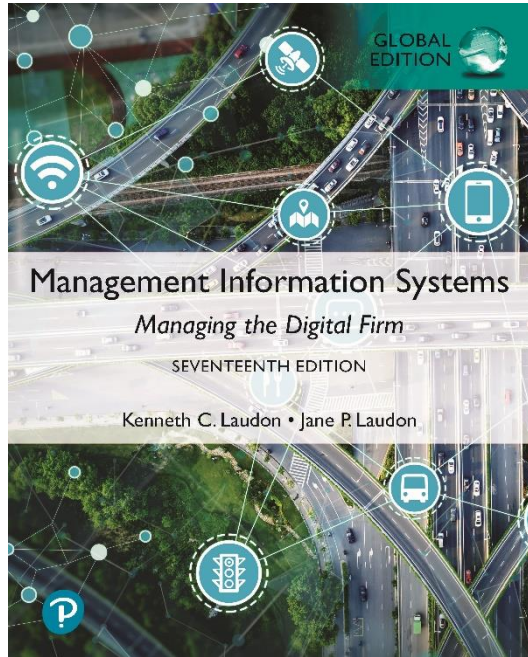


# Management Information Systems: Managing the Digital Firm

Seventeenth Edition, Global Edition



## Chapter 10

E-commerce: Digital Markets, Digital Goods

# Learning Objectives

- 10.1** What are the unique features of e-commerce, digital markets, and digital goods?
- 10.2** What are the principal e-commerce business and revenue models?
- 10.3** How has e-commerce transformed marketing?
- 10.4** What is the role of m-commerce in business, and what are the most important m-commerce applications?

# E-Commerce

- E-commerce refers to the use of the Internet and the web to transact business.
- More formally, e-commerce is about digitally enabled commercial transactions between and among organizations and individuals.
- For the most part, this refers to transactions that occur over the Internet and the web.

# Features of E-commerce

## E-COMMERCE TECHNOLOGY DIMENSION

## BUSINESS SIGNIFICANCE

*Ubiquity.* Internet/web technology is available everywhere: at work, at home, and elsewhere by desktop and mobile devices. Mobile devices extend service to local areas and merchants.

The marketplace is extended beyond traditional boundaries and is removed from a temporal and geographic location. Marketplace is created; shopping can take place anytime, anywhere. Customer convenience is enhanced, and shopping costs are reduced.

*Global Reach.* The technology reaches across national boundaries, around the earth.

Commerce is enabled across cultural and national boundaries seamlessly and without modification. The marketplace includes, potentially, billions of consumers and millions of businesses worldwide.

*Universal Standards.* There is one set of technology standards, namely Internet standards.

With one set of technical standards across the globe, disparate computer systems can easily communicate with each other.

*Richness.* Video, audio, and text messages are possible.

Video, audio, and text marketing messages are integrated into a single marketing message and consumer experience.

*Interactivity.* The technology works through interaction with the user.

Consumers are engaged in a dialogue that dynamically adjusts the experience to the individual and makes the consumer a participant in the process of delivering goods to the market.

*Information Density.* The technology reduces information costs and raises quality.

Information processing, storage, and communication costs drop dramatically, whereas currency, accuracy, and timeliness improve greatly. Information becomes plentiful, cheap, and more accurate.

*Personalization/Customization.* The technology allows personalized messages to be delivered to individuals as well as to groups.

Personalization of marketing messages and customization of products and services are based on individual characteristics.

