KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act 1956)
Eachanari (po), Coimbatore-21

DEPARTMENT OF CS, CA & IT

Semester – VI

16CTU602A **E-COMMERCE TECHNOLOGIES** **4H – 4C**

Instruction Hours / week: L: 4 T: 0 P: 0 **Marks:** Int : **40** Ext : **60** Total: **100**

SCOPE

- Students would be able to analyze the concept of electronic market and market place.
- Students would be able to understand the business models and standards

OBJECTIVES

- To develop an understanding of scope of E-Commerce .
- To develop an understanding of electronic market and market place.
- To develop an understanding of business models.
- To develop an understanding of legal issues,threats of E-Commerce

UNIT I -An Introduction to Electronic commerce

What is E-Commerce (Introduction And Definition), Main activities E-Commerce, Goals of E-Commerce, Technical Components of E-Commerce, Functions of E-Commerce, Advantages and disadvantages of E-Commerce, Scope of E-Commerce,Electronic Commerce Applications, Electronic Commerce and Electronic Business (C2C) (C2G, G2G, B2G, B2P, B2A, P2P, B2A, C2A, B2B, B2C)

UNIT II -The Internet and WWW

Evolution of Internet, Domain Names and Internet - Organization (.edu, .com, .mil, .gov, .net etc), Types of Network, Internet Service Provider, World Wide Web, Internet & Extranet, Role of Internet in B2B Application, building own website, cost, time, reach, registering a domain name, web promotion, Target email, Banner, Exchange, Shopping Bots.

UNIT III: Electronic data

Electronic data exchange introduction, concepts of EDI and Limitation, Application of EDI, Disadvantages of EDI, EDI model, Electronic Payment System: Introduction, Types of Electronic Payment system, Payment types, Value exchange system, credit card system electronic fund transfer, Paperless bill, modern payment cash, Electronic cash.

UNIT IV: Planning for Electronic Commerce

Planning Electronic commerce initiates, linking objectives to business strategies, measuring cost objectives, comparing benefits to Costs, strategies for developing electronic commerce web sites.

UNIT V : Internet marketing

The PROS and CONS of online shopping, the CONS of online shopping, Justify an internet business, Internet marketing techniques, The E-Cycle of Internet marketing, personalization e-commerce.

Suggested Readings

1.G.S.V.Murthy (2011). E-Commerce concepts, Models, Strategies. Himalaya Publishing house.

2. Gray. P. Schneider (2011). Electronic commerce International student edition.

3. Henry Cahn, Raymond Lee, Tharam Dillon, Elizabeth Chang. (2011). E-Commerce fundamentals and Applications. Wiley Student Edition.

4. Kamlesh K.Bajaj and Debjani Nag (2005).E-Commerce.

5. David Whitley (2000).E-Commerce-strategies, Technologies and Applications. TMH.

Websites

1. http://www.tutorialspoint.com/e_commerce/e_commerce_tutorial.pdf
2. http://www.dynamicwebs.com.au/tutorials/e-commerce.htm
3. http://www.htmlgoodies.com/beyond/webmaster/projects/electronic-commerce-tutorial.html

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Pollachi Main Road, Eachanari Post, Coimbatore - 641021
(For the candidates admitted from 2016 onwards)
DEPARTMENT OF CS, CA & IT

