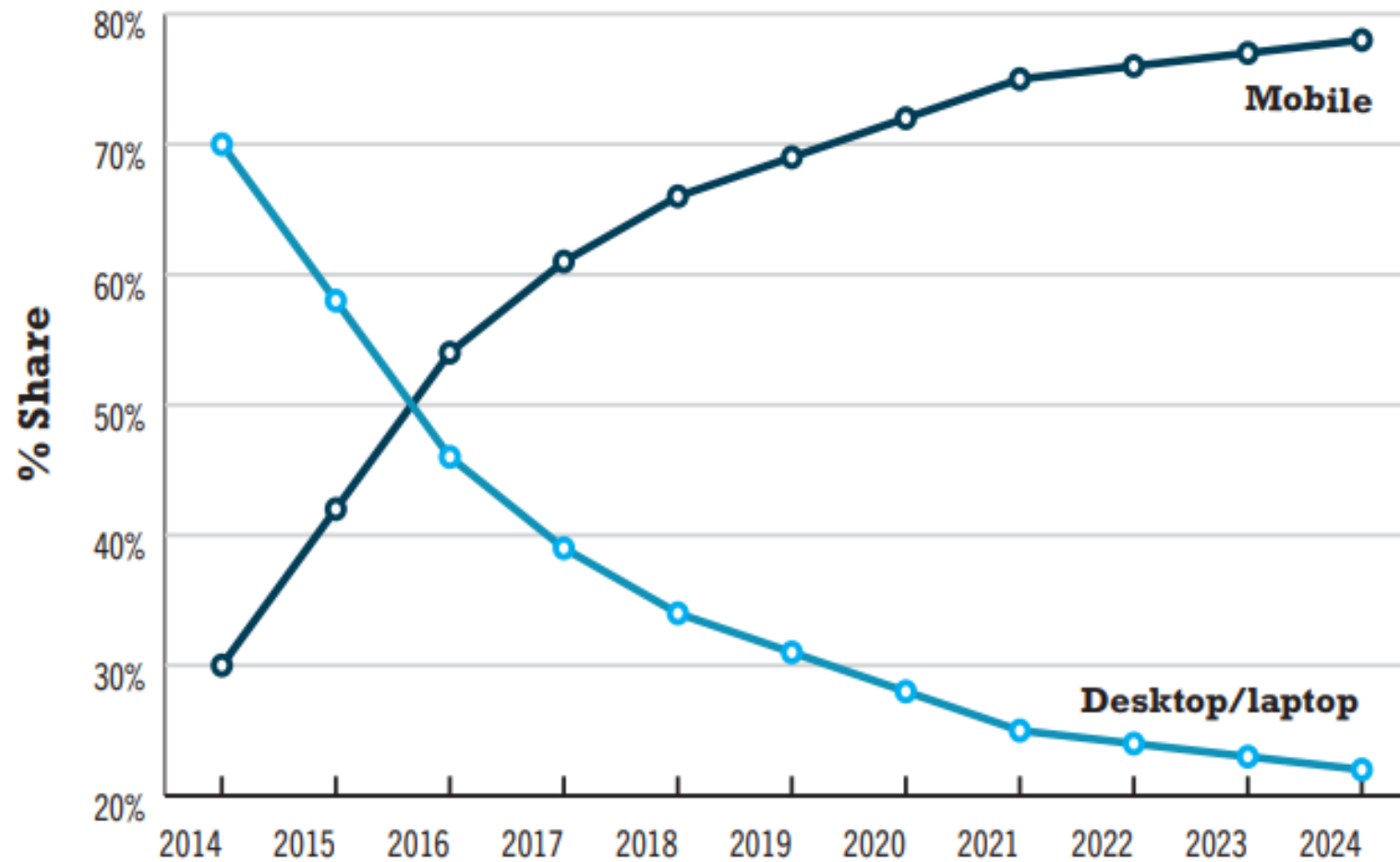