

# **Management Information Systems**MANAGING THE DIGITAL FIRM, 12<sup>TH</sup> EDITION

# Chapter 10

# E-COMMERCE: PASAR DIGITAL, BARANG DIGITAL

#### **VIDEO CASES**

Case 1: M-Commerce: The Past, Present, and Future

Case 2: Ford AutoXchange B2B Marketplace



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **Learning Objectives**

- Apa saja fitur unik dari e-commerce, pasar digital, dan barang-barang digital?
- Apa e-commerce bisnis dan pendapatan model utama?
- Bagaimana e-commerce berubah pemasaran?
- Bagaimana e-commerce yang terkena dampak transaksi bisnis-to-business?
- Apa peran m-commerce dalam bisnis dan apa aplikasi mcommerce yang paling penting?
- Isu apa yang harus diatasi ketika membangun sebuah ecommerce situs Web?



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **4FOOD: Burgers Go Social**

- Problem Bedakan layanan restoran burger di pasar yang penuh sesak (Manhattan)
- Solution Memanfaatkan jaringan sosial dan crowdsourcing untuk pemasaran dan jasa
  - Pemesanan via iPad, secara online
  - Pelanggan dapat membuat dan nama sendiri sandwich
  - Twitter, Facebook, Foursquare integrasi
- Menggambarkan: Penggunaan sistem informasi untuk menciptakan produk dan layanan baru
- Menunjukan: Penggunaan teknologi jaringan sosial sebagai alat pemasaran



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### E-commerce and the Internet

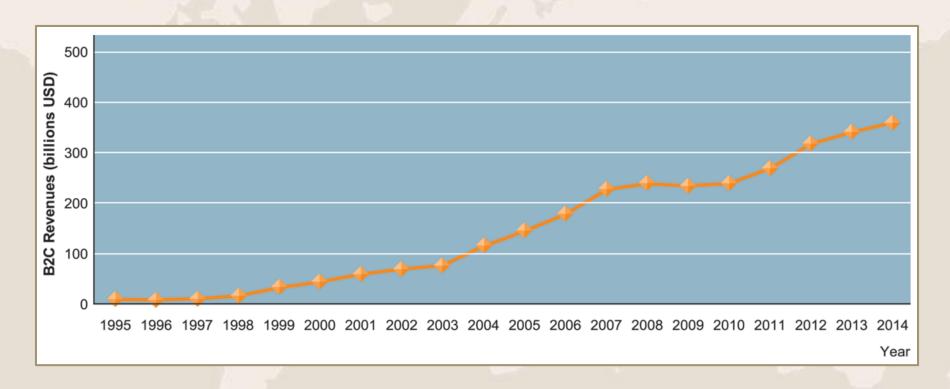
- E-commerce saat ini:
  - Penggunaan Internet dan Web untuk transaksi bisnis, digital memungkinkan terjadinya transaksi
  - Dimulai pada tahun 1995 dan tumbuh secara eksponensial, masih tumbuh bahkan dalam resesi
  - Perusahaan yang selamat dari Gelembung dotcom (dot-com bubble) meledak dan sekarang berkembang
  - Revolusi E-commerce masih dalam tahap awal



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#### **E-commerce and the Internet**

#### PERKEMBANGAN E-COMMERCE



Pendapatan e-commerce ritel tumbuh 15-25 persen per tahun sampai resesi 2008-2009, ketika mereka melambat terukur. Pada tahun 2010, pendapatan e-commerce tumbuh lagi di diperkirakan 12 persen per tahun.



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#### E-commerce and the Internet

Mengapa e-commerce berbeda - 8 fitur unik

# 1. Ubiquity

- Teknologi internet / web yang tersedia di manamana: kerja, rumah, dll, kapan saja.
- Effect:
  - Marketplace dihapus dari temporal, lokasi geografis untuk menjadi "marketspace"
  - Kenyamanan pelanggan ditingkatkan dan biaya belanja dikurangi



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#### **E-commerce and the Internet**

8 fitur unik (cont.)

