



សាកលវិទ្យាល័យភូមិន្ទភ្នំពេញ

ROYAL UNIVERSITY OF PHNOM PENH

CHAPTER

7

Electronic and Mobile Commerce

MIS

Chea Daly



Why Learn About Electronic and Mobile Commerce?

- ❑ Electronic and mobile commerce have transformed many areas of our lives and careers.
- ❑ One fundamental change has been the manner in which companies interact with their suppliers, customers, government agencies, and other business partners. As a result, most organizations today have set up business on the Internet or are considering doing so.



Why Learn About Electronic and Mobile Commerce?

- ❑ As an employee in today's organization, you must understand what the potential role of e-commerce is, how to capitalize on its many opportunities, and how to avoid its pitfalls.
- ❑ Many customers, potential employees, and shareholders will be accessing your firm's Web site via smartphones, tablets, and laptops.



An Introduction to Electronic Commerce

- **E-commerce** involves the exchange of money for goods and services electronically over computer networks.
- Business activities that are strong candidates for conversion to e-commerce are ones that are:
 - Paper based
 - Time-consuming
 - Inconvenient for customers



Electronic Commerce

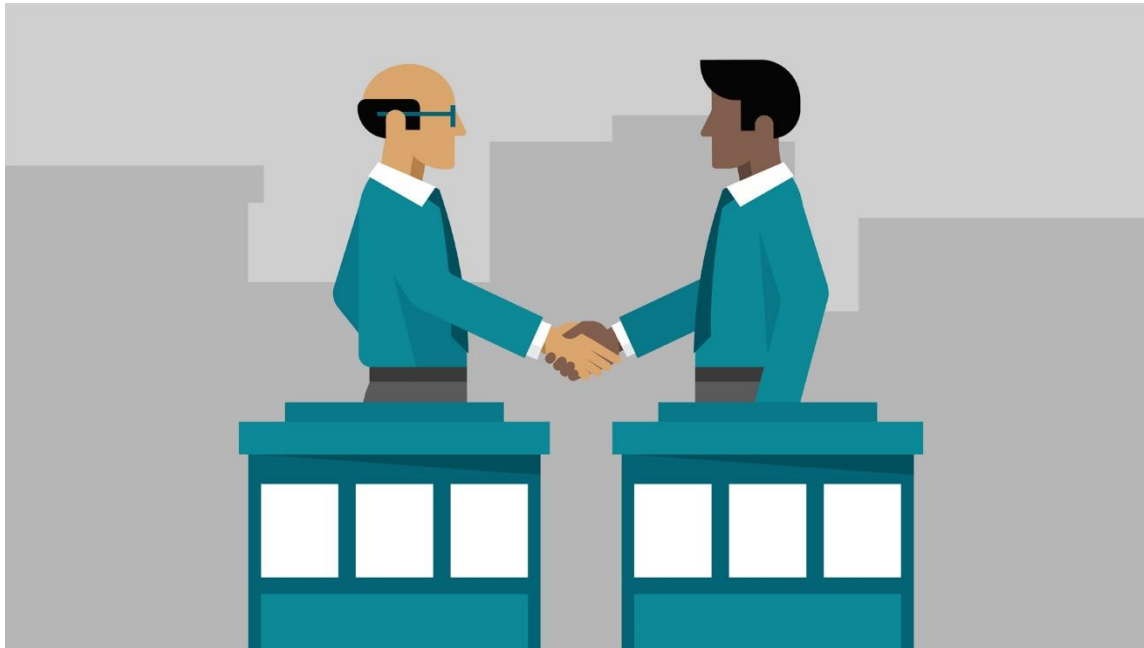
Forms of e-commerce:

- ❑ business-to-business (B2B)
- ❑ business-to-consumer (B2C)
- ❑ consumer-to-consumer (C2C)
- ❑ ...



Business-to-Business (B2B) E-Commerce

- Business-to-business (B2B) e-commerce is a subset of e-commerce in which all the participants are organizations.





Business-to-Business (B2B) E-Commerce

- Useful tool for connecting business partners to cut resupply times and reduce costs.
- B2B market is considerably larger and is growing more rapidly than B2C. B2B sales within the United States were estimated to be over \$780 billion in 2015, twice the size of B2C commerce.



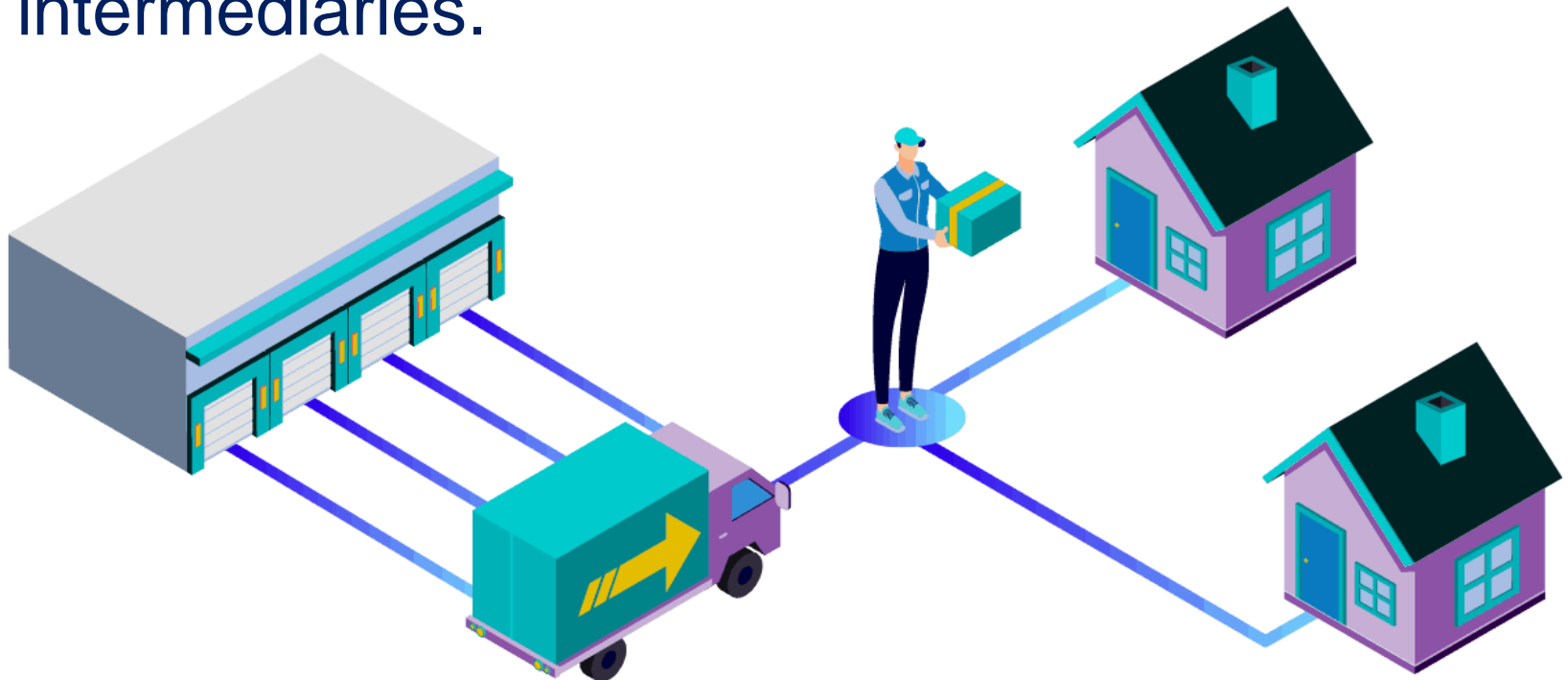
Business-to-Business (B2B) E-Commerce

- Many organizations use both:
 - buy-side e-commerce to purchase goods and services from their suppliers and
 - sell-side e-commerce to sell products to their customers.



