3. Electronic and Mobile Commerce

IT1106

Level I - Semester 1

3. Electronic and Mobile Commerce

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3.1 An Introduction to Electronic Commerce

- Electronic commerce (e-commerce) is the conducting of business activities electronically over computer networks.

- It includes any business transaction executed electronically between
  - companies and consumers (business-to-consumer),
  - companies (business-to-business),
  - consumers and other consumers (consumer-to-consumer),
  - public sector and business (government-to-business),
  - public sector to citizens (government-to-citizen),
  - public sector to public sector (government-to-government).

	Business	Consumer
Business	B2B	B2C
Consumer	C2B	C2C

Business-to-Consumer E-Commerce

- B2C e-commerce is a form of e-commerce in which customers deal directly with an organization and avoid intermediaries.
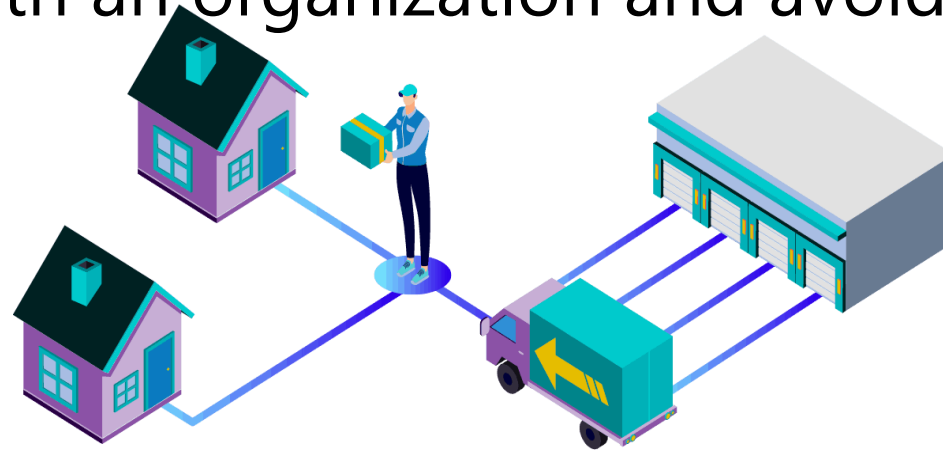
Example : *Amazon did not become profitable until 2003; the firm has grown from selling only books on a U.S.-based Web site to selling a wide variety of products through international Web sites in Canada, China, France, Germany, Japan, and the United Kingdom.*

Business-to-Consumer E-Commerce cont..

- Reasons for the steady growth in B2C e-commerce,

  - Shoppers can find many cheap goods and services.

  - Shoppers have the ability to design a personalized product.

    Example: *online NIKEiD service enables purchasers to customize a pair of shoes by selecting from different material, features, and fit options.*

  - Effective use of social media networks to reach consumers, promote their products, and generate online sales.

    Example: *Facebook, Instagram, Pinterest, and Twitter to add "paid social" features*

Source: como vender pela internet
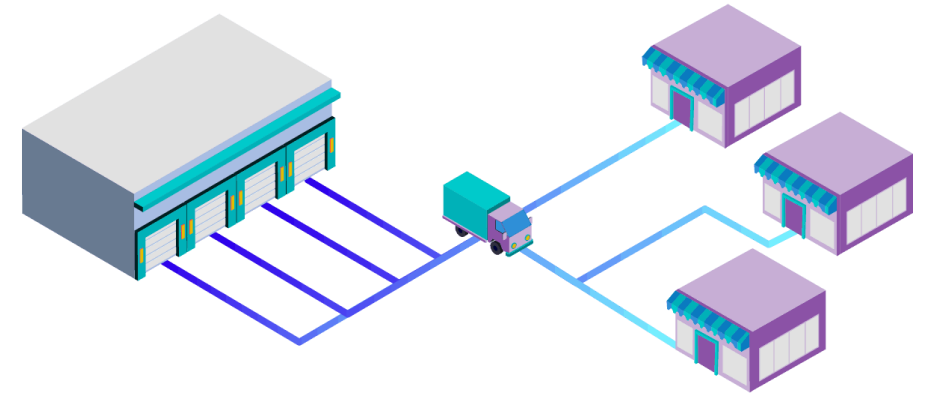
Business-to-Consumer E-Commerce cont..

