

CHAPTER FIVE OUTLINE

STUDENT LEARNING OUTCOMES

1. Define and describe the nine major e-commerce business models.
2. Identify the differences and similarities among customers and their perceived value of products and services in the B2B and B2C e-commerce business models.
3. Compare and contrast the development of a marketing mix for customers in the B2B and B2C e-commerce business models.
4. Summarize the ways of moving money in the world of e-commerce and related issues.
5. Discuss some major trends that are impacting both the e-commerce business world and society in general.

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- Gold, silver, interest rates, and money
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- Small Business Administration
- Global statistics and resources

SUPPORTING MODULES

XLM/B The World Wide Web and the Internet

Extended Learning Module B is a fast-paced tour of the Web and Internet. The first focus is on learning just enough about the Web to be an effective surfer. Then, explore the technology infrastructure behind the Web that makes it all possible. Finally, conclude with an overview of the options for connecting to the Web and the emerging life of Web 2.0.

XLM/E Network Basics

Extended Learning Module E provides an introduction to the vast, exciting, and dynamic field of information technology networks. The module includes discussions of what is needed to set up a small network at home, the components used to build large business networks, Internet connection possibilities, types of communications media, and network security.

CHAPTER FIVE

Electronic Commerce

Strategies for the New Economy

OPENING CASE STUDY: WHAT'S REPLACING THE DAY AFTER THANKSGIVING FOR SHOPPING SALES?

You've heard that the most profitable retail shopping day before Christmas is the Friday after Thanksgiving. It's often called Black Friday, because it's the day retailers move out of the *red* and into the *black* on their income statements. But not anymore . . . Cyber Monday is quickly replacing Black Friday as the big shopping day.

Cyber Monday occurs on the Monday after Black Friday weekend. Cyber Monday is the day when consumers go back to work and shop on the Internet for products they found on Black Friday on retail shelves. Almost 80 percent of online retailers state that sales significantly increased on Cyber Monday last year. And, yes, we are talking about people being at work and shopping for Christmas gifts. According to a BIGresearch/shop.org survey of 7,200 consumers, 37 percent stated that they have used or will use the Internet at work to shop for gifts online. While that creates a problem for productivity in the workplace, online retailers are redefining their business models to take advantage of Cyber Monday.

Ice.com, an online jewelry retailer, sees this as a new business dimension, so much so that it's offering free shipping and a gift-with-purchase promotion for everyone ordering products on Cyber Monday. According to Pinny Ginwisch, Ice.com founder and executive vice president of marketing, "The results are unbelievable." Ice.com expects 400,000 to 600,000 visitors on Cyber Monday, almost double the usual traffic.

Like all online businesses, Ice.com recognizes that danger lies within any opportunity. For example, increased Web traffic means potential

processing delays. So, Ice.com is adding five backup servers just to handle the additional traffic and take over in event of a site crash. Ice.com has hired an additional 10 customer service representatives to handle ordering processing, and has prepared 4,000 packages of its most popular items ready to ship the day after Cyber Monday.

Just like in the traditional brick-and-mortar business environment, in the world of e-commerce you must constantly strive to stay ahead of the competition. You have to determine innovative ways in which to offer products and services that your customers will perceive add value. And you must constantly reevaluate traditional business models such as Black Friday. Black Friday still has its place in the brick-and-mortar world, but Cyber Monday is now the big shopping day in the virtual world. If your organization doesn't act on this information, you may be out business.

In this chapter, we'll explore the world of e-commerce, and we'll continue to introduce you to many special considerations that you must take into account to be successful in e-commerce. Commerce will always be commerce—the buying and selling of products and services. But the "e" in e-commerce presents new challenges and opportunities.^{1,2}

Questions

1. Do you shop for gifts online? If so, at what sites and for what occasions?
2. What's your take on people spending time at work to shop for personal items?
3. How can brick-and-mortar retailers take advantage of Cyber Monday?

Introduction

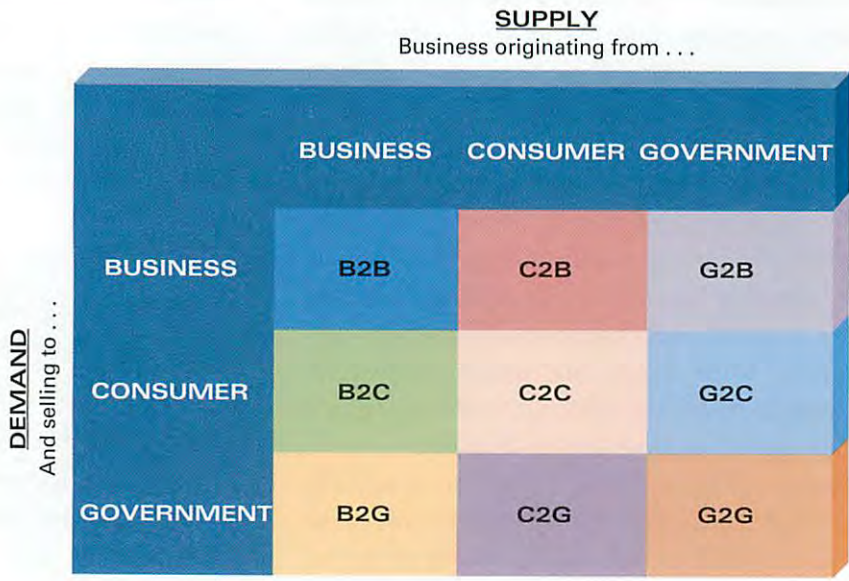
The past 10 years of the new economy introduced by the World Wide Web have certainly been interesting. There has been an entrepreneurial frenzy unlike anything the world has ever seen. Fortunes have been made and lost. Dot-com millionaires and billionaires were literally created overnight—many became dot-bomb paupers in about the same amount of time.

What fueled this frenzy and is still doing so today? It's electronic commerce enabled by information technology. *Electronic commerce (e-commerce)* is commerce, but it is commerce accelerated and enhanced by IT, in particular the Internet. E-commerce enables customers, consumers, and companies to form powerful new relationships that would not be possible without the enabling technologies. E-commerce breaks down business barriers such as time, geography, language, currency, and culture. In a few short hours, you can set up shop on the Internet and be instantly accessible to millions of consumers worldwide.

Is there a catch? The answer is both no and yes. It's "no" because it doesn't take much effort to create your own e-commerce Web site. It's "yes" because you still have to follow sound business fundamentals and principles to be successful. Let's not forget that fundamentally it's still all about commerce, businesses and people buying and selling products and services. E-commerce is no "silver bullet," as some entrepreneurs have found out to their chagrin.

In short, you must have a clear path-to-profitability. A *path-to-profitability (P2P)* is a formal business plan that outlines key business issues such as customer targets (by demographic, industry, etc.), marketing strategies, operations strategies (e.g., production, transportation, and logistics), and projected targets for income statement and balance sheet items. That is to say, running an e-commerce operation is no different from running a traditional brick-and-mortar business. You must identify your customers, determine how to reach them with a compelling story, and so on. The major error that most dot-com businesses made in the late 1990s—and they are no longer in existence today—is that they never developed a clear *path-to-profitability*.

Figure 5.1
Nine Major E-Commerce
Business Models



E-Commerce Business Models

LEARNING OUTCOME 1

As illustrated in Figure 5.1, there are nine major e-commerce business models. While we focus the majority of this chapter on Business to Business (B2B) e-commerce and Business to Consumer (B2C) e-commerce (both in the e-commerce private sector), let's start by exploring each e-commerce business model.

BUSINESS TO BUSINESS (B2B) E-COMMERCE

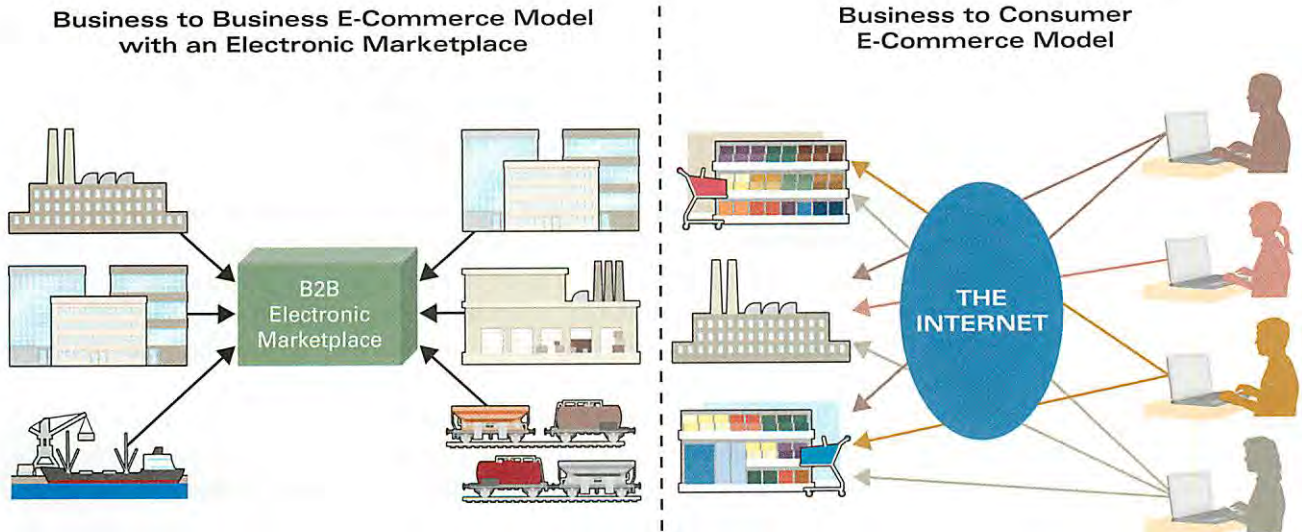
Business to Business (B2B) e-commerce occurs when a business sells products and services to customers who are primarily other businesses. So, for example, when Gates Rubber Company sells belts, hoses, and other rubber and synthetic products to General Motors or any other manufacturer that needs those parts, this is B2B e-commerce. B2B e-commerce is where all the money is right now in the e-commerce world. It's not the flashy consumer-oriented businesses you read about and see everyday such as eBay, Myspace, and so on. It's the many behind-the-scenes interactions that businesses engage in ultimately to support interacting with you as a customer, such as Gates selling a hose to General Motors for a car that you eventually buy. Another example is First Data Corporation. First Data Corporation is a payments infrastructure provider that many businesses use. When you pay with a credit card at most major stores, your credit card authorization and verification is handled by First Data for the store. You may not have even heard of First Data, but it is one of America's top-250 largest corporations.

As you can see in Figure 5.2, businesses are taking full advantage of e-commerce by creating and using B2B e-marketplaces. *B2B e-marketplaces* are virtual marketplaces in which businesses buy from and sell products to each other, share information (as in information partnerships from Chapter 2), and perform other important activities. B2B e-marketplaces represent one of the fastest growing trends in the B2B e-commerce model.



E-Commerce Economics

Figure 5.2
Business to Business and Business to Consumer E-Commerce Business Models



Businesses are increasingly aware that they must create supply chain management systems, drive out costs, create information partnerships with other businesses, and even collaborate with other businesses on new product and service offerings. B2B e-marketplaces offer tremendous efficiencies to businesses for performing all of these tasks.

BUSINESS TO CONSUMER (B2C) E-COMMERCE

Business to Consumer (B2C) e-commerce occurs when a business sell products and services to customers who are primarily individuals. You are no doubt familiar with this model of e-commerce. If you've ever ordered a book on Amazon (www.amazon.com), purchased a CD from Circuit City online (www.circuitcity.com), or ordered a movie from Netflix (www.netflix.com), you've participated in B2C e-commerce.

B2C e-commerce garners most of the attention these days in the popular media. B2C e-commerce is the model that fueled the early growth of e-commerce in the 1990s. B2C e-commerce is very much a cut-throat environment, no matter what the product and service. Amazon, one of the most well-known B2C businesses, daily faces stiff competition from hundreds of other e-commerce businesses selling books, movies, music, clothing, computers, consumer electronics, health and beauty products, and home and garden products.