Business-to-Consumer (B2C) E-Commerce

- Business-to-consumer (B2C) e-commerce is a form of e-commerce in which customers deal directly with an organization and avoid intermediaries.





Business-to-Business (B2C) E-Commerce

TABLE 7.1 Forecasted global B2C e-commerce sales (USD billions)

Region	Sales (billions)					
	2012	2013	2014	2015	2016	2017
Asia-Pacific	\$301.2	\$383.9	\$525.2	\$681.2	\$855.7	\$1,052.9
North America	\$379.8	\$431.0	\$482.6	\$538.3	\$597.9	\$660.4
Western Europe	\$277.5	\$312.0	\$347.4	\$382.7	\$414.2	\$445.0
Central and Eastern Europe	\$41.5	\$49.5	\$58.0	\$64.4	\$68.9	\$73.1
Latin America	\$37.6	\$48.1	\$57.7	\$64.9	\$70.6	\$74.6
Middle East and Africa	\$20.6	\$27.0	\$33.8	\$39.6	\$45.5	\$51.4
Worldwide	\$1,058.2	\$1,251.4	\$1,504.6	\$1,771.0	\$2,052.7	\$2,357.4



Business-to-Consumer (B2C) E-Commerce

- By using B2C e-commerce to sell directly to consumers, producers or providers of consumer products can eliminate the middlemen, or intermediaries, between them and the consumer.
- In many cases, this reduces costs and can lead to higher profits for businesses and lower prices for consumers.
- The elimination of intermediate organizations between the producer and the consumer is called **disintermediation**.



Business-to-Consumer (B2C) E-Commerce

- ❑ More than just a tool for placing orders, the Internet enables shoppers to compare prices, features, and value, and to check other customers' opinions.
- ❑ Consumers can, for example, easily and quickly compare information about automobiles, cruises, loans, and home prices to find better values.



Price Comparison

- ❑ An increasing number of companies provide mobile phone apps that enable shoppers to compare prices and products online.
 - ❑ RedLaser enables shoppers to do a quick price comparison by simply scanning the product's bar code.
 - ❑ Amazon's Price Check app also lets you search for pricing by taking a picture of a book, DVD, CD, or video game cover.
 - ❑ ...



Business-to-Consumer (B2C) E-Commerce

- ❑ One reason for the steady growth in B2C e-commerce is shoppers find that many goods and services are cheaper when purchased online, including stocks, books, newspapers, airline tickets, and hotel rooms.
- ❑ Another reason for the growth in B2C e-commerce is that online B2C shoppers have the ability to design a personalized product.



Business-to-Consumer (B2C) E-Commerce

- The company's online NIKEiD service enables purchasers to customize a pair of shoes by selecting from different material, features, and fit options—including the the fabric color and design of everything from the lining of the shoe to the laces.
- Nike also recently added a Personalized ID (PiD) service, which allows customers to further individualize their shoes by adding a personal message to their shoes



Business-to-Consumer (B2C) E-Commerce

- Yet a third reason for the continued growth of B2C e-commerce is the effective use of social media networks by many companies looking to reach consumers, promote their products, and generate online sales.



Business-to-Consumer (B2C) E-Commerce

TABLE 7.2 Largest business-to-consumer retailers in the United States

Rank	Company	Total Web Sales (Billions of Dollars)
1	Amazon	\$71.8
2	Walmart	\$13.2
3	Apple	\$10.7
4	Macy's	\$4.7
5	Home Depot	\$4.3



Consumer-to-Consumer (C2C) E-Commerce

- Consumer-to-consumer (C2C) e-commerce is a subset of e-commerce that involves consumers selling directly to other consumers using a third party to facilitate the process.





Consumer-to-Consumer (C2C) E-Commerce

- eBay is an example of a C2C e-commerce site; customers buy and sell items to each other through the site. Founded in 1995, eBay has become one of the most popular Web sites in the world.
- C2C has created an opportunity for many people to make a living out of selling items on auction Web sites.



Legal Jurisdiction

- ❑ Companies and individuals engaging in e-commerce must be careful that their sales do not violate the rules of various county or state.
- ❑ Examples:
 - ❑ Selling stun guns and similar devices
 - ❑ Selling cigarettes or alcohol to underage customers



Consumer-to-Consumer (C2C) E-Commerce

TABLE 7.3 Differences among B2B, B2C, and C2C

Factors	B2B	B2C	C2C
Typical value of sale	Thousands or millions of dollars	Tens or hundreds of dollars	Tens of dollars
Length of sales process	Days to months	Days to weeks	Hours to days
Number of decision makers involved	Several people to a dozen or more	One or two	One or two
Uniformity of offer	Typically a uniform product offering	More customized product offering	Single product offering, one of a kind
Complexity of buying process	Extremely complex; much room for negotiation on quantity, quality, options and features, price, payment, and delivery options	Relatively simple; limited negotiation on price, payment, and delivery options	Relatively simple; limited negotiation on payment and delivery options; negotiations focus on price
Motivation for sale	Driven by a business decision or need	Driven by an individual consumer's need or emotion	Driven by an individual consumer's need or emotion



E-Government

- E-government is the use of information and communications technology to:
 - Simplify the sharing of information
 - Speed formerly paper-based processes
 - Improve the relationship between citizen and government.



E-Government

- Forms of e-Government:
 - Government-to-consumer (G2C)
 - Government-to-business (G2B)
 - Government-to-government (G2G)



Government-to-consumer (G2C)

- ❑ Citizens can use G2C applications to submit their state and federal tax returns online, renew auto licenses, and apply for student loans.
- ❑ Citizens can purchase items from the U.S. government through its GSA Auctions Web site, which offers the general public the opportunity to bid electronically on a wide range of government assets.
- ❑ Healthcare.gov is a healthcare exchange Web site created by and operated under the U.S. federal government as specified in the Patient Protection and Affordable Care Act.

❑ ...