SUBJECT : E-COMMERCE TECHNOLOGIES **SEMESTER : VI**
SUBJECT CODE: 16CTU602A **CLASS : III B.SC(CT)**

LECTURE PLAN

S.NO	LECTURE DURATION (Hour)	TOPICS TO BE COVERED	SUPPORT MATERIALS
		UNIT I	
1	1	**An Introduction to Electronic commerce:** What is E-Commerce?	SR1:8,w1
2	1	Main activities E-Commerce	SR1:9-10
3	1	Goals of E-Commerce, Technical Components of E-Commerce	SR1:11-13
4	1	Functions of E-Commerce, Advantages and disadvantages of E-Commerce	SR1:14-16,21-22,w1
5	1	Scope of E-Commerce,Electronic Commerce Applications	SR1:25-26,29
6	1	Electronic Commerce and Electronic Business (C2C)	SR1:45
7	1	C2G, G2G, B2G, B2P, B2A, P2P, B2A, C2A, B2B, B2C	SR1:46-49,w1
8	1	**Recapitulation of Unit I and Discussion of Important Questions**	
		Total no. of Hours Planned for Unit – I	**8 Hrs**
		UNIT – II	
1	1	**The Internet and WWW :** Evolution of Internet	SR1:101
2	1	Domain Names and Internet – Organization, Types of Network	SR1:105-107
3	1	Internet Service Provider,	SR1:137-138
4	1	World Wide Web	SR1:141,w2
5	1	Internet & Extranet	SR1:553-557
6	1	Role of Internet in B2B Application	SR1:561-562
7	1	Building own website, cost, time, reach, registering a domain name	SR1:240-245
8	1	Web promotion, Target email, Banner, Exchange, Shopping Bots	SR1:245-250

9	1	**Recapitulation of Unit II and Discussion of Important Questions**	
		Total no. of Hours Planned for Unit – II	**9 Hrs**
		UNIT III	
1	1	**Electronic data:** Electronic data exchange introduction	S2 Pg.No:212
2	1	Concepts of EDI and Limitation, Application of EDI	SR1:618-619
3	1	Disadvantgaes of EDI, EDI model	SR1:620-621
4	1	Electronic Payment System: Introduction	S2 Pg.No:387
5	1	Types of Electronic Payment system, Payment types	S2 Pg.No:388-390
6	1	Value exchange system, credit card system electronic fund transfer	
7	1	Paperless bill, modern payment cash, Electronic cash	S2 Pg.No:394,
8	1	**Recapitulation of Unit III and Discussion of Important Questions**	
		Total no. of Hours Planned for Unit - III	**8 Hrs**
		UNIT IV	
1	1	**Planning for Electronic Commerce:** Introduction	S2 Pg.No:416
2	1	Planning Electronic commerce initiates	S2 Pg.No:417
3	1	Linking objectives to business strategies	S2
4	1	Measuring cost objectives	S2 Pg.No:417-422
5	1	Comparing benefits to Costs	S2 Pg.No:422-426
6	1	Strategies for developing electronic commerce web sites	S2 Pg.No:426-431
7	1	**Recapitulation of Unit IV Discussion of Important Questions**	
		Total no. of Hours Planned for Unit - IV	**7 Hrs**
		UNIT V	
1	1	**Internet marketing:** The PROS and CONS of online shopping, the CONS of online shopping	S6 Pg.No: 264 – 265,w4
2	1	Justify an internet business, Internet marketing techniques	S6 Pg.No: 265 - 271
3	1	The E-Cycle of Internet marketing	S6 Pg.No: 272 - 275

4	1	Personalization e-commerce	S6 Pg.No: 278, 279
5	1	**Recapitulation of Unit V and discussion of important Questions**	
6	1	**Discussion of Previous Year ESE Question Paper**	
7	1	**Discussion of Previous Year ESE Question Paper**	
8	1	**Discussion of Previous Year ESE Question Paper**	
		Total no. of Hours Planned for Unit - V	**8 Hrs**
		Total Planned Hours	**40 Hrs**

SUPPORTING MATERIAL

SR1.G.S.V.Murthy (2011). E-Commerce concepts, Models, Strategies. Himalaya Publishing house.
SR2. Gray. P. Schneider (2011). Electronic commerce International student edition.
SR3. Henry Cahn, Raymond Lee, Tharam Dillon, Elizabeth Chang. (2011). E-Commerce fundamentals and Applications. Wiley Student Edition.
SR4. Kamlesh K.Bajaj and Debjani Nag (2005).E-Commerce.
SR5. David Whitley (2000).E-Commerce-strategies, Technologies and Applications. TMH.
SR6. Elias M. Awad (2007), Electronic Commerce from vision to Fulfillment, Thrid edition.