# 2. Jangkauan global

- Teknologi ini mencapai melintasi batas-batas nasional, mengelilingi bumi
- Effect:
  - Commerce diaktifkan melintasi batas-batas budaya dan nasional mulus dan tanpa modifikasi
  - Marketspace meliputi, berpotensi, miliaran konsumen dan jutaan bisnis di seluruh dunia



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### E-commerce and the Internet

8 unique features (cont.)

#### 3. Universal standards

- Satu set standar teknologi: standar Internet
- Effect:
  - Sistem komputer yang berbeda dengan mudah berkomunikasi satu sama lain
  - Masuk pasar lebih rendah biaya-biaya pedagang harus membayar untuk membawa barang ke pasar
  - Konsumen yang lebih rendah 'pencarian biaya-usaha yang diperlukan untuk menemukan produk yang cocok



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#### E-commerce and the Internet

8 unique features (cont.)

# 4. Kesempurnaan

- Mendukung video, audio, dan pesan teks
- Effect:
  - Kemungkinan untuk menyampaikan pesan yang kaya dengan teks, audio, dan video secara bersamaan ke banyak orang
  - Video, audio, dan pemasaran pesan teks dapat diintegrasikan ke dalam pesan pemasaran tunggal dan pengalaman konsumen



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#### E-commerce and the Internet

8 unique features (cont.)

# 5. Interactivity

- Teknologi ini bekerja melalui interaksi dengan pengguna
- Effect:
  - Konsumen terlibat dalam dialog yang dinamis menyesuaikan pengalaman untuk individu
  - Konsumen menjadi Peserta dalam proses pengiriman barang ke pasar



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#### E-commerce and the Internet

8 unique features (cont.)

# 6. Kepadatan Information density

- Peningkatan besar informasi kepadatan-jumlah dan kualitas informasi yang tersedia untuk semua pelaku pasar
- Effect:
  - Transparansi harga yang lebih besar
  - Transparansi biaya yang lebih besar
  - Memungkinkan pedagang untuk terlibat dalam diskriminasi harga



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#### E-commerce and the Internet

8 unique features (cont.)

# 7. Personalization/Customization

- Teknologi memungkinkan modifikasi pesan, barang
- Effect
  - ersonalized pesan dapat dikirim kepada individu maupun kelompok
  - Produk dan jasa dapat disesuaikan dengan preferensi individu



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#### E-commerce and the Internet

8 unique features (cont.)

# 8. Social technology

- Teknologi ini mempromosikan pengguna generasi konten dan jaringan sosial
- Effect
  - Internet model sosial dan bisnis baru
     memungkinkan pembuatan konten pengguna dan distribusi, dan dukungan jaringan sosial



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#### E-commerce and the Internet

# Konsep-konsep utama dalam e-commerce

- Pasar digital mengurangi
  - asimetri informasi biaya pencarian biaya transaksi biaya menu
- Digital markets enable
  - Price discrimination
  - Dynamic pricing
  - Disintermediation



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#### E-commerce and the Internet

#### THE BENEFITS OF DISINTERMEDIATION TO THE CONSUMER

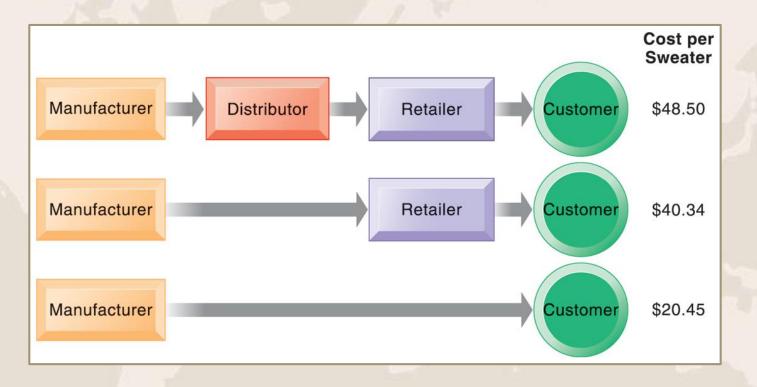


FIGURE 10-2 The typical distribution channel has several intermediary layers, each of which adds to the final cost of a product, such as a sweater. Removing layers lowers the final cost to the consumer.



