Learning Objectives

- Describe electronic commerce, its dimensions, benefits, limitations, and process.
- Describe the major applications of e-commerce in the business-to-customer area, including advertisement.

Electronic Commerce

- Buying
- Selling
- Transfer
- Exchange of products, services, information via computer networks (including the Internet)

E-business

- Broader e-commerce
- Service customers
- Collaboration with business partners
- Distance education

Old vs. New Economy: Photography

<table>
<thead>
<tr>
<th>Old Economy</th>
<th>New Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>You buy film at the store, insert it into your camera &amp; take pictures.</td>
<td>Use a digital camera that can also take videos. No film is needed, and no processing required. You can see the results immediately &amp; enlarge &amp; print photos quickly.</td>
</tr>
<tr>
<td>Once you complete the film, sometimes weeks or months after you began the roll, you take it to the store for processing.</td>
<td>If your digital camera is connected to a wireless device (such as a palmtop computer or cell phone) take pictures and see them within a few seconds.</td>
</tr>
<tr>
<td>Go back to the store and pay for enlargements and duplications.</td>
<td>Name-Your-Own-Price. Pioneered by Priceline.com, this model allows customers to state a price they are willing to pay for a product or service.</td>
</tr>
<tr>
<td>Send photos to family and friends.</td>
<td>Dynamic Brokering. In the digital age customers can specify requirements for a service or a product. These specifications are broadcast over the Internet (&quot;Webcasted&quot;) to service providers in an automatic invitation to submit bids.</td>
</tr>
</tbody>
</table>

Some Digital Economy Business Models
Digital Economy Business Models (cont.)

- Affiliate marketing is an arrangement in which marketing partners place a banner of a company, such as Amazon.com, on their Web site.
- Group Purchasing: Anyone can pay less per unit when buying more units. Discounts are usually available for quantity purchases.
- E-marketplaces and Exchanges: Since 1999, thousands of electronic marketplaces, of different varieties, have sprung up.

Types of EC transactions

- B2B - Business-to-business
- e-commerce – collaborative commerce – collaboration along the supply chain
- B2C – Business to consumer C2C
- C2C - Consumer/customer to consumer/customer – individuals sell to each other
- Etc.

Benefits of EC to business

- Expanded markets – national/ international
- EC allows vendors to reach a large number of customers, anywhere around the globe, at a very low operating cost.
- Companies can procure raw materials and services from other countries rapidly and less expensively.
- Marketing distribution channels can be drastically cut or eliminated – cheaper products/ increased profits
- EC decreases the cost of creating, processing, storing, and retrieving information by as much as 90% (eg. music).
- Customer services and relationships are facilitated by interactive, one-to-one communication, at a low cost.

Benefits of EC to consumers

- Online search and price comparison – national/ international
- 24/7.
- Retrieve relevant information in seconds.
- Work/study at home.

Benefits of EC to society

- Better delivery of community services
- Less use of finite resources (operate from home) lower prices.
- Services available to all nations

Limitations of EC

Technical Limitations
- Lack of universally accepted standards
- Insufficient bandwidth
- Still-evolving software development tools
- Difficulties in integrating the Internet and EC software

Non-Technical Limitations
- Legal issues
- National and international government regulations
- Difficulty of measuring EC benefits
- Customer resistance
- Lack of a critical mass
Why Internet Advertisement?

- Ads can be updated any time with a minimal cost.
- Ads can reach large numbers of buyers all over the world.
- Online ads are frequently cheaper in comparison with television, radio, newspaper, or billboard ads.
- Web ads can efficiently use text, audio, graphics, and animation.
- The audience for Internet advertising is growing rapidly.
- Web ads can be catered to a specific target.

Internet Advertising (cont.)