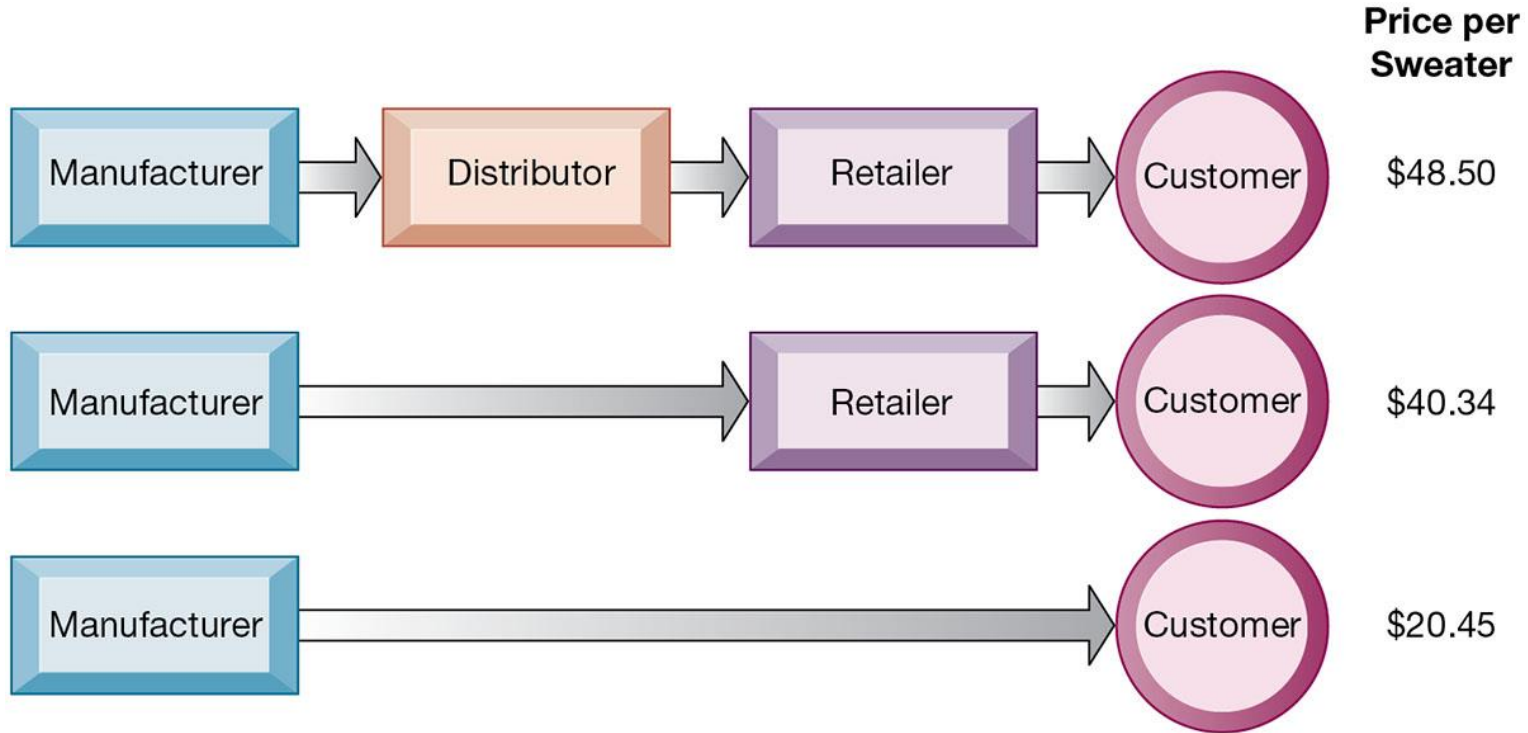
*Social Technology.* The technology supports content generation and social networking.

New Internet social and business models enable user content creation and distribution and support social networks.

# Key Concepts in E-commerce – Digital Markets and Digital Goods in a Global Marketplace

- Internet and digital markets have changed the way companies conduct business
- Information asymmetry reduced: information asymmetry exists when one party in a transaction has more information than the other party.
- Reduced menu costs (merchants' costs of changing prices) , search costs (costs spent by buyers to find the right product or service) and transaction costs (costs of completing a transaction between buyers and sellers).
- Dynamic pricing enabled: Real-time price adjustments.
- Delayed gratification: Shift from immediate joy in stores to delayed joy from anticipation of delivery.
- Dis-intermediation: By selling directly to consumers or reducing the number of intermediaries, companies can raise profits while charging lower prices due removal of organizations or business process layers responsible for intermediary steps in a value chain.

# Figure 10.2 The Benefits of Disintermediation to the Consumer



# Digital Goods

- Goods that can be delivered over a digital network: PDF Book, MP4 Documentary etc..
- Cost of producing first unit is almost entire cost of product
- Costs of delivery over the Internet is very low
- Marketing costs remain the same; pricing highly variable
- Industries with digital goods are undergoing revolutionary changes (publishers, record labels, etc.)

