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LECTURE 13: E-COMMERCE

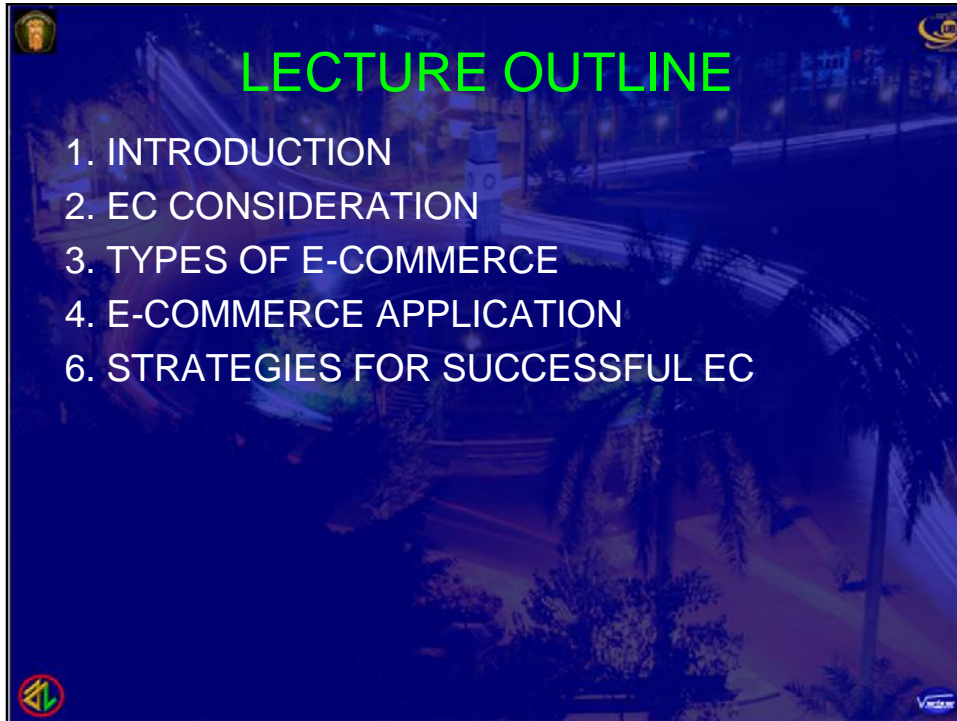


The diagram titled "E-COMMERCE PLATFORM" features two computer monitors on either side. The left monitor displays a hand holding a credit card, and the right monitor displays a hand holding a shopping bag. Between the monitors, several e-commerce platform logos are arranged: Magento, Joomla!, opencart, eay, nopCommerce, Bigcommerce, zencart, and YAHOO! STORE. A shopping cart icon is also visible near the right monitor.

LEARNING OUTCOMES

Students, after mastering materials of the present lecture, should be able

1. to identify several advantages of e-commerce
2. to outline a multistage model that describes how e-commerce works
3. to identify some of the major challenges that companies must overcome to succeed in e-commerce
4. to describe some of the current uses and potential benefits of e-commerce
5. to identify several e-commerce applications

A slide titled "LECTURE OUTLINE" with a dark blue background and a night cityscape. The title is in green. The outline consists of six numbered items in white text. There are small logos in the corners: a circular logo with a figure in the top-left, a circular logo with a crescent moon in the top-right, a circular logo with a stylized 'A' in the bottom-left, and a "Vista" logo in the bottom-right.

LECTURE OUTLINE

1. INTRODUCTION
2. EC CONSIDERATION
3. TYPES OF E-COMMERCE
4. E-COMMERCE APPLICATION
6. STRATEGIES FOR SUCCESSFUL EC


A slide titled "INTRODUCTION" with a dark blue background and a night cityscape. The title is in green. Below the title is a section header "1. Definition" in cyan. The content is a list of bullet points in white text, with some words highlighted in yellow and cyan. There are small logos in the corners: a circular logo with a figure in the top-left, a circular logo with a crescent moon in the top-right, a circular logo with a stylized 'A' in the bottom-left, and a "Vista" logo in the bottom-right.

