CHAPTER 9

E-Business and E-Commerce

CHAPTET OUTLINE

1. Overview of E-Business and E-Commerce
2. Business-to-Consumer (B2C) Electronic Commerce
3. Business-to-Business (B2B) Electronic Commerce
4. Ethical and Legal Issues in E-Business

LEARNING OBJECTIVES

1. Describe the six common types of electronic commerce.
2. Describe the various online services of business-to-consumer (B2C) commerce, providing specific examples of each.
3. Describe the three business models for business-to-business electronic commerce.
4. Identify the ethical and legal issues related to electronic commerce, along with examples.

9.1 Overview of E-Business and E-Commerce

- Definitions and Concepts
- Types of E-Commerce
- Major E-Commerce Mechanisms
- Electronic Payment Mechanisms
- Benefits and Limitations of E-Commerce

Definitions and Concepts

- **Electronic Commerce (EC or e-commerce):** the process of buying, selling, transferring, or exchanging products, services, or information via computer networks, including the Internet.
- **Electronic Business (e-business):** in addition to the buying and selling of goods and services, e-business (a broader concept) refers to servicing customers, collaborating with business partners, and performing electronic transactions within an organization.
- **Degree of Digitization:** the extent to which the commerce has been transformed from physical to digital which can relate to both the product or service being sold and the delivery agent or intermediary. In other words, the product can be either physical or digital, and the delivery agent can also be either physical or digital.
- **Brick-and-Mortar Organizations:** organizations that exist as purely physical organizations.
- **Virtual (or pure-play) Organizations:** all dimensions of the organization are digital and they engage in pure electronic commerce only.
- **Clicks-and-Mortar (or Clicks-and-Bricks):** organizations that are partial electronic commerce (EC) combining both virtual and physical dimensions.

Types of E-Commerce

- **Business-to-Consumer (B2C):** the sellers are organizations, and the buyers are individuals.
- **Business-to-Business (B2B):** both the sellers and the buyers are business organizations. B2B comprises the vast majority of EC volume.
- **Consumer-to-Consumer (C2C):** an individual sells products or services to other individuals.
- **Business-to-Employee (B2E):** an organization uses EC internally to provide information and services to its employees.
- **E-government:** E-government is the use of Internet technology in general and e-commerce in particular to deliver information and public services to citizens.
- **Government-to-Citizen (G2C):** government to individual citizens.
- **Government-to-Business (G2B):** G2B EC is much like B2B EC, usually with an overlay of government procurement regulations.
- **Mobile Commerce (m-commerce):** e-commerce that is conducted entirely in a wireless environment.

Major E-Commerce Mechanisms

- **Auction:** a competitive buying and selling process in which prices are determined dynamically by competitive bidding.
- **Forward Auctions:** sellers solicit bids from many potential buyers and prices tend to increase over time.
- **Reverse Auctions:** one buyer, usually an organization, wants to purchase a product or a service and buyer posts a request for quotation (RFQ) on its Web site or on a third party site. Prices tend to decrease over time.
- **Electronic Storefront:** a Web site that represents a single store.
- **Electronic Mall:** (also known as a cybermall or an e-mall) a collection of individual shops consolidated under one Internet address and they are closely associated with B2C electronic commerce.
- **Electronic Marketplace (e-marketplace):** a central, virtual market space on the Web where many buyers and many sellers can conduct e-commerce and e-business activities.

Table 9.1: E-Commerce Business Models

Online direct marketing	Manufacturers or retailers sell directly to customers. Very efficient for digital products and services. Can allow for product or service customization (www.dell.com)
Electronic tendering system	Businesses request quotes from suppliers. Uses B2B with a reverse auction mechanism
Name-your-own-price	Customers decide how much they are willing to pay. An intermediary tries to match a provider (www.priceline.com)
Find-the-best-price	Customers specify a need; an intermediary compares providers and shows the lowest price. Customers must accept the offer in a short time, or they may lose the deal (www.hotwire.com)
Affiliate marketing	Vendors ask partners to place logos (or banners) on partner's site. If customers click on logo, go to vendor's site, and make a purchase, then the vendor pays commissions to the partners
Viral marketing	Recipients of your marketing notices send information about your product to their friends