Government-to-business (G2B)

- G2B applications support the purchase of materials and services from private industry by government procurement offices, enable firms to bid on government contracts, and help businesses identify government contracts on which they may bid.
- The Web site Business.U.S.A.gov allows businesses to access information about laws and regulations and to download relevant forms needed to comply with federal requirements for their businesses.
- ...



Government-to-government (G2G)

- G2G applications support transactions between government entities, such as between the federal government and state or local governments.
- Government to Government Services Online (GSO) is a suite of Web applications that enables government organizations to report information—such as birth and death data, and information about the amount of state aid being received.
- ...



Mobile Commerce

- ❑ M-commerce relies on the use of mobile devices, such as tablets and smartphones, to place orders and conduct business.



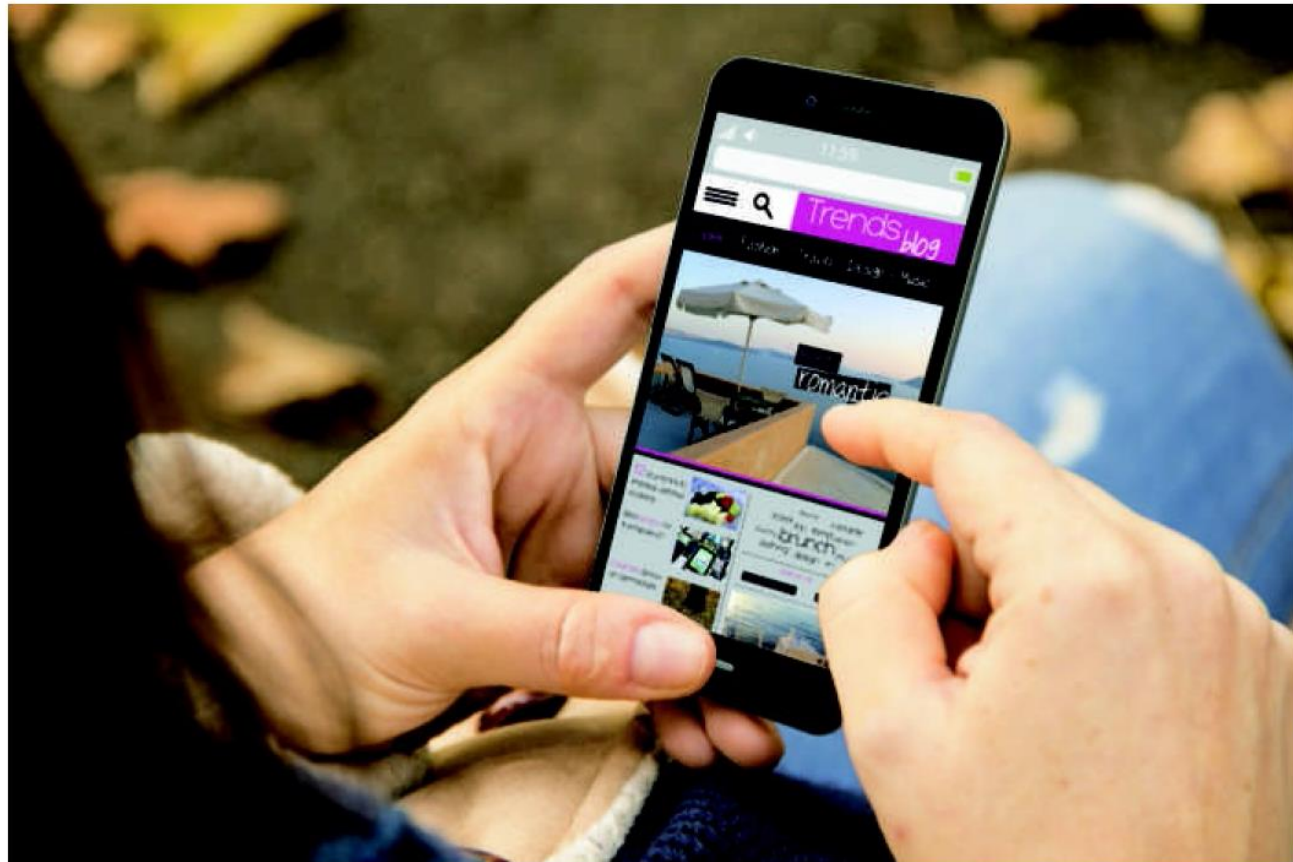


Mobile Commerce

FIGURE 7.8

M-commerce is convenient and personal

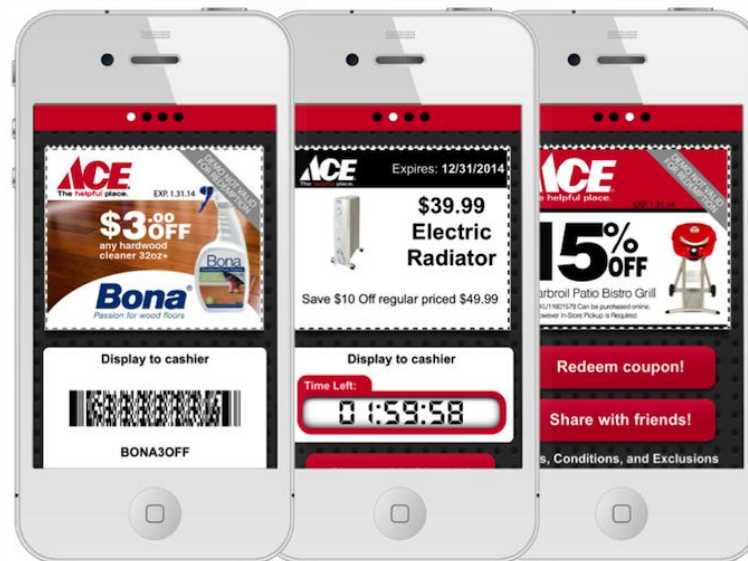
Consumers are increasingly using mobile phones to purchase goods and perform other transactions online.





Couponsing

- Many businesses now offer a variety of digital coupons including printable coupons available on a company's Web site, delivered to customers via email, or send mobile coupons directly to consumers' smartphones via SMS.





Mobile Commerce in Perspective

- Mobile commerce is a rapidly growing segment of e-commerce, with Japan, the United Kingdom, and South Korea leading the world in m-commerce growth.



Mobile Commerce in Perspective

- The market for m-commerce in North America is maturing much later than in other countries for several reasons:
 - In North America, consumer payments are usually made by credit card.
 - Japanese consumers are generally enthusiastic about new technology and therefore have been much more likely to use mobile technologies to make purchases.



M-Commerce Web Sites

- A number of retailers have established special Web sites for mobile devices users.

TABLE 7.4 Highly rated m-commerce retail Web sites

Rank	Company
1	eBay
2	Amazon
3	Apple
4	Burberry
5	John Lewis
6	Lush



M-Commerce Web Sites

- ❑ Consumers often place high value on different criteria.
- ❑ In the OC&C survey, eBay and Amazon ranked highly due to their convenience, effective search tools, and transaction speed.
- ❑ The mobile site for natural cosmetics company Lush was rated highly because it created a strong emotional connection with consumers.