INTRODUCTION

1. Definition

- **E-commerce** is a new way of conducting business, and, as with any other new application of technology, it presents both **opportunities** for improvement and **potential problems**.
- E-commerce (electronic commerce or EC) can be defined as
 - the **buying** and **selling** of **goods** and **services**, or the transmitting of funds or data, over an electronic network, **primarily the internet**.
 - **technology-mediated exchanges** between parties (individuals and/or organizations) as well as the electronically based intra- or interorganizational activities that facilitate such exchanges.
- The terms e-commerce and e-business are often used interchangeably.

- Electronic commerce was identified as the facilitation of commercial transactions electronically, using technology such as **Electronic Data Interchange (EDI)** and **Electronic Funds Transfer (EFT)**.
 - **EDI** is the structured transmission of data between organizations by electronic means. It is used to transfer electronic documents or business data from one computer system to another computer system.
 - **EFT** is the electronic exchange or transfer of money from one account to another.



2. History of E-Commerce

- The beginnings of e-commerce can be traced to the 1960s, when businesses started using **Electronic Data Interchange (EDI)** to share business documents with other companies.
- In 1979, the American National Standards Institute developed ASC X12 as a universal standard for businesses to share documents through electronic networks.
 - After the number of individual users sharing electronic documents with each other grew in the 1980s, in the 1990s the rise of **eBay** and **Amazon** revolutionized **the e-commerce industry**.
- Consumers can now purchase **endless amounts** of items online, both from typical brick and mortar stores with e-commerce capabilities and one another.

- The growth and acceptance of credit cards, automated teller machines (ATM) and telephone banking in the 1980s were also forms of electronic commerce.
- Another form of E-Commerce was the airline reservation system: for example Sabre in the USA, Travicom in the UK, and Traveloka in Indonesia.



Figure 2 Forecast: US Online And Web-Influenced Retail Sales, 2009 To 2014

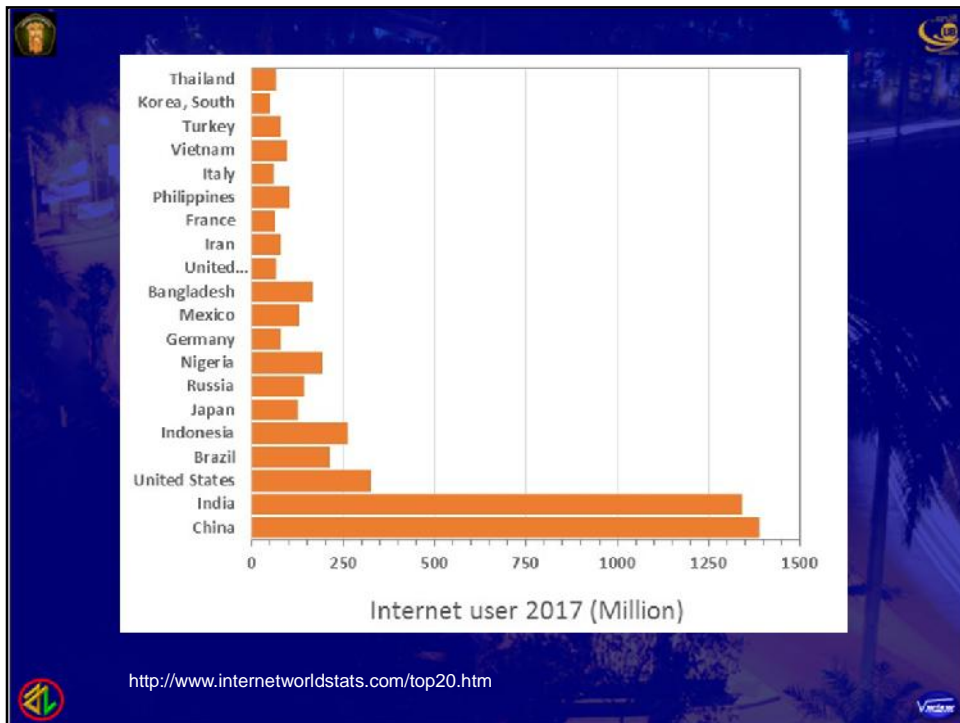
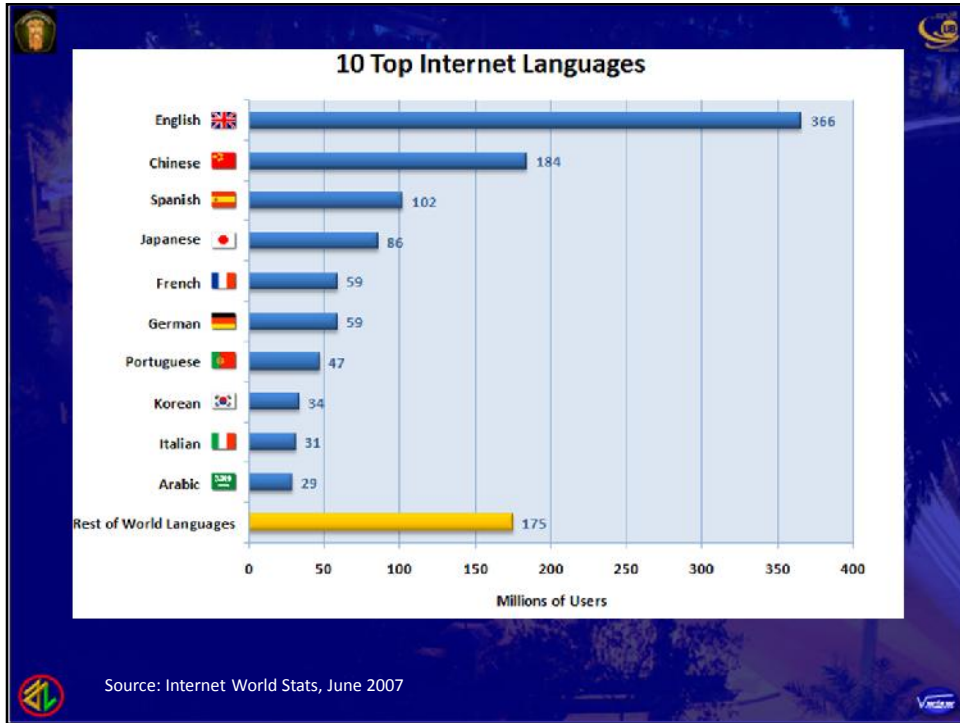