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#### E-commerce and the Internet

# Key concepts in e-commerce

- Digital goods
  - Goods that can be delivered over a digital network
    - E.g. Music tracks, video, software, newspapers, books
  - Cost of producing first unit almost entire cost of product: marginal cost of 2nd unit is about zero
  - Costs of delivery over the Internet very low
  - Marketing costs remain the same; pricing highly variable
  - Industries with digital goods are undergoing revolutionary changes (publishers, record labels, etc.)



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

**E-commerce: Business and Technology** 

- Types of e-commerce
  - Business-to-consumer (B2C)
  - Business-to-business (B2B)
  - Consumer-to-consumer (C2C)
  - Mobile commerce (m-commerce)



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **E-commerce: Business and Technology**

- E-commerce business models
  - Portal
  - E-tailer
  - Content Provider
  - Transaction Broker
  - Market Creator
  - Service Provider
  - Community Provider



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

**E-commerce: Business and Technology** 

#### TWITTER SEARCHES FOR A BUSINESS MODEL

Read the Interactive Session and discuss the following questions

- Based on your reading in this chapter, how would you characterize Twitter's business model?
- If Twitter is to have a revenue model, which of the revenue models described in this chapter would work?
- What is the most important asset that Twitter has and how could it monetize this asset?
- What impact will a high customer churn rate have on Twitter's potential advertising revenue?



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

**E-commerce: Business and Technology** 

- E-commerce revenue models
  - 1. Advertising
  - 2. Sales
  - 3. Subscription
  - 4. Free/Freemium
  - 5. Transaction Fee
  - 6. Affiliate



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **E-commerce: Business and Technology**

# Most popular Web 2.0 service: social networking

 Social networking sites sell banner ads, user preference information, and music, videos and e-books

# Social shopping sites

Swap shopping ideas with friends (Kaboodle, ThisNext)

# Wisdom of crowds/crowdsourcing

 Large numbers of people can make better decisions about topics and products than a single person

#### Prediction markets:

 Peer-to-peer betting markets on specific outcomes (elections, sales figures, designs for new products)



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

**E-commerce: Business and Technology** 

#### **FACEBOOK: MANAGING YOUR PRIVACY FOR THEIR PROFIT**

Read the Interactive Session and discuss the following questions

- What concepts in the chapter are illustrated in this case?
- Describe the weaknesses of Facebook's privacy policies and features. What management, organization, and technology factors have contributed to those weaknesses?
- List and describe some of the options that Facebook managers have in balancing privacy and profitability. How can Facebook better safeguard user privacy? What would be the impact on its profitability and business model?
- Do you anticipate that Facebook will be successful in developing a business model that monetizes their site traffic? Why or why not?



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**E-commerce: Business and Technology** 

# E-commerce marketing

- Internet provides marketers with new ways of identifying and communicating with customers
- Long tail marketing: Ability to reach a large audience inexpensively
- Behavioral targeting: Tracking online behavior of individuals on thousands of Web sites
- Advertising formats include search engine marketing, display ads, rich media, and e-mail



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **E-commerce: Business and Technology**

#### WEB SITE VISITOR TRACKING

Click 2

Click 3

Click 4

Click 5

The shopper clicks on the home page. The store can tell that the shopper arrived from the Yahoo! portal at 2:30 PM (which might help determine staffing for customer service centers) and how long she lingered on the home page (which might indicate trouble navigating the site).

The shopper clicks on blouses, clicks to select a woman's white blouse, then clicks to view the same item in pink. The shopper clicks to select this item in a size 10 in pink and clicks to place it in her shopping cart. This information can help the store determine which sizes and colors are most popular.

From the shopping cart page, the shopper clicks to close the browser to leave the Web site without purchasing the blouse. This action could indicate the shopper changed her mind or that she had a problem with the Web site's checkout and payment process. Such behavior might signal that the Web site was not well designed.

FIGURE 10-3

E-commerce Web sites have tools to track a shopper's every step through an online store. Close examination of customer behavior at a Web site selling women's clothing shows what the store might learn at each step and what actions it could take to increase sales.