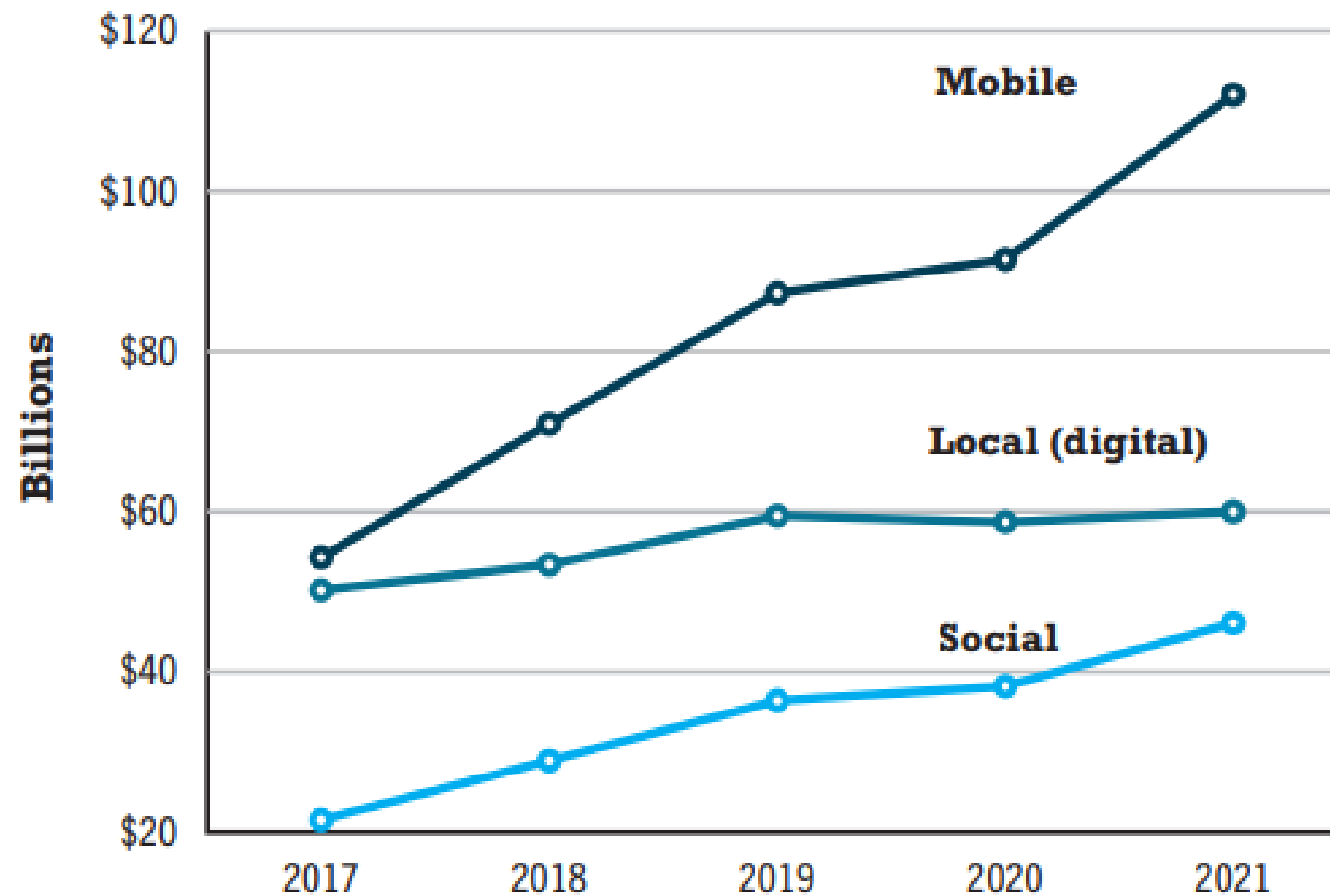# Chapter 8:
Mobile Commerce