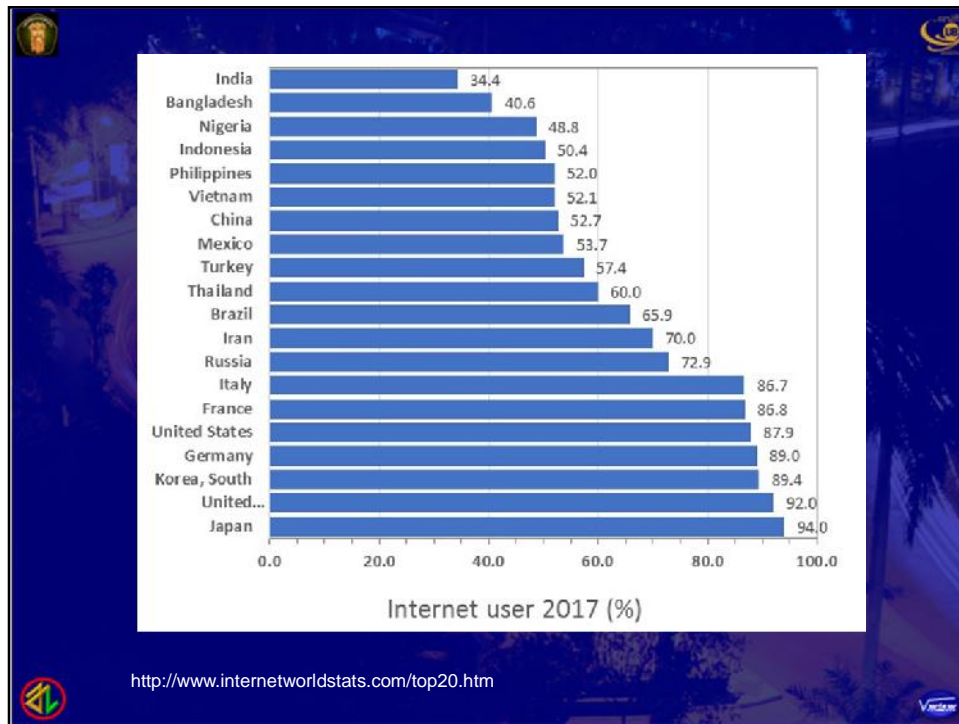
Source: Forrester Research Web-Influenced Retail Sales Forecast, 12/09 (US)

S6551

Source: Forrester Research, Inc.