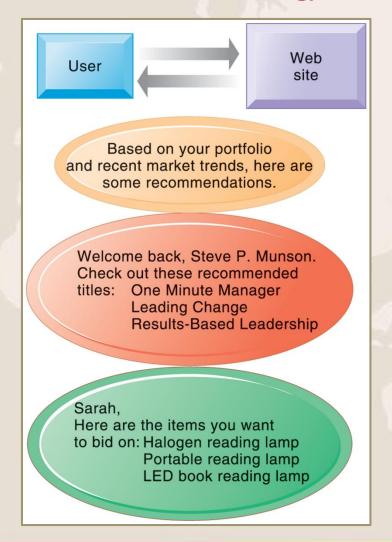
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#### **E-commerce: Business and Technology**

# WEB SITE PERSONALIZATION

Firms can create unique personalized Web pages that display content or ads for products or services of special interest to individual users, improving the customer experience and creating additional value.

**FIGURE 10-4** 





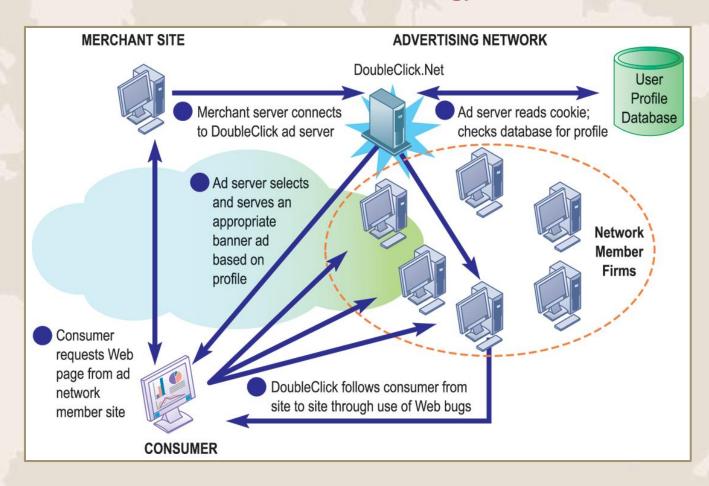
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#### **E-commerce: Business and Technology**

# HOW AN ADVERTISING NETWORK SUCH AS DOUBLECLICK WORKS

Advertising networks have become controversial among privacy advocates because of their ability to track individual consumers across the Internet.

**FIGURE 10-5** 





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#### **E-commerce: Business and Technology**

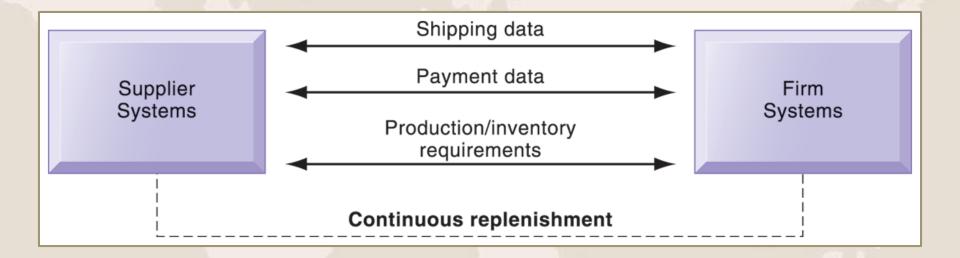
- Business-to-business e-commerce
  - Electronic data interchange (EDI)
    - Computer-to-computer exchange of standard transactions such as invoices, purchase orders
    - Major industries have EDI standards that define structure and information fields of electronic documents for that industry
    - More companies increasingly moving away from private networks to Internet for linking to other firms
      - E.g. Procurement: Businesses can now use Internet to locate most low-cost supplier, search online catalogs of supplier products, negotiate with suppliers, place orders, etc.



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#### **E-commerce: Business and Technology**

#### **ELECTRONIC DATA INTERCHANGE (EDI)**



**FIGURE 10-6** 

Companies use EDI to automate transactions for B2B e-commerce and continuous inventory replenishment. Suppliers can automatically send data about shipments to purchasing firms. The purchasing firms can use EDI to provide production and inventory requirements and payment data to suppliers.



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#### **E-commerce: Business and Technology**

- Business-to-business e-commerce (cont.)
  - Private industrial networks (private exchanges)
    - Large firm using extranet to link to its suppliers, distributors and other key business partners
    - Owned by buyer
    - Permits sharing of:
      - Product design and development
      - Marketing
      - Production scheduling and inventory management
      - Unstructured communication (graphics and e-mail)



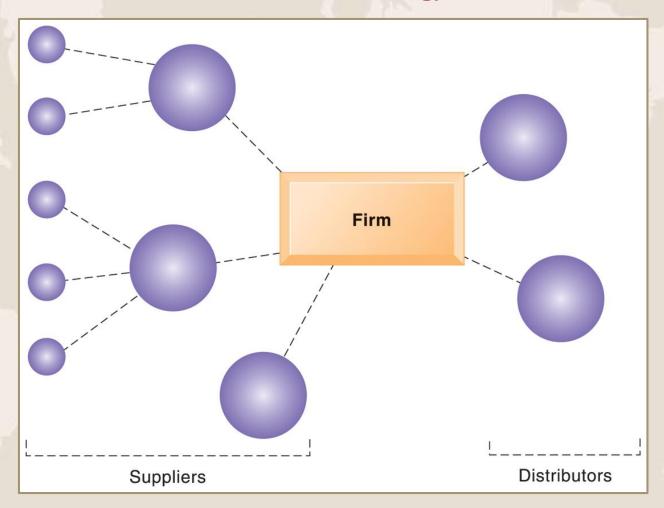
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#### **E-commerce: Business and Technology**

# A PRIVATE INDUSTRIAL NETWORK

A private industrial network, also known as a private exchange, links a firm to its suppliers, distributors, and other key business partners for efficient supply chain management and other collaborative commerce activities.

**FIGURE 10-7** 





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#### **E-commerce: Business and Technology**

- Business-to-business e-commerce (cont.)
  - Net marketplaces (e-hubs)
    - Single market for many buyers and sellers
    - Industry-owned or owned by independent intermediary
    - Generate revenue from transaction fees, other services
    - Use prices established through negotiation, auction, RFQs, or fixed prices
    - May focus on direct or indirect goods
    - May be vertical or horizontal marketplaces



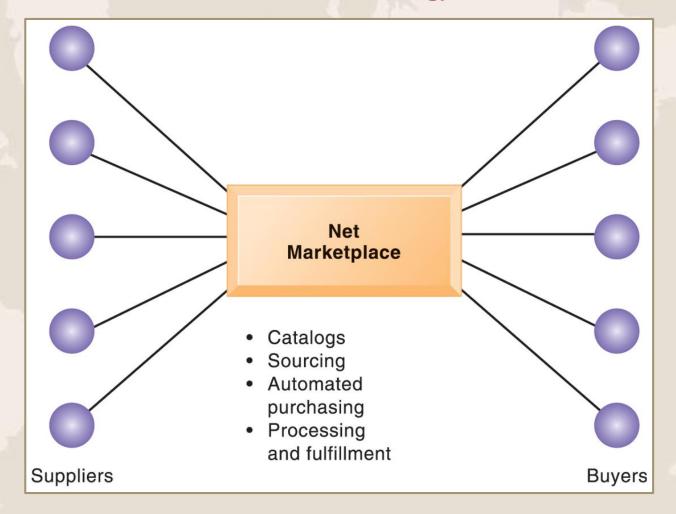
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#### **E-commerce: Business and Technology**

# A NET MARKETPLACE

Net marketplaces are online marketplaces where multiple buyers can purchase from multiple sellers.

**FIGURE 10-8** 





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#### **E-commerce: Business and Technology**

- Business-to-business e-commerce (cont.)
  - Exchanges
    - Independently owned third-party Net marketplaces
    - Connect thousands of suppliers and buyers for spot purchasing
    - Typically provide vertical markets for direct goods for single industry (food, electronics)
    - Proliferated during early years of e-commerce; many have failed
      - Competitive bidding drove prices down and did not offer longterm relationships with buyers or services to make lowering prices worthwhile



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The Mobile Digital Platform and Mobile E-commerce

# M-commerce

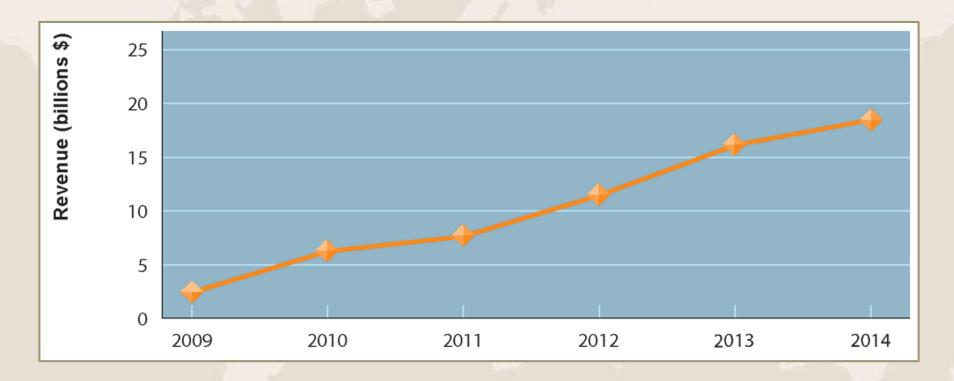
- Although m-commerce represents small fraction of total e-commerce transactions, revenue has been steadily growing
  - Location-based services
  - Banking and financial services
  - Wireless advertising and retailing
  - Games and entertainment



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#### The Mobile Digital Platform and Mobile E-commerce

#### **CONSOLIDATED MOBILE COMMERCE REVENUES**



**FIGURE 10-9** 

Mobile e-commerce is the fastest growing type of B2C e-commerce although it represents only a small part of all e-commerce in 2010.



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#### **Building an E-commerce Web Site**

- Assembling a team with the skills required to make decisions about:
  - Technology
  - Site design
  - Social and information policies
  - Hardware, software, and telecommunications infrastructure
- Customer's demands should drive the site's technology and design



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **Building an E-commerce Web Site**

- Business decisions drive the technology not the reverse
  - Business objectives
    - Capabilities the site should have
    - E.g. execute a transaction payment
  - System functionality
    - Technological capability to achieve this objective
    - E.g. a shopping cart or other payment system
  - Information requirements
    - E.g. secure credit card clearing, multiple payment options



**CHAPTER 10: E-COMMERCE: DIGITAL MARKETS, DIGITAL GOODS** 

#### **Building an E-commerce Web Site**

- Alternatives in building the Web site
  - Completely in-house
  - Mixed responsibility
  - Completely outsourced
    - Co-location
- Web site budgets
  - Several thousand to millions / year
  - 50% of a budget is system maintenance and content creation



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#### The Mobile Digital Platform and Mobile E-commerce

#### **CHOICES IN BUILDING AND HOSTING WEB SITES**



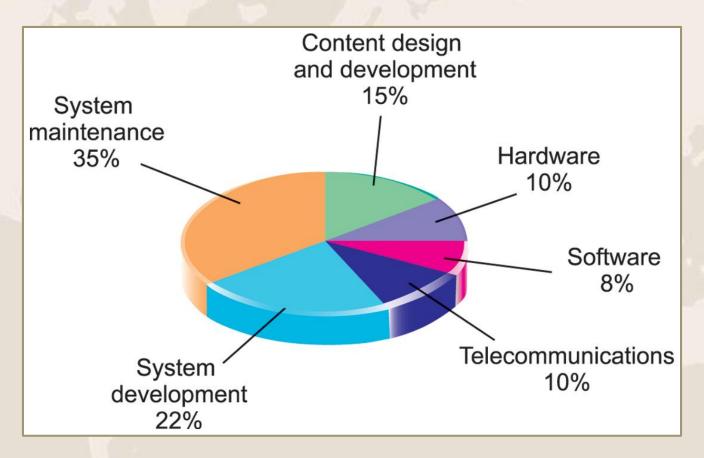
FIGURE 10-10 You have a number of alternatives to consider when building and hosting an e-commerce site.



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#### The Mobile Digital Platform and Mobile E-commerce

#### **COMPONENTS OF A WEB SITE BUDGET**



**FIGURE 10-11** 



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