

# Chapter 1

## Introduction to Electronic Commerce

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# Objectives

*In this chapter, you will learn about:*

- **What electronic commerce is and how it is experiencing a second wave of growth with a new focus on profitability**
- **Why companies now concentrate on revenue models and the analysis of business processes instead of business models when they undertake electronic commerce initiatives**
- **How economic forces have created a business environment that is fostering the second wave of electronic commerce**
- **The international nature of electronic commerce and the challenges that arise in engaging in electronic commerce on a global scale**



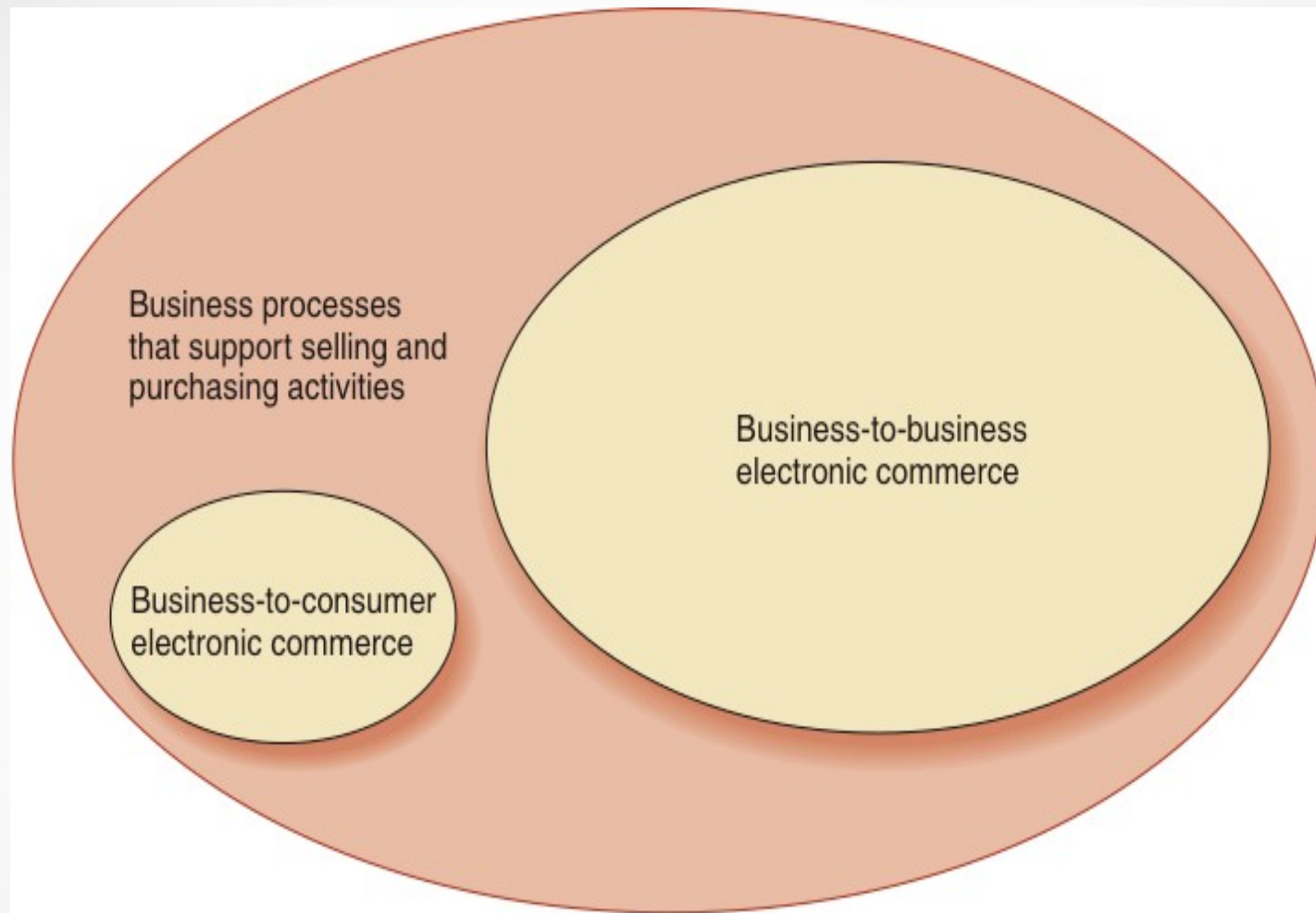
# E-Commerce and E-Business

- Electronic commerce is the use of technology, in particular the Internet, to conduct business
  - e-commerce generally refers to buying or selling electronically, usually interactively
  - e-business refers to conducting business activities, including business to business activities, using electronic communication.