Largest business-to-consumer retailers in the United States

Rank	Company	Total Web Sales (Billions of Dollars)
1	Amazon	$71.8
2	Walmart	$13.2
3	Apple	$10.7
4	Macy's	$4.7
5	Home Depot	$4.3

Source: Wahba, Phil, "This Chart Shows Just How Dominant Amazon Is," Fortune, http://fortune.com/2015/11/06/amazon-retailers-ecommerce.

Business-to-Business E-Commerce

- B2B e-commerce is a useful tool for connecting business partners in a virtual supply chain.

- B2B companies are focusing on new ways of engaging their customer across multiple channels—both online and offline.

- The top e-commerce priorities are
  - Transparent pricing
  - Convenient accessible product details
  - Purchase tracking
  - Personalized recommendations

- Buy-side e-commerce to purchase goods and services from their suppliers.

- Sell-side e-commerce to sell products to their customers.

Business-to-Business E-Commerce Cont...

- Buy-side e-commerce activities are
    - Identifying and comparing competitive suppliers and products
    - Negotiating and establishing prices and terms
    - Ordering and tracking shipments
    - Steering organizational buyers to preferred suppliers and products

- Sell-side e-commerce activities are
    - Enabling the purchase of products online
    - Providing information for customers to evaluate the organization's goods and services
    - Encouraging sales and generating leads from potential customers
    - Providing a portal of information of interest to the customer
    - Enabling interactions among a community of consumers

Consumer-to-Consumer E-Commerce

- C2C e-commerce involves electronic transactions between consumers using a third party to facilitate the process.

Examples:

Source:

Differences among B2B, B2C, and C2C

Factors	B2B	B2C	C2C
Typical value of sale	Thousands or millions of dollars	Tens or hundreds of dollars	Tens of dollars
Length of sales process	Days to months	Days to weeks	Hours to days
Number of decision makers involved	Several people to a dozen or more	One or two	One or two
Uniformity of offer	Typically a uniform product offering	More customized product offering	Single product offering, one of a kind
Complexity of buying process	Extremely complex; much room for negotiation on quantity, quality, options and features, price, pay- ment, and delivery options	Relatively simple; limited negotiation on price, payment, and delivery options	Relatively simple; limited negotiation on payment and delivery options; negotiations focus on price
Motivation for sale	Driven by a business deci- sion or need	Driven by an individual consumer's need or emotion	Driven by an individual consumer's need or emotion

Activity

Decide the suitable e-commerce form for following examples.

1.

2.

3.

4.

E-Government

- E-government is the use of information and communications technology to simplify the sharing of information, speed formerly paper-based processes, and improve the relationship between citizens and government.

- All forms of e-government,

  - Government- to-citizen (G2C)

  - Government-to-business (G2B)

  - Government- to-government (G2G)
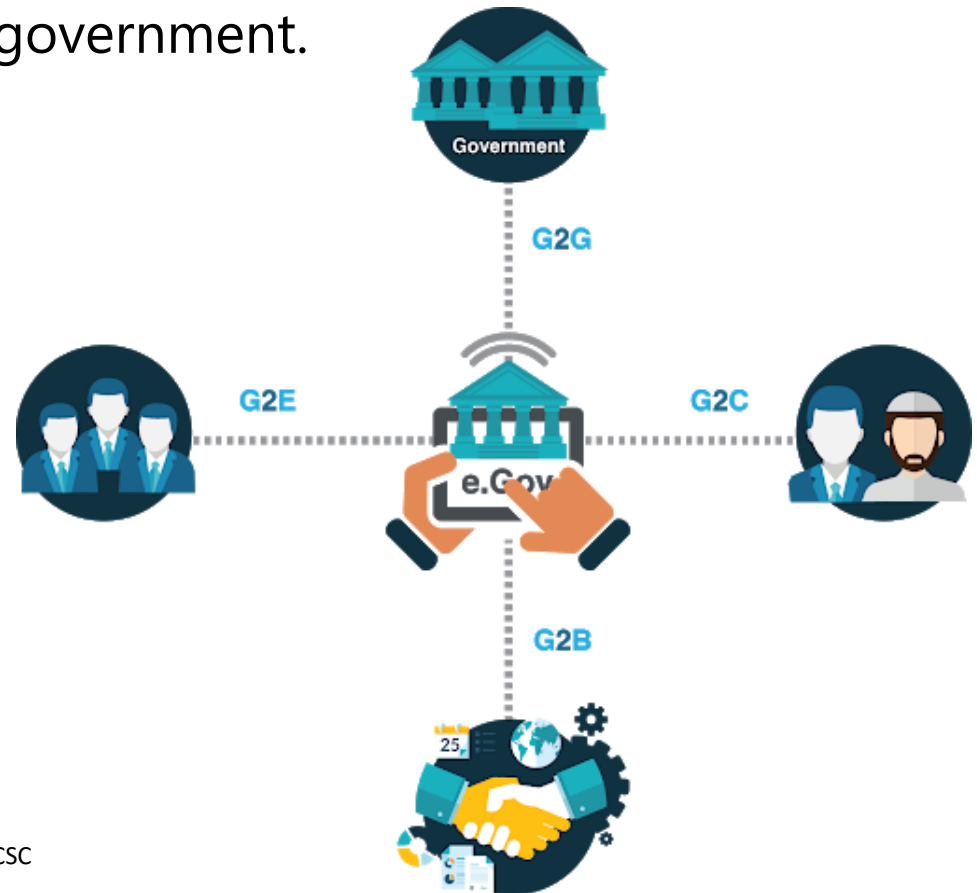
3.2 An Introduction to Mobile Commerce