As you can see in Figure 5.2, the B2C e-commerce business model is very different from the B2B e-commerce business model. Consumers interact directly with businesses via the Web. Consumers surf around the Web evaluating products and services at numerous separate e-commerce sites until they eventually choose one site from which to make a purchase. And while businesses prefer to enter into long-term partnerships with other businesses in B2B e-commerce, consumers are fickle and purchase the same types of products and services from many different sites.

CONSUMER TO BUSINESS (C2B) E-COMMERCE

Consumer to Business (C2B) e-commerce occurs when an individual sells products and services to a business. The C2B e-commerce business model is a true inversion of the B2C e-commerce business model. In the B2C e-commerce business model, demand is driven by the consumer and supply is driven by the business. In C2B it is inverted; the consumer drives supply and the business drives demand.³ Many people have mistakenly lumped such sites as Priceline.com (www.priceline.com) into the C2B category. At Priceline.com you, as a consumer, can set your price for items such as airlines tickets and hotel rooms, but you (as a consumer) still provide the demand and the airline or hotel still provides the supply.

A good example of a true C2B e-commerce business model is offered by Fotolia (www.fotolia.com). There, as an individual, you can post your photos and videos for sale to businesses. Businesses search through the photo and video archives, and, if they choose yours, will pay you a royalty fee to use the photo or video.

Affiliate programs are another good example of the C2B e-commerce business model. Through an affiliate program relationship with Amazon, for example, you can post links on your personal Web site to Amazon for products and services it sells. If a visitor to your site clicks on one of those links and eventually buys the product or service from Amazon, Amazon will pay you a commission fee, which is usually some small percentage of the sale. With this arrangement, you are selling advertising space to Amazon on your Web site; hence, it is an example of the C2B e-commerce business model.

Currently, the C2B e-commerce business model represents only a fraction of the total revenues in the e-commerce space, but it is expected to grow as businesses realize that individuals are more than just consumers of products and services. Blogging, for example, can easily become a C2B e-commerce business model, if you know what you're doing.

CONSUMER TO CONSUMER (C2C) E-COMMERCE

Consumer to Consumer (C2C) e-commerce occurs when an individual sells products and services to another individual. C2C e-commerce usually takes place through an intermediary organization, such as eBay. eBay is a hybrid of both a B2C e-commerce site and a C2C e-commerce site. It is a B2C e-commerce site because it sells a service to you, that of giving you the ability to interact in the auctioning of items. (You pay eBay only if you're the seller, not the buyer.) And it is really an intermediary supporting your engagement in a C2C e-commerce business model. That is, you use eBay to sell products and services to other consumers, and you use eBay to buy products and services from other consumers.

Many C2C Web sites don't really support any sort of e-commerce (i.e., money exchanging hands for products and services). Rather, they facilitate the gathering of people with common interests and something to share. Kazaa (www.kazaa.com) is an example of such a site because it brings together people who want to share mainly MP3 music files. Blogs might also fall into the category of C2C, as they support people sharing and discussing common interests. Many of these types of sites are *ad-supported*, meaning that they derive their revenue by selling advertising space, much like the concept of an affiliate program.

BUSINESS TO GOVERNMENT (B2G) E-COMMERCE

Business to Government (B2G) e-commerce occurs when a business sells products and services to a government entity. Lockheed Martin, for example, generates almost 80 percent of its revenue by providing products and services to the U.S. Department of Defense (DoD).⁴ Lockheed Martin sells tactical aircraft, aeronautical research equipment, commercial satellites, government satellites, strategic missiles, naval systems, and IT equipment and services to the U.S. federal government.

Lockheed Martin does this through e-commerce. A major initiative of the U.S. federal government—found in the President's Management Agenda (PMA)⁵—over the past 10 years has been to automate the solicitation and procurement of products and services through e-commerce. According to the PMA, *electronic government (e-government)* is the use of digital technologies to transform government operations in order to improve efficiency, effectiveness, and service delivery. Government entities such as the DoD electronically submit a request for proposal (RFP) or request for quote (RFQ) to vendors for products and services. Those vendors—including Lockheed Martin—provide the RFPs and RFQs electronically back to the government. In fact, in most instances, if you can't perform these types of functions electronically, the U.S. government (and many U.S. state governments) won't do business with your organization.

CONSUMER TO GOVERNMENT (C2G) E-COMMERCE

Consumer to Government (C2G) e-commerce occurs when an individual sells products and services to a government entity. This is very similar to the C2B e-commerce business model, except that the buying partner is a government entity, not a business. The C2G market is quite small, and, to say the least, unremarkable. While you could receive royalties from a government entity for the photos and videos you post on Fotolia, most government entities do not engage in buying products and services from individuals. For example, to sell products and services to the U.S. federal government, you must register yourself as a formal business within the Central Contractor Registration (CCR) system at www.ccr.gov. So, you're not really an individual anymore, but, at a minimum, an individual "doing business as" (DBA) some organization or business.

GOVERNMENT TO BUSINESS (G2B) E-COMMERCE

Government to Business (G2B) e-commerce occurs when a government entity sells products and services to businesses. There are several good examples within this e-commerce business model. The first is the Small Business Administration (SBA, at www.sba.gov). In addition to providing small business loans (which do have an interest accruing), the SBA offers services in many areas such as surety guarantees, disaster assistance, ombudsman, and so on. Most of these services are free, to be sure, but some that involve financial backing and guarantees carry with them various fees and commissions.

Another example is government surplus auctions. At all levels of government—local, district, state, and federal—many entities sell off government surplus, often to individuals but sometimes only to registered businesses. For example, the Transportation Security Administration (TSA) holds frequent auctions to sell off confiscated items at airport security installations, such as small knives, fingernail clippers, and the like, and also items left at those installations by passengers who forgot to gather all their personal belongings.

Some branches of government also sell information to businesses wanting to perform research. While most of the information gathered by the U.S. Geological Survey (Department of Interior) is freely and publicly available, a business can buy more detailed information (none of it being sensitive, of course).

GOVERNMENT TO CONSUMER (G2C) E-COMMERCE

Government to Consumer (G2C) e-commerce refers to the electronic commerce activities performed between a government and its citizens or consumers including paying taxes, registering vehicles, providing information and services, and so on. This particular model of e-commerce does not often fit well within the supply-and-demand notion. Again, supply is the first partner and demand is the second partner. In the B2C model for example, Amazon has the supply of books, movies, and other products, and you—as a consumer—provide the demand. In the G2C model, a government often provides citizens with the ability to interact with it electronically to achieve efficiencies. Paying your taxes is an example. You can file your taxes electronically and receive your refund (or pay additional taxes) electronically. The notion of supply and demand isn't particularly applicable in this case.

In many instances, you can expect the U.S. government (and state governments) to do this to such an extent that it is no longer a click-and-mortar enterprise but rather a click-and-order enterprise. *Click-and-mortar* refers to an organization that has a presence in the physical world such as a building you can visit and also a presence in the virtual world of the Internet, while *click-and-order* (also known as *pure play*) refers to an organization that has a presence in the virtual world but no presence in the physical world. One such example is buying, holding, and redeeming savings bonds. At TreasuryDirect (www.treasurydirect.gov), you can set up an account, buy savings bonds with a credit card, check the maturation status and redeemable value of the bonds, and even redeem the bonds, all electronically. The federal government is aggressively moving in the direction of this being the only way you can buy, sell, and redeem savings bonds.

GOVERNMENT TO GOVERNMENT (G2G) E-COMMERCE

Government to Government (G2G) e-commerce refers to the electronic commerce activities performed within a nation's government. (It might also refer to the electronic commerce activities performed between two or more nations' governments including providing foreign aid.)

Vertical government integration refers to electronic integration of agencies, activities, and processes up and down federal, state, and local government levels. For example, if a manufacturing operation will be creating landfills of waste and pumping sanitized fluids into rivers and streams, it must meet EPA (Environmental Protection Agency) guidelines at local, state, and federal levels. Thus, those levels requiring EPA standards would integrate their IT systems to share information about that manufacturing operation. Another example here falls in the education arena. At all levels of government, there must be information sharing concerning K-12 education standards, test results, and the like.

Horizontal government integration refers to the electronic integration of agencies, activities, and processes across a specific level of government. For example, at the federal level, the EPA may work with the FDA (Food and Drug Administration) to develop standards for food processing plants that emit gases into the atmosphere as a result of their operations. The EPA and FDA share this information horizontally to ensure that each food processing plant is meeting both sets of guidelines (i.e., EPA guidelines and FDA guidelines). Another good example here is that of the armed forces and the Department of Veterans Affairs (VA). As a member of the armed forces moves from active service to the VA (through retirement, injury, etc.), a large amount of information must be communicated to the VA including vitally important medical information.

That ends our overview of the nine e-commerce business models. Although conceptually distinct, in practice each overlaps with one or more of the other models. The question for you now is how to execute on the e-commerce model in which your business operates. We'll focus specifically on B2B and B2C e-commerce, since that is where you'll most likely be working. We will explore three e-commerce *critical success factors*: (1) Understand your business and your customers; (2) Find and establish relationships with customers; (3) Move money easily and securely.

Understand Your Business, Products, Services, and Customers

LEARNING OUTCOME 2

To gain a competitive advantage and be successful in any business, you must clearly define the nature of your products and services, know who your target customers are, and understand how your customers perceive the use of your products and services in their business activities (for the B2B model) or in their personal lives (for the B2C model). To create sound business strategies you have to understand the value that your customers place on your products and services.

There are many worthwhile business activities. But as important as writing a mission statement and producing glitzy marketing brochures may be, what must come first is an objective, very down-to-earth understanding of what your business does. The reality is you can't be all things to all customers. You must answer two questions: (1) Who are your target customers? and (2) What is the value of your products and services as perceived by your customers? Let's look at each in turn.

WHO ARE YOUR CUSTOMERS?

Just as in a brick-and-mortar business, in the e-commerce world you focus your efforts on selling to other businesses, to individual end consumers, or to some combination of the two. If you were in a business like Gates Rubber Company, which produces mostly rubber and synthetic products primarily for sale to the automotive industry and manufacturers of such products as boats and bicycles, you would focus almost exclusively on

the B2B e-commerce model, with other businesses as your target customers. If, however, you were selling resumé writing and job placement services to individuals looking for careers, your customers would be B2C individual end consumers. Finally, you might be like Monster.com (www.monster.com), which provides an electronic marketplace catering to both individuals looking for careers and businesses looking for employees. If you were in a business like Monster's, your customer mix would include both end consumers and businesses and you'd need to carefully consider both groups of customers, their needs, and the value to them of the products and services you sell.

Many businesses in the travel industry, American Express, for example, cater to both businesses and end consumers. As an individual consumer, you might work with American Express to plan and pay for a vacation. At the same time, many businesses use the services of American Express to handle all their business travel needs.

Whatever the nature of your business, you must know who your customers are. In the world of e-commerce, that means clearly distinguishing between end consumers (B2C) and other businesses (B2B), even if you target both. As you will see throughout this chapter, individual end consumers and other businesses have dramatically different needs.

WHAT IS THE VALUE OF YOUR PRODUCTS AND SERVICES AS PERCEIVED BY YOUR CUSTOMERS?

If a customer orders a product or service from your organization, it is because that customer perceives some value in what you provide—the customer either *wants* or *needs* your product or service. When we examine wants and needs, the distinctions between end consumers and businesses as customers become increasingly important and clearly evident. Let's look at product/service categories needed by each customer group in turn.