# Categories of Electronic Commerce



- Five general e-commerce categories:
  - Business-to-consumer (b2c)
  - Business-to-business (b2b)
  - Business processes
  - Consumer-to-consumer (c2c)
  - Business-to-government (b2g)
- Supply management or procurement
  - Departments are devoted to negotiating purchase transactions with suppliers



**FIGURE 1-1** Elements of electronic commerce

# Important Electronic Commerce Terminology



- Transaction
  - An exchange of value
- Business processes
  - The group of logical, related, and sequential activities and transactions in which businesses engage
- Telecommuting or telework
  - Employees log in to company computers through the Internet instead of traveling to the office

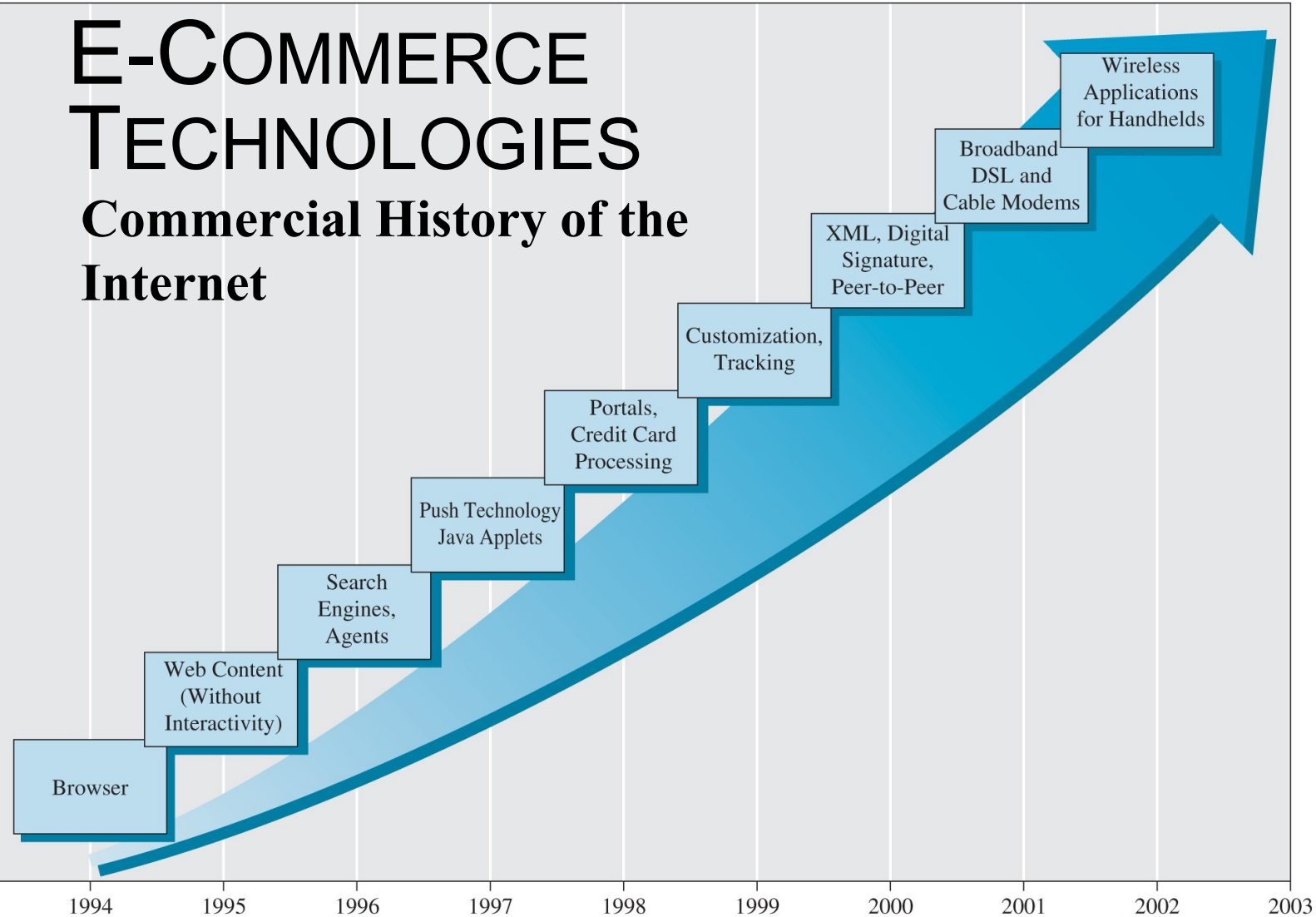
# The History of Electronic Commerce



- Electronic funds transfers (EFTs)
  - Also called wire transfers
  - Electronic transmissions of account exchange information over private communications networks
- Electronic data interchange (EDI)
  - Transmitting computer-readable data in a standard format to another business