<http://tctechcrunch2011.files.wordpress.com/2010/03/forrester2.png>





2. EC CONSIDERATION

1. Advantages of E-Commerce

- Faster buying/selling procedure, as well as easy to find products.
- Buying/selling 24/7.
- Low operational costs and better quality of services.
- Easy to start and manage a business.
- No need of physical company set-ups.
- Customers can easily select products from different providers without moving around physically.

2. Disadvantages of E-Commerce

- There is no guarantee of product quality.
- There are many hackers who look for opportunities, and thus an ecommerce site, service, payment gateways, all are always prone to attack.



3. Multistage Model for E-commerce

- Search and identification
- Selection and negotiation
- Purchasing products and services electronically
- Product and service delivery
- After-sales service

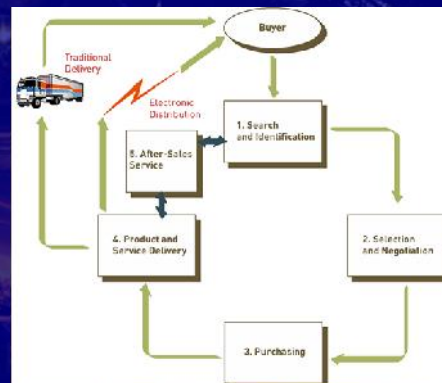


Figure 8.1: Multistage Model for E-Commerce (B2B and B2C)

4. E-Commerce Challenges

- Define an effective e-commerce model and strategy.
- Need to change distribution systems and work processes.
- Integrate Web-based order processing with traditional systems.

Content

Industry news
Economic news
Stock prices

Commerce

Consumers and businesses buying and selling

Community

Message boards
Chat rooms

Figure 8.3: Three Basic Components of a Successful E-Commerce Model

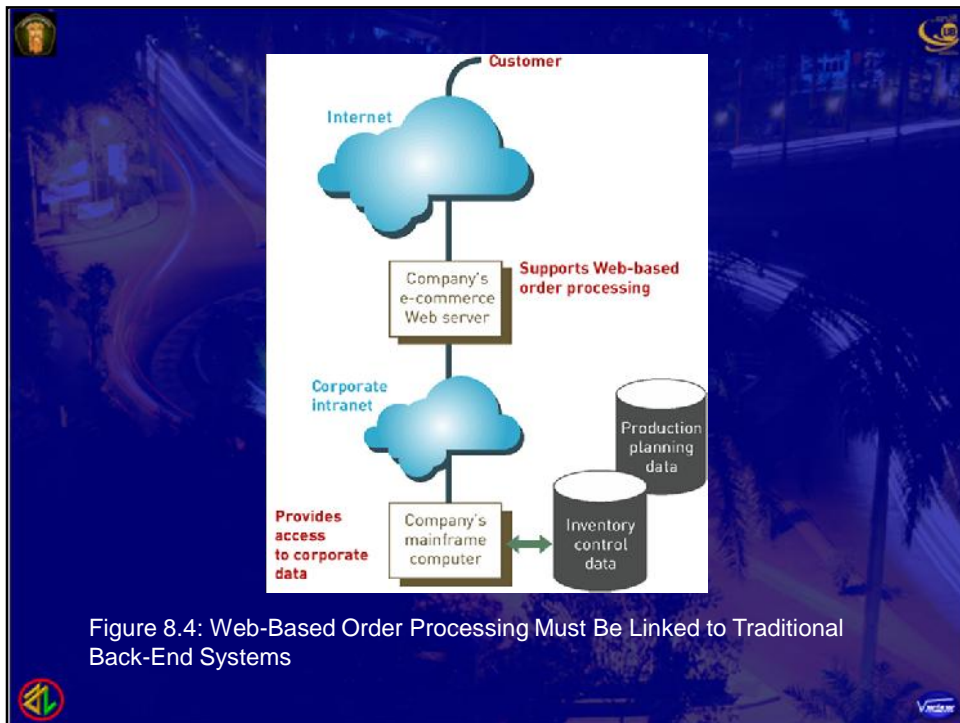


Figure 8.4: Web-Based Order Processing Must Be Linked to Traditional Back-End Systems