Electronic Commerce

FIGURE 7.1

THE RAPIDLY CHANGING TRAJECTORY OF ONLINE AD SPENDING WORLDWIDE

By 2024, mobile marketing is expected to account for almost 80% of all digital ad spending.

SOURCE: Based on data from eMarketer, Inc., 2020a.

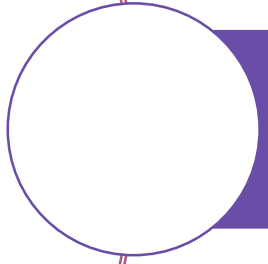**FIGURE 7.2 — U.S. SOCIAL, MOBILE, AND LOCAL MARKETING 2017–2021**

Both mobile and social advertising spending in the United States are expected to double from 2017 to 2021.

SOURCES: Based on data from eMarketer, Inc., 2020b, 2020c; BIA Advisory Services, 2020, 2019, 2018; authors' estimates.
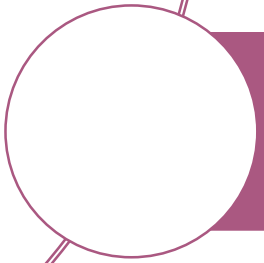
Objectives
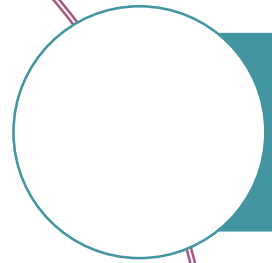
- Overview of mobile commerce
- Classification
- Retail pricing in mobile commerce

Overview

- **Commerce**

- Commerce is a division of trade or production which deals with the exchange of goods and services from producer to final consumer.

- It comprises the trading of economic value such as goods, services, information, or money between two or more entities.

- **Ecommerce**

- It consist of buying and selling goods and services over an electronic system such as the internet .

- E-Commerce is the purchasing, selling and exchanging goods and services over computer networks (internet) through which transaction or terms of sale are performed Electronically.

Overview

- What is mobile commerce?
  - M-commerce is the buying and selling of goods and services through wireless handheld devices
  - M-commerce is the process of paying for services using a mobile phone or personal organizer
  - M-commerce is the use of mobile devices to communicate, inform transact and entertain using text and data via a connection to public and private networks
- Don't mistake m-commerce for the technologies underlying it!

Overview

- M-Commerce is the ability to conduct Commerce using a mobile device such as:
    1. Mobile Phone
    2. Personal Digital Assistant(PDA)
    3. Smart Phone

Overview

- M-commerce has all of the following characteristics:
  - Involve communication (one-way or two-way) between human(s)/object(s) and human(s)/object(s)
  - At least one of the participants must be mobile
  - The communication must be kept continuously when at least one party move from one location to another
  - The communication signals must be carried by electromagnetic waves, without direct sensory perception of the signals
  - At least one seek to benefit economically from the communication in the short or long run

Overview

- Comparison between m-commerce and e-commerce

Factor	E-commerce	M-commerce
Focus	Product	Service
Information provided	Static information and data	Dynamic location-based data
Device	PC	Mobile phone
User location	Hard to find	Readily available
Screen size and memory	Medium	Small
Role of network operator	Small	Large
Access medium	Wired (usually)	Wireless

Overview

- Advantages
  - Offers many payment options and take advantages of mobile phones' benefits
  - Push advertising, direct marketing
  - More efficient and extensive service offered
  - The Internet is going mobile

- Disadvantages
  - Expensive cost
  - Small screen
  - Slow speed and low storage
  - Limited message length
  - Hard to fill data
  - Security problems on mobile platform

Retail pricing

- Retail markets are divided into regions within which one seller is in a quasi-monopolistic position

Conventional Retail Competition
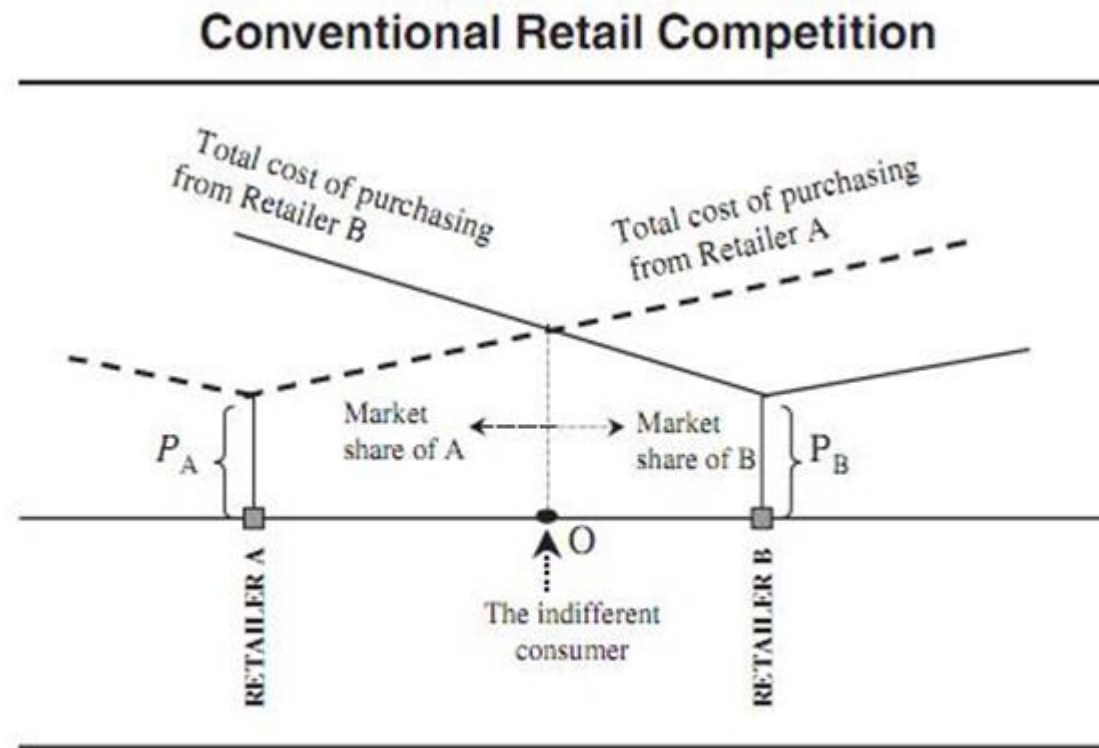
SOURCE: Hotelling (1929).