- Mobile commerce (m-commerce) relies on the use of mobile devices, such as tablets and smartphones, to place orders and conduct business.

- Mobile Web sites are growing rapidly because of advances in wireless broadband technologies, the development of new and useful applications, and the availability of less costly powerful smart phones.

Source : Payment Week

An Introduction to Mobile Commerce cont...

Highly rated m-commerce retail Web sites

Rank	Company
1	eBay
2	Amazon
3	Apple
4	Burberry
5	John Lewis
6	Lush

Source: Goldfingle, Gemma, "The Top 10 M-Commerce Sites, according to OC&C's Proposition Index," RetailWeek, January 25, 2016, www.retail-week.com/technology/online-retail/the-top-10-m-commerce-sites-according-to-occs-prop osition-index/7004140.fullarticle.

Activity

1. Match suitable example for the given mobile commerce area?

Mobile Banking

Mobile Purchase

Mobile Investment

3.3 Advantages of Electronic and Mobile Commerce

- Reach New Customers

- Reduce Costs

- Speed the Flow of Goods and Information

- Increase Accuracy

- Improve Customer Service

3.4 Electronic and Mobile Commerce Applications

- Many B2B, B2C, C2C, and m-commerce applications are in retail and wholesale, manufacturing, marketing, advertising, bartering, retargeting, price comparison, couponing, investment and finance, and banking sectors.

3.4 Electronic and Mobile Commerce Applications cont..

- Manufacturing

  - Move supply chain operations onto the Internet.