B2C: CONVENIENCE VERSUS SPECIALTY In many respects, you can differentiate between convenience and specialty merchandise (or services) on the basis of price and consumers' frequency of purchase. To end consumers, *convenience* merchandise is typically lower priced but something they often need, usually frequently. Nonperishable

Figure 5.3
B2C and B2B Products and Services

Business to Consumer (B2C)	Business to Business (B2B)
<ul style="list-style-type: none"> • Convenience—low-priced but something needed on a frequent basis 	<ul style="list-style-type: none"> • Maintenance, repair, and operations (MRO) materials—necessary items that do not relate directly to the company's primary business activities
<ul style="list-style-type: none"> • Specialty—higher-priced, ordered on a less frequent basis, and often requiring customization 	<ul style="list-style-type: none"> • Direct materials—materials used in production in a manufacturing company or placed on the shelf for sale in a retail environment
<ul style="list-style-type: none"> • Commoditylike—the same no matter where you buy it 	
<ul style="list-style-type: none"> • Digital—the best of all because of low cost of inventory and shipping 	

food items such as breakfast cereals are a good example. From organizations such as Peapod (www.peapod.com), you can easily order food items and have them delivered to your home within 24 hours of making the order or at predetermined time intervals such as weekly. Consumers might pay more for these low-priced items in order to have them “conveniently.”

Specialty merchandise might be such things as home stereo systems, computers, name-brand clothing, furniture, and the like. For consumers, these are higher-priced (than convenience merchandise) items, are typically ordered on a less-frequent basis, and often require some sort of customization or feature specification. For specialty merchandise, consumers will spend more time “shopping around,” not only to find the best deal in terms of price but also because value for these items is perceived in terms of customization, warranty, service, and other after-sales features.

B2C: COMMODITYLIKE AND DIGITAL In B2C e-commerce, as a general rule, the best merchandise to sell is either commoditylike, digital, or a combination of the two. This enables you to minimize your internal costs, but requires that you be innovative in how you offer your merchandise and attract consumers to your site.

Commoditylike merchandise, to your customers, is the same regardless of where they purchase it, and it is similar to convenience items in that respect. Books are a good example. No matter where you buy a particular book, it is the same. As a business, you compete in a commoditylike environment on the basis of:

- Price
- Ease of ordering
- Ease and speed of delivery
- Your return policy

Of course, commoditylike business environments are typically easy to enter (i.e., they have low barriers to entry) and thus buyer power is high (from Porter’s Five Forces Model in Chapter 1). Your organization’s goals in this type of environment would have to include (1) minimizing price to the end consumer and (2) minimizing your internal costs by creating a tight supply chain management system (from Chapter 2). You also want to create a “sticky” Web site that not only attracts consumers but also encourages them to return to your site again and again.

Digital merchandise offerings are also important in the B2C e-commerce model. The goal here is to eliminate shipping costs by delivering the digital product over the Internet once a consumer has made a purchase. Music is a good example. Apple’s iTunes Web site (www.apple.com/itunes/store/) allows you to select exactly the song you want, pay for it, and then download it from the Internet. Apple can offer each song for just 99 cents because it has no physical delivery costs and no physical inventory. As this example illustrates, digital products are also advantageous (to the business and to the consumer) because they are customizable. That is, customers don’t have to purchase an entire music CD—they can pick only the song or songs they want.

B2C: MASS CUSTOMIZATION End consumers are often interested in customizing their purchases. In the B2C e-commerce model this need gives rise to the concept of *mass customization*—the ability of an organization to give its customers the opportunity to tailor its product or service to the customer’s specifications. Customization can be appropriate and is a key competitive advantage regardless of other customer value perceptions. For example, Dell Computer (www.dell.com) is well regarded in its market especially for being the best at allowing consumers to customize a computer purchase. Music sites, such as Apple, now allow you to pick the songs you want instead of an entire CD. Clothing sites allow you to select from among various styles, colors, and sizes of clothing to fit your needs.

In a B2C environment, you're potentially dealing with millions of different consumers, each with unique tastes and needs. You must support the concept of mass customization.

B2B: MRO VERSUS DIRECT *Maintenance, repair, and operations (MRO) materials* (also called *indirect materials*) are materials that are necessary for running a modern corporation, but do not relate to the company's primary business activities. MRO materials include everything from ballpoint pens to three-ring binders, repair parts for equipment, and lubricating oils. Thus, B2B MRO materials are similar to convenience and commoditylike items in the B2C e-commerce model.

In their purchases of these materials, however, business customers (B2B) are very different from end consumers (B2C) in many ways. For example, a business because of its volume of MRO materials purchases can bargain with suppliers for a discount (end consumers in the B2C e-commerce model usually don't have this ability). Many businesses may band together to create even more volume and thus demand an even higher discount from a supplier. This practice is known as *demand aggregation*—the combining of purchase requests from multiple buyers into a single large order, which justifies a discount from the business. If your organization is a supplier of MRO materials in the B2B e-commerce model, you will compete mostly on price (including discounts), delivery, and ease of ordering.

Direct materials are materials that are used in production in a manufacturing company or are placed on the shelf for sale in a retail environment. So, as opposed to MRO materials, direct materials relate to a company's primary business activities. It is critically important that the customer business receives exactly what is needed in terms of quality, quantity, and the timing of delivery of direct materials.

For direct materials acquisition, some businesses participate in a reverse auction (through an electronic marketplace). A *reverse auction* is the process in which a buyer posts its interest in buying a certain quantity of items with notations concerning quality, specification, and delivery timing, and sellers compete for the business by submitting successively lower bids until there is only one seller left. Reverse auctions create tremendous "power" for the buyer because multiple sellers are competing for the same business.

B2B: HORIZONTAL VERSUS VERTICAL As a supplier to other businesses, you also need to understand whether you are selling in a horizontal or vertical e-marketplace (see Figure 5.4). An *electronic marketplace (e-marketplace)* is an interactive business providing a central market space where multiple buyers and suppliers can engage in e-commerce and/or other e-commerce business activities. E-marketplaces feature a variety of implementations including value-added network providers (which we'll discuss later in the chapter), horizontal e-marketplaces, and vertical e-marketplaces. A *horizontal e-marketplace* is an electronic marketplace that connects buyers and sellers across many industries, primarily for MRO materials commerce. Again, MRO materials include a broad range of both products and services including office supplies, travel, shipping, and some financial services. Because horizontal e-marketplaces support MRO materials commerce, much of our previous discussion on B2B e-commerce for MRO materials holds true here.

A *vertical e-marketplace* is an electronic marketplace that connects buyers and sellers in a given industry (e.g., oil and gas, textiles, and retail). Covisint (www.covisint.com) is a good example. Covisint provides a B2B e-marketplace in the automotive industry where buyers and sellers specific to that industry conduct commerce in products and services, share mission-critical information for the development of products and parts,

GLOBAL PERSPECTIVE

A GLOBAL PARTNERSHIP TO CREATE GLOBAL PARTNERING OPPORTUNITIES

In March 2004, Business Commerce Limited, the Hong Kong subsidiary of Global eXchange Services (GXS), and ChinaECNet announced a new business partnership to establish a B2B electronic marketplace named "e-Hub." E-Hub connects China-based electronics manufacturers with other China-based manufacturers and international customers and suppliers as well.

ChinaECNet is China's leading digital media and e-commerce network, focused mainly on the electronic manufacturing industry. It represents a joint venture between the China Centre for Industry Information Development, Avnet Inc., and Global Techmart.

Global eXchange Services provides one of the largest B2B e-commerce business networks in the world, supporting over 1 billion transactions annually among over 100,000 trading partners.

E-Hub provides buyers and sellers with a standards-based transaction environment that supports more efficient and effective sourcing, purchasing, and tracking of inventory. According to Gou Zhongwen, vice minister of China's Ministry of Information Industry,

"Strengthening the electronics supply chain and material information management is an important step toward utilizing advanced information technology to reform and improve the manufacturing supply and distribution of electronics enterprises." As Wayne Chao, chairman and CEO of ChinaECNET, further explains, "We anticipate that the e-Hub will be China's premier procurement and logistic data exchange platform to connect Chinese electronics OEMs with other Chinese manufacturers of all sizes, and as importantly, with international customers and suppliers. This will greatly help the Chinese OEM market improve material management efficiency and overcome the challenges caused by the rapid globalization of the Chinese electronics industry."

Sometimes, you build partnerships with other businesses specifically so you can support e-commerce activities among other businesses that also want to build partnerships. In the case of Global eXchange Services and ChinaECNET, their partnership will enable other businesses to create partnerships.^{6,7}

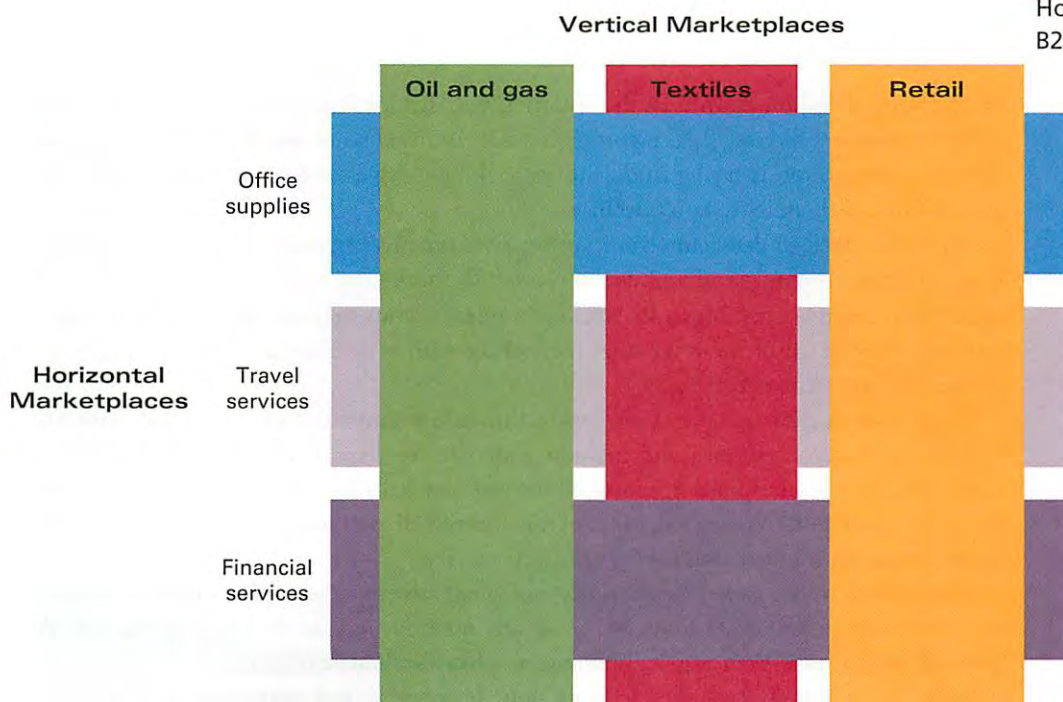


Figure 5.4

Horizontal and Vertical B2B Electronic Marketplace

collaborate on new ideas, and deploy infrastructure applications that enable the seamless communication of each other's proprietary IT systems.

To summarize, we have offered you some ideas to think about regarding the following aspects of e-commerce that will help you in understanding the nature of your business, products, services, and customers.

- **Business to Consumer**
 - Greatly varying customer demographics, lifestyles, wants, and needs
 - Distinctions of products and services by convenience versus specialty
 - E-commerce works best for commoditylike and digital products and services
 - Mass customization adds value in some instances
- **Business to Business**
 - Distinctions of products and services by maintenance, repair, and operations (MRO) materials versus direct materials
 - Demand aggregation and negotiation capabilities enhanced for businesses as customers (buyer power)
 - E-marketplaces connect buyers and sellers—horizontal e-marketplaces (primarily for MRO materials) and vertical e-marketplaces (specific to a given industry)

LEARNING OUTCOME 3

Find Customers and Establish Relationships

You can't make a sale until you find and reach customers and establish a relationship with them. This is *marketing*. There are special features of and technical considerations about marketing and creating customer relationships in e-commerce to keep in mind that can create a competitive advantage for you.

BUSINESS TO CONSUMER

With almost 1 billion people on the Internet, you'd think it would be easy to find and attract customers to your B2C e-commerce site. But that's not necessarily true because all your competition is trying to do the same thing—drive customers to their Web site and encourage them to make a purchase.