Table 9.1: E-Commerce Business Models (Continued)

Group purchasing (e-coops)	Small buyers aggregate demand to create a large volume; the group then conducts tendering or negotiates a low price
Online auctions	Companies run auctions of various types on the Internet. Very popular in C2C, but gaining ground in other types of EC as well (www.ebay.com)
Product customization	Customers use the Internet to self-configure products or services. Sellers then price them and fulfill them quickly (*build-to-order*) (www.jaguar.com)
Electronic marketplaces and exchanges	Transactions are conducted efficiently (more information to buy-ers and sellers, lower transaction costs) in electronic marketplaces (private or public)
Bartering online	Intermediary administers online exchange of surplus products and/or company receives "points" for its contribution, which it can use to purchase other needed items (www.bbu.com)
Deep discounters	Company offers deep price discounts. Appeals to customers who consider only price in their purchasing decisions (www.half.com)
Membership	Only members can use the services provided, including access to certain information, conducting trades, etc. (www.egreetings.com)

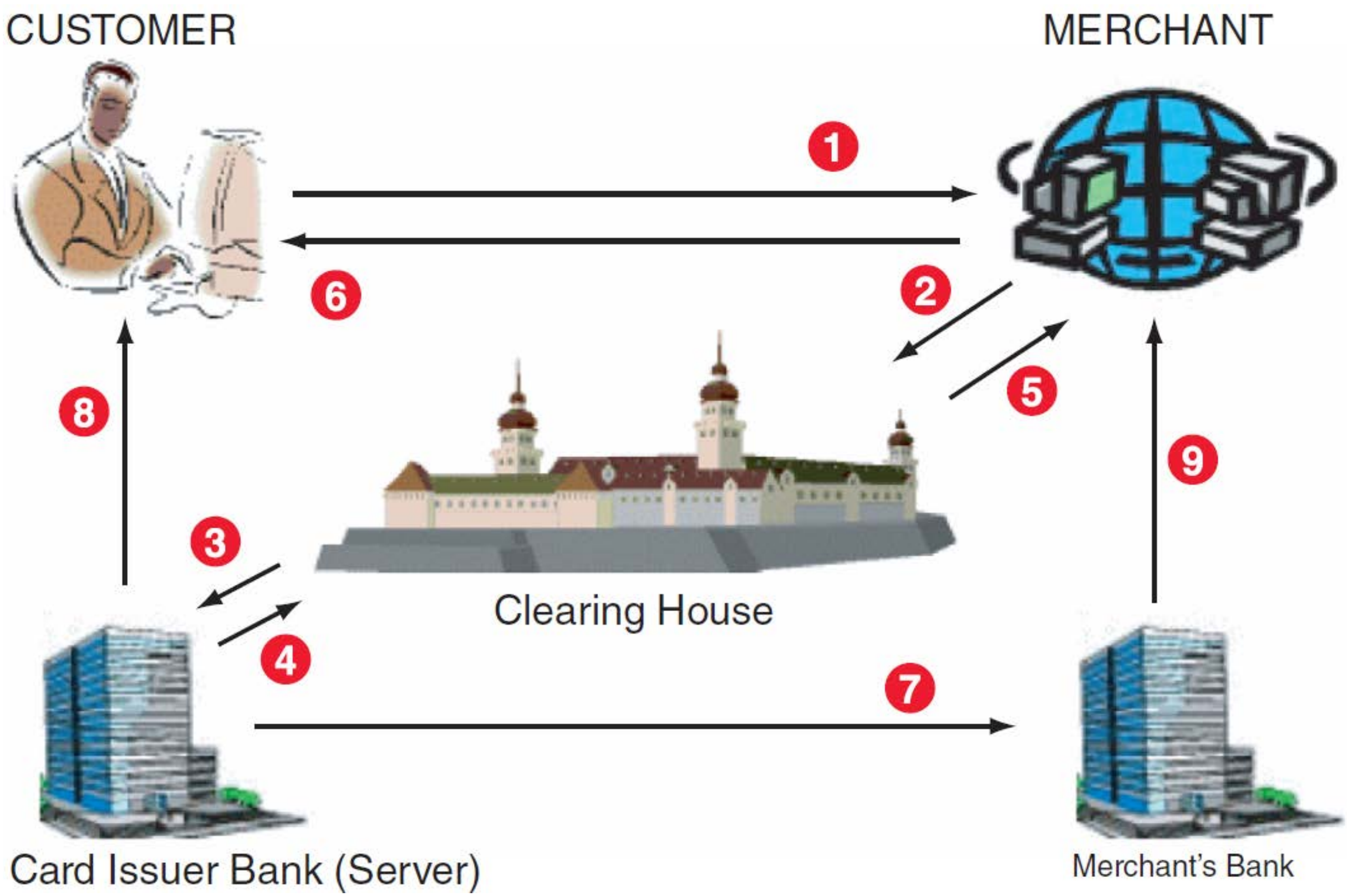
Electronic Payment Mechanisms

- **Electronic Payment Mechanisms:** enable buyers to pay for goods and services electronically, rather than writing a check or using cash.
- **Electronic Checks:** (e-checks), which are used primarily in B2B, are similar to regular paper checks.
- **Electronic Cards:** There are a variety of electronic cards, and they are used for different purposes. The most common types are electronic credit cards, virtual credit cards, purchasing cards, stored-value money cards, and smart cards.
- **Virtual Credit Cards:** allow customers to shop online and can be used only once in order to thwart criminals by using a different, random card number every time you shop online.
- **Purchasing Cards:** are the B2B equivalent of electronic credit cards and in some countries, purchasing cards are the primary form of payment between companies.

Electronic Payment Mechanisms

- **Stored-Value Money Cards:** allow you to store a fixed amount of prepaid money and then spend it as necessary and each time you use the card, the amount is reduced by the amount you spent.
- **Smart Cards:** contain a chip that can store a considerable amount of information—more than 100 times the amount contained on a stored-value money card and are frequently multipurpose. That is, you can use them as a credit card, a debit card, a stored-value money card, or a loyalty card.
- **Person-to-Person Payments:** enable two individuals, or an individual and a business, to transfer funds without using a credit card (e.g., PayPal).