Advantages of Electronic and Mobile Commerce

- Reach new customers
 - The establishment of an e-commerce Web site enables a firm to reach new customers in new markets. Indeed, this is one of the primary reasons organizations give for establishing a Web site.
- Reduce costs
 - by eliminating or reducing time-consuming and labor-intensive steps throughout the order and delivery process, more sales can be completed in the same period.



Advantages of Electronic and Mobile Commerce

- ❑ **Speed the Flow of Goods and Information**
 - ❑ because electronic connections and communications are already established, the information can flow from buyer to seller easily, directly, and rapidly.
- ❑ **Increase Accuracy**
 - ❑ by enabling buyers to enter their own product specifications and order information directly, human data-entry error on the part of the supplier is eliminated. And order accuracy is important—no matter what the product is.
- ❑ **Improve Customer Service**



Multistage Model for E-Commerce

- A successful e-commerce system must address or support the many stages that consumers experience in the sales life cycle:
 1. users search for and identify items for sale;
 2. select those items and negotiate prices, terms of payment, and delivery date;
 3. send an order to purchase the items;
 4. pay for the product or service;
 5. obtain product delivery;
 6. and receive after-sales support.



E-Commerce Challenges

- ❑ A company must overcome many challenges to convert its business processes from the traditional form to e-commerce processes.
- ❑ As a result, not all e-commerce ventures are successful.



E-Commerce Challenges

Case Study: Borders

- ❑ Borders, book and music retailer, began an online Web site in the late 1990s.
- ❑ As a result of the substandard (below standard) results, many top executives were replaced, including the CIO and senior vice president of sales.
- ❑ Finally in early 2011, Borders applied for bankruptcy protection and began closing its stores.



E-Commerce Challenges

- ❑ Dealing with Consumer Privacy Concerns
- ❑ Overcoming Consumers' Lack of Trust
- ❑ Overcoming Global Issues
- ❑ Digital Divide



Dealing with Consumer Privacy Concerns

- While two-thirds of U.S. Internet users have purchased an item online and most Internet users say online shopping saves them time, about one-third of all adult Internet users will not buy anything online primarily because they have privacy concerns or lack trust in online merchants (people or companies involved in wholesale trade).



Dealing with Consumer Privacy Concerns

- ❑ Identity theft is the act of using your personally identifying information without your permission to commit fraud.
- ❑ In order to address customers' privacy concerns, companies looking to do business online must invest in the latest security technology and employ highly trained security experts to protect their consumers' data.



Dealing with Consumer Privacy Concerns

- ❑ For large companies, that can mean a sizable in-house staff that monitors security issues 24/7.
- ❑ Smaller companies often rely on security services provided by companies such as Symantec, whose security service is intended to provide customers with the confidence they need to transact e-commerce business.



Overcoming Consumers' Lack of Trust

Lack of trust in online sellers is one of the most frequently cited reasons that some consumers give to explain why they are unwilling to purchase online.

- ❑ Can they be sure that the company or person with which they are dealing is legitimate and will send the item(s) they purchase?
- ❑ What if the product or service does not match the description on the Web site, wrong size, wrong color, damaged during the delivery process, or does not work as advertised?



Overcoming Consumers' Lack of Trust

- ❑ Online marketers must create trust-building strategies for their Web sites.
- ❑ A perception of trustworthiness can be created by implementing one or more of the following strategies:
 - ❑ Demonstrate that the company has been in business for a long time.
 - ❑ Make it clear that considerable investment has been made in the Web site.
 - ❑ Display Web site accreditation by the Better Business Bureau Online or TRUSTe programs.
 - ❑ ...



Overcoming Consumers' Lack of Trust

Here are some tips to help online shoppers avoid problems:

- ❑ Only buy from a well-known Web site you trust—one that advertises on national media, is recommended by a friend, or receives strong ratings in the media.
- ❑ Review the Web site's privacy policy before you provide personal information.
- ❑ Determine what the Web site policy is for return of products purchased.
- ❑ Look for a seal of approval from organizations such as the Better Business Bureau Online or TRUSTe.



Seals of Approval

FIGURE 7.4

Seals of approval

To avoid problems when shopping online, look on the Web site for a seal of approval from organizations such as the Better Business Bureau Online or TRUSTe.





Overcoming Consumers' Lack of Trust

- ❑ Be wary if you must enter any personal information other than what is required to complete the purchase (name, credit card number, address, and telephone number).
- ❑ When you open the Web page where you enter credit card information or other personal data, make sure that the Web address begins with “https,” and check to see if a locked padlock icon appears in the address bar.
- ❑ Consider using virtual credit cards, which expire after one use.



Overcoming Global Issues

- ❑ People and companies can sell products and services to all over the world.
- ❑ These global business opportunity, however, come with numerous obstacles and issues:
 - ❑ **Cultural challenges.** Must ensure that a Web site is appealing, easy to use, and inoffensive to potential customers around the world.
 - ❑ **Language challenges.** Language differences can make it difficult to understand the information and directions posted on a Web site.



Overcoming Global Issues

- ❑ **Time and distance challenges.** This makes it difficult for some people to be able to speak to customer services representatives or to get technical supports.
- ❑ **Infrastructure challenges.** The Web site must support access by customers using a wide variety of hardware and software devices.
- ❑ **Currency challenges.** The Web site must be able to state prices and accept payment in a variety of currencies.
- ❑ **State, regional, and national law challenges.** The Web site must operate in conformance to a wide variety of laws.



Digital Divide

- ❑ Digital divide refers to the difference between people who do and do not use modern technology such as computers and the Internet to improve their standard of living.
- ❑ Least developed countries are likely to lag behind and loose out on the benefits of ICT revolution and e-commerce opportunities.



Electronic and Mobile Commerce Applications

- ❑ Many e-commerce applications are being used in:
 - ❑ Retail and Wholesale
 - ❑ Manufacturing
 - ❑ Marketing
 - ❑ Advertising
 - ❑ Bartering
 - ❑ Investment and finance
 - ❑ Banking



Electronic Retailing

- ❑ Electronic retailing (e-tailing) refers to the specific activities related to selling retail products and services via the internet.
- ❑ E-tailing can include business-to-business (B2B) and business-to-consumer (B2C) sales of products and services. But it tends to primarily focus on the business-to-consumer (B2C) segment.