First, you need to determine your appropriate *marketing mix*—the set of marketing tools that your organization will use to pursue its marketing objectives in reaching and attracting potential customers. In B2C e-commerce, your marketing mix will probably include some or all of the following: registering with search engines, online ads, viral marketing, and affiliate programs.

Many Web surfers use *search engines* to find information and products and services. While some search engines will include your site for free (FreeSearch.com at www.freesearch.com is an example), almost all the popular search engines such as Yahoo! and Google require you to pay a fee. Most of these sites will guarantee that your site appears in the top portion of a search list for an additional fee.

Online ads (often called *banner ads*) are small advertisements that appear on other sites (see Figure 5.5). Variations of online ads include pop-up and pop-under ads. A *pop-up ad* is a small Web page containing an advertisement that appears on your screen outside the current Web site loaded into your browser. A *pop-under ad* is a form of a pop-up ad that you do not see until you close your current browser window. A word of

Banner ad for Vonage

The screenshot shows a web browser window displaying the Fox Sports website. At the top, there is a banner ad for Vonage with the text "Win a FREE MONTH of Internet Phone Service!" and "Search & make 3 friends & win a free credit!". Below this is the main content area with a headline "Report: Giambi failed amphetamines test". To the right of the main article is a mortgage advertisement titled "Mortgage Rates Fall Again in Colorado!" with a sub-headline "\$510,000 Mortgage for Under \$1,498/Month!". The mortgage ad includes a form with fields for "Select Your State" (Colorado), "Select Your Rate" (3.00% - 3.95%), and "Select Your Credit" (Good), along with a "Calculate New Payment" button. An arrow points from the caption to this mortgage ad.

Banner ad for a loan lending service

Figure 5.5

Banner ads at Fox Sports.com

caution here: Most people don't mind banner ads because they appear as a part of the site they're visiting. However, most people consider pop-up and pop-under ads to be very annoying.

Viral marketing encourages users of a product or service supplied by a B2C e-commerce business to encourage friends to join in as well. Blue Mountain Arts (www.bluemountain.com) is a good example. When you use Blue Mountain to send an e-birthday card (or some other type of card), the intended recipient will receive an e-mail directing him or her to Blue Mountain's site. Once the recipient views the card, Blue Mountain provides a link so that person can send you a card in return. Of course, Blue Mountain charges for each card sent, so it makes money both ways.

An **affiliate program** is an arrangement made between two e-commerce sites that directs viewers from one site to the other. Amazon.com is the most well-known creator of an affiliate program. If you become an Amazon associate, your e-commerce Web site directs viewers to Amazon's site for certain purchases. If a sale results, Amazon pays you a fee, which is usually a percentage of the sale (see Figure 5.6 on the next page). Likewise, you can pay another site to direct traffic to yours, which may be through an online ad. In some instances, affiliate programs create relationships such that a payment is made for each click-through. A **click-through** is a count of the number of people who visit one site, click on an ad, and are taken to the site of the advertiser.

In general, you want your marketing mix to drive as many potential customers as possible to have a look at your B2C e-commerce offerings. From there, however, you need to focus on your conversion rate. A **conversion rate** is the percentage of potential customers who visit your site who actually buy something. So, while total views or "hits" to your e-commerce Web site are important, obviously even more so is your conversion rate.

BUSINESS TO BUSINESS

Finding and attracting customers to your B2B e-commerce site is much different. Businesses—customers in the B2B model—don't usually find products and services by surfing the Web or using search engines. Instead, business customers prefer to actively participate in e-marketplaces to find suppliers. Within an e-marketplace, an organization can participate in a reverse auction to find a supplier, as we discussed earlier.

Moreover, an organization can search an e-marketplace for suitable suppliers and then enter into negotiations outside the e-marketplace. This happens for organizations needing to purchase millions of dollars in inventory, parts, or raw materials, and it occurs for organizations wanting to establish a long-term relationship with just one supplier.

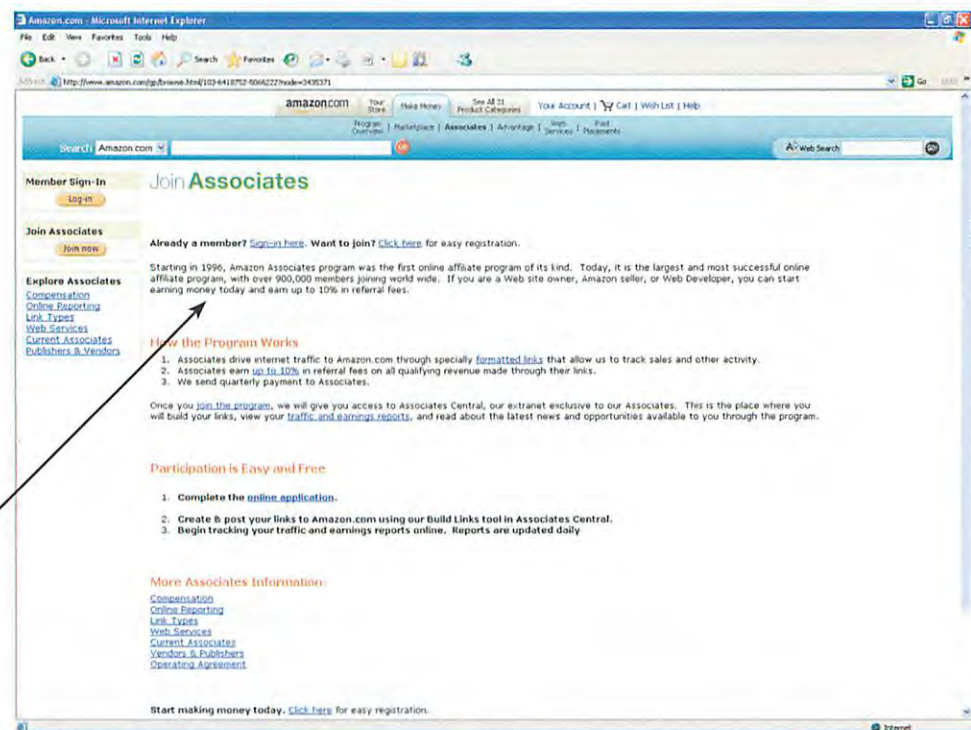
Relationships among businesses in B2B are very important. These relationships, characterized by trust and continuity, extend into the IT realm. In the B2B e-commerce business model, you must provide a level of integration of your IT systems with those of your business partners. Once a formal business relationship has been established, the goal is to use IT to streamline the ordering and procurement processes to create tight supply chain management systems and drive out cost, so your IT systems have to work closely together.

To summarize, some ideas about marketing, or finding customers and creating relationships with them, in e-commerce are:

- **Business to Consumer**
 - Design marketing mix to drive potential customers to a Web site
 - Register with a search engine; use online ads, viral marketing, and affiliate programs
 - Conversion rates measure success
- **Business to Business**
 - Businesses participate in e-marketplaces—business customers don't surf the Web, so e-marketplaces need your attention, not a broad and generic marketing mix
 - Formal establishment of business relationships based on trust and continuity required
 - Some level of IT system integration between you and your customer required
 - Online negotiations for pricing, quality, specifications, and delivery timing

Figure 5.6

Amazon.com's Affiliate Program Is Called *Associates*



As an Amazon Associates, you can earn up to 10% for referrals

INDUSTRY PERSPECTIVE

TOTING THE E-COMMERCE LINE WITH eBAGS

For a true e-commerce success story you don't have to look any further than eBags (www.ebags.com). While many pure-play e-commerce Web sites have fallen by the wayside, eBags is not only surviving, it is thriving. It is the world's leading online provider of bags and accessories for all lifestyles. With 180 brands and over 8,000 products, eBags has sold more than 4 million bags since its launch in March 1999. It carries a complete line of premium and popular brands, including Samsonite, JanSport, The North Face, Liz Claiborne, and Adidas. You can buy anything from backpacks and carry-ons to computer cases and handbags at extremely competitive prices from its Web site.

eBags has received several awards for excellence in online retailing, among them:

- Circle of Excellence Platinum Award, Bizrate.com
- Web Site of the Year, *Catalog Age Magazine* (several years)
- Email Marketer of the Year, ClickZ.MessageMedia
- Marketer of the Year, Colorado AMA
- Rocky Mountain Portal Award

- Gold Peak Catalog, Colorado AMA
- Entrepreneur of the Year—Rocky Mountain Region, Ernst and Young
- E-Commerce Initiative Award of Merit, Colorado Software and Internet Association
- Best of Show, eTravel World Awards
- 50 Essential Web Sites, Conde Naste Traveler
- Internet Retailer's Best of the Web

A good part of the reason for eBags's success is its commitment to providing each customer with superior service, 24 hours a day, 365 days a year. eBags provides customers with the ability to contact customer service representatives for personal assistance by telephone or e-mail and also provides convenient, real-time UPS order tracking.

According to Jon Nordmark, CEO of eBags.com, "From a customer perspective, we've spent a great deal of time developing pioneering ways to guide our shoppers to the bags and accessories that enhance their lifestyles through function and fashion."^{8,9}



Move Money Easily and Securely

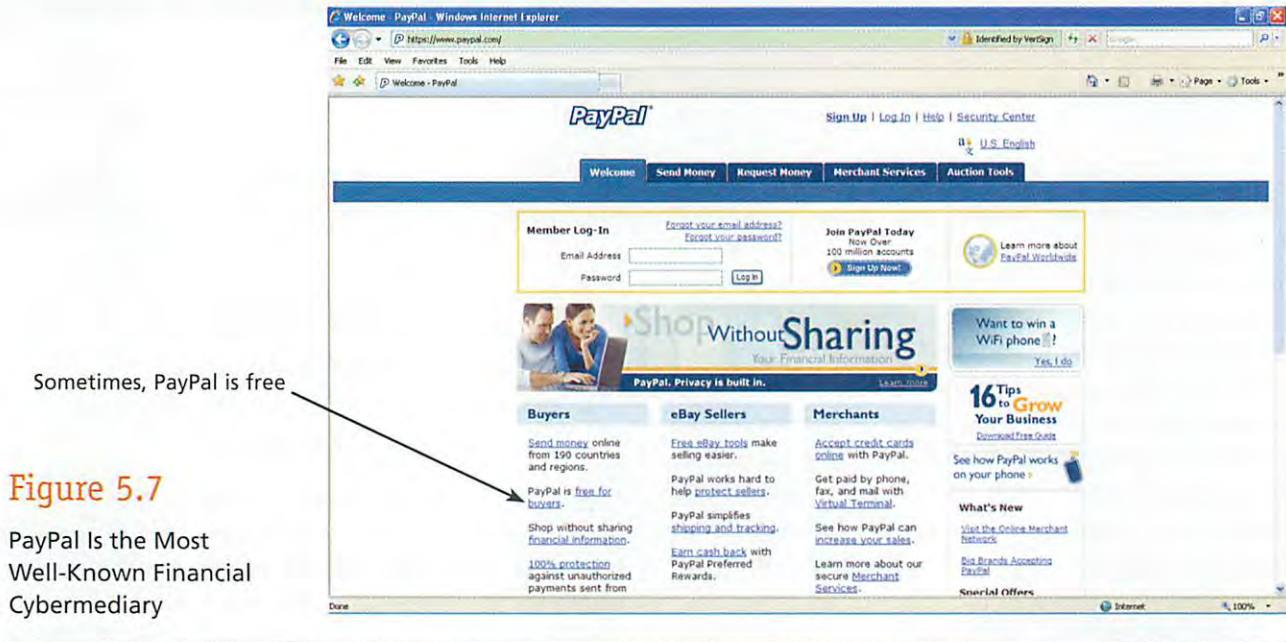
LEARNING OUTCOME 4

In the world of e-commerce, you must create IT systems that enable your customers (other businesses or end consumers) to pay electronically, easily, and securely for their purchases. Of course, you can still accept credit cards as the form of payment just like in the brick-and-mortar world, but credit card payments are really an electronic form of payment.