- E-mail Advertising. Email is a cost-effective marketing channel with a better and quicker response rate than other channels.
  - Problem of Spamming
- Online Events and Promotions (Sponsorship)
- Other Forms of Internet Advertisement.
  - Internet communities, chat rooms, newsgroups, and kiosks

Internet Consumers

- Initially the vast majority of Internet users were mostly 15- to 35-year-old males.
- There are two types of Internet consumers: individuals and organizations.
  - Now the female / male ratio is equal.
  - Younger and older surfers have joined the party.
- The largest group of Internet users are married and highly educated.
- Almost 90% are white.
- Most users have a high household income and are working in:
  - educational institutions
  - the computer industry
  - professional jobs

Facilitating Customer Service

Several tools are available for facilitating online customer service. The major tools, with their functionalities, are:

- Personalized Web pages for each customer
- A chat room
- FAQs - frequently asked questions
- Tracking capabilities - recording customer access to objects on website (product interests)

Cyberbanking

- Cyberbanking (electronic banking)
  - The Security First Network Bank (SFNB) was the first virtual bank
- International and Multiple-Currency Banking
- Bill-Paying Online
  - Automatic payment of mortgages
  - Paying bills from online banking account, etc.
- Personal Finance
  - Bill paying and electronic check writing
  - Tracking bank accounts, expenditures, and credit cards
  - Budget management and organization, etc.

Online Stock Trading

- In 2001, about 30 million people in the US alone were using computers to trade stocks, bonds, and other financial instruments.
- Investment information available online includes:
  - Stock screening/evaluation
  - Financial news
  - Free advice from investment gurus
Other EC Services

- Job Market Online
  - Participants include: (1) Job seekers (2) Job offerers (3) Recruitment firms (4) Newsgroups.
- Travel and Tourism
- Real Estate
- Non-Internet Applications
  - Smart cards (eg. transfer benefits from companies to their employees)

M-Commerce

- M-commerce (mobile commerce) refers to the conduct of e-commerce via wireless devices.
  - Advantages of M-Commerce
    - Mobility
    - Reachability
    - Ubiquity
    - Convenience

Other EC Activities

- Intrabusiness and Business to Employees (B2E)
  - Buying, selling and collaborative EC can be conducted within the company, usually using the Intranet and corporate portal.
  - E-government
    - Government-to-citizens (G2C)
    - Government-to-business (G2B)
    - Government-to-government (G2G)

EC Failures

- The major wave of EC failures started in 2000, as secondary funding that was needed by Internet-based EC began to dry up.
  - some examples:
    - Unable to raise the needed advertising revenue
    - Insufficient customers
    - Lack of ongoing investment resources
    - Too much competition
    - Infrastructure weaknesses
    - Business partners (retailers, distributors) pressure manufacturer to resist e-commerce

Fraud on the Internet

- Internet Stock Fraud
  - Bogus info on companies
  - False bids
- Fraud in Electronic Auctions
- Other Financial Fraud
  - e.g. Selling bogus investments
- Buyer Protection is critical to the success of any commerce, and especially EC, where buyers do not see the sellers.
- Seller Protection safeguards vendors against consumers who refuse to pay or who pay with bad checks.

EC-related Legal Issues

- Domain Name
  - Problems arise when several companies compete over a domain name.
- Taxes and Other Fees
  - Government authorities are scrambling to figure out how to get a piece of the revenue created electronically.
- Copyright
  - Protecting software and other intangible creations is difficult over the Web.
Ethical Issues

- Privacy and Web tracking.
  - Privacy issues are related to both customers and employees.
- The human element.
  - The implementation of EC may lead to personnel dissatisfaction and loss of salespeople's income.
- Disintermediation.
  - Employees non value-adding services eliminated (can be automated) eg. matching and providing information, as opposed to adding expert advice.

Managerial Issues

- Managing resistance to change.
- Integration of e-Commerce into the business environment.
- Lack of qualified personnel and outsourcing.
- Choosing the company's strategy toward e-Commerce.
- Alliances. It is not a bad idea to join an alliance of companies to explore e-Commerce.

Managerial Issues (cont.)

- Implementation plan. Because of the complexity and multifaceted nature of EC, it makes sense to prepare an implementation plan.
- Responding to e-mail. Some companies are flooded by e-mail queries, requests, or complaints.
- Justifying EC by conducting a cost-benefit analysis.
- Privacy. In electronic payment systems, it may be necessary to protect the identity of buyers.
- Order fulfillment. Taking orders in EC may be easier than fulfilling them.
- The impacts. The impacts of EC may be dramatic.

Implementing e-Business Systems

- Implementing Internet technology brings opportunities and challenges for IT managers
  
  - 4 main areas
    - Organisational factors – flatter structures; training
    - Information infrastructure – hardware, software, databases
    - Systems management – new applications; training; maintenance;
    - Management issues – policies; people; change

Reference

- Turban, Leidner, McLean & Wetherbe
  
  Chapter 4