  - Electronic exchange, an electronic forum where manufacturers, suppliers, and competitors buy and sell goods, trade market information, and run back-office operations, such as inventory control.
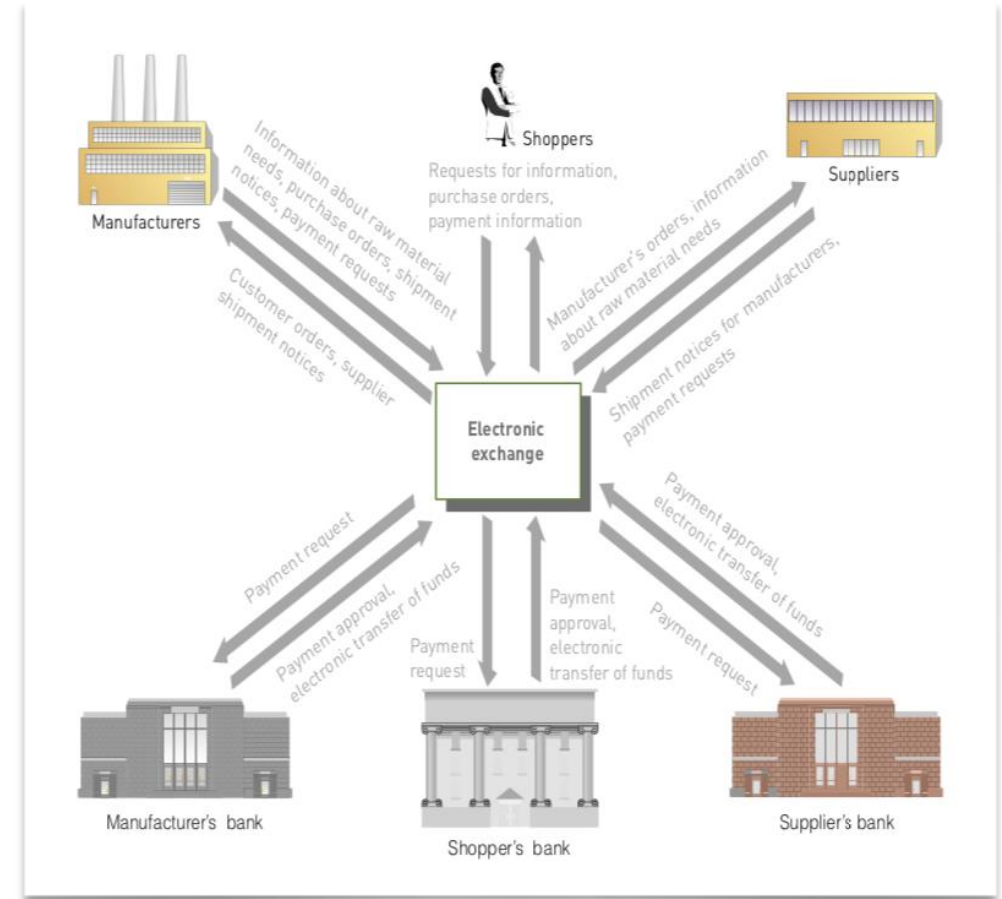
3.4 Electronic and Mobile Commerce Applications cont..

- Marketing
    - Gather more information about customer behavior and preferences.
    - Use the data to identify specific markets and target them with tailored advertising messages.
    - Market segmentation, divides the pool of potential customers into subgroups in terms of demographic characteristics, such as age, gender, marital status, income level, and geographic location.

Example:

Source:information security.report

3.4 Electronic and Mobile Commerce Applications cont..

Advertising

- Mobile ad networks distribute mobile ads to publishers such as mobile Web sites, application developers, and mobile operators.

- The main measures are the number of users reached, click through rate (CTR), and the number of actions users take, such as the number of downloads prompted by the ad.

Characteristics of three types of mobile advertising networks			
Characteristic	**Blind Networks**	**Premium Blind Networks**	**Premium Networks**
Degree to which advertisers can specify where ads are run	An advertiser can specify country and content channel (e.g., news, sports, or entertainment) on which the ad will run but not a specific Web site.	Most advertising is blind, but for an additional charge, the advertiser can buy a specific spot on a Web site of its choice.	Big brand advertisers can secure elite locations on top-tier destinations.
Predominant pricing model and typical rate	CPC (e.g., $0.01 per click)	CPM (e.g., $20 per thousand impressions)	CPM (e.g., $40 per thousand impressions)
Examples	Admoda/Adultmoda AdMob, BuzzCity, InMobi	Jumptap Madhouse Millennial Media Quattro Wireless	Advertising.com/AOL Hands Microsoft Mobile Advertising Nokia Interactive Advertising Pudding Media YOC Group

3.4 Electronic and Mobile Commerce Applications cont..

- Bartering

  - An attractive alternative to paying scarce dollars.

  - to reduce excess inventory, gain new customers, or avoid paying cash for necessary raw materials or services.

Popular bartering Web sites	
Web site	**Purpose**
Craiglist.org	Includes a section where users can request an item in exchange for services or exchange services for services
Swapagift.com	Enables users to buy, sell, or swap merchant gift cards
Swapstyle.com	Allows users to swap, sell, or buy direct women's accessories, clothes, cosmetics, and shoes
Swaptrees.com	Users trade books, CDs, DVDs, and video games on a one- for-one basis
TradeAway.com	Enables users to exchange a wide variety of new or used items, services, or real estate

3.4 Electronic and Mobile Commerce Applications cont..

- Investment and Finance

    - The Internet has revolutionized the world of investment and finance.

    - Online trading enables investors to do quick, thorough research and then buy shares in any company in a few seconds.

