Chapter 1

Business Functions and Business Processes

At a Glance

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Lecture Notes

Overview

A business process is a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. ERP software supports the efficient operation of business processes by integrating tasks related to sales, marketing, manufacturing, logistics, accounting, and staffing - throughout a business. In addition to this cross-functional integration, which is at the heart of an ERP system, companies connect their ERP systems, using various methods, to coordinate business processes with their customers and suppliers. In later chapters, students will learn how successful business people use ERP programs to improve how work is done within a company and between companies. Chapter 1 provides a background for learning about ERP software.

Objectives

- Name the main functional areas of operation used in business
- Differentiate between a business process and a business function
- Identify the kinds of data each main functional area produces
- Identify the kinds of data each main functional area needs
- Define integrated information systems, and explain why they are essential in today's globally competitive business environment

Teaching Tips

Functional Areas and Business Processes

1. Begin the discussion by looking at a typical business's areas of operation. These areas, called functional areas of operation, are broad categories of business activities.

Functional Areas of Operation

1. Introduce the term **business functions**. Use Figure 1-1 to aid the discussion.

2. Explain that historically, businesses have had organizational structures that separated the functional areas. Business schools have been similarly organized, so each functional area has been taught as a separate course. In a company separating functional areas in this way, Marketing and Sales might be completely isolated from Supply Chain Management, even though the Marketing and Sales staff sell what the employees in Supply Chain Management procure and produce. Thus, you might conclude that what happens in one functional area is not closely related to what happens in others. As students will learn in this chapter, however, functional areas are interdependent, each requiring data from the others.

3. Introduce the term **information system (IS)**.

Business Processes

1. More managers are now thinking in terms of business processes rather than business functions. Remind students that a business process is a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer. Use Figure 1-2 to aid the discussion.

2. Explain that a successful customer interaction is one in which the customer (either internal or external) is not required to interact separately with each business function involved in the process. If companies are not coordinating their business functions, a customer could receive conflicting information and likely would quickly become dissatisfied.

3. Introduce the term **integrated information systems**. Use Figure 1-3 to aid the discussion.

4. Businesses take inputs (resources) in the form of material, people, and equipment, and transform these inputs into goods and services for customers. Effectively managing these inputs and business processes requires accurate and up-to-date information. Use examples to aid the discussion.

Quick Quiz 1

1. ____ are activities specific to that functional area of operation.
   Answer: Business functions

2. A(n) ____ includes the people, procedures, software, and computers that store, organize, analyze, and deliver information.
   Answer: information system (IS)

3. Information systems that are designed so functional areas share data are called ____.
   Answer: integrated information systems

4. (True or False) A successful customer interaction is one in which the customer (either internal or external) is not required to interact separately with each business function involved in the process.
   Answer: True

Functional Areas and Business Processes of a Very Small Business

1. Use this section to examine the business processes of the coffee shop (a fictitious small business) and discuss why coordination of the functional areas helps achieve efficient and effective business processes. Students should understand the role that information

plays in this coordination and how integration of the information system improves your business.

Marketing and Sales

1. Explain that marketing and Sales (M/S) functions include developing products, determining pricing, promoting products to customers, and taking customers' orders. Marketing and Sales also helps create a sales forecast to ensure the successful operation of the coffee shop.

2. Note that, for the most part, this is a cash business, but you still need to keep track of customers so that you can send flyers or occasional thank-you notes to repeat customers. Thus, your records must not only show the amount of sales, but also identify repeat customers.

3. Point out that the decision whether or not to sell a product also depends on how much it costs to produce the product. Use examples to aid the discussion.

Supply Chain Management

1. Explain that the functions within Supply Chain Management (SCM) include developing production plans, ordering raw materials from suppliers, receiving the raw material into the facility, manufacturing products, maintaining facilities, and shipping products to customers.

2. Introduce the term **sales forecasts**.

3. Note that a forecast's accuracy will be improved if it is based on historical sales figures. Thus, forecasts from Marketing and Sales play an important role in the production planning process.

4. Point out that production plans are also used to develop requirements for raw materials. You must generate raw material and packaging orders from these requirements.

Accounting and Finance

1. Explain that Accounting and Finance (A/F) performs financial accounting to provide summaries of operational data in managerial reports, and it is also responsible for tasks such as controlling accounts, planning and budgeting, and cash-flow management.

2. Introduce the term **raw data**.

3. Note that data from Accounting and Finance are used by Marketing and Sales as well as by Supply Chain Management. The sales records are an important component of the sales forecast, which is used in making staffing decisions and in production planning.

Human Resources

1. Even a simple business needs employees to support the Marketing and Sales and Supply Chain Management functional areas, which means the business must recruit, train, evaluate, and compensate employees. These are the functions of Human Resources (HR).

Functional Area Information Systems

1. Use this section to describe potential inputs and outputs for each functional area of a business (refer to Figure 1-2 to review sample inputs and outputs related to the sale of a smartphone). Note the kinds of data needed by each area and how people use the data. Also note that the information systems maintain relationships between all functional areas and processes.

Marketing and Sales

1. Use Figure 1-4 to show that the Marketing and Sales (M/S) area needs information from all other functional areas to effectively complete the business activities for which it is responsible.

2. Note that Marketing and Sales also has a role in determining product prices, which requires an understanding of the market competition and the costs of manufacturing the product. Pricing might be determined based on a product's unit cost, plus some percentage markup.

3. People are a valuable asset to the firm, and Marketing and Sales needs to interact with Human Resources to exchange information on hiring needs, legal requirements, and other matters.