5. E-Commerce Supply Chain

- Supply chain management is a key value chain composed of:
 - Demand planning
 - Supply planning
 - Demand fulfillment



Figure 8.5: Supply Chain Management

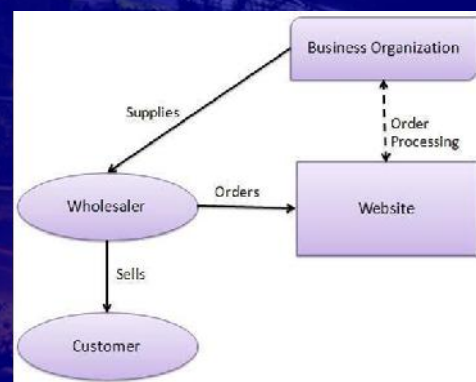
- E-commerce supply chain management allows businesses an opportunity to achieve:
 - Increased revenues and decreased costs
 - Improved customer satisfaction
 - Inventory reduction across the supply chain

3. TYPES OF E-COMMERCE

1. **Business-to-Consumer (B2C) e-commerce:** customers deal directly with the organization, avoiding any intermediaries.
2. **Business-to-Business (B2B) e-commerce:** participants are organizations.
3. **Consumer-to-Consumer (C2C) e-commerce:** participants are individuals, with one serving as the buyer and the other as the seller.
4. **Consumer-to-Business (C2B) e-commerce:** a **business** model in which **consumers** (individuals) create value and **businesses** consume that value.

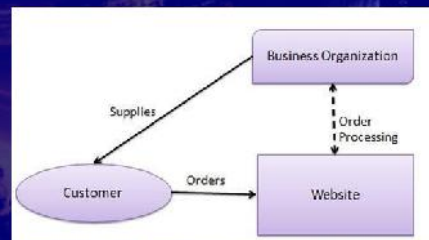
1. Business-to-Business (B2B) E-Commerce

- **Business to business** is a type of transaction that exists between **businesses**, such as one involving a **manufacturer** and **wholesaler**, or a **wholesaler** and a **retailer**.
- **Business to business**
 - Allows manufacturers to buy at a low cost worldwide
 - Enterprises can sell to a global market
 - Offers great promise for developing countries



2. Business-to-Consumer (B2C) E-Commerce

- **Business to consumer (B2C)** is business or transactions conducted directly between a company and **consumers** who are the end-users of its products or services.
- The **business-to-consumer** is characterized by
 - Convenience.
 - Many goods and services are cheaper when purchased via the Web.
 - Comparison shopping.
 - **Disintermediation:** elimination of intermediate organizations between the producer and the consumer.



3. Consumer-to-Consumer (C2C) E-Commerce

- Often done through Web auction sites such as eBay
- Growth of C2C is responsible for reducing the use of the classified pages of newspapers to advertise and sell personal items.

3. Consumer-to-Consumer (C2C) E-Commerce

- This is a business model where an end user or consumer makes a product or service that an organization uses to complete a business process or gain competitive advantage.
- The C2B methodology completely transposes the traditional business-to-consumer (B2C) model, where a business produces services and products for consumer consumption.



4. E-COMMERCE APPLICATION

1. Retail and Wholesale

- **Electronic retailing (e-tailing):** the direct sale from business to consumer through electronic storefronts, typically designed around an electronic catalog and shopping cart model.
- **Cybermall:** a single Web site that offers many products and services at one Internet location.
- Manufacturing, repair, and operations (MRO) goods and services.

2. Manufacturing

- To raise profitability and improve customer service, many manufacturers move their supply chain operations onto the Internet.

