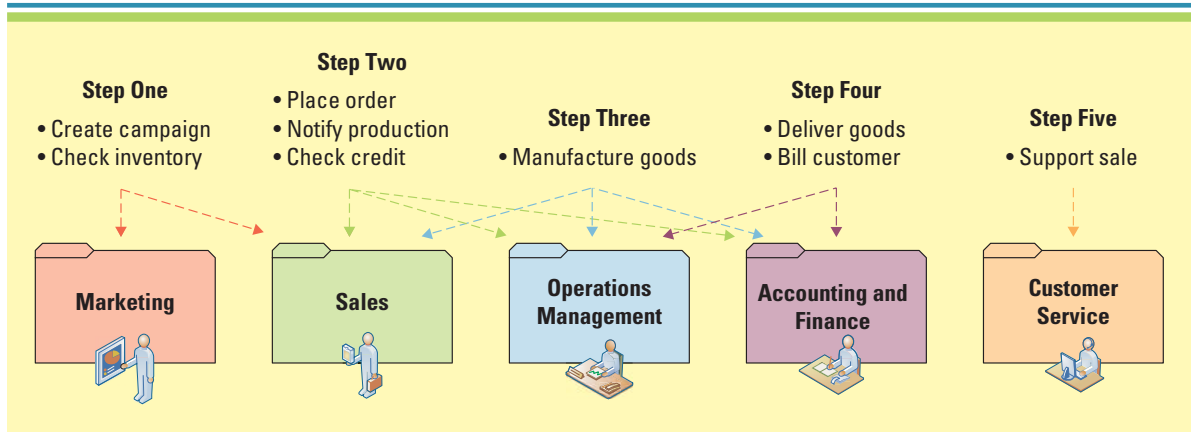


FIGURE 2.17
Five Steps in the Order-to-Delivery Business Process

resources. Figure 2.18 displays the different categories of customer-facing and business-facing processes along with an example of each.¹²

A company's strategic vision should provide guidance on which business processes are core, that is, which are directly linked to the firm's critical success factors. Mapping these core business processes to the value chain reveals where the processes touch the customers and affect their perceptions of value. This type of map conceptualizes the business as a value delivery system, allowing managers to ensure all core business processes are operating as efficiently and effectively as possible.

A firm can even create a value chain map of the entire industry to extend critical success factors and business process views beyond its boundaries. This type of evaluation allowed National Semiconductor to identify the core business processes required to move assembly plants to Southeast Asia. The map identified logistics and distribution as critical to the success of the move. Thus, to ensure reliable delivery of its products, National Semiconductor contracted with Federal Express, combining its outstanding manufacturing process and Federal Express's exceptional distribution processes. The move allowed National Semiconductor to save money by closing nine warehouses while maintaining excellence in logistics and distribution. As this example demonstrates, changing business processes can generate significant competitive advantages across the value chain.¹³

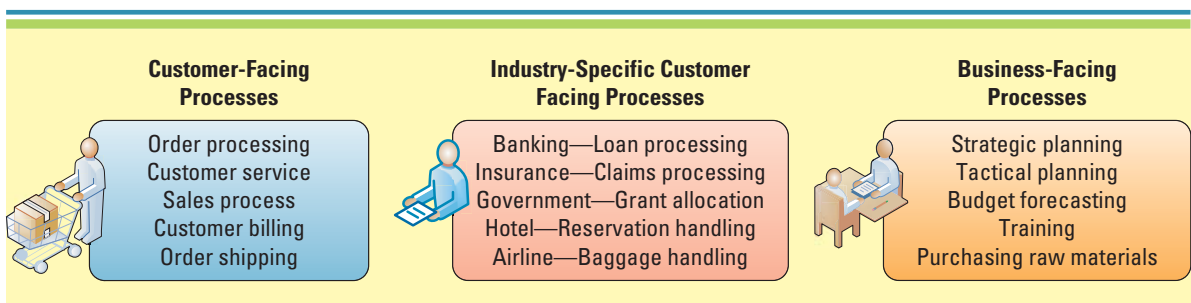
MODELS: MEASURING PERFORMANCE

Business process modeling, or mapping, is the activity of creating a detailed flowchart or process map of a work process that shows 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.

LO 2.6: Demonstrate the value of business process modeling, and compare As-Is and To-Be models.