3.4 Electronic and Mobile Commerce Applications cont..

- Banking

    - Online banking customers can check balances of their savings, checking, and loan accounts; transfer money among accounts; and pay bills.

    - Consumers who have enrolled in mobile banking and downloaded the mobile application to their cell phones can check credit card balances before making major purchases to avoid credit rejections.

    - They can also transfer funds from savings to checking accounts to avoid an overdraft.

Example:

m-pesa

Most developed mobile payment system in the world

3.4 Electronic and Mobile Commerce Applications cont..

- Online Personalized Shopping

Activity- Discuss in Forums

1. Identify top ranked e-commerce or mobile commerce applications used in Sri Lanka.

2. Explain how e-commerce or mobile commerce ease human life ?

3. Explain limitations of using e-commerce websites in developing country like Sri Lanka?

3.5 Strategies for Successful E-Commerce and M-Commerce

- Defining an Effective E-Commerce Model and Strategy

  - The most successful e-commerce models include three basic components: community, content, and commerce.

- Defining the Functions of a Web Site

  - Obtaining general information about the organization.

  - Obtaining financial information for making an investment decision in the organization.

  - Learning the organization's position on social issues.

  - Learning about the products or services that the organization sells.

  - Buying the products or services that the company offers

  - Checking the status of an order

  - Obtaining general information about the organization.

  - Getting advice or help on effective use of the products.

  - Registering a complaint about the organization's products.

  - Registering a complaint concerning the organization's position on social issues.

  - Providing a product testimonial or an idea for product improvement or a new product.

  - Obtaining information about warranties or service and repair policies for products.

  - Obtaining contact information for a person or department in the organization .

3.5 Strategies for Successful E-Commerce and M-Commerce cont...

- Establishing a Web Site

  - In-House Development - experienced Web development staff with HTML,

    Java, and Web design software.

  - Outsourcing

  - Web development firms provide organizations with prebuilt templates and

    Web site builder tools to construct their own Web sites.

  - Design a new Web site .

  - Redesign an existing Web site.

  - Storefront broker, intermediary between Web site and online merchants.

Source: RS Web Solution

3.5 Strategies for Successful E-Commerce and M-Commerce cont...

- Building Traffic to Your Web Site

  - First step is to obtain and register a domain name .

    Example: *www.soccerequipment.com*

  - Second step is attracting customers is to make your site search-engine friendly by improving its rankings.
    - Include meta tags
    - Use Web site traffic data analysis
    - Provide quality, keyword-rich content
    - Add new content to the Web site on a regular basis
    - Acquire links to your site from other reputable Web sites

3.5 Strategies for Successful E-Commerce and M-Commerce cont…

- Maintaining and Improving Your Web Site

  - Web site operators must also continually be alert to new trends and developments in the area of e-commerce .

  - Personalization

    - Implicit personalization techniques - capture data from actual customer Web sessions .

    - Explicit personalization techniques capture user provided information, such as warranties, surveys, user registrations, and contest entry forms completed online.

Activity

Fill the blanks with the appropriate word given in the list below.

Implicit personalization ,Community , Outsourcing

1. The most successful e-commerce models include a component called ....

2. ……………………………………… techniques capture data from actual customer Web sessions .

3. …………………………… is a one method to establish a web site.