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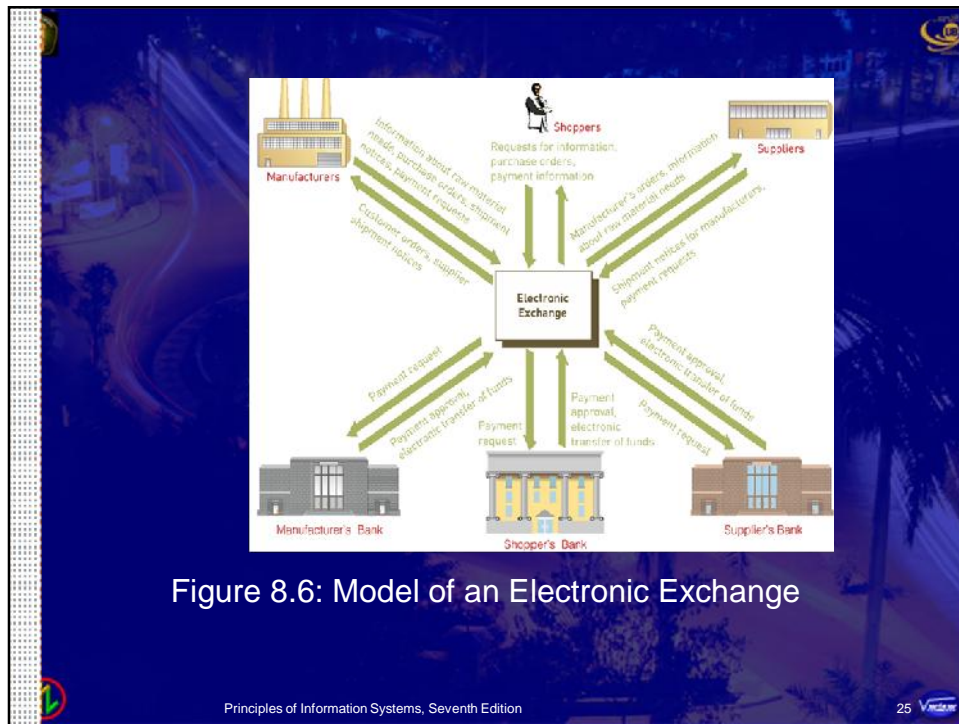


- **Electronic exchange:** an electronic forum where manufacturers, suppliers, and competitors buy and sell goods, trade market information, and run back-office operations.

3. Marketing

- **Market segmentation:** the identification of specific markets to target them with advertising messages.
- **Technology-enabled relationship management:** use of detailed information about a customer's behavior, preferences, needs, and buying patterns to set prices, negotiate terms, tailor promotions, add product features, and otherwise customize the entire relationship with that customer.

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4. Investment and Finance

- Online stock trading.
- Online banking.

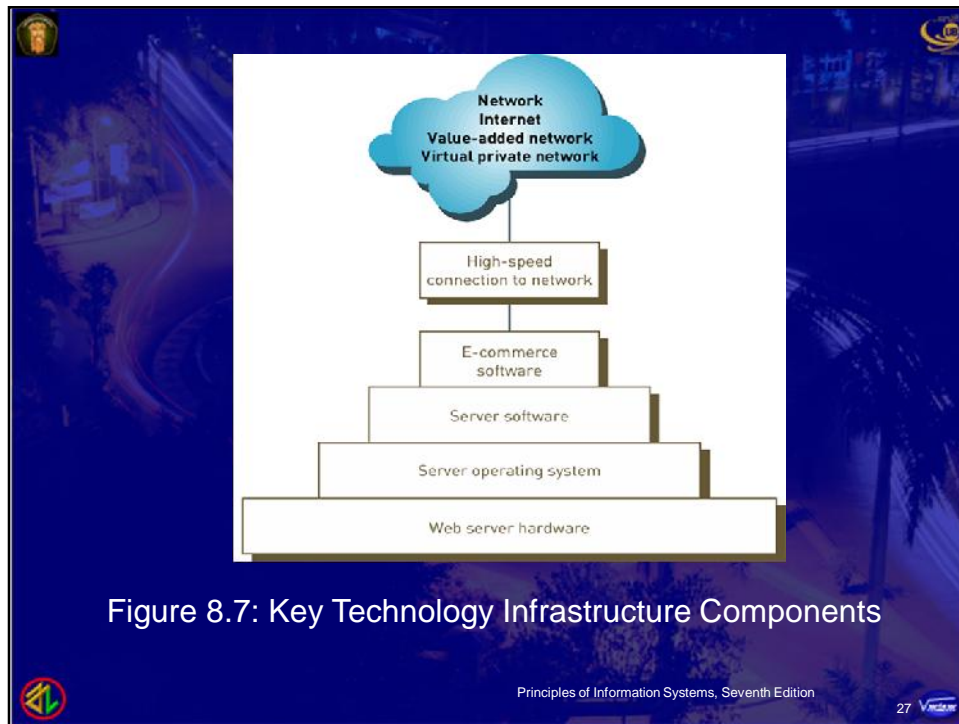
5. Hardware

- Storage capacity and computing power required of the Web server depends on:
 - Software that will run on the server.
 - Volume of e-commerce transactions.
- Website hosting.