FIGURE 2.18
Customer-Facing, Industry-Specific, and Business-Facing Processes



- Focus attention on the process model interfaces.
- Provide a powerful process analysis and consistent design vocabulary. (Figures 2.19 through 2.22 provide examples of business process modeling.)¹⁴

Business 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 upon. The *To-Be* process

FIGURE 2.19
Online Sales Process Model

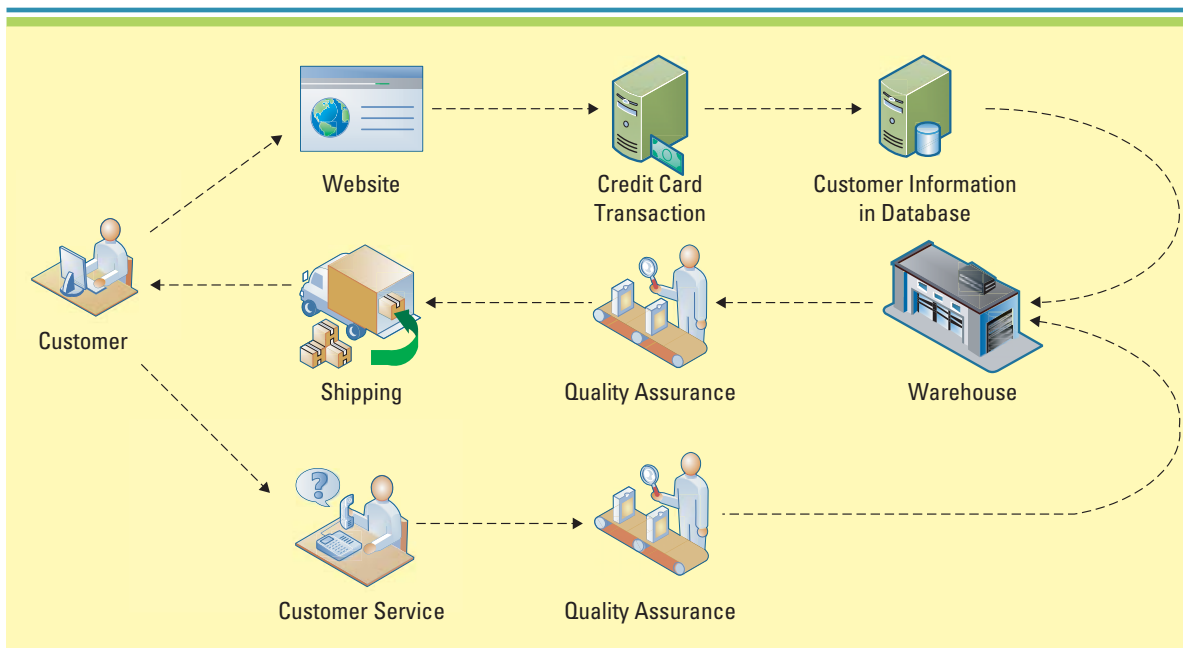
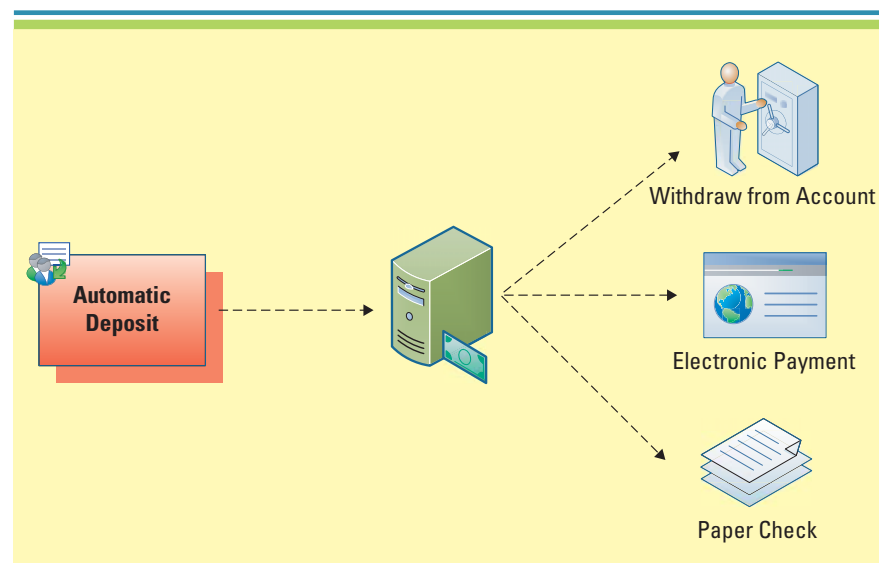