- **Digital Wallet:** an application (app) used for making financial transactions. These apps can be on users' desktops or on their smartphones. When the app is on a smartphone, it becomes a mobile payment system. Digital wallets replace the need to carry physical credit and debit cards, gift cards, and loyalty cards, as well as boarding passes and other forms of identification.
- **Bitcoin:** a type of digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of any central bank.

Figure 9.1: How e-credit cards work



Benefits of E-Commerce

- **Organization Benefit:** national and international markets more accessible by lowering the costs of processing, distributing, and retrieving information.
- **Customer Benefit:** by being able to access a vast number of products and services, around the clock.
- **Benefit to Society:** the ability to easily and conveniently deliver information, services, and products to people in cities, rural areas, and developing countries.

Limitations of E-Commerce

Technological Limitations:

- Lack of universally accepted security standards
- In less-developed countries, telecommunications bandwidth often is insufficient, and accessing the Web is expensive.

Non-technological Limitations of E-Commerce:

- Perceptions that EC is insecure
- EC has unresolved legal issues
- EC lacks a critical mass of sellers and buyers.

9.2 Business-to-Consumer (B2C) Electronic Commerce

- **Electronic Storefront:** a Web site that represents a single store.
- **Electronic Mall:** (also known as a cybermall or an e-mall) a collection of individual shops grouped under a single Internet address.
- **Online Advertising:** the practice of using the Internet and WWW to disseminate information in an attempt to influence a buyer–seller transaction through the direct response approach which personalizes advertising and marketing making the advertising process media rich, dynamic, and interactive.

Electronic Storefronts and Malls

- **Electronic Retailing (e-tailing):** the direct sale of products and services through electronic storefronts or electronic malls, usually designed around an electronic catalog format and/or auctions.
- **Electronic Storefront:** a Web site that represents a single store.
- **Electronic Mall:** (also known as a cybermall or an e-mall) a collection of individual shops grouped under a single Internet address.
- **Two Types of Cybermalls:**
  - Referral Malls: (e.g., www.hawaii.com), you cannot buy anything, but instead, you are transferred from the mall to a participating storefront.
  - A Cybermall (e.g., http://shopping .google.com) where you can actually make a purchase. You might shop from several stores, but you make only one purchase transaction at the end.