Retail pricing

- Price discrimination and mobile prices
  - Profits are maximized when marketers are able to implement some form of first-degree price discrimination
  - When prices are public, first-degree price discrimination is difficult to implement
  - Mobile prices: can be communicated to specific consumers with great precision
  - In particular, a mobile consumer may be offered a unique price that is communicated through his or her mobile device
  - Because consumers' locations and time are available, other kinds of price discrimination are also applicable

Classification

M-commerce use in specific industries include the following:

- **Financial services.** Mobile banking and brokerage transactions are done from mobile devices.

- **Telecommunications.** Handheld devices are used to make service changes and bill payments, and to do account reviews.

- **Service and retail.** Consumers place and pay for orders on-the-fly through online stores.

- **Information services.** Financial, sports, traffic, weather and many other news updates are accessed through mobile devices.

Classification

M-commerce is categorized based on the following three basic functions:

- **Mobile shopping** enables customers to buy a product using a mobile device with an application

- **Mobile banking** is online banking designed for handheld technology. It enables customers to access accounts and brokerage services, conduct financial transactions, pay bills and make stock trades.

- **Mobile payments** are an alternative to traditional payment methods, such as cash, check, credit and debit cards..

Classification

- Classification of m-commerce applications

Class of Applications	Examples
Mobile financial applications (B2C, B2B)	Banking, brokerage, and payments for mobile users
Mobile advertising (B2C)	Sending user-specific and location-sensitive advertisements to users
Mobile inventory management (B2C, B2B)	Location tracking of goods, boxes, troops, and people
Proactive service management (B2C, B2B)	Transmission of information related to distributing components to vendors
Product locating and shopping (B2C, B2B)	Locating/ordering certain items from a mobile device
Wireless reengineering (B2C, B2B)	Improvement of business services
Mobile auction or reverse auction (B2C)	Services for customers to buy or sell certain items
Mobile entertainment services (B2C)	Video-on-demand and other services to a mobile user
Mobile office (B2C)	Working from traffic jams, airport, and conferences
Mobile distance education (B2C)	Taking a class using streaming audio and video
Wireless data center (B2C, B2B)	Information can be downloaded by mobile users/vendors
Mobile music/music-on-demand (B2C)	Downloading and playing music using a mobile device

Source: U. Varshney and R. Vetter, "Recent Advances in Wireless Networking," *IEEE Computer*, June 2000. © 2000 IEEE.

Applications

Current and future mobile commerce trends:

- Mobile retargeting

- Augmented reality (AR)

- Mobile SEO

- Mobile banking

- AI, chatbots and shopping assistants

- Mobile ticketing

Applications

- Mobile ticketing
- Content purchase and delivery
- Information services, location based services
- Mobile marketing and advertising
- Mobile vouchers, coupons, and loyalty cards
- Mobile payments
- …

Mobile Ticketing

- Mobile Ticketing is the process where the customers can order, pay for, obtain and validate tickets from any location and at any time using Mobile phones .

- Tickets can be booked and cancelled on the mobile device with the help of simple application downloads.

- Delivery of tickets to mobile phones can be done in the form of a SMS or by a MMS.

Mobile Ticketing

- Mobile Tickets can be purchased in a variety of ways including online, via text messaging or in a secure mobile application.