FIGURE 2.20
Online Banking Process Model



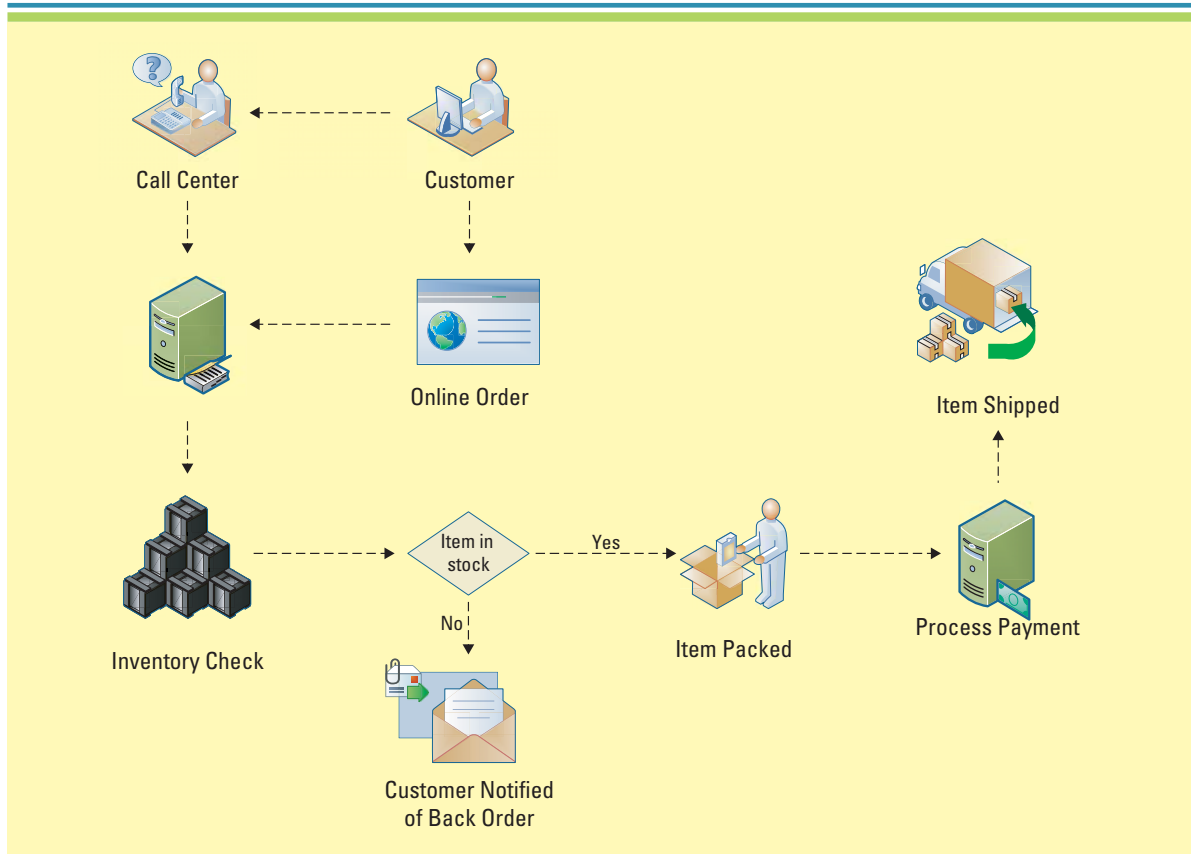


FIGURE 2.21
Order Fulfillment Process Model

model shows *how* the *what* is to be realized. Figure 2.23 displays the As-Is and To-Be process models for ordering a hamburger.

As-Is and To-Be process models are both integral in business process reengineering projects, since these diagrams are very powerful in visualizing the activities, processes, and data flow of an organization. Figure 2.24 illustrates an As-Is process model of the order to delivery process using swim lanes to represent the relevant departments. The *swim lane* layout arranges the steps of a business process into a set of rows depicting the various elements.