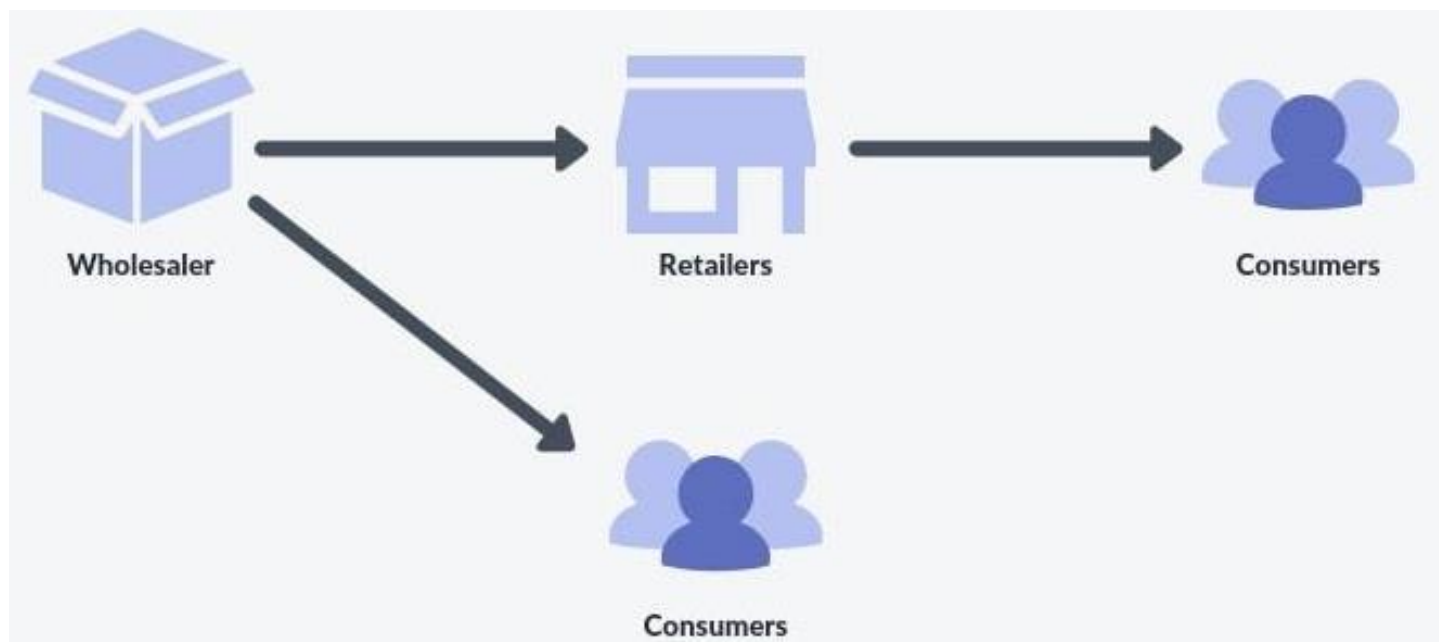
Wholesale E-Commerce

- Wholesale ecommerce is a business-to-business (B2B ecommerce) model where, instead of selling your products individually to consumers, you sell them in bulk and at a discount to other businesses.
- Purchases often approach 40 percent of a manufacturing company's total revenues.



Wholesale E-Commerce

- The most common type of wholesale is between producers and retailers. However, there are wholesalers who sell to other wholesalers, and wholesalers who sell directly to end consumers at a higher price.





Manufacturing

- ❑ One approach taken by many manufacturers to raise profitability and improve customer service is to move their supply chain operations onto the Internet.
- ❑ Here, they can form an electronic exchange,
 - ❑ Electronic forum where manufacturers, suppliers, and competitors buy and sell goods, trade market information, and run back-office operations, such as inventory control.

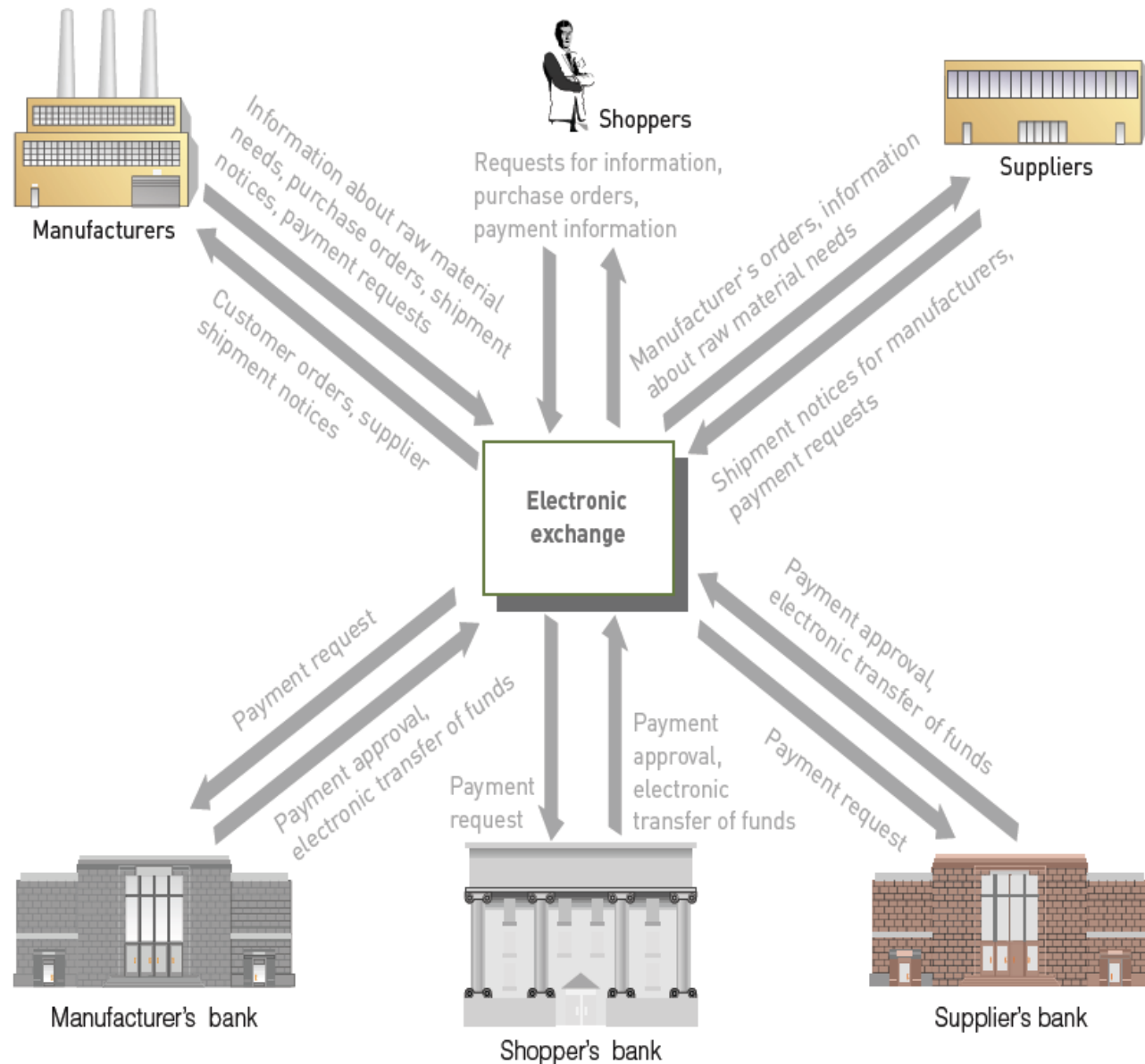


FIGURE 7.6
Model of an electronic exchange

An electronic exchange is an electronic forum where manufacturers, suppliers, and competitors buy and sell goods, trade market information, and run back-office operations.