3.6 Technology Infrastructure Required to Support E-Commerce and M-Commerce
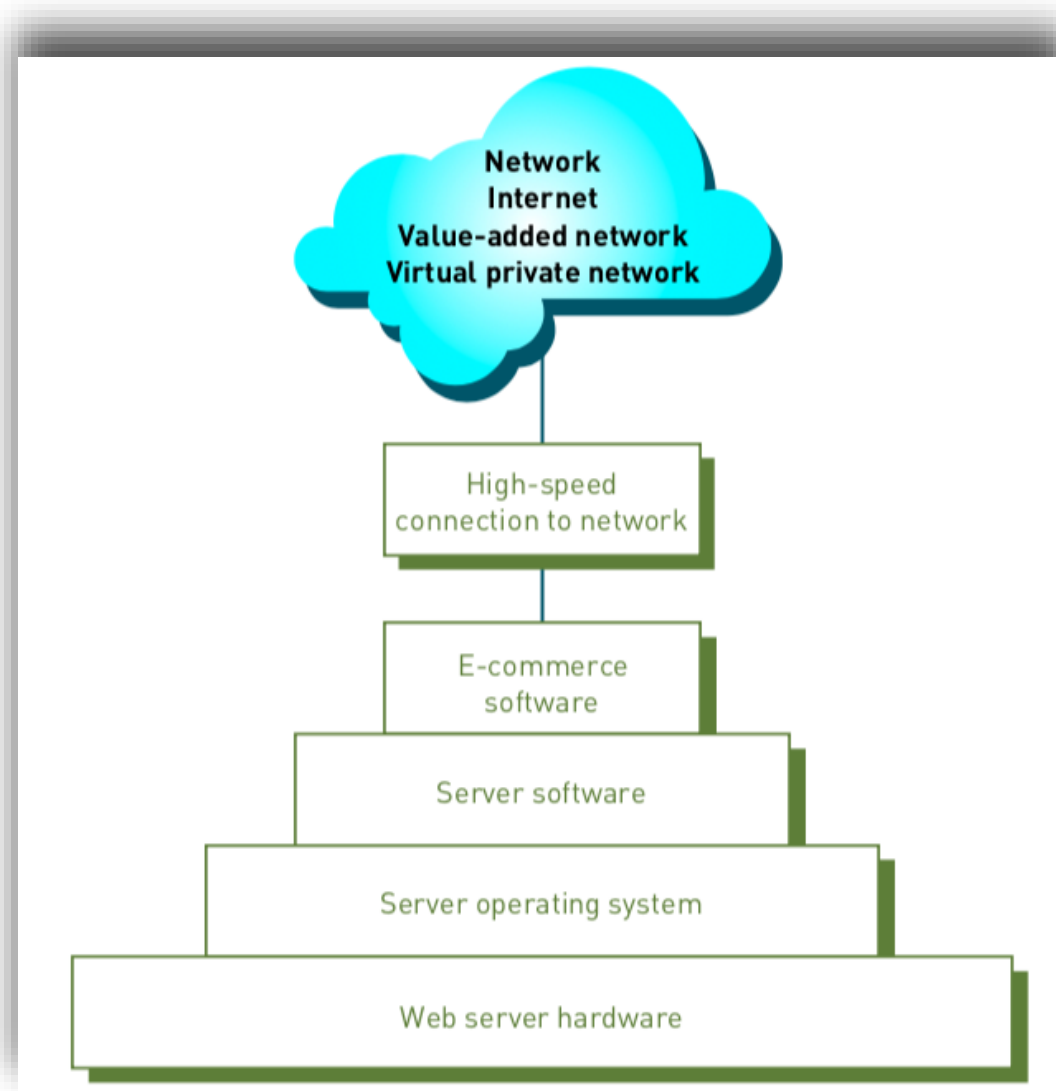
3.6 Technology Infrastructure Required to Support E-Commerce and M-Commerce cont...

- Web server hardware depends primarily on two things: the software that must run on the server and the volume of e-commerce transactions that must be processed.

- Web server software to perform fundamental services including
  - Security and identification,
  - Retrieval and sending of Web pages,
  - Web site tracking,
  - Web site development,
  - Web page development.

3.6 Technology Infrastructure Required to Support E-Commerce and M-Commerce cont...

- e-commerce software supports five core tasks,
    - Catalog management
    - product configuration
    - Shopping cart facilities
    - e-commerce transaction processing
    - Web traffic data analysis

- Encryption can provide secure transmission. Digital certificates can ensure that transactions are made between the intended parties.

- Electronic payment system including electronic cash, electronic wallets, and smart, credit, charge, and debit cards.

Activity

Multiple choice questions.

1. .... involves conducting business activities (e.g., distribution, buying, selling, marketing, and servicing of products or services) electronically over computer networks.
a. B2B
b. C2C
c. B2C
d. E-commerce

2. The largest B2C retailer in the United States is .
a. Amazon
b. Staples
c. Apple
d. Walmart

3. .... is not a key challenge for e-commerce.
a. Dealing with consumer privacy concerns
b. Training customers on how to access and use
e-commerce Web sites
c. Overcoming consumers' lack of trust
d. Overcoming global issues

Activity

Post the answers for the following questions in ....forum.

1. Identify the key elements of the technology infrastructure required to successfully implement e-commerce within an organization.

2. Discuss how you might go about increasing the amount of traffic to your Web site.