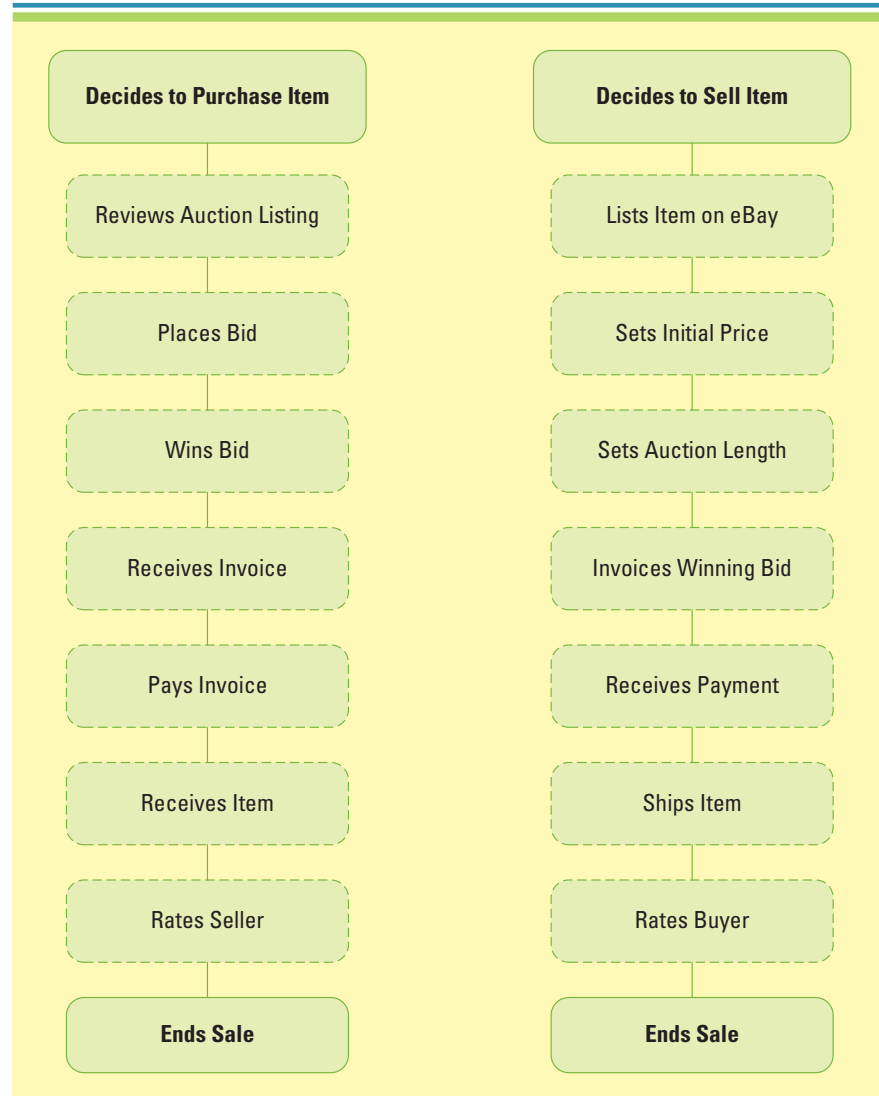
You need to be careful not to become inundated in excessive detail when creating an As-Is process model. The primary goal is to simplify, eliminate, and improve the To-Be processes. Process improvement efforts focus on defining the most efficient and effective process identifying all of the illogical, missing, or irrelevant processes.

Investigating business processes can help an organization find bottlenecks, remove redundant tasks, and recognize smooth-running processes. For example, a florist might have a key success factor of reducing delivery time. A florist that has an inefficient ordering process or a difficult distribution process will be unable to achieve this goal. Taking down inaccurate orders, incorrect addresses, or shipping delays can cause errors in the delivery process. Improving order entry, production, or scheduling processes can improve the delivery process.

Business processes should drive MIS choices and should be based on business strategies and goals (see Figure 2.25A). Only after determining the most efficient and effective business process should an organization choose the MIS that supports that business process. Of course, this does not always happen, and managers may find themselves in the difficult position of changing a business process because the system cannot support the ideal solution (see Figure 2.25B). Managers who make MIS choices and only then determine how their business processes should perform typically fail.