Types of Exchanges

- ❑ Private exchanges:
 - ❑ Owned and operated by a single company.
 - ❑ The owner uses the exchange to trade exclusively with established business partners.
- ❑ Public exchanges:
 - ❑ Owned and operated by industry groups.
 - ❑ Open to all interested parties (many sellers and many buyers)



Marketing

- The nature of the Web enables firms to gather more information about customer behavior and preferences.
- Internet advertisers use the data to identify specific markets and target them with tailored advertising messages.



Marketing

- Market segmentation:
 - divides the pool of potential customers into subgroups usually defined in terms of demographic characteristics, such as age, gender, marital status, income level, and geographic location to target them with advertising messages



Marketing

- ❑ In the past, market segmentation has been difficult for B2B marketers because firmographic data (addresses, financials, number of employees, and industry classification code) was difficult to obtain.



Marketing

- Nielsen, the marketing and media information company, provides data as a service that customers can access to more than 250 million business records, including critical company information such as contact names, job titles, locations, addresses, number of employees, annual sales, etc.
- Using this data, analysts can identify, access, and segment their potential B2B audience; estimate potential sales for each business; and rank the business against other prospects and customers.



Advertising

- ❑ Advertising is a component of a company's marketing strategy.
- ❑ Companies use advertising to share information about their products or services through various media.



Types of Advertising

- ❑ **Print Advertising**
 - ❑ Seen on printed materials such as newspapers and magazines, brochures, etc.
- ❑ **Social Media Advertising**
 - ❑ Companies use social media advertising to promote their products or services. They may focus on reaching customers based on their geographic location, age group or buying habits.
- ❑ **Direct Mail Advertising**
 - ❑ Direct mail to customers through the mail that include brochures, catalogs, newsletters, etc.



Types of Advertising

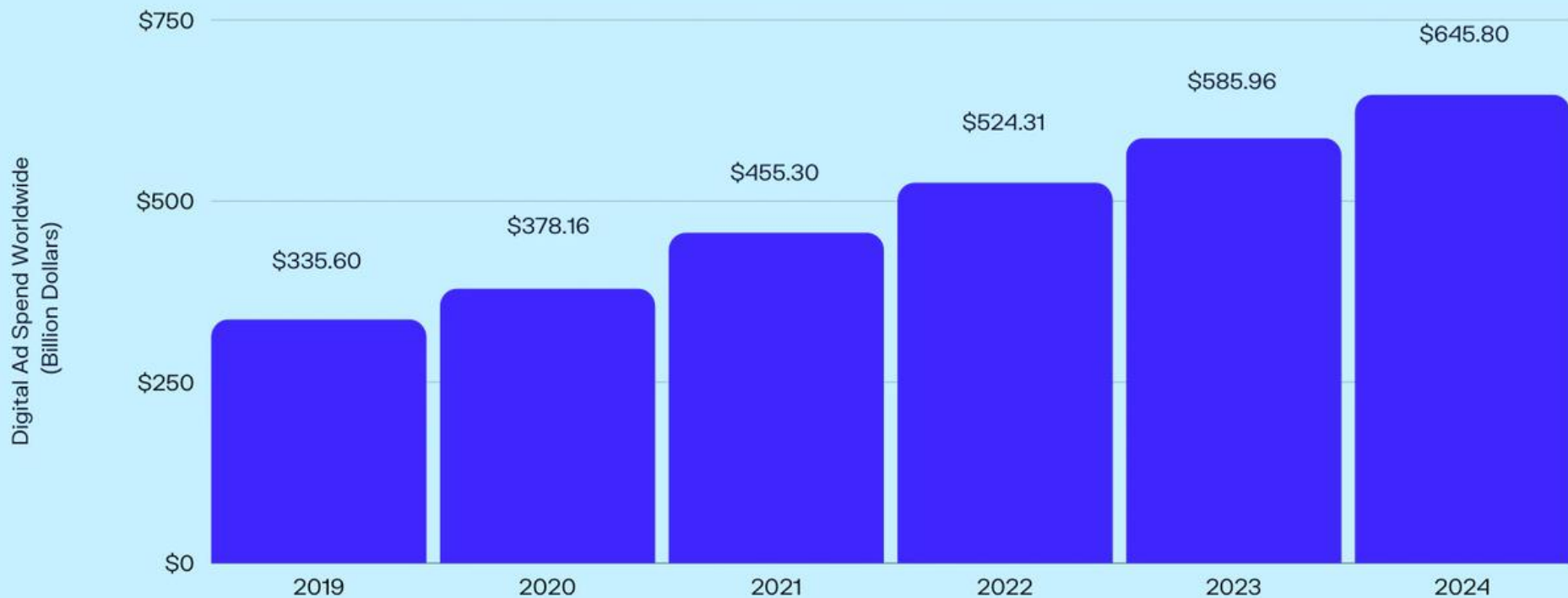
- Television Advertising
 - A type of broadcast advertising where companies advertise their products or services through 20-, 30- or 60-second TV commercials.
- Radio Advertising
 - Another form of broadcast advertising where customers can hear radio advertisements while conducting other activities, such as driving or doing household chores.
- Out-of-home Advertising
 - billboards and advertisements seen in public places or transit vehicles, such as on the sides of buses.



Types of Advertising

- **Television Advertising**
 - A type of broadcast advertising where companies advertise their products or services through 20-, 30- or 60-second TV commercials.
- **Radio Advertising**
 - Another form of broadcast advertising where customers can hear radio advertisements while conducting other activities, such as driving or doing household chores.
- **Out-of-home Advertising**
 - billboards and advertisements seen in public places or transit vehicles, such as on the sides of buses.

Digital Ad Spend (2019–2024)





Invasion of Consumer Privacy

- ❑ Retargeting
 - ❑ A technique used by advertisers to ensures that potential consumers see relevant, targeted ads for products they have already expressed interest in.
- ❑ Online profiling:
 - ❑ Practice of Web advertisers' recording online behavior to produce targeted advertising.
- ❑ Clickstream data:
 - ❑ Data gathered based on the Web sites you visit and the items you click.



Bartering

- **Bartering** means exchange goods or services for other goods or services without using money.





Bartering

- ❑ Some businesses are willing to barter to reduce excess inventory, gain new customers.
- ❑ A number of Web sites have been created to support this activity.