# Types of E-commerce

- Three major types
  - Business-to-consumer (B2C)
    - Example: Amazon.com
  - Business-to-business (B2B)
    - Example: Elemica
  - Consumer-to-consumer (C2C)
    - Example: eBay
- E-commerce can be categorized by platform
  - Mobile commerce (m-commerce)

# E-commerce Business Models

CATEGORY	DESCRIPTION	EXAMPLES
E-tailer	Sells physical products directly to consumers or to individual businesses.	Amazon Blue Nile
Transaction broker	Saves users money and time by processing online sales transactions and generating a fee each time a transaction occurs.	ETrade.com Expedia
Market creator	Provides a digital environment where buyers and sellers can meet, search for products, display products, and establish prices for those products; can serve consumers or B2B e-commerce, generating revenue from transaction fees.	eBay Priceline.com Exostar Elemica
Content provider	Creates revenue by providing digital content, such as news, music, photos, or video, over the web. The customer may pay to access the content, or revenue may be generated by selling advertising space.	WSJ.com GettyImages.com iTunes.com MSN Games
Community provider	Provides an online meeting place where people with similar interests can communicate and find useful information.	Facebook Twitter
Portal	Provides initial point of entry to the web along with specialized content and other services.	Yahoo MSN AOL
Service provider	Provides applications such as photo sharing, video sharing, and user-generated content as services; provides other services such as online data storage and backup.	Google Docs Photobucket.com Dropbox

# E-commerce Revenue Models

- **Advertising:** a website generates revenue by attracting a large audience of visitors who can then be exposed to advertisements.
- **Sales:** companies derive revenue by selling goods, information, or services to customers.
- **Subscription:** a website offering content or services charges a subscription fee for access to some or all of its offerings on an on going basis.
- **Free/Freemium:** firms offer basic services or content for free and charge a premium for advanced or special features.
- **Transaction fee:** a company receives a fee for enabling or executing a transaction
- **Affiliate:** In the affiliate revenue model, websites (called affiliate websites) send visitors to other websites in return for a referral fee or percentage of the revenue from any resulting sales.

# How Has E-commerce Transformed Marketing? (1 of 2)

- Internet provides new ways to identify and communicate with customers
- Long tail marketing: Refers to targeting a large number of niche markets with specialized products, rather than focusing only on a few bestsellers or mass-market items.
- Different marketing and advertising formats:
  - **Search Advertising:** Ads based on keywords and intent.
  - **Display Ads:** Banners and visuals on websites.
  - **Video & Rich Media:** Engaging, multimedia content.
  - **Email Marketing:** Direct, personalized communication.

# How Has E-commerce Transformed Marketing? (2 of 2)

- Behavioral targeting: Monitoring users' actions on websites, apps, and across advertising networks to collect data on their interests and behaviors.
- Programmatic ad buying: Automated system that buys digital ad space based on user data, ensuring ads reach the right people. Ads are shown using algorithms that focus on users' behavior, interests, and demographics
- Native advertising: Ads designed to blend seamlessly with the content of the platform they appear on, making them less intrusive and more engaging for users. Example: Sponsored articles on news sites or social media posts that appear as part of the user's regular feed.

# Social E-commerce and Social Network Marketing (1 of 3)

- Social media one of fastest growing branding and marketing methods
- Social e-commerce based on digital social graph.
- A digital social graph refers to the network of relationships and interactions between individuals, organizations, and content on digital platforms, primarily social media. It represents the connections people have with one another, as well as the content, interests, and behaviors they engage with online.
- For example: If a user's friend posts about a product, the platform may recommend that product to the user, knowing that their social connection is interested in it or If a user's social graph shows that they frequently interact with fitness-related content, an e-commerce brand selling gym equipment could show them relevant ad.

# Social E-commerce and Social Network Marketing (2 of 3)

SOCIAL COMMERCE FEATURE	DESCRIPTION
Newsfeed	A stream of notifications from friends and advertisers that social users find on their home pages.
Timelines	A stream of photos and events in the past that create a personal history for users, one that can be shared with friends.
Social sign-on	Websites allow users to sign into their sites through their social network pages on Facebook or another social site. This allows websites to receive valuable social profile information from Facebook and use it in their own marketing efforts.
Collaborative shopping	An environment where consumers can share their shopping experiences with one another by viewing products, chatting, or texting. Friends can chat online about brands, products, and services.
Network notification	An environment where consumers can share their approval (or disapproval) of products, services, or content or share their geolocation, perhaps a restaurant or club, with friends. Facebook's ubiquitous "like" button is an example, as are Twitter's tweets and followers.
Social search (recommendations)	An environment where consumers can ask their friends for advice on purchases of products, services, and content. Although Google can help you find things, social search can help you evaluate the quality of things by listening to the evaluations of your friends or their friends. For instance, Amazon's social recommender system can use your Facebook social profile to recommend products.