# E-COMMERCE TECHNOLOGIES

## Commercial History of the Internet



**Internet Technology Innovations  
for E-Commerce**



# The History of Electronic Commerce

- Trading partners
  - Businesses that engage in EDI with each other
- Value-added network (VAN)
  - Independent firm that offers connection and transaction-forwarding services to buyers and sellers engaged in EDI



Year	B2C Sales: Actual and Estimated \$ Billions	B2B Sales (including EDI): Actual and Estimated \$ Billions
2007	240	6800
2006	190	5300
2005	150	4100
2004	130	2800
2003	100	1600
2002	80	900
2001	70	730
2000	50	600
1999	25	550
1998	10	520
1997	5	490
1996	Less than 1	460

Adapted from reports by ClickZ Network ([http://www.clickz.com/stats/stats\\_toolbox/](http://www.clickz.com/stats/stats_toolbox/)); eMarketer (<http://www.emarketer.com/>); Forrester Research (<http://www.forrester.com/>); and the *Statistical Abstract of the United States*, 2004–2005, Washington: U.S. Census Bureau.

**FIGURE 1-3** Actual and estimated online sales in B2C and B2B categories

# The First Wave of Electronic Commerce



- Defining characteristics of the first wave:
  - Dominant influence of U.S. businesses
  - Extensive use of the English language
  - Many new companies started with outside investor money
  - Unstructured use of e-mail
  - Over-reliance on advertising as a revenue source

# The Second Wave of Electronic Commerce



- Second wave:
  - Global enterprises in many countries are participating in electronic commerce
  - Established companies fund electronic commerce initiatives with their own capital
  - Customized e-mail strategies are now integral to customer contact

# Business & Revenue Models and Business Processes



- **Business model**
  - A set of processes that combine to yield a profit **OR** a plan for the successful operation of a business, identifying sources of revenue, the intended customer base, products, and details of financing.
- **Revenue model**
  - A specific collection of business processes used to:
    - Identify customers
    - Market to those customers
    - Generate sales to those customers

# Typical Business Models in EC



- Online direct marketing
- Electronic tendering systems (e.g., reverse auction)
- Name your own price
- Affiliate marketing
- Viral marketing
- Group purchasing
- Online auctions
- Product and service customization
- Electronic marketplaces and exchanges
- Value-chain integrators
- Value-chain service providers
- Information brokers
- Bartering
- Deep discounting
- Membership
- Supply chain improvers

# Advantages of Electronic Commerce



- Ecommerce ...
  - increases purchasing opportunities for buyers
  - makes easier negotiating price and delivery terms

# Disadvantages of Electronic Commerce



- Perishable products are difficult to sell online
- It is difficult to:
  - Calculate return on investment
  - Integrate existing databases and transaction-processing software into software that enables e-commerce
- Cultural and legal obstacles also exist



# Electronic Marketplaces



## What are the functions of markets?

- 1. matching buyers and sellers**
- 2. facilitating the exchange of information, goods, services, and payments associated with market transactions**
- 3. providing an institutional infrastructure, such as a legal and regulatory framework, that enables the efficient functioning of the market**

# Transaction Costs



- Transaction costs are the total costs that a buyer and seller incur
  - Significant components of transaction costs:
    - Cost of information search and acquisition
    - Investment of the seller in equipment or in the hiring of skilled employees to supply products or services to the buyer



# Using Electronic Commerce to Reduce Transaction Costs

- Businesses and individuals can use electronic commerce to reduce transaction costs by:
  - Improving the flow of information
  - Increasing coordination of actions

