E-Commerce: Digital Markets, Digital Goods

Lecturer:

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LEARNING OBJECTIVES

- Identify the unique features of e-commerce, digital markets, and digital goods.
- Describe how Internet technology has changed business models.
- Identify the various types of e-commerce and explain how e-commerce has changed consumer retailing and business-to-business transactions.
- Evaluate the role of m-commerce in business, and describe the most important m-commerce applications.
- Identify the principal payment systems for electronic commerce.
Information Technology Capital Investment

Considering the context of a developing country like Ghana, is the internet a strategic choice for every firm or otherwise, **should every firm do business online?**
E-commerce

- Use of the Internet and Web to transact business
- Digitally enabled transactions

E-commerce has been defined as “sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks” (Zwass, 1996).
Retail e-commerce revenues have grown exponentially since 1995 and have only recently “slowed” to a very rapid 16 percent annual increase, which is projected to remain the same until 2010.

Figure 10-1
Eight unique features of e-commerce technology

1. **Ubiquity**
   - Internet/Web technology available everywhere: work, home, etc., and anytime

2. **Global reach**
   - The technology reaches across national boundaries, around Earth

3. **Richness**
   - Supports video, audio, and text messages
Eight unique features (cont.)

5. Interactivity
   - The technology works through interaction with the user

6. Information density
   - Vast increases in information density—the total amount and quality of information available to all market participants

7. Personalization/Customization:
   - Technology permits modification of messages, goods

8. Social technology
   - The technology promotes user content generation and social networking
Increasing sophistication of the consumer
why everywhere and anywhere “ubiquity”
Increasing need to be connected “insatiable”
Key concepts in e-commerce

Digital markets reduce
  - Information asymmetry
  - Search costs
  - Transaction costs

Digital markets enable
  - Price discrimination
  - Dynamic pricing
  - Disintermediation
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.

Figure 10-2
Key concepts in e-commerce (cont.)

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 producing 2\textsuperscript{nd} 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.)
• Internet business models
  • Pure-play models
  • Clicks-and-mortar models

• Social Network
  • Online meeting place
  • Social shopping sites
  • Can provide ways for corporate clients to target customers through banner ads and pop-up ads

• Online marketplace:
  • Provides a digital environment where buyers and sellers can meet, search for products, display products, and establish prices for those products
• **Content provider**
  • Providing digital content, such as digital news, music, photos, or video, over the Web – yahoo,

• **Service provider**
  • Provides Web 2.0 applications such as photo sharing and interactive maps, and services such as data storage - google maps, flickr,

• **Portal**
  • “Supersite” that provides comprehensive entry point for huge array of resources and services on the Internet – yahoo

• **Blogs**
  • Personal web pages that contain series of chronological entries by author and links to related Web pages – wordpress.com
• **Virtual storefront:**
  • Sells physical products directly to consumers or to individual businesses – prada.com, best buy

• **Information broker:**
  • Provides product, pricing, and availability information to individuals and businesses – kbb.com, pricerunner.co.uk, nexttag.com

• **Transaction broker:**
  • Saves users money and time by processing online sales transactions and generating a fee for each transaction – expedia.com, etrade.com
Types of Electronic Commerce

- Business-to-consumer (B2C)
- Business-to-business (B2B)
- Consumer-to-consumer (C2C)
- Government-to-citizen (G2C)
- Mobile commerce (m-commerce)
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.

Figure 10-3

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.
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
B2B Networks
• **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)
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.
• **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 support long-term contract purchasing or short-term spot purchasing
  - May serve vertical or horizontal marketplaces
Net marketplaces are online marketplaces where multiple buyers can purchase from multiple sellers.

Figure 10-7

Net Marketplaces

- Catalogs
- Sourcing
- Automated purchasing
- Processing and fulfillment
• **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 long-term relationships with buyers or services to make lowering prices worthwhile
- M-commerce services and applications
- 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
  - Social Connections, Games and entertainment
M-commerce sales represent a small fraction of total e-commerce sales, but that percentage is steadily growing.
• Limitations in mobile’s access of Web information
  • Data limitations
  • Small display screens
• Wireless portals (mobile portals)
  • Feature content and services optimized for mobile devices to steer users to information they are most likely to need
• Types of electronic payment systems
  • Digital wallet
    • Stores credit card and owner identification information and enters the shopper’s name, credit card number, and shipping information automatically when invoked to complete a purchase
• **Electronic billing presentment and payment systems**
  • Paying monthly bills through electronic fund transfers or credit cards

• **Stored value payment systems**
  • Enable online payments based on value stored in online digital account
  • May be merchant platforms or peer-to-peer (PayPal)

• **Digital checking**
  • Extend functionality of existing checking accounts to be used for online payments
Digital payments systems for m-commerce

Three types of mobile payment systems in use in Japan

- Stored value system charged by credit cards or bank accounts
- Mobile debit cards
- Mobile credit cards

In the U.S., the cell phone has not yet evolved into a mobile payment system
E-commerce in Ghana – Where are we?

Has Mobile Payments got a future in Ghana?
E-commerce in Ghana – where we are...

• Phases of E-commerce

- Telephone & Fax
- Email & basic website
- Website with feedback and relational features
- Transactional features: orders
- Integrated value chain

Increasing complexity of relationships, information and transactions
Lankah
A car firm that enables Ghanaians to purchase used cars from Germany. The firm has no physical showroom or warehouse for the cars. Customers view the cars through the firm’s website and express their interest. Cars are shipped to Ghana after the customers make payment. The company sold 9 cars in 2004; 16 (2005) and 18 (2006). In 2009 (100 cars every two months).

Kasapreko
A Beverage manufacturing firm which uses its website and email to source for suppliers of production materials. The company was able to curb a problem of imitated products by introducing unique bottle caps which was produced by Indian firm. The supplier was discovered through the Internet and the bottle caps were produced email and telephone communication.

Lizdon
A Fabric and Garment Manufacturing firm which uses the Internet to market products and also source for garment designs. Through an email managed relationship with an American partner, the company exported garments to the USA and made revenues totalling US $ 10,000 a year (2001 – 2006).
Online catalogue

Latest catalogue entries

Articles to support buying decisions

Featured entries

Search functionality
Product Kaleidoscope

Friday, 15 December 2006

Tools:
- Email Product
- Print Product
- Save Product As PDF

Product Kaleidoscope/Catalogue

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- Product Kaleidoscope/Catalogue
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MNW05 – Left picture
Executive shirt, open sleeves in linen with single inseam breast pocket and woven kente insets

LDW06 – Middle picture
Matching skirt suit

LDW07 – Right picture
2-piece pants set in shedda with matching headwrap/scarf and screen-printed design

Choice of style
(Complete Outfit)
### Alimex

**Baltimore, USA**

**INVOICE**

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<th>Order #:</th>
<th>Name:</th>
<th>Customer #:</th>
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**SPECIAL INSTRUCTION:**

1. MERCHANDISE SUBTOTAL
2. S/H (Line 1)
3. TAXES (Line 1)
4. TOTAL
5. DISCOUNT (Line 1)
6. DEPOSIT
7. BALANCE

**METHOD OF PAYMENT**

- Check, Cash or Money Order
- Visa
- MasterCard
- American Express
- Discover

Card #: ____________________ Exp Date: ___ / ___

Signature: ____________________

**SHIPPING/HANDLING**

Total Price: ____________________ Please Add

**DEPOSIT**: A 50% non-refundable deposit is required upon placement of all orders. The balance is due upon delivery of the garment(s).

**RETURNS**: Essante distributors will do everything possible to provide customers with garments ideally suited to their tastes. Customers are individually measured to ensure a tailored fit. If the customer decides not to accept
E-commerce in Ghana – where we are...

Telecommunication reforms
Dial-up Internet services
Issuing of mobile licenses
Internet users per 100 people: 0.10 (1999)

ICT policy reforms
Broadband Internet services
Influx of ISPs and ICT consultancies
Internet users per 100 people: 1.17 (2003)

Cheaper Broadband Internet services
Increase in mobile phone penetration and services
Internet user per 100 people: 1.81 (2005)
E-commerce in Ghana – where we are...

- ICTs diffuse in path of least cost of adoption
  - Substituting global resources for local resources
  - Use of social network and capital
  - Government readiness

- Managerial Capabilities
  - IT-Business knowledge & Social-Business links
  - Intimacy maximizes value from resources

- Impact on Development
  - network of actors
  - Intentional action may be required
1. What is a Digital Firm
2. Should every firm do business online?
3. Data, Information and Knowledge
4. Collective Knowledge and the aggregate of Individual Knowledge
5. Do organizations learn when employees learn – explain using the theory of meaning structures
6. Discuss the phases of e-commerce?
7. What is CRM systems and How can a firm use Facebook to strategically support Customer Service?
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