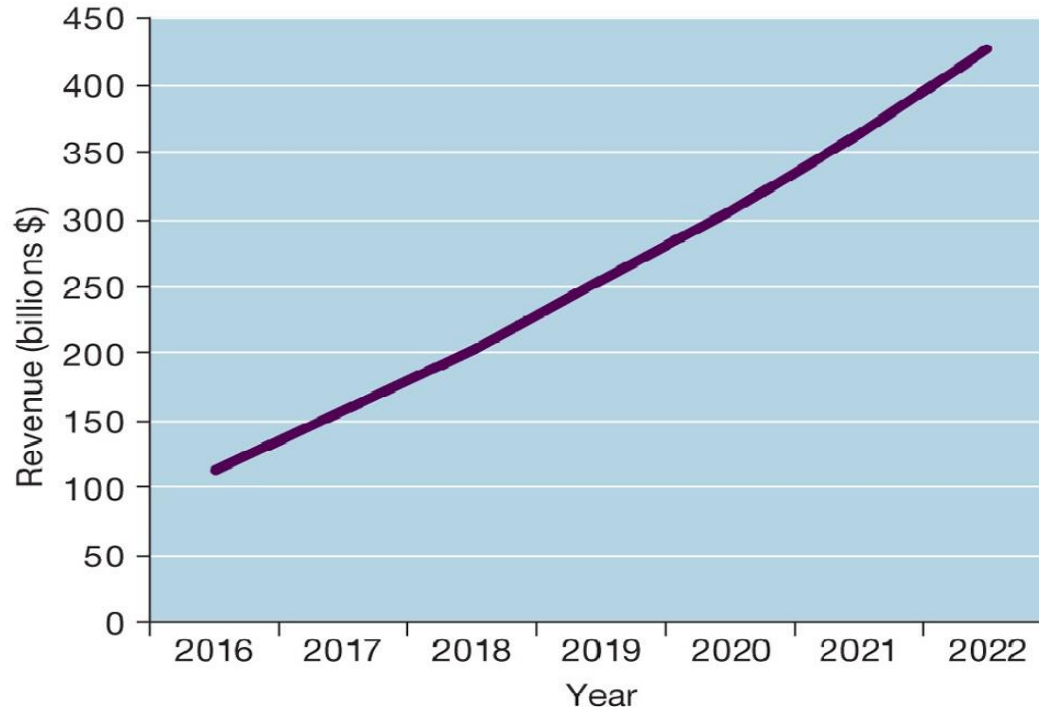
# Social E-commerce and Social Network Marketing (3 of 3)

- Social network marketing
  - Focuses on utilizing the influence of individuals within social networks to promote products, services, or ideas.
  - It capitalizes on the power of word-of-mouth and peer recommendations, encouraging users to share content, engage with brands, and influence their friends or followers.

# What is the Role of M-commerce in Business, and What are the Most Important M-commerce Applications?

- M-commerce in 2020 is about 45 percent of all e-commerce
- Fastest growing form of e-commerce
  - Growing at 20 percent or more per year
- Main areas of growth
  - Mass market retailing (Amazon, eBay, etc.)
  - Sales of digital content (music, TV, etc.)
  - In-app sales to mobile devices (Candy Crush boosters, Spotify ad free listening, Instagram ads, etc..)

# Figure 10.9 Mobile Retail Commerce Revenues



# Location-Based Services and Applications

- Used by 74 percent of smartphone owners
- Based on GPS map services
- Geosocial services
  - Where friends are
- Geo advertising
  - What shops are nearby
- Geo information services
  - Price of house you are passing

# Other Mobile Commerce Services

- Financial account management apps
  - Banks, credit card companies
- Mobile advertising market
  - Google and Facebook are largest markets
  - Ads embedded in games, videos, and mobile apps
- Over 45 percent of top retailers have m-commerce websites
- Virtually all large traditional and online retailers have m-commerce apps.

# Mobile App Payment Systems

- Three main types
  - Near Field Communication (NFC)
    - Apple Pay, Google Pay, Samsung Pay
  - QR Code
    - Starbucks, Walmart, Target, Dunkin Donuts
  - Peer-to-peer (P2P) payment systems
    - Venmo, Zelle