Supply Chain Management

1. Note that Supply Chain Management (SCM) also needs information from the various functional areas. Use Figure 1-5 to aid the discussion.

2. Explain that manufacturing firms often develop production plans of varying length and detail, such as short-range, medium-range, and long-range plans. Plans could be developed for expanding manufacturing capacity (based on sales forecasts), hiring new workers, and paying extra overtime for existing workers.

3. Introduce the terms **stockout** and **safety stock**.

4. Point out that Supply Chain Management records can provide the data needed by Accounting and Finance to determine how much of each resource (materials, labor, supplies, and overhead) was used to make completed products in inventory.

5. Supply Chain Management data can support the Marketing and Sales function by providing information about what has been produced and shipped. Use examples to aid the discussion.

Teaching Tip	To learn about safety stock, visit: http://logistics.about.com/od/strategicsupplychain/a/Safety_Stock.htm

Teaching Tip	To learn about stockout, visit: http://twbs.com/index.php/businessmanagementsystemsblog/how-can-erp-help-predict-stockouts.htm

Accounting and Finance

1. Accounting and Finance (A/F) needs information from all the other functional areas to complete its tasks accurately. Use Figure 1-6 to aid the discussion.

2. Accounting and Finance personnel record the company's transactions in the books of account (which often are computerized records). For example, they record accounts receivable when sales are made and cash receipts when customers send in payments.

3. Marketing and Sales personnel require data from Accounting and Finance to evaluate customer credit. If an order will cause a customer to exceed his or her credit limit, Marketing and Sales should see that the customer's accounts receivable balance (the amount owed to the company) is too high and hold new orders until the customer's balance is lowered.

Human Resources

1. Human Resources (HR) needs information from the other departments to efficiently complete its business activities. Use Figure 1-7 to aid the discussion.

2. Tasks related to employee hiring, benefits, training, and government compliance are all the responsibilities of a human resources department. The Human Resources staff need accurate forecasts of personnel needs from all functional units. In addition, Human Resources needs to know what skills are required to perform a particular job and how much the company can afford to pay employees. These data also come from all functional units.

3. Note that state and federal laws require companies to observe many governmental regulations in recruiting, training, compensating, promoting, and terminating employees - and these regulations must be observed company-wide.

4. Human Resources must create accurate and timely data and reports for management use. Use examples to aid the discussion.

Quick Quiz 2

1. ____ are estimates of future product demand, which is the amount of a product customers will want to buy.
   Answer: Staff forecasts

2. ____ are simply numbers collected from sales, manufacturing, and other operations—without any manipulation, calculation, or arrangement for presentation.
   Answer: Raw data

3. If data are inaccurate or not current, manufacturing may run out of raw material or packaging; such a shortfall is called a(n) ____.
   Answer: stockout

4. (True or False) Safety stock can result in an overinvestment in inventory.
   Answer: True

Class Discussion Topics

1. Discuss the importance of the supply chain.

2. What are the benefits of enterprise resource planning?

3. Discuss the advantages and disadvantages of an ERP system.

Additional Projects

1. Submit a report that discusses the challenges faced by corporate executives when they try to improve supply chain management.

2. What are the costs associated with a stockout? Submit your answer in a report.

Additional Resources

1. Business processes:
   http://publib.boulder.ibm.com/infocenter/dmndhelp/v6rxmx/index.jsp?topic=/com.ibm.wbit.help.bpel.ui.doc/concepts/cunder.html

2. Supply Chain Management:
   http://www.cio.com/article/40940/Supply_Chain_Management_Definition_and_Solutions

3. Supply chain: http://scmr.com/article/warehousing_efficiency_and_effectiveness_in_the_supply_chain_process

4. Business process management: http://scm.ncsu.edu/scm-articles/article/a-quick-primer-on-bpm-business-process-management

Key Terms

- **Accounting and Finance (A/F)** A functional area of business that is responsible for recording data about transactions, including sales, raw material purchases, payroll, and receipt of cash from customers.
- **business function** A business activity within a functional area of operation.
- **business process** A collection of activities that takes one or more kinds of input and creates an output that is of value to a customer. Creating the output might involve activities from different functional areas.
- **Enterprise Resource Planning (ERP)** A system that helps a company manage business processes such as marketing, production, purchasing, and accounting in an integrated way. ERP does this by recording all transactions in a common database that is used by information systems throughout the company and by providing shared management-reporting tools.
- **functional areas of operation** A broad categorization of business activities, including marketing, sales, production, and accounting.
- **Human Resources (HR)** A functional area of business that manages recruiting, training, evaluating, and compensating employees.
- **information system (IS)** The people, procedures, software, and computers that store, organize, and deliver information.
- **integrated information system** An information system that allows sharing of common data throughout an organization. ERP systems are integrated systems because all operational data are located in a central database, where they can be accessed by users throughout an organization.
- **Marketing and Sales (M/S)** The functional area of business that is responsible for developing products, determining pricing, promoting products to customers, taking customers' orders, and creating sales forecasts.
- **raw data** Data on sales, manufacturing, and other operations that have not been analyzed or manipulated for presentation.
- **safety stock** Extra raw material and packaging kept available to help avoid stockouts.
- **sales forecast** An estimate of future product demand, which is the amount of a product customers will want to buy.
- **stockout** A manufacturing shortfall that occurs when raw materials or packaging run out.
- **Supply Chain Management (SCM)** A functional area that includes developing production plans, ordering and receiving raw materials, manufacturing products, maintaining facilities, and shipping products.