BUSINESS TO CONSUMER PAYMENT SYSTEMS

Your customers in the Business to Consumer e-commerce model will most often pay for products and services using credit cards, financial cybermediaries, electronic checks, Electronic Bill Presentment and Payment (EBPP), or smart cards.

- **Financial cybermediary**—an Internet-based company that makes it easy for one person to pay another person or organization over the Internet. PayPal (www.paypal.com) is the best-known example of a financial cybermediary (see Figure 5.7 on the next page). You create a PayPal account by logging on to the PayPal Web site and providing it with personal, credit card, and banking information. When you want to send money, you go to the PayPal site and enter the amount of money you want to send and provide information for either the person or organization you want to send the money to. You can also accumulate money in your personal PayPal account by accepting money from other people.



Sometimes, PayPal is free

Figure 5.7

PayPal Is the Most Well-Known Financial Cybermediary

- You can transfer the money to one of your banking accounts, use it for other purposes, send the funds to someone else, or just leave it there for awhile.
- **Electronic check**—a mechanism for sending money from your checking or savings account to another person or organization. There are many implementations of electronic checks, with the most prominent being online banking.
 - **Electronic Bill Presentment and Payment (EBPP)**—a system that sends bills (usually to end consumers) over the Internet and provides an easy-to-use mechanism (such as clicking on a button) to pay for them if the amount looks correct. EBPP systems are available through local banks or online services such as Checkfree (www.checkfree.com) and Quicken (www.quicken.com/banking_and_credit/).
 - **Smart card**—plastic card the size of a credit card that contains an embedded chip on which digital information can be stored and updated. The chip, in this case, can contain information about how much money you have. When you swipe your card to pay for a purchase, the swiping device deducts the purchase amount from the amount you have stored on the chip. Some debit cards are implementations of the smart card concept.

The entire payment process encompasses more than accepting a form of payment. It also includes determining the shipping address for your customer. You can create a competitive advantage by having a way of asking each customer only once for his or her delivery information and storing it, thus creating a switching cost because when your customer makes another purchase, you can simply ask him or her to verify the delivery information and not have to provide it all over again. One implementation of this is called a digital wallet. A **digital wallet** is both software and information—the software provides security for the transaction and the information includes payment information (for example, the credit card number and expiration date) and delivery information. Digital wallets can be stored either on the client side or the server side. A **client-side digital wallet** is one that you create and keep on your computer; you can then use it at a variety of e-commerce Web sites. Most browsers such as Internet Explorer support your ability to create this type of digital wallet. A **server-side digital wallet** (sometimes referred

IS AMERICA ONLINE (AOL) INCHING TOWARD BECOMING AN INTERNET BANK?

In March 2004, America Online (AOL) launched a streamlined new service for online bill payment. No, it doesn't yet provide the capability to pay online bills directly through AOL, but it does seem to be a step by AOL toward making that a reality.

The service—called *AOL Bill Pay*—is free to all AOL members and is provided through an alliance with Yodlee.com, Inc. (www.yodlee.com), a company that provides a variety of online personal financial services. After AOL members sign up for the service, they will receive summaries of their online bills via AOL e-mail messages. The messages will include links directly to the business e-commerce Web sites where members can make their payments.

A nice feature of AOL Bill Pay is that it creates a single portal (the AOL account) with only one user ID and one password. Once inside his or her AOL account, an

AOL member does not have to enter a new ID and password at any of the e-commerce Web sites.

AOL members can configure AOL Bill Pay to provide alerts in several different forms (multichannel service delivery): e-mail, instant messaging, or a text-based message to a cell phone. The system can also trigger an alert that is more of a warning message when, for example, an AOL member's bank account balance drops below a certain limit or a credit card transaction exceeds a prespecified amount. It is AOL's hope that its members will see these types of alerts and warnings as value-added services.

AOL Bill Pay connects directly to over 2,500 Web sites that offer bill paying over the Internet. If a certain AOL member makes payments to a Web site not on AOL Bill Pay's list, AOL can easily add the Web site to the list.^{10,11}

to as a *thin wallet*) is one that an organization creates for and about you and maintains on its server. Many credit card issuers use this type of digital wallet to verify your credit card transactions.

All of this is significant because your customers in the B2C e-commerce model exhibit some common characteristics when paying for your products and services.

- They tend to make numerous purchases for small amounts.
- They pay for each transaction individually.
- You must validate each transaction.

BUSINESS TO BUSINESS PAYMENT SYSTEMS

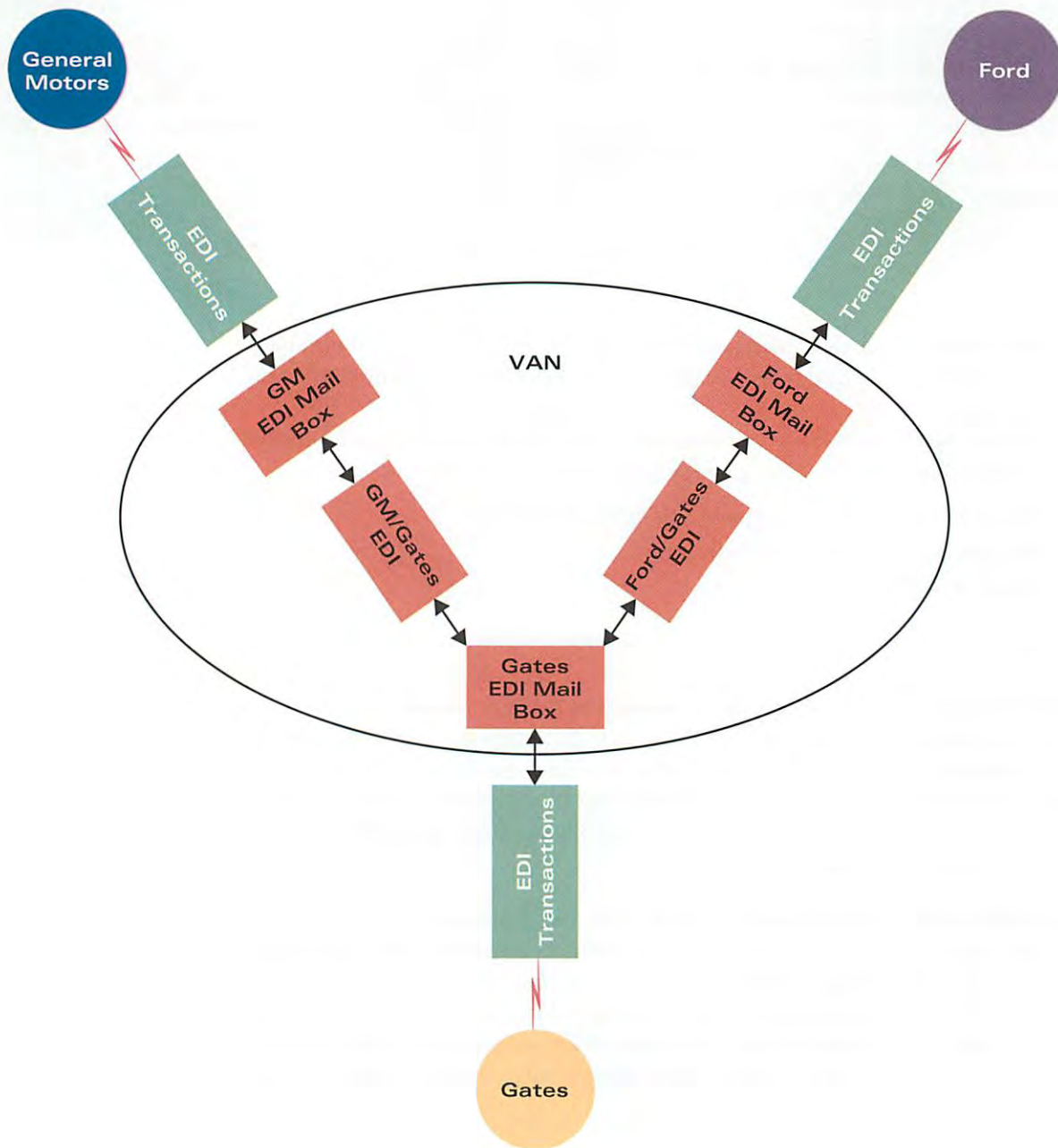
Payments for products and services in the Business to Business e-commerce model are usually much different from those in the Business to Consumer e-commerce model. In B2B e-commerce, your customers tend to make very large purchases and will not pay using a credit card or a financial cybermediary such as PayPal. Instead, other businesses will want to pay (1) through financial EDI and (2) often in large, aggregated amounts encompassing many purchases.

ELECTRONIC DATA INTERCHANGE In the B2B model, another business wants to order products and services from your organization via electronic data interchange. *Electronic data interchange (EDI)* is the direct computer-to-computer transfer of transaction information contained in standard business documents, such as invoices and purchase orders, in a standard format. Your organization can implement EDI-facilitated transactions in many ways; one of the more prominent is a B2B e-marketplace that

supports EDI through a value-added network. Global eXchange Services (GXS at www.gsx.com) is one such B2B e-marketplace. (We introduced you to GXS in the Global Perspective on page 219).

GXS, formerly known as General Electric (GE) Information Services, supports one of the largest B2B e-marketplaces in the world with more than 100,000 trading businesses processing 1 billion transactions annually and accounting for over \$1 trillion in products and services. GXS focuses on providing value-added network capabilities primarily to supply chain management activities. Figure 5.8 illustrates how General Motors, Ford, and Gates Rubber Company might use GXS's services to support electronic data interchange. In this case, General Motors and Ford would submit orders to Gates through

Figure 5.8
How Value-Added
Network Providers
Support EDI



GXS's value-added network (VAN). The VAN supports electronic catalogs (from which orders are placed), EDI-based transactions (the actual orders), security measures such as encryption (which we'll discuss in a moment), and EDI mail boxes (similar to your personal e-mail box). When GM sends an order, for example, to Gates, the order waits in Gates's EDI mail box for processing. Once the order is processed, Gates sends an order confirmation back through the VAN to GM's mail box.

FINANCIAL ELECTRONIC DATA INTERCHANGE Thereafter, at some predetermined time, Gates would create an invoice totaling many of the orders and purchases from GM. That invoice would be sent through the VAN much like the orders themselves. When the invoice was accepted and approved by GM, GM would make a financial EDI payment to Gates. **Financial EDI (financial electronic data interchange)** is an electronic process used primarily within the Business to Business e-commerce model for the payment of purchases. The actual reconciliation of the funds may occur through a bank or an automated clearing house (ACH) support site such as National Cash Management System (www.ach-eft-ncms.com/index.asp).

As you can see, B2B transactions among businesses are much more involved and complex than B2C transactions between a business and an end consumer such as yourself. Most notably, Business to Business transactions require a level of system integration between the businesses. Considering our previous example in Figure 5.8, Gates's order fulfillment and processing systems would have to be integrated with similar systems at GM and Ford. That is to say, Gates's order fulfillment and processing systems would have to be able to accept and process EDI-based and standardized electronic order records. GM and Ford would have to have similar systems to create EDI-based and standardized electronic order records. In doing so, costs for order processing among all businesses are minimized as the orders can be handled electronically, without paper and without much human intervention.

SECURITY: THE PERVADING CONCERN

Regardless of whether your customers are other businesses or end consumers, they are all greatly concerned about the security of their transactions. This includes all aspects of electronic information, but focuses mainly on the information associated with payments (e.g., a credit card number) and the payments themselves, that is, the "electronic money." Here, you need to consider such issues as encryption, Secure Sockets Layers, and Secure Electronic Transactions. This is by no means an exhaustive list but rather representative of the broad field of security relating to electronic commerce.

ENCRYPTION *Encryption* scrambles the contents of a file so that you can't read it without having the right decryption key. Encryption can be achieved in many ways: by scrambling letters in a known way, replacing letters with other letters or perhaps numbers, and other ways.

Some encryption technologies use multiple keys. In this instance, you would be using **public key encryption (PKE)**—an encryption system that uses two keys: a public key that everyone can have and a private key for only the recipient (see Figure 5.9 on the next page). When implementing security using multiple keys, your organization provides the public key to all its customers (end consumers and other businesses). The customers use the public key to encrypt their information and send it along the Internet. When it arrives at its destination, your organization would use the private key to unscramble the encrypted information.