# Network Economic Structures

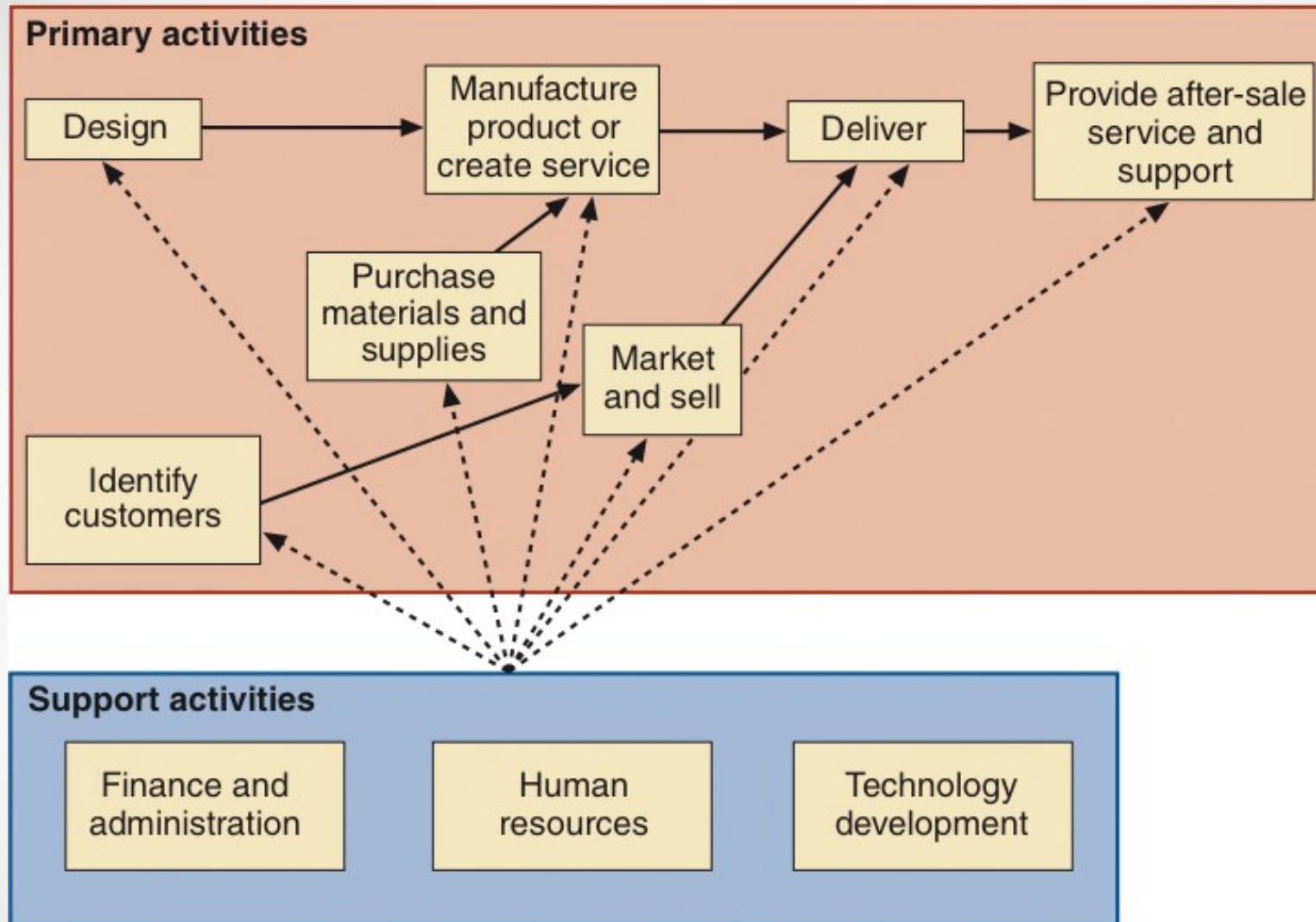


- Network economic structures: Companies coordinate their strategies, resources, and skill sets by forming long-term, stable relationships with other companies and individuals based on shared purposes
  - Strategic alliances: Relationships created within the network economic structure
    - Virtual companies/organizations: Strategic alliances that occur between or among companies operating on the Internet
    - Strategic partners: Entities that come together as a team for a specific project or activity

# Strategic Business Unit Value Chains



- **Value chain**
  - A way of organizing the activities that each strategic business unit undertakes
- **Primary activities include:**
  - Designing, producing, promoting, marketing, delivering, and supporting the products or services it sells
- **Supporting activities include:**
  - Human resource management and purchasing



**FIGURE 1-9** Value chain for a strategic business unit

# **An Alternative View of a Value Chain**



# Culture Issues



- An important element of business trust is anticipating how the other party to a transaction will act in specific circumstances
- Culture:
  - Combination of language and customs
  - Varies across national boundaries
  - Varies across regions within nations



# Summary



- Commerce
  - Negotiated exchange of goods or services
- Electronic commerce
  - Application of new technologies to conduct business more effectively
- First wave of electronic commerce
  - Ended in 2000
- Second wave of electronic commerce
  - New approaches to integrating Internet technologies into business processes

# Summary



- Using electronic commerce, businesses have:
  - Created new products and services
  - Improved promotion, marketing, and delivery of existing offerings
- The global nature of electronic commerce leads to many opportunities and few challenges
- To conduct electronic commerce across international borders, you must understand the trust, cultural, language, and legal issues