PART ONE PROJECT

Analyzing Business Processes for an Enterprise System

Your firm manufactures specialty chemicals and dyestuffs used in plastics, fibers, and coatings. It operates five different production facilities in the southeastern United States, with corporate headquarters in Memphis, Tennessee.

Rapid time-to-market of new products, strong customer service, and low costs are essential for remaining competitive in the chemical industry. Management is looking for ways to make the company operate more efficiently and would like to start by examining order processing.

This is how the firm’s order processing currently operates: A customer can call, fax, or mail in an order. A customer service representative writes down order information on an order pad. This information includes the customer name, identification number, shipping address, billing address, product number, product description, quantity, and shipping instructions (such as to call the receiving manager to make an appointment for delivery). After gathering all the relevant information, the representative confirms the entire order with the customer.

While taking down the order information, the customer service representative accesses the company’s order entry system and checks the inventory for each product ordered. The customer service representative first checks the warehouse closest to the customer’s shipping address. If the product is not available there, the representative checks another warehouse. If the order is placed on the telephone, the customer service representative suggests a delivery date, which is four to five business days away. If the customer needs the order sooner, the customer service representative queries the existing order entry system to see which warehouse might have the inventory to fulfill the order. Generally the warehouse closest to the customer’s shipping address will fill the order.

All current orders are collected manually and entered into the firm’s order entry system. The order will not be accepted by the system unless it includes the customer’s identification number, shipping address, and billing address. (If the order is from a new customer, the system can assign a new customer number.) If the order has a delivery date of 8 to 10 business days in the future, the order form will be held manually for several days and then input into the system. If an order is for more than 10 days in the future, it will be treated as a back order when it is input into the system. The system generates a back-order report daily to remind customer service representatives of orders that they have on back order.

When each order has been entered, the system performs a credit check on the customer. Some customers are assigned “credit hold” status and are not shipped their orders until payment has been received for the purchase. Other customer orders are processed immediately and the customer pays for the purchase after receiving the shipment and an invoice. A report on credit hold is forwarded to the credit department and the customer service representatives receive a daily report on orders placed on credit hold.

Different business units at your company use different identification codes for the same products. In other words, corporate headquarters might use a different product number for a product such as Purple Dye #211 than the product identification number used at the plant where it was manufactured.

1. Diagram the order process. What are the outputs of this process?
2. What other major business processes outside of the order process are likely to be impacted by the order process? Explain.
3. How could this process be made more efficient? Draw a diagram of your proposed process and information changes.
4. Prepare descriptions of two reports from this system, one that would be important to the order entry staff and one that would be important to corporate management.
5. Your company is thinking about installing enterprise software. You would like to learn more about enterprise software and how it could handle your order entry process. Explore the Solutions Map for the chemical industry in the SAP Business Maps on the SAP Web site (www.mysap.com). Which SAP processes are likely to address the activities in order processing that we have described? What questions would you ask to see if SAP’s software could handle your order process?
6. You have heard that enterprise software might not be able to handle the following situations:

   - When the system checks for available inventory, it treats material (batches of chemicals) that is still undergoing quality control inspection as available inventory as well as material in inventory that has already passed quality control inspection.
   - There is no way to automatically check customer records to see which qualify for sales tax exemptions.
   - The system assigns a different date for back-ordered items that are currently out of stock rather than the original requested date on the customer order.

What impact might this lack of functionality have on order processing and other parts of the company? How could you determine how serious a problem this creates? What questions would you ask?
PART TWO

Information Technology
Infrastructure

Chapter 6
IT Infrastructure and Platforms

Chapter 7
Managing Data Resources

Chapter 8
Telecommunications, Networks, and the Internet

Chapter 9
The Wireless Revolution

Chapter 10
Security and Control

Part Two Project: Creating a New Internet Business

Part Two provides the technical foundation for understanding information systems by examining technologies and managerial issues in the firm’s information technology (IT) infrastructure. Chapters 6–9 describe contemporary hardware and software platforms along with technologies for data management and communications, highlighting the Internet, wireless networking technologies, and the convergence of computing and communications. Chapter 10 is devoted to security and control, reflecting new urgency of this topic for e-business and for meeting higher standards of control and accountability in the firm.