Bartering

TABLE 7.6 Popular bartering Web sites

Web site	Purpose
Craiglist.org	Includes a section where users can request an item in exchange for services or exchange services for services
Swapagift.com	Enables users to buy, sell, or swap merchant gift cards
Swapstyle.com	Allows users to swap, sell, or buy direct women's accessories, clothes, cosmetics, and shoes
Swaptrees.com	Users trade books, CDs, DVDs, and video games on a one-for-one basis
TradeAway.com	Enables users to exchange a wide variety of new or used items, services, or real estate



Investment and Finance

- The Internet has revolutionized the world of investment and finance.
- The allure of online trading that enables investors to do quick, thorough research and then buy shares in any company in a few seconds and at a fraction of the cost of a full-commission firm has brought many investors to the Web.



Mobile investment and finance

A person is holding a tablet displaying a financial chart of the Dow Jones Industrial Average (INDU:IND). The chart shows a line graph with a red line representing the index value over time. The current value is 12302.55, with a change of +100.70 (+0.82%). The chart includes a table of key statistics: High (12406.54), Low (12084.36), Volume (307), and Time (12:07). A cup of coffee is visible in the background.



Banking

- ❑ Online banking customers can check balances of their savings, checking, and loan accounts; transfer money among accounts; and pay bills.
- ❑ In addition, online banking customers have the satisfaction of knowing that paying bills online is good for the environment because it reduces the amount of paper used, thus saving trees.



Banking

- ❑ Banks are eager to gain more customers who pay bills online because such customers tend to stay with the bank longer, have higher cash balances, and use more of the bank's products and services.
- ❑ To encourage the use of this service, many banks have eliminated all fees associated with online bill payment.



Strategies for Successful E-Commerce and M-Commerce

- ❑ Defining an Effective E-Commerce Model and Strategy
- ❑ Defining the Functions of a Web Site
- ❑ Establishing a Web Site
- ❑ Building Traffic to Your Web Site
- ❑ Maintaining and Improving Your Web Site



Defining an Effective E-Commerce Model and Strategy

- ❑ Before building a Web site, a company must first define an effective e-commerce model and strategy.
- ❑ Companies must develop effective Web sites that include the following characteristics:
 - ❑ Easy to use
 - ❑ Accomplish the goals of the company
 - ❑ Safe and secure
 - ❑ Affordable to set up and maintain



Defining an Effective E-Commerce Model and Strategy

- Although companies can select from a number of approaches, the most successful e-commerce models include three basic components: community, content, and commerce.



Defining an Effective E-Commerce Model and Strategy

□ Community

- Discussion forums and other social shopping tools can build a loyal community of people who are interested in the company and its products and services.

□ Content

- Providing useful, accurate, and timely content, such as industry and economic news and stock price.

□ Commerce

- Commerce involves consumers and businesses paying to purchase physical goods, information, or services that are posted or advertised online.

FIGURE 7.12

Content, commerce, and community

A successful e-commerce model includes three basic components.

Content

Industry news
Economic news
Stock prices

Commerce

Consumers and
businesses buying
and selling

Community

Discussion forums
Shopping tools



Defining the Functions of a Web Site

- ❑ Most people agree that an effective Web site is one that is attractive and that meets the needs of its visitors, which might include the following functionalities for users:
 - ❑ Obtaining general information about the organization
 - ❑ Obtaining financial information for making an investment decision in the organization.
 - ❑ Learning about the products or services that the organization sells.
 - ❑ Buying the products or services that the company offers.



Defining the Functions of a Web Site

- ❑ Checking the status of an order.
- ❑ Getting advice or help on effective use of the products
- ❑ Registering a complaint about the organization's products.
- ❑ Providing ideas for product improvement.
- ❑ Obtaining information about warranties or service and repair policies for products.
- ❑ Obtaining contact information for a person or department in the organization.



Defining the Functions of a Web Site

- ❑ Keep in mind that the priorities and objectives of customers may change over time.
- ❑ As the number of e-commerce shoppers increases and they become more comfortable—and more selective—making online purchases, a company might need to redefine the basic business model of its site to capture new business opportunities.



Defining the Functions of a Web Site

Case Study: Expedia

- ❑ The major travel site such as Expedia used to specialize in one area of travel—inexpensive airline tickets.
- ❑ Now it offer a full range of travel products, including airline tickets, auto rentals, hotel rooms, tours, etc.
- ❑ It has also developed numerous hotel partnerships to reduce costs.



Establishing a Web Site

- ❑ Companies large and small can establish Web sites.
- ❑ Some companies develop their sites in-house, but this decision requires a Web development staff that is experienced with HTML, Java, and Web design software.
- ❑ Many firms, especially those with few or no experienced Web developers, have decided to outsource the building of their Web sites in order to get their sites up and running faster and cheaper than they could by doing the job themselves.



Establishing a Web Site

- ❑ Another model for setting up a Web site is the use of a **storefront broker**.
- ❑ Products are ordered by a customer at your site, orders are processed through a user interface provided by the storefront broker, and the product is shipped by the merchant.
- ❑ The storefront broker deals with the details of the transactions, including who gets paid for what, and is responsible for bringing together merchants and reseller sites.



Building Traffic to Your Web Site

- ❑ There are hundreds of thousands of e-commerce Web sites.
- ❑ With all those potential competitors, a company must take strong measures to ensure that the customers can find its Web site.



Building Traffic to Your Web Site

- The first step is to obtain and register a domain name, which should say something about your business.
 - For example, if you want to sell soccer uniforms and equipment, then you would try to get a domain name such as www.soccerstuff4u.com or www.soccerequipment.com



Building Traffic to Your Web Site

- ❑ The next step is to make your site search-engine friendly by improving its rankings.
 - ❑ Include an HTML *meta tag* in your site's home page that contains keywords representing your site's content. Search engines use these keywords to build indexes pointing to your Web site.
 - ❑ Use Web site traffic data analysis software to capture data and analyze data. This data can tell you which search engines and keywords that find your site, and other useful information.



Building Traffic to Your Web Site

- ❑ Provide quality, keyword-rich content. Be careful not to use too many keywords, as search engines often ban sites that do this.
- ❑ Add new content to the Web site on a regular basis. This makes the site attractive to humans as well as search engines.
- ❑ Acquire links to your site from other reputable Web sites that are popular and related to your Web site.



Maintaining and Improving Your Web Site

- ❑ Web site operators must constantly monitor the traffic to their sites and the response times experienced by visitors.
- ❑ AMR Research, a Boston research analysis firm, reports that Internet shoppers expect service to be better than or equal to their in-store experience.
- ❑ To keep pace with technology and increasing traffic, it might be necessary to modify the software, databases, or hardware.



Maintaining and Improving Your Web Site

Case Study: Walmart

- ❑ Retailing giant Walmart recently invested over \$2 billion to improve its Web site and strengthen its e-commerce infrastructure.
- ❑ In addition to make its Web site easier for customers to shop, Walmart continues to add to the number of items available through its e-commerce site.