- Mobile Ticketing is used in many applications like:
    1. Airline ticketing
    2. Cinema ticketing
    3. Railway & Bus ticketing
    4. Concert/Event ticketing
    5. Consumer voucher distribution

Benefits

- Benefits to the ticket buyer
- Instant delivery of mobile tickets at the time of purchase.
- Individual mobile tickets can be forwarded to a friend.
- Quicker entry with no waiting in lines

- Benefits to the Event organizer
- Reduced will call lines and staffing.
- Guaranteed security, only one entry per barcode.
- Event is 'greener' with reduced paper waste.

Content purchase and delivery

- Mobile content purchase and delivery mainly consists of the sale of ring-tones, wallpapers, and games for mobile phones.

- The convergence of mobile phones, portable audio players, and video players into a single device is increasing the purchase and delivery of full-length music tracks and video

Information services

- A wide variety of information services can be delivered to mobile phone users in much the same way as it is delivered to PCs.

- These services include:
  - News
  - Stock quotes
  - Sports scores
  - Traffic reporting

Location-based services

- The location of the mobile phone user is an important piece of information used during Mobile Commerce or M-Commerce transactions.

- Knowing the location of the user allows for location based services such as:

  1. Local discount offers
  2. Tracking and monitoring of people
  3. Maps

Mobile Marketing and Advertising

- Mobile marketing is highly responsive sort of marketing campaign, especially from brands' experience point of view.

- Corporations are now using M-Commerce to expand everything from services to marketing and advertisement.

- Types of M-marketing and advertising:
    - Mobile Web Poster
    - SMS advertising
    - MMS advertising
    - Mobile games
    - Mobile videos
    - Audio Advertisements

Mobile vouchers, coupons and loyalty cards

- The voucher, coupon, or loyalty card is represented by a virtual token that is sent to the mobile phone.

- Presenting a mobile phone with one of these tokens at the point of sale allows the customer to receive the same benefits as another customer who has a loyalty card or other paper coupon/voucher.

Mobile payments

- Mobile wallets and money transfers
- Contactless mobile payments.
  - Apple Pay, Google Pay, Samsung Pay, etc.
  - Some banks launching their own mobile wallet too.
  - Place phone close to a supported terminal to validate and transmit payment, instead of swiping their debit or credit card.
- Closed loop mobile payments.
  - Closed loop mobile payments are exactly the same as mobile wallets, but are linked to a single brand via a dedicated mobile app.
- Mobile point-of-sale (POS).
  - Mobile POS is a way for smaller merchants to process card payments without a traditional card reader
- Carrier payments
  - A user sends a message to a specific mobile number, and the value of the transaction is added to their next cellphone bill

Mobile wallet

- A mobile wallet based payment strategy deals with how, where and when the payments can be accepted and processed using the user's wallet accounts.

- A mobile wallet payment option includes the following:
  - Prepaid – Here the users top up their mobile wallet accounts upfront and such mobile wallet accounts are used to make the payments in context of the mobile sales transactions.

Mobile wallet

- Post-paid – In this case, a user's mobile wallet account is linked to his or her carrier billing account. The mobile sales transactions are paid with the user's mobile wallet account, which in turn is charged to the associated mobile billing account that is usually paid on a monthly or quarterly basis.
  - Card linked mobile wallets – In this mobile wallet strategy, the mobile wallet accounts are linked to user's debit or credit cards. In a mobile sales transaction, with card linked mobile wallet payment, the final payment is made from the wallet account that is linked to user's cards.

Mobile money transfer

- Mobile Money Transfer refers to payment services which are performed by using a mobile phone.

- By using this service we can transfer money from one person to other by using a mobile phone.

- Mobile Banking: Banks and other financial institutions use mobile Commerce to allow their customers to access account information and make transactions, such as purchasing stocks, remitting money, receive notifications, transfer money to other banks.

- Mobile purchase: Some merchants provide mobile websites that are customized for the smaller screen and limited user interface of a mobile device.

New applications

- Augmented reality, with Ikea and Sephora among top retailers using augmented reality apps to complement their mobile commerce business

- Chatbots and messenger apps which making it easier for businesses to interact with their customers using apps and services their customers already use and love

Retail Ecommerce Sales Worldwide, 2015-2020
trillions, % change and % of total retail sales

Year	Retail ecommerce sales	% change	% of total retail sales
2015	$1.548	25.5%	7.4%
2016	$1.915	23.7%	8.7%
2017	$2.352	22.9%	10.0%
2018	$2.860	21.6%	11.5%
2019	$3.418	19.5%	13.0%
2020	$4.058	18.7%	14.6%

Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets
Source: eMarketer, Aug 2016

213201   www.**eMarketer**.com