SECURE SOCKETS LAYERS A *Secure Sockets Layer (SSL)* (1) creates a secure and private connection between a Web client computer and a Web server computer, (2) encrypts the information, and (3) then sends the information over the Internet. SSLs

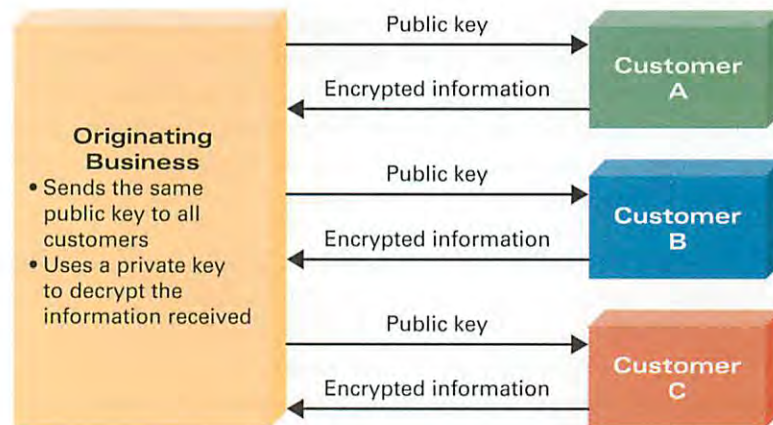


Figure 5.9

Public Key Encryption
(PKE) System

do provide good security for transferring information and are used widely by B2C e-commerce Web sites. As an end consumer, you can tell your information is being transferred via SSL if you see either (1) the Web site address starts with `https://` (notice the inclusion of the “s”) as opposed to just `http://` or (2) the presence of a lock icon in the bottom portion of your Web browser window (see Figure 5.10).

SECURE ELECTRONIC TRANSACTIONS A *Secure Electronic Transaction (SET)* is a transmission security method that ensures transactions are *legitimate* as well as secure. Much like an SSL, an SET encrypts information before sending it over the Internet. Taking it one step further, an SET enables you, as a merchant, to verify a customer’s identity by securely transmitting credit card information to the business that issued the credit card for verification. SETs are endorsed by major e-commerce players including MasterCard, American Express, Visa, Netscape, and Microsoft.

To summarize:

- **Business to Consumer**
 - Methods include credit cards, financial cybermediaries, electronic checks, Electronic Bill Presentment and Payment (EBPP), smart cards, and digital wallets.
 - Consumers make numerous individual purchases for small amounts that must each be validated.
- **Business to Business**
 - The use of electronic data interchange (EDI) facilitates the ordering process.
 - Value-added network providers used for EDI and financial EDI.
 - Financial EDI used for payment of purchases.
- **Both Business to Consumer and Business to Business**
 - Security is an overriding concern.
 - Security is provided by the use of encryption, Secure Sockets Layers (SSLs), and Secure Electronic Transactions (SETs).

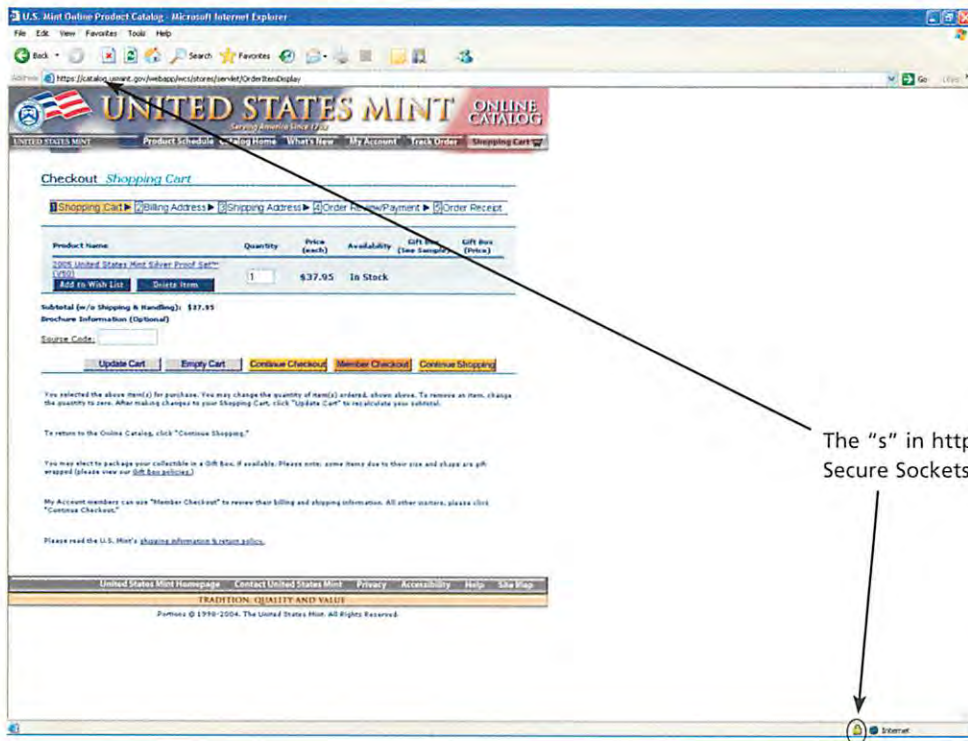


Figure 5.10

Secure Sockets Layer (SSL) on a Web Site

E-Business Trends

If you look out over the e-business horizon, you can see many trends. In fact, we could write an entire book on e-business trends, but three seem particularly interesting right now.

YOUTH

Never before has the business world seen such an influence as that brought on by today's young people, and—yes—we are talking about you. Young people ages 6 to 24 are eagerly and aggressively adopting almost every new technology and new implementations of technology that hit the marketplaces. Your generation is now appropriately called *screenagers*, because you spend so much time in front of a screen—TV, computer, cell phone, iPod, etc. Now, you may be a 20-something, but you fall into the category of screenager. You are also called *digital natives*, a group of people ushered into this world alongside the digital revolution. Our generation (this book's authors'), the generation before you, is called *digital immigrants* because we were born and raised in a time prior to the digital society in which we now live. Here are some interesting statistics about *you*. You should take a poll to see how representative your class is of these statistics.

- 93 percent of all Americans ages 12 to 17 years old use the Internet (up from 87 percent in 2004 and 73 percent in 2000).
- 89 percent of online teenagers (i.e., screenagers) use the Internet at least once a week.
- 34 percent use the Internet more than once a day.
- 75 percent of you live in households with broadband connections. The average broadband user belongs to four online communities (i.e., social network sites).
- 49 percent of you believe that when you go online at home your parents don't check to see what Web sites you go to. However, two-thirds of parents of screenagers say they do check up on their children.

LEARNING OUTCOME 5

- 58 percent of girls ages 12 to 17 have created online profiles at social network sites. For boys of the same age, it's only 51 percent.
- 14 percent of teen online profiles include both a first and last name. (That, by the way, is a bad idea.)
- 63 percent of teenagers have cell phones. 55 percent of you have and daily use a digital camera.¹²

Of course, many of these statistics may seem unremarkable to you. After all, technology has been an important part of your entire life. But to the business world, those statistics tell an interesting story.

You have become the target audience for much of today's advertising either about technology or through the use of technology. Marketers are flocking to sites like Myspace to catch your attention. Every cell phone provider is developing features that are screenager-centric—circles of friends (calling minutes don't accrue against these), improved instant messaging capabilities, video, etc. Yours is a generation that has embraced technology and is the future of any technology revolution. You are also one of the fastest growing demographic groups being targeted for identity theft.

M-COMMERCE

Mobile computing is a broad general term describing your ability to use technology to wirelessly connect to and use centrally located information and/or application software. Mobile computing is all about wireless connectivity. For example, *m-commerce (wireless e-commerce)* describes electronic commerce conducted over a wireless device such as a cell phone, PDA, or notebook giving you the ability to purchase and download music, buy and sell stocks, check weather forecasts, read your e-mail, and a host of other functions.

The future is definitely wireless, no matter what the technology application. And e-commerce businesses are quickly pursuing the recasting of their Web site e-commerce capabilities to fit on the small screen of a cell phone or digital media player. Just as many businesses are implementing *push technologies*, an environment in which businesses and organizations come to you via technology with information, services, and product offerings based on your profile. Right now, for the most part, the Web is *pull*—you go to a Web site and request information, services, and products. In a *push* environment, cell phone providers may use the GPS chip in your cell phone to determine where you are and push advertising to your cell phone for businesses in the same vicinity.

According to the latest statistics, 34 percent of Internet users have accessed the Internet wirelessly, and 25 percent of Internet users have a cell phone with wireless capabilities.¹³ Also, of the total Internet user population, 34.6 million use purely mobile devices (cell phones and the like) to access the Internet.¹⁴ Already, you can begin to see the trend toward mobile computing, the precursor to m-commerce. And although m-commerce is still in its infancy, the research firm Strategy Analytics predicted that the global m-commerce market would reach more than \$200 billion by the end of 2005. Revenues from game downloads to mobile phones alone are estimated to reach \$1.5 billion worldwide by 2008.¹⁵

THE LONG TAIL

Finally, let's talk about the Long Tail. Think about Amazon, Netflix, and Rhapsody (a competitor to iTunes). In purely financial terms, how would you describe their paths-to-profitability? For Rhapsody, you might say that it has no physical store, no unsold inventory that must be eventually dumped at a loss, and so on. You would, in fact, be partially correct. And you might similarly describe Amazon and Netflix . . . no stores to manage, fewer employees, etc. Again, you would be partially correct. But the real key to their success lies in the Long Tail.

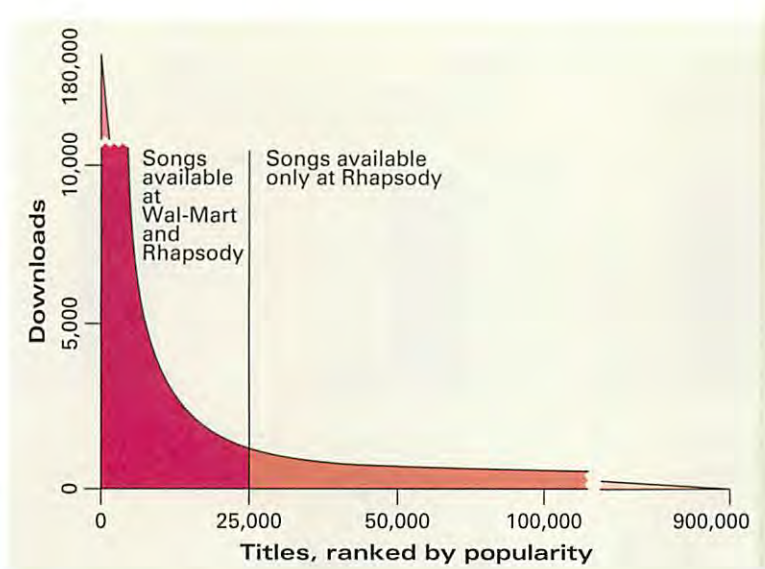


Figure 5.11

The Long Tail

Source: Anderson, Chris, *The Long Tail*, 2006, Hyperion, New York, p. 25.

The *Long Tail*—first offered by Chris Anderson, Editor-in-Chief of *Wired* Magazine, as a way of explaining e-commerce profitability—actually refers to the tail of a sales curve (see Figure 5.11).^{16,17} Figure 5.11 shows music song titles, ranked by popularity, for Wal-Mart and Rhapsody (www.rhapsody.com). What you see is that a typical Wal-Mart store stocks about 25,000 songs. Because of the cost of shelf placement in a retailing environment, that's about all Wal-Mart can carry and make a profit. Rhapsody, however, because everything is digital and retail shelf placement costs are irrelevant, carries 1.5 million tracks. Moreover, a full 40 percent of Rhapsody's total sales come from songs in the Long Tail of the sales distribution. Hence, the notion of the Long Tail.