Maintaining and Improving Your Web Site

□ Personalization:

- The process of tailoring Web pages to specifically target individual consumers.
- The goal is to meet the customer's needs more effectively.
- Building a better understanding of customer preferences can also aid in cross-selling related products and more expensive products.
- Amazon uses a form of personalization in which the Web site recommends a list of new products based on the customer's previous purchases.



Maintaining and Improving Your Web Site

- ❑ Businesses use two types of personalization techniques to capture data and build customer profiles:
 - ❑ Implicit personalization:
 - ❑ Capture data from actual customer Web sessions—primarily based on which pages were viewed and which were not.
 - ❑ Explicit personalization:
 - ❑ Captures user-provided information



Maintaining and Improving Your Web Site

- ❑ Personalization is all about helping your customers discover what they love.
- ❑ However, because personalization depends on gathering and using personal user information, privacy issues are a major concern.



Technology Infrastructure Required to Support E-commerce and M-commerce

- ❑ Successful implementation of e-business requires significant changes to existing business processes and substantial investment in IS technology.
- ❑ In surveys, online consumers frequently note that poor Web site performance (e.g., slow response time, inadequate customer support, and lost orders) drives them to abandon some e-commerce sites in favor of those with better, more reliable performance.

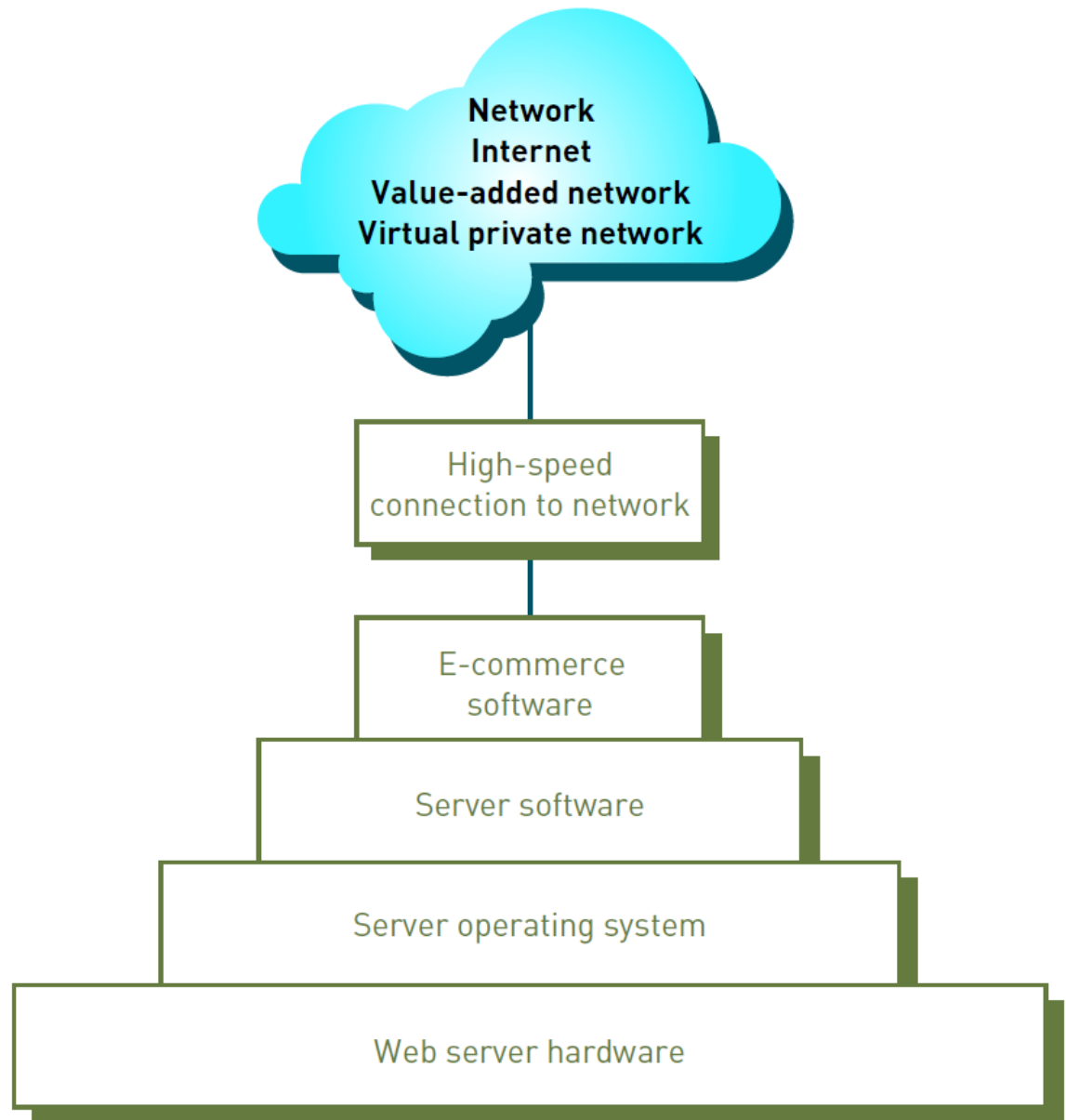
TABLE 7.7 Key performance measures for some popular retail Web sites

Site	Response Time (seconds)	Success Rate	Outage Time During One Week
Zappos	0.71	100%	0
Apple Store	0.82	100%	0
Costco	1.02	100%	0
Nike	1.60	100%	0
Best Buy	2.00	100%	0

FIGURE 7.13

Key technology infrastructure components

E-commerce systems require specific kinds of hardware and software to be successful.





E-Commerce Software

- ❑ If you have an online store, you would need e-commerce software to smooth the purchasing process, manage stock, and fulfill orders. Such as:
 - ❑ Catalog management to create and update the product catalog.
 - ❑ Product configuration to help customers select the necessary components and options.
 - ❑ Shopping cart facilities to track the items selected for purchase.
 - ❑ E-commerce transaction processing and Web traffic data analysis to provide details to adjust the operations of the Web site.



Mobile Commerce Hardware and Software

- For m-commerce to work effectively, the interface between the mobile device and its user must improve to the point that it is nearly as easy to purchase an item on a wireless device as it is to purchase it on a PC.
- In addition, network speeds must continue to improve so that users do not become frustrated.



Electronic Payment Systems

- ❑ Electronic payment systems are a key component of the e-commerce infrastructure.
- ❑ Actual payments are made in a variety of ways, including electronic cash, electronic wallets, and smart, credit, charge, and debit cards.



Electronic Payment Systems

- ❑ Electronic cash:
 - ❑ An amount of money that is computerized, stored, and used as cash for e-commerce transactions
- ❑ Credit, debit, smart cards, and P-card:
 - ❑ Credit card-sized device with an embedded microchip to provide electronic memory and processing capability
- ❑ Payments using cell phones



References

- **Reynolds, George Walter, Stair, Ralph M.**
“Principles of information systems”, 13e – 2017