Online Service Industries

- **Disintermediation:** a process whereby intermediaries are eliminated.
- **Intermediaries (or middlemen) Have Two Functions:**
  - they provide information, and this function can be fully automated and most likely will be assumed by e-marketplaces and portals that provide information for free.
  - they perform value-added services such as consulting.
- **Cyberbanking (or Electronic Banking):** involves conducting various banking activities from home, at a place of business, or on the road instead of at a physical bank location. It include capabilities ranging from paying bills to applying for a loan.
- **Online Securities Trading:** the use of computers to trade stocks, bonds, and other financial instruments. (e.g., E*Trade, Ameritrade, etc.) which is cheaper than a full-service or discount broker.

Online Service Industries

- **Online Job Market:** Companies and government agencies advertise available positions, accept resumes, and take applications via the Internet while job seekers use the online job market to reply online to employment ads, to place resumes on various sites, and to use recruiting firms (e.g., www.monster.com, www.simplyhired.com, www.linkedin.com, and www.truecareers.com).
- **Travel Services:** use of the Internet and WWW to plan, explore, and arrange almost any trip economically allowing customers to purchase airline tickets, reserve hotel rooms, and rent cars.
- **Online Advertising:** the practice of using the Internet and WWW to disseminate information in an attempt to influence a buyer–seller transaction through the direct response approach which personalizes advertising and marketing making the advertising process media rich, dynamic, and interactive.

Online Advertising

Advantages of Online Advertising:

- Updated any time at minimal cost
- Reach very large numbers of potential buyers all over the world
- Generally cheaper than radio, television, and print ads
- Interactive and targeted to specific interest groups and/or individuals

Advertising Methods

- **Banner Ads:** electronic billboards containing a short text, graphics, video clips, or sound to promote a product or a vendor.
- **Characteristics of Banner Ads:**
  1. the most common form of advertising on the Internet
  2. customized to a target audience
  3. convey only limited information because of their small size
  4. many viewers simply ignore them
- **Pop-Up Ad:** an Internet ad that appears in front of the current browser window.
- **Pop-Under Ad:** an Internet ad appears underneath the active window; when users close the active window, they see the ad.
- **Spam:** indiscriminate distribution of electronic ads without the permission of the receiver.
- **Permission Marketing:** asks consumers to give their permission to voluntarily accept online advertising and e-mail.
- **Viral Marketing:** online word-of-mouth marketing including messages forwarded to friends, family members, and other acquaintances suggesting they "check this out" which enables companies to build brand awareness at a minimal cost without having to spam millions of uninterested users.

Issues in E-Tailing

- **Two Most Significant E-Tailing Issues:**
  1. Channel Conflict
  2. Fulfillment
- **Channel Conflict:** a situation in which clicks-and-mortar companies face a conflict with their regular distributors when they begin selling directly to customers online. These conflicts can arise in areas such as pricing, resource allocation (e.g., how much money to spend on advertising).
- **Multichanneling (or omni-channeling):** a process in which companies integrate their online and offline channels creating the opportunity for 'showrooming.'
- **Showrooming:** occurs when shoppers visit a brick-and-mortar store to examine a product in person then conduct research about the product on their smartphones. In these situations customers often purchase the product from the Web site of a competitor of the store they are visiting.
- **Order Fulfillment:** when a company sells directly to customers, it is involved in various order-fulfillment activities including: quickly finding the products to be shipped; packing orders; arranging for the packages to be delivered speedily to the customer’s door; collect the money from each customer; handle the return of unwanted or defective products.

9.3 Business-to-Business (B2B) Electronic Commerce

- **Sell-Side Marketplace Model:** organizations attempt to sell their products or services to other organizations electronically from their own private e-marketplace Web site and/or from a third-party Web site. In the B2B sell-side marketplace the buyer is an organization.
- **Buy-Side Marketplaces Model:** a model in which organizations attempt to procure needed products or services from other organizations electronically. Procurement is the overarching function that describes the activities and processes to acquire goods and services.