E-commerce businesses that can reach the audience in the Long Tail can do so without the typical brick-and-mortar retail costs and expenses. This is real *mass customization*, of which we spoke earlier, and also goes by the terms *slivercasting* (as opposed to *broadcasting*) and *massclusivity* (a combination of *mass production* and *exclusivity*). In Figure 5.12 on the next page, we've provided inventory and sales data for Rhapsody, Netflix, and Amazon. Notice that Netflix generates 21 percent of its total sales from the Long Tail, and Amazon generates 25 percent of its total sales from the Long Tail.

Long Tail represents an entirely new business model and requires new business thinking. Traditional business thinking looks at sales in terms of economies of scale, seeking to sell as many of one item as possible to offset fixed costs (such as shelf placement costs). The Long Tail model is quite different. Because fixed costs are so minimal, Rhapsody and iTunes can afford to sell only one or two downloads of a given song and still make a profit. Wal-Mart can't do that. In fact, Wal-Mart will only carry music CDs for which it believes sales will be at least four or five. So, it doesn't carry niche products, whereas Rhapsody and iTunes do. The same is true for Netflix. While a typical Blockbuster rental store carries only 3,000 movie DVDs, Netflix carries over 55,000. Likewise, while a typical Borders bookstore carries only 100,000 books, Amazon has over 3.7 million book titles in inventory.

This is a significant trend in the world of e-business. Some older, more traditional brick-and-mortar financial and inventory models no longer apply. It requires a new way of thinking. It is this sort of thinking that a younger generation like you can embrace and act on.



Long Tail

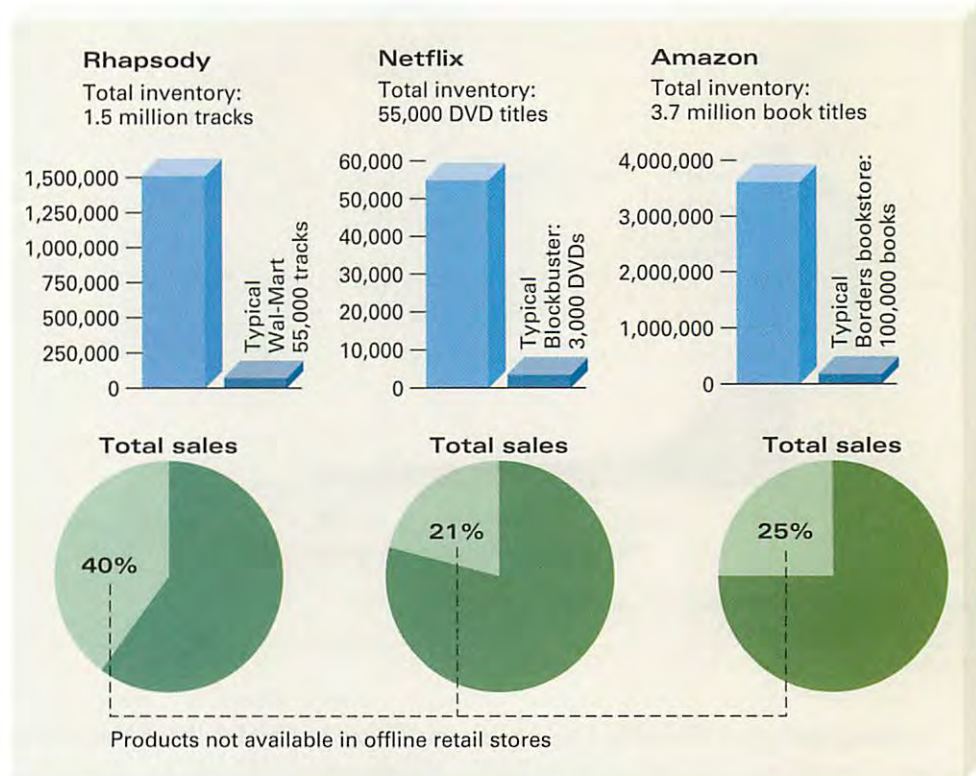


Figure 5.12

The Long Tail Economics for Rhapsody, Netflix, and Amazon

Source: Anderson, Chris, *The Long Tail*, 2006, Hyperion, New York, p. 23.

Summary: Student Learning Outcomes Revisited

1. Define and describe the nine major e-commerce business models. The nine major e-commerce business models are:

- **Business to Business (B2B) e-commerce**—businesses selling products and services to other businesses.
- **Business to Consumer (B2C) e-commerce**—businesses selling products and services to individual consumers.
- **Consumer to Business (C2B) e-commerce**—individuals selling products and services to businesses.
- **Consumer to Consumer (C2C) e-commerce**—individuals selling products and services to other individuals.
- **Business to Government (B2G) e-commerce**—businesses selling products and services to a government entity.

- **Consumer to Government (C2G) e-commerce**—individuals selling products and services to a government entity.
- **Government to Business (G2B) e-commerce**—the government selling products and services to businesses.
- **Government to Consumer (G2C) e-commerce**—the government selling products and services to individuals.
- **Government to Government (G2G) e-commerce**—e-commerce activities within a single government or among two or more governments.

2. Identify the differences and similarities among customers and their perceived value of products and services in the B2B and B2C e-commerce business models. Customers in the B2C e-commerce business model are end consumers.

PRE-SCREENAGER: HOW YOUNG IS TOO YOUNG?

Have you ever heard of people splurging on their pets so much that they soak them in hot tubs, feed them chocolate pudding, allow them to relieve themselves in porcelain toilets, and buy a canopied princess bed for them to sleep in (the cost for the latter is \$1,750)? These are not the actions of the rich and famous or eccentric; rather these are the actions of people even younger than you.

The craze is Webkinz, a plush toy animal you can buy a child as a toy. But these are special animals that come with a code that the child registers at the Webkinz Web site (www.webkinz.com). Once inside, the child receives an initial allotment of \$2,000 to provide virtual care for his or her pet. And \$2,000 won't go very far if the canopied princess bed is what you have in mind.

Children can earn additional money (it's not real) by playing games on the Web site. They can also sell off items that they no longer want at a virtual pawn shop. Advocates of these animals say that it wraps together caregiving, social networking, and online consumerism for pre-teens.

But some people aren't sold on the idea. According to Diane Levin, professor of education at Wheelock College, "The Web site is very focused on money and getting more money, and learning how to buy, buy, buy. It feeds into 'you can never have enough, and the more you have the better it is.'"

Whatever the case, if you're a screenager, you'd better look in your virtual rearview mirror. The next generation is coming quickly and they're even more technology savvy than you.¹⁸

They (1) exhibit greatly varying demographics, lifestyles, wants, and needs, (2) distinguish products and services by convenience versus specialty, (3) often shop for commoditylike and digital products, and (4) sometimes require a level of *mass customization* to get exactly what they want. Customers in the B2B e-commerce business model are other businesses. They (1) distinguish products and services by *maintenance, repair, and operations (MRO) materials* versus *direct materials*, (2) aggregate demand to create negotiations for volume discounts on large purchases, and (3) most often perform e-commerce activities within an e-marketplace.

3. Compare and contrast the development of a marketing mix for customers in the B2B and B2C e-commerce business models. A *marketing mix* is the set of marketing tools that your organization will use to pursue its marketing objectives in reaching and attracting potential customers. In B2B e-commerce, marketing mixes do not usually include broad and generic strategies that reach all potential businesses. Instead, marketing often occurs in the context of an e-marketplace. Once a contact has been made between businesses, the development of the relationship is still formal and often includes negotiations for pricing, quality, specifications, and delivery timing.

In B2C e-commerce, a marketing mix will include some or all of the following:

- Registering your site with a search engine.
 - **Online ads** (small advertisements that appear on other sites), including *pop-up ads* (small Web pages containing an advertisement that appear on your screen outside the current Web site loaded into your browser) and *pop-under ads* (a form of a pop-up ad that you do not see until you close your current browser session).
 - **Viral marketing**—encourages users of a product or service supplied by a B2C e-commerce business to encourage friends to join in as well.
 - **Affiliate program**—arrangement made between two e-commerce sites that directs viewers from one site to the other.
- 4. Summarize the various ways of moving money in the world of e-commerce and related issues.** B2C e-commerce payment systems most commonly include credit cards, *financial cybermediaries* (such as PayPal), *electronic checks* (with online banking being an implementation), *Electronic Bill Presentment and Payment (EBPP)*, *smart cards* (credit card with an embedded computer chip on which

digital information can be stored and updated), and *digital wallets* (software and instructions for completing a transaction). In the B2B e-commerce business model, financial EDI is the norm.

Financial EDI is an electronic process used primarily in the Business to Business e-commerce business model for the payment of purchases. Security for the electronic transfer of funds is an overriding concern. Techniques such as *encryption*, *public key encryption (PKE)*, *Secure Sockets Layers (SSLs)*, and *Secure Electronic Transactions (SETs)* all address this issue of security.

5. Discuss some major trends that are impacting both the e-commerce business world and society in general. Major trends include: Youth— younger people (*digital natives* or *screenagers*) quickly embracing new technology developments and new innovative uses of technology; *M-commerce*—electronic commerce conducted over a wireless device such as a cell phone, PDA, or notebook computer; the *Long Tail model*—the tail of a sales curve which traditional businesses ignore but e-commerce businesses profit from.

CLOSING CASE STUDY ONE

WHEN YOU'RE BIG, YOU CAN BE YOUR OWN B2B E-MARKETPLACE

Business to Business (B2B) e-marketplaces are the growing trend in the B2B e-commerce business model. Businesses from all industries and countries can gather, perform commerce functions, share mission-critical information, and deploy infrastructure applications that allow those organizations to tie their internal systems to each other.

But some companies—the largest ones—don't have to play in the generic B2B e-marketplaces. Instead, they can build their own and literally require that their suppliers participate. Once such company is Volkswagen AG. Its B2B e-marketplace is called VWgroupsupply.com (www.vwgroupsupply.com).

Volkswagen AG offers eight brands of automobiles—Volkswagen (passenger), Volkswagen Commercial Vehicles, Audi, Bentley, Bugatti, Lamborghini, Seat, and Skoda. In 2003, Volkswagen spent almost 60 billion euros, or approximately \$77 billion, on components, automotive parts, and MRO materials for its manufacturing operations. When you spend that much money with your suppliers, you can open and run your own B2B e-marketplace.

VWgroupsupply.com handles 90 percent of Volkswagen global purchases. Almost all requests for quotes, contract negotiations, catalog updating and buying, purchase-order management, vehicle program management, and payments are handled electronically and online through VWgroupsupply.com.

Gains in efficiency and productivity coupled with material costs reductions have been tremendous. The cost savings alone generated over the last three years were more than 100 million euros, or approximately \$127 million.

Volkswagen requires that each of its 5,500 suppliers use VWgroupsupply.com for any interactions. Suppliers place product and pricing catalogs on the system, respond to requests for quotes, and collaborate with Volkswagen engineers on new product designs, all in the safe and secure environment of Volkswagen's proprietary B2B e-marketplace.

By requiring its suppliers to interact with Volkswagen in the e-marketplace, purchasing agents no longer have to spend valuable time searching for information and pricing. Volkswagen has, in essence, created a system that brings the necessary information to the purchasing agents. This new system within VWgroupsupply.com is called iPAD, or Internal Purchasing Agent Desk.

Prior to the implementation of iPAD, purchasing agents entering a purchase order for a vehicle front module had to use numerous separate systems to complete the process. They had to retrieve information from a supplier system and its database, query information in Volkswagen's internal parts information system, obtain information from a request-for-quotes database, enter information into a contract-negotiation

transcript system, and interact with several other systems and databases. In all, the purchasing agent had to log into and use seven separate systems. Analysis revealed that Volkswagen purchasing agents were spending 70 percent of their time finding, retrieving, analyzing, validating, and moving information. This took away valuable time from such tasks as negotiating better prices with suppliers.