Websites

1. http://www.tutorialspoint.com/e_commerce/e_commerce_tutorial.pdf
2. http://www.dynamicwebs.com.au/tutorials/e-commerce.htm
3. http://www.htmlgoodies.com/beyond/webmaster/projects/electronic-commerce-tutorial.html
4. https://www.thebalance.com/the-pros-and-cons-of-online-shopping-939775

UNIT-I

SYLLABUS

UNIT I -An Introduction to Electronic commerce
What is E-Commerce (Introduction And Definition), Main activities E-Commerce, Goals of E-Commerce, Technical Components of E-Commerce, Functions of E-Commerce, Advantages and disadvantages of E-Commerce, Scope of E-Commerce, Electronic Commerce Applications, Electronic Commerce and Electronic Business (C2C) (C2G, G2G, B2G, B2P, B2A, P2P, B2A, C2A, B2B, B2C)

INTRODUCTION AND DEFINITION

Basics of E-commerce:

Business:-

A business is an organization engaged in the trade of goods, services, or both to consumers.

Commerce: -

The buying and selling of products and services between firms, usually in different status or countries.

- **E-commerce** is the activity of buying or selling of products on online services or over the Internet.
- Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.
- Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle although it may also use other technologies such as e-mail.
- Typical e-commerce transactions include the purchase of online books (such as Amazon) and music purchases (music download in the form of digital distribution such as iTunes Store), and to a less extent, customized/personalized online liquor store inventory services.
- There are three areas of e-commerce: online retailing, electric markets, and online auctions.
- E-commerce is supported by electronic business.

E-Commerce provides the following features:

• **Non-Cash Payment:** E-Commerce enables the use of credit cards, debit cards, smart cards, electronic fund transfer via bank's website, and other modes of electronics payment.

• **24x7 Service availability:** E-commerce automates the business of enterprises and the way they provide services to their customers. It is available anytime, anywhere.

• **Advertising/Marketing:** E-commerce increases the reach of advertising of products and services of businesses. It helps in better marketing management of products/services.

• **Improved Sales:** Using e-commerce, orders for the products can be generated anytime, anywhere without any human intervention. It gives a big boost to existing sales volumes.

• **Support:** E-commerce provides various ways to provide pre-sales and post-sales assistance to provide better services to customers.

• **Inventory Management:** E-commerce automates inventory management. Reports get generated instantly when required. Product inventory management becomes very efficient and easy to maintain.

• **Communication improvement**: E-commerce provides ways for faster, efficient, reliable communication with customers and partners

MAIN ACTIVITIES E-COMMERCE

Electronic commerce is the process of conducting commercial transactions electronically over
the Internet. This process is carried out primarily in five levels, and the main aspect of e
-commerce is a merchant selling products or service to the consumers. There are five major
segments under the broader category of e-business. However, the following are some popular e-commerce models used by companies engaged in e-commerce:

-•
Business to business e-commerce (B2B)
• Business to consumers e-commerce (B2C)
• Consumers to consumers ecommerce (C2C)
• Business to employees e-commerce (B2E) and
• Consumer to business e-commerce (C2B)

Business to Business E-commerce (B2B)

Business to Business e-commerce provides small and medium enterprises (SMES) with an excellent opportunity to access new markets, improve customer service and reduce costs. And
while hurdles exist, they should be viewed more as speed breakers rather than road barriers. As a medium of information storage and dissemination, the internet has and is emerging a clear
winner. Its rate of penetration has far outpaced the growth of other popular media such as
newspaper, radio and television.

Business to Consumers E-commerce (B2C)

B2C is the most popular form of e-commerce, wherein the individuals are directly involved in
B2C e-commerce, and businesses use the internet for offering their products or services 24 hours 15 a day through global access. The sites Amazon.com and Rediff are among these. These websites
spell goods directly to consumers over the Internet. The two way accessibility feature of the
internet enables operating companies to ascertain consumer preferences and buying trends directly.

Consumer to Consumer E-commerce (C2C)

This form of e-commerce is nothing but the cyber version of the good old auction houses. If
anyone wants to sell anything, all one has to do is post a message on the site, giving details of the product and the expected price and wait for an interested customer to turn up and buy it. The
buyer gets in touch with the seller through the Internet and the deal is crossed once the amount is finalised. Online message boards and barters are also examples of C2C e-commerce.