Sell-Side Marketplaces

Key Mechanisms:

- Forward auctions
- Customized electronic catalogs for large buyers
- Third-Party Auction Sites

Buy-Side Marketplaces

- **Procurement:** involves the activities necessary to establish requirements, sourcing activities such as market research and vendor evaluation, and negotiation of contracts.
- **Purchasing:** the process of ordering and receiving goods and services and it is a subset of the procurement process.
- **Reverse Auction:** A major method of procuring goods and services in the buy-side model is the reverse auction.
- **E-procurement:** uses reverse auctions, particularly group purchasing.
- **Group Purchasing:** multiple buyers combine their orders so that they constitute a large volume and therefore attract more seller attention and when buyers place their combined orders on a reverse auction, they can negotiate a volume discount.

Electronic Exchanges

- **Private Exchanges:** have one buyer and many sellers.
- **Public Exchanges:** Electronic marketplaces that are independently owned by a third party, and they connect many sellers with many buyers which are open to all business organizations and frequently owned and operated by a third party.
- **Electronic Exchanges:** deal in both direct and indirect materials.
- **Direct Materials:** inputs to the manufacturing process, such as safety glass used in automobile windshields and windows.
- **Indirect Materials:** those items, such as office supplies, that are needed for maintenance, operations, and repairs (MRO).

Three Basic Types of Public Exchanges

- ***Vertical Exchanges:***
  - connect buyers and sellers in a given industry.
- ***Horizontal Exchanges:***
  - connect buyers and sellers across many industries.
- ***Functional Exchanges:***
  - needed services such as temporary help/labor or extra office space are traded on an “as-needed” basis.

9.4 Ethical and Legal Issues in E-Business

- Ethical Issues
- Legal and Ethical Issues Specific to E-Commerce

Ethical Issues

- **Threats to Privacy:**
  - Business makes it easier to store and transfer personal information
  - To protect the buyers' identities businesses must frequently use encryption to provide this protection
  - Tracking: individuals' activities on the Internet can be tracked by cookies that store a user's browsing history on their PC's hard drive
  - Antivirus software packages must routinely search for potentially harmful cookies.

- **The use of EC may eliminate the need for some of a company's employees, as well as brokers and agents.**
  - How should the company handle the layoffs?
  - Should companies be required to retrain employees for new positions?
  - Should the company compensate or otherwise assist the displaced workers?

Legal and Ethical Issues Specific to E-Commerce

- **Domain Names:** considered legal when the person or business who owns the name has operated a legitimate business under that name for some time.
- **Cybersquatting:** the practice of registering or using domain names for the purpose of profiting from the goodwill or the trademark that belongs to someone else. The Anti-Cybersquatting Consumer Protection Act (1999) permits trademark owners in the United States to sue for damages in such cases.
- **Domain Tasting:** lets registrars profit from the complex money trail of pay-per-click advertising. companies register domain names that are very similar to their competitors' domain names in order to generate traffic from people who misspell Web addresses. Domain tasters exploit this policy by claiming Internet domains for five days at no cost.
- **Taxes and Other Fees:**
  - Federal, state, and local authorities are now scrambling to create some type of taxation policy for e-business within their jurisdictions.
  - Based on location, should electronic businesses pay business license taxes, franchise fees, gross receipts taxes, excise taxes, privilege taxes, and utility taxes?
  - How should tax collection be controlled?
- **Copyright:** intellectual property is protected by copyright laws and cannot be used freely which is difficult to enforce online.

Fraud on the Internet

- Stock promoters spread positive false rumors to boost stock prices
- Auctions by both sellers and buyers.
- Selling bogus investments
- Setting up phantom business opportunities

Domain Names

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Taxes and Other Fees

1. Federal, state, and local authorities are now scrambling to create some type of taxation policy for e-business within their jurisdictions.
2. Based on location, should electronic businesses pay business license taxes, franchise fees, gross receipts taxes, excise taxes, privilege taxes, and utility taxes?
3. How should tax collection be controlled?