6. Web Server Software

- Security and identification
 - Web sites must be designed to protect against attacks.
 - Denial-of-service (DOS) attack.

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- Retrieving and sending Web pages.
 - Web site tracking.
 - Web site development
 - Web page construction
 - Static Web page
 - Dynamic Web page
- 7. E-Commerce Software**
- Catalog management.
 - Product configuration.
 - Shopping cart facilities.
 - E-commerce transaction processing.
 - Web traffic data analysis.
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Figure 8.8: Electronic Shopping Cart

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5. STRATEGIES FOR SUCCESSFUL EC

1. DEVELOPING AN EFFECTIVE WEB PRESENCE

- Decide which tasks the site must accomplish.
- An effective Web site creates an attractive presence and meets the needs of its visitors.
- It may be necessary to redefine your site's business model to capture new business opportunities.

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2. Putting up a Web Site

- **Web site hosting companies:** companies that provide the tools and services required to set up a Web page and conduct e-commerce within a matter of days and with little up-front cost.
- **Storefront broker:** companies that act as middlemen between your Web site and online merchants that have the products and retail expertise.

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3. Building Traffic to Your Web Site

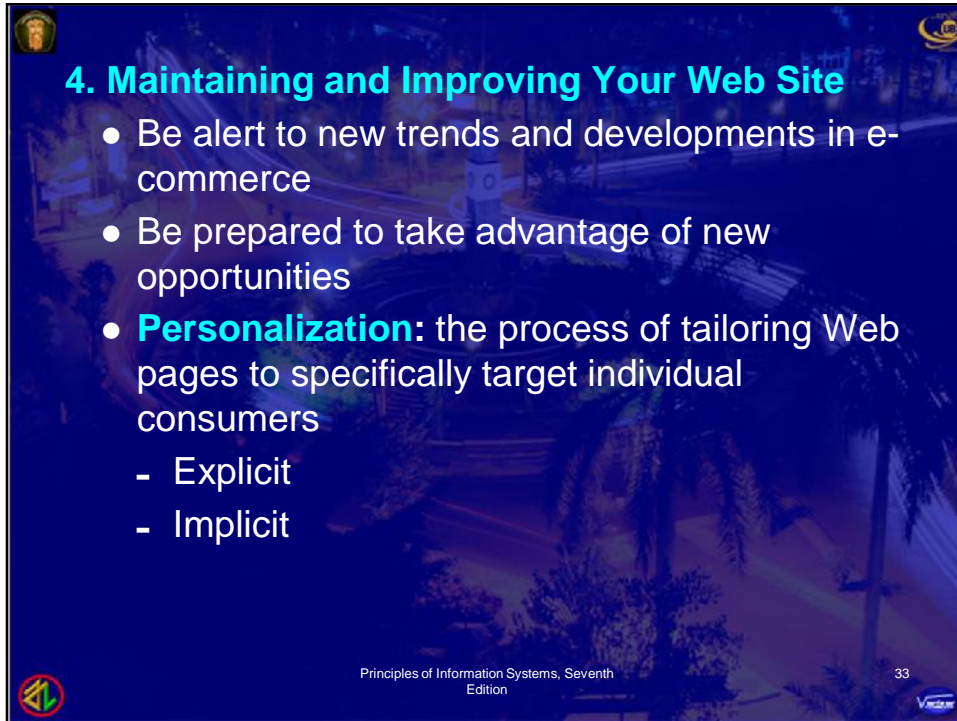
- Obtain and register a domain name
- Make your site search-engine-friendly
 - **Meta tag:** a special HTML tag, not visible on the displayed Web page, that contains keywords representing your site's content, which search engines use to build indexes pointing to your Web site
- Web site traffic data analysis software

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4. Maintaining and Improving Your Web Site

- Be alert to new trends and developments in e-commerce
- Be prepared to take advantage of new opportunities
- **Personalization**: the process of tailoring Web pages to specifically target individual consumers
 - Explicit
 - Implicit

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