Using a form of an integrated collaboration environment, or ICE, which we discussed in Chapter 2, purchasing agents now participate in a simple three-step process. First, iPAD captures and sends a business event to the purchasing agent, such as the need to order vehicle front modules. Second, iPAD attaches to that communication other necessary information such as information about potential suppliers, their costs, and other forms of analysis and descriptive information. Finally, iPAD sends the corresponding business processes and work flows to be completed electronically.

It works much like a digital dashboard, which we also introduced you to in Chapter 2. When purchasing agents log onto the iPAD portal in the morning, they receive a customized Web page with announcements, business alerts, analyses, and digital workflows to be completed. The purchasing agents can set out immediately to complete the tasks for the day, without having to spend 70 percent of their time finding, retrieving, and analyzing information. iPAD even customizes the Web page according to the purchasing agent's native language, something very necessary for a global manufacturer of automobiles with more than 2,000 purchasing agents worldwide.^{19,20}

Questions

1. Volkswagen operates its own proprietary B2B e-marketplace in which its suppliers participate.

What are the disadvantages to Volkswagen of not using a generic B2B e-marketplace with even more suppliers? What are the advantages to Volkswagen of developing and using its own proprietary B2B e-marketplace?

2. When Volkswagen needs a new part design, it uses VWsupplygroup.com to get its suppliers involved in the design process early. This creates a tremendous amount of interorganizational collaboration. What are the advantages to the suppliers and to Volkswagen in doing so?
3. How is Volkswagen's VWgroupsupply.com B2B e-marketplace an example of a vertical e-marketplace implementation? How is it an example of a horizontal e-marketplace implementation? Why is it necessary that Volkswagen combine both of these e-marketplaces into one e-marketplace? What would be the drawbacks to creating two different e-marketplaces—one for suppliers of direct materials and one for suppliers of MRO materials?
4. To make effective purchasing decisions, Volkswagen's purchasing agents need business intelligence. What kind of business intelligence does iPAD provide to purchasing agents for carrying out their tasks? What additional kinds of business intelligence not discussed in this case could Volkswagen's purchasing agents take advantage of to make more effective decisions?
5. iPAD manages the workflow for purchasing agents. Describe how iPAD manages this process including information provided, steps to be executed, and the presentation of information.

CLOSING CASE STUDY TWO

E-BUSINESS TREND: FAR-EAST E-COMMERCE EXPLOSION

Although most parts of the world lag behind the United States in terms of technology penetration (to the public at large), some parts more readily embrace new technology advances. For example, only 22.6 per-

cent of U.S. citizens describe using a cell phone to access the Internet as important or very important. Compare that to Western Europe (30.4 percent), Eastern Europe (53.9 percent), Asia (56.4 percent), and Latin America

(63.5 percent). That should concern some of the U.S.-based e-commerce leaders.

Take, for example, Myspace. Myspace has 92 million registered users but only 23 percent of the U.S. 20-something group are among those 92 million. On the other hand, Cyworld, the South Korean version of Myspace, boasts only 18 million users but 90 percent of the South Korean 20-something use Cyworld.

Cyworld (“cy” is Korean for “relationship”) is an interesting blend of a social networking site, blogging site, Flickr (a photo sharing Web site at www.flickr.com), and videogamelike avatars. Unlike the text-heavy bulky sites like Myspace, Facebook, Friendster, and Yahoo 360, Cyworld lets a user create an avatar called a mini-me. You can dress up the mini-me according to your mood on any particular day and even change hair styles. From your personal space, called a mini-room (which you can also decorate to your tastes), you can send out your mini-me to visit other people.

Cyworld is free to use, just like most other social networking sites, but it generates revenue by having users pay for virtual furniture and wall art for their mini-rooms and also to accessorize themselves in their virtual mini-mes. This may seem like an odd way to generate revenue, but Cyworld generates \$7.78 annually per user while Myspace generates only \$2.17 annually per user.

The creators of Cyworld are not content with owning the South Korean social networking market. Recently, Cyworld launched in Japan and China (where it already has 1.5 million users). Moreover, Cyworld spent almost a year “Americanizing” its site and launched it in the United States, going head-to-head with Myspace and the other popular social networking sites aimed at the 20-something group (“digital natives” and “screenagers”).

Another Asian entrant into the hotly contested e-commerce space is TaoBao (www.taobao.com), China’s main competitor to eBay. If you visit, Taobao’s Web site, it’s in Chinese but the look and feel are similar to eBay. But don’t get the idea that Taobao is copying everything that eBay is doing. On a recent trip to China, eBay CEO Meg Whitman learned that Taobao was allowing buyers and sellers to instant message through the Taobao auction system. Meg came home and declared that eBay needed to do the same.

In the Chinese Consumer to Consumer auction space, eBay China holds a 29.1 percent market share. Taobao owns a remarkable 67.3 percent. If Taobao ever

comes to the United States, it will give eBay a run for its money until the final gavel falls.^{21,22,23}

Questions

1. According to Porter’s Five Forces Model (from Chapter 1), how would you characterize the competitive space in which Cyworld and Myspace operate according to buyer power, supplier power, threat of substitute products or services, threat of new entrants, and rivalry among existing competitors? Pick one of Porter’s Five Forces and describe what Cyworld has undertaken to shift that force in a positive way in its direction.
2. In our discussions of customers and their perceptions of value, we noted that customers tend to categorize products and services as either convenience or specialty. How would you characterize the products and services on Consumer to Consumer e-commerce auction sites such as Taobao and eBay—convenience, specialty, or perhaps a combination of the two? Justify your answer.
3. What sort of payment options does eBay provide? You may have to visit eBay’s site to learn this information. If Taobao were to enter the U.S. market, would it have to offer similar payment options? That is, are these payment options entry barriers? Is there room for innovation in the payments space? If so (and the answer is yes), describe it.
4. Privacy is an overriding concern today on the Internet. At sites like Cyworld and Myspace, some people often divulge too much information such as a full name, an address, and even a phone number. From an ethical point of view, do you believe that social networking sites have an obligation to protect users from cyber stalkers? If you believe the answer is no, justify your answer. If you believe the answer is yes, describe what steps can be undertaken to protect users.
5. One key to consumer retention is creating a “sticky” Web site. Review the virtual environments for both Cyworld and Myspace. Which do you think is more “sticky” and better retains consumers? What is your definition of “sticky”?

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Short-Answer Questions

1. What is electronic commerce?
2. How can you use a B2B e-marketplace to reduce your dependence on a particular supplier?
3. How do convenience and specialty items differ in the B2C e-commerce business model?
4. Why do commoditylike and digital items sell well in the B2C e-commerce business model?
5. What is mass customization?
6. How does a reverse auction work?
7. How are vertical and horizontal e-marketplaces different?
8. What can a marketing mix include for a B2C e-commerce business?
9. What are the major types of B2C e-commerce payment systems?
10. What is the difference between a client-side digital wallet and a server-side digital wallet?
11. How are Secure Sockets Layers (SSLs) and Secure Electronic Transactions (SETs) different? How are they the same?

Assignments and Exercises

1. YOUR STATE AND LOCAL GOVERNMENT

E-COMMERCE ACTIVITIES Visit the Web sites for your state and local governments. Do some looking around and make a list of what services, information deliveries, and transaction

processing they offer that you previously could handle only by visiting a physical building. How are these different from and similar to comparable e-government activities now offered by the U.S. federal government?

2. DEALING WITH THE GREAT DIGITAL DIVIDE

The “great digital divide” is a term coined to address the concerns of many people that the world is becoming one marked by “have’s” and “have not’s” with respect to technology—that is, the traditional notion of a “third world” is now also being defined by the extent to which a country has access to and uses technology. Find out what, if anything, the United Nations is doing about this issue and express an opinion on whether or not you believe its efforts will be successful. Determine if there are organizations such as private companies or foundations that have the digital divide high on their agendas. For any such organizations you find, evaluate their efforts and express an opinion as to whether or not they will be successful. Finally, search for a less developed country that is making significant local efforts to deal with the digital divide. If you can’t find one, prepare a list of the countries you reviewed and briefly describe the conditions in one of them with respect to technology.

3. RESEARCHING A BUSINESS TO BUSINESS

E-MARKETPLACE Biz2Biz (www.biz2biz.com/Marketplace/) is a B2B e-marketplace. Connect to its site and do some looking around. What sort of marketing services does it provide through its Biz2BizCommunication program? What sort of services does it provide for creating and maintaining an electronic catalog? If you owned a business and wanted to join, what process would you have to go through? How much does it cost your organization to join Biz2Biz? What buyer tools does Biz2Biz provide its membership?

4. DEVELOPING M-COMMERCE SCENARIOS FOR GPS CELL PHONES

Soon, cell phones will be equipped with GPS chips that enable users to be located to within a geographical location about the size of a tennis court. The primary purpose for installing GPS chips in phones is to enable emergency services to locate a

cell phone user. For example, if you dial an emergency assistance number (911 in the United States) from your home now, it is possible for a computer system to use your home telephone number to access a database and obtain your address. This could be very useful in situations in which you were unable to give address information to the emergency operator for some reason. The problem with trying to do the same thing with present-day cell phones is that you could be calling from anywhere and that is the problem GPS-enabled cell phones are intended to overcome.

As you might imagine, marketers have been monitoring this development with great interest because GPS-phones will support m-commerce. When the new cell phones become available, marketers visualize scenarios where they will know who you are (by your telephone number) and where you are (by the GPS chip). One possible way they could use this information, for example, is to give you a call when you are walking past their shop in the mall to let you know of a special sale on items they know you would be interested in buying. Of course, retailers would have to possess IT systems that would permit them to craft such personalized offers, and you would have had to give them permission to call you.

Find out what at least three e-commerce marketers are saying about personalized marketing using GPS-equipped cell phones and prepare an analysis of how the phones will be likely to be used when the technology is widely available.

5. FINDING THE MOST POPULAR B2C

E-COMMERCE SITES Connect to the Web and do some research to find the most popular B2C e-commerce Web sites in terms of number of hits or views per month. What are the sites? Which of the sites in some way or another support the concept of an e-marketplace where end consumers can gather?

Discussion Questions

1. In what ways can shopping over the Internet be more convenient for consumers? In what ways can it be less convenient? List at least five products you would have no hesitation buying

over the Internet, five products you might want to think about a bit before buying, and five products you would never consider buying over the Internet. Justify your reasons in each case.

2. In your opinion, according to Porter's Five Forces Model (refer to Chapter 1), has competition increased or decreased overall as a result of the Internet and e-commerce? Specifically address each of the five forces in Porter's model.
3. Under what circumstances would it be appropriate to consider using viral marketing? See if you can think of an organization with an online presence that could benefit from viral marketing but is not currently using it. It could be your school, for example, or it could be an organization you are involved with. How would you suggest the organization go about using viral marketing in order for it to achieve the desired results? What are some of the other marketing techniques available for an e-commerce Web site to use? Why is it important to consider a mix of techniques rather than just relying on a single one?
4. Describe the services provided by value-added networks that make it easier for companies to exchange EDI transactions with each other. What are the pros and cons of using value-added networks for B2B e-commerce? Why don't more companies use the Internet for EDI since it is much cheaper than using a value-added network? Assume that you work for a telecommunications company that operates a value-added network (AT&T or GXS). What sort of strategies would you encourage your company to explore to deal with the possibility of losing considerable amounts of revenues as your customers leave you in favor of using other Internet-based services?
5. In this chapter, we've identified differences between end consumers and businesses as customers. Review those differences and then write down the three you consider most significant. Discuss those three. For the differences that you did not choose as the three most important, be prepared to justify your decision.
6. In this chapter, we discussed using such technologies as B2B e-marketplaces to create tighter supply chain managements, thereby driving out costs. If you refer back to Chapter 2, you'll recall that another major business initiative is customer relationship management (CRM). How can B2C e-commerce businesses use the Internet to further enhance their CRM initiatives? How can B2B e-commerce businesses use the Internet to further enhance their CRM initiatives? Does it become easier or harder to maintain relationships with customers as businesses move toward more electronic commerce? Why?

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