FIGURE 2.22

Purchasing an Item on eBay
and Selling an Item on eBay
Process Model



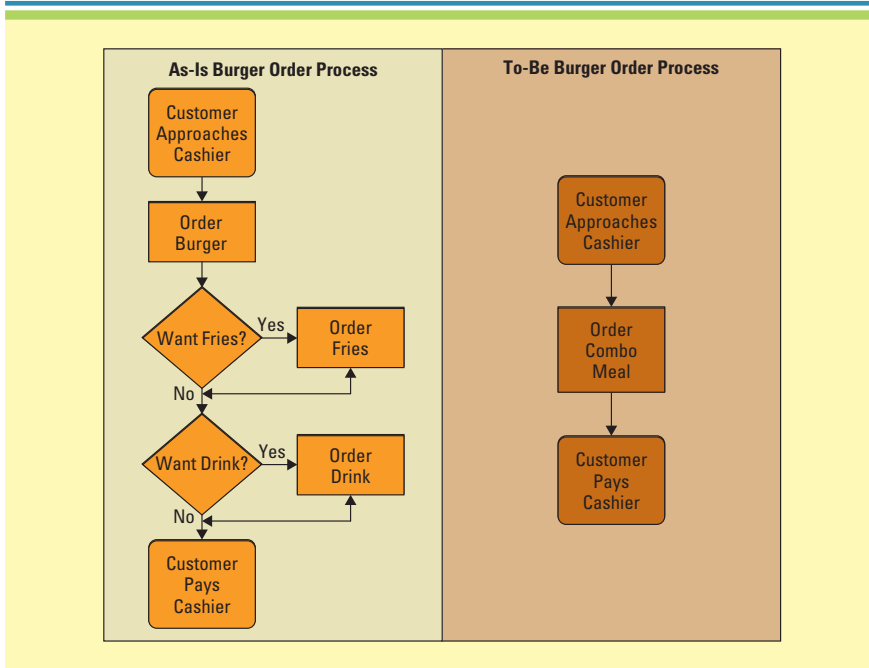


FIGURE 2.23
As-Is and To-Be Process Model for Ordering a Hamburger

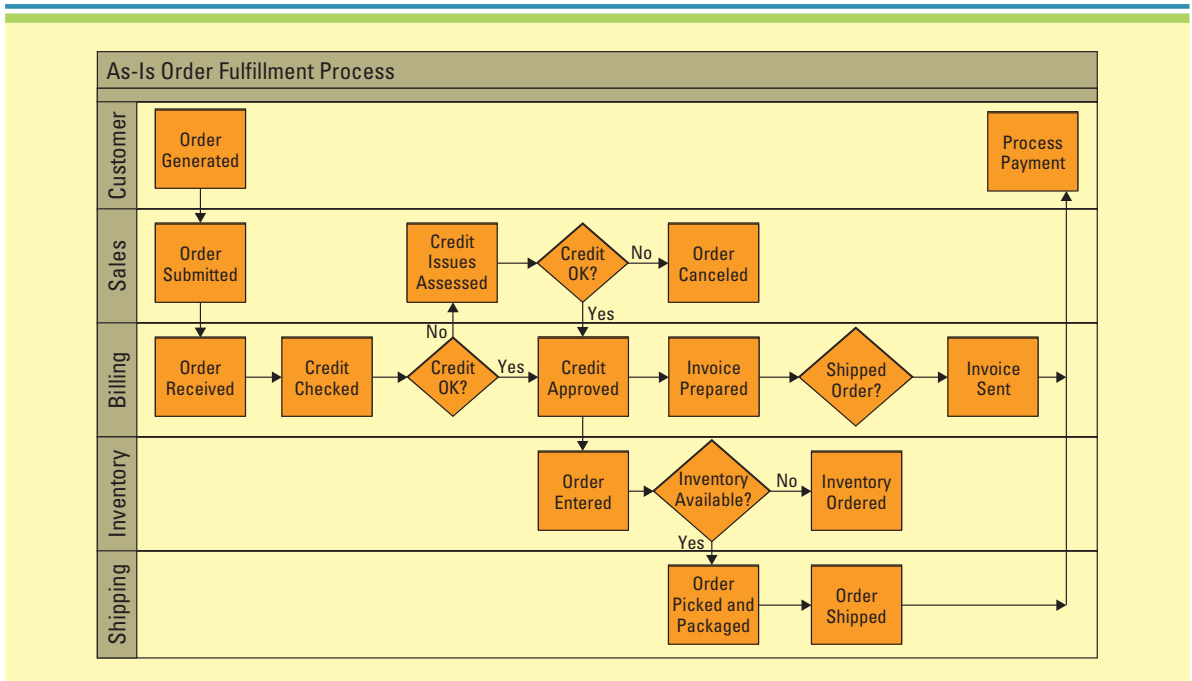


FIGURE 2.24
As-Is Process Model for Order Fulfillment