Consumer-to-Business E-commerce (C2B)

E-commerce, by empowering the customer, has been strategically redefining business. An example of C2B model of e-commerce is the site Price line.Com, which allows prospective
airline travellers, tourists in need of hotel reservations etc. to visit its websites and indicate their preferred price for travel between any two cities. If an airline is willing to issue a ticket on the customers offered price, the consumer can then travel to the mentioned destination at his

terms.

Business to Employees E-commerce (B2E)

This is concerned more with marketing a corporation's internal processes more efficiently. Customer care and support activities also hold ground. The requirement is that are all self-service with applications on the web that the employees can use themselves

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GOALS OF E-COMMERCE

- Catch more customer.
- Increase the traffic.
- Make more sale.
- Build a good will.
- Best customer service.
- Minimum Shipping time.
- Increase the number of reviews.
- Get Positive feedback.
- Reduce the number of refund item.
- Customer follow up

TECHNICAL COMPONENTS OF E-COMMERCE

Technical Components of E-Commerce are:

ISDN

Integrated Services Digital Network (ISDN) is a set of communication standards for digital telephone connection and the transmission of voice and data over a digital line. These digital lines are commonly telephone lines and exchanges established by the government. Before ISDN, it was not possible for ordinary telephone lines to provide fast transportation over a single line.

ISDN was designed to run on digital telephone systems that were already in place. As such, it meets telecom's digital voice network specifications.

Broadband

This refers to high-speed data transmission in which a single cable can carry a large amount of data at once. The most common types of Internet broadband connections are cable modems (which use the same connection as cable TV) and DSL modems (which use your existing phone line). Because of its multiple channel capacity, broadband has started to replace baseband, the single-channel technology originally used in most computer networks.

ADSL

ADSL (Asymmetric Digital Subscriber Line) is a technology for transmitting digital information at a high bandwidth on existing phone lines to homes and businesses. Unlike regular dialup

phone service, ADSL provides continously-available, "always on" connection. ADSL is asymmetric in that it uses most of the channel to transmit downstream to the user and only a small part to receive information from the user. ADSL simultaneously accommodates analog (voice) information on the same line. ADSL is generally offered at downstream data rates from 512 Kbps to about 6 Mbps

Cable modem

A cable modem is a peripheral device used to connect to the Internet. It operates over coaxcable TV lines and provides high-speed Internet access. Since cable modems offer an always-on connection and fast data transfer rates, they are considered broadband devices.

FUNCTIONS OF E-COMMERCE

These are the typical functions of an e-commerce system available both on back office and front office:

- Registration
- Basket
- Payment
- Product management
- Orders management
- VAT and shipping costs

Registration

In order to make a purchase, users must register with the site, providing all the information needed for shipping and billing.
The data will be stored on a database and will be available from the back office.

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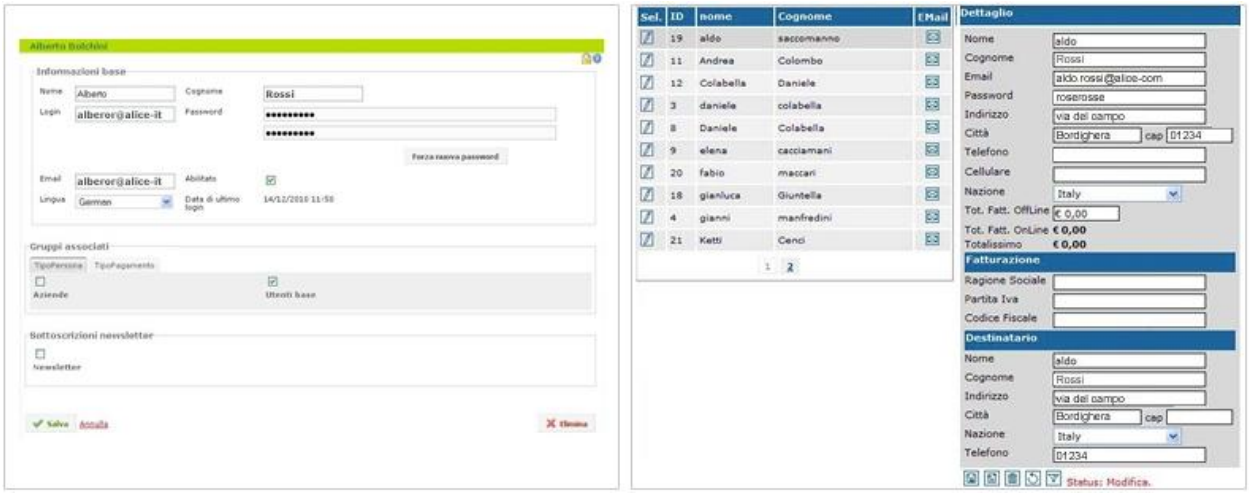
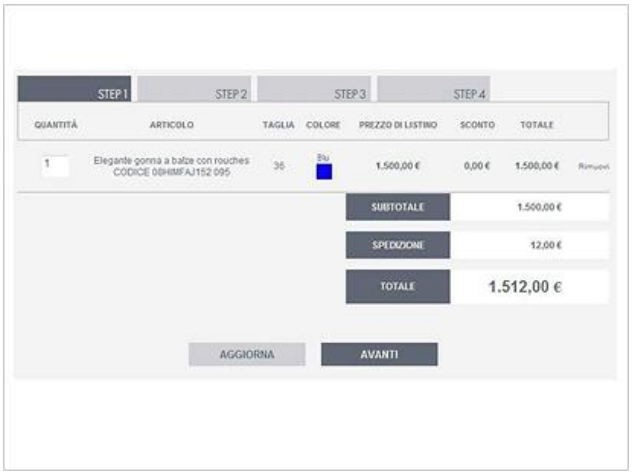


Basket



The basket is a tool that, like a shopping basket, allows users to select the products they want and then go to the checkout for payment.
Managing the basket means:

- summarising user requests within the possibilities offered by the catalogue
- checking the basket and possibly cancel/modify the items placed in it
- starting the payment process for the selected products

Payment

The payment system is a mechanism that facilitates dialogue between the parties involved in

financial transactions: the bank, the store and you with your credit card.

After filling in the order, the customer enters his/her credit card number that travels along a channel solely accessible to the bank. The bank checks the customer's account and decides whether or not to authorise the payment.

The operation takes a few moments. If approved, the bank performs the transaction and transfers the payment to the account. If denied the user is notified that the transaction cannot be completed and his order is cancelled.

Product management

This is the main part of the e-commerce system and provides all the features required for product placement, order fulfilment, etc.., key to the management of online sales.

In detail the features in the system are:

- **Product management**: this makes it possible to define a product via a set of standard fields:
  - product code
  - category
  - subcategory
  - product name
  - description
  - image, zoom
  - sizes available
  - price in euros
  - 'pieces' in stock

  The products can be searched by category and subcategory.
  The back-office feature that allows you to associate related products to further stimulate online sales is very useful.

- **Order management**: the order is the card that summarises all the delivery and order information to enable correct delivery. It includes:
  - list of products purchased
  - user information

- details of place of delivery
- delivery time information
- payment information

Managing the order means crossing the information on the registration database, the data in the basket, the delivery information and verification data relating to the payment credit rating.

All this information is summarised in a form identified by a number or reference code (order number).

Listing orders and customer details

From the back office of the site you can search and sort orders by:

- customer
- order status
- date
- payment

Orders may be printed for attachment to the shipment (packing list).

VAT and shipping costs

In addition to the cost of products purchased, the system manages the VAT and the shipping charges.

The e-commerce module is able to manage VAT rates in countries within and outside the EU.

Shipping costs both fixed and variable based on the weight and volume of the shipment.

Discounts

Discounts and promotions are managed for a single product or product category.

This second phase of the site requires a detailed analysis of your current storage and order management systems with which it will be necessary to integrate.

Advantages to Organizations

- Using e-commerce, organizations can expand their market to national and international markets with minimum capital investment. An organization can easily locate more customers, best suppliers, and suitable business partners across the globe.
- E-commerce helps organizations to reduce the cost to create process, distribute, retrieve and manage the paper based information by digitizing the information.
- E-commerce improves the brand image of the company.
- E-commerce helps organization to provide better customer services.
- E-commerce helps to simplify the business processes and makes them faster and efficient.
- E-commerce reduces the paper work.
- E-commerce increases the productivity of organizations. It supports "pull" type supply management. In "pull" type supply management, a business process starts when a request comes from a customer and it uses just-in-time manufacturing way.

Advantages to Customers

- It provides 24x7 support. Customers can enquire about a product or service and place orders anytime, anywhere from any location.
- E-commerce application provides users with more options and quicker delivery of products.
- E-commerce application provides users with more options to compare and select the cheaper and better options.
- A customer can put review comments about a product and can see what others are buying, or see the review comments of other customers before making a final purchase.

- E-commerce provides options of virtual auctions.
- It provides readily available information. A customer can see the relevant detailed information within seconds, rather than waiting for days or weeks.
- E-Commerce increases the competition among organizations and as a result, organizations provides substantial discounts to customers.

Advantages to Society

- Customers need not travel to shop a product, thus less traffic on road and low air pollution.
- E-commerce helps in reducing the cost of products, so less affluent people can also afford the products.
- E-commerce has enabled rural areas to access services and products, which are otherwise not available to them.
- E-commerce helps the government to deliver public services such as healthcare, education, social services at a reduced cost and in an improved manner.

DISADVANTAGES OF ECOMMERCE

- Any one, good or bad, can easily start a business. And there are many bad sites which eat up customers' money.
- There is no guarantee of product quality.
- Mechanical failures can cause unpredictable effects on the total processes.
- As there is minimum chance of direct customer to company interactions, customer loyalty is always on a check.
- There are many hackers who look for opportunities, and thus an ecommerce site, service, payment gateways, all are always prone to attack.

The Scope of E-commerce

E-commerce encompasses a broad range of activities. The core component includes trading of physical goods and services. The conventional activities include.

• Searching for product information
• Ordering product

• Paying for goods and services
• Customer service

E-commerce also includes the business activities:

• Pre-sales and post –sales support
• Internal electronic mail and massaging
• Online publishing of corporate documents and forms
• Managing corporate finance and personal systems
• Manufacturing logistic management
• Supply chain management for inventory
• Facilitation of contact between traders
• Tracking orders and shipments
• Advertising and promotion of products and services

E-commerce beneficiaries:

• Benefit to customers
• Access to more information
• Rapid response to needs
• Lower cost and prices
• Global choice
• Easier market research and comparison
• Benefit and opportunities to suppliers
• Shortened supply chain
• Substantial cost saving
• Mass customization
• Global presence
• Competition on specialty
• Improved competitiveness

E-COMMERCE APPLICATIONS:

1)E-MARKETING : E-Marketing also known as Internet marketing, Online marketing, Web marketing. It is the marketing of products or services over the internet. It is consider to be broad in scope because not refers to marketing on the internet but also done in Email and wireless media. E-Marketing ties together the creative and technical aspects of the internet, including design development, advertising and sales. Internet marketing is associated with several business models ie., B2C, B2B, C2C. Internet marketing is inexpensive when examine the ratio of cost to the reach of the target.

2)E-ADVERTISING: It is also known as online advertising it is a form of promotion that uses internet and world wide web to deliver marketing messages to attracts customers. Example: Banner ads, Social network advertising, online classified advertising etc.The growth of these particular media attracts the attention of advertisers as a more productive source to bring in consumers. An online advertisement also offers various forms of animation. The term online advertisement comprises all sorts of banner advertisement, email advertising, in game advertising and key soon.

3) E-BANKING OR INTERNET BANKING: Means any user with a personal computer and browser can get connected to his banks, website to perform any of the banking functions. In internet banking system the bank has a centralized data base i.e., web-enabled. example for E-Banking is ATM.

SERVICES THROUGH E-BANKING:

- Bill payment service.
- Fund Transfer
- Investing through internet Banking
- Shopping

4) MOBILE-COMMERCE: Mobile Commerce also known as M-Commerce, is the ability to conduct, commerce as a mobile device, such as mobile phone. SERVICES ARE:

1. Mobile ticketing
2. Mobile Vouchers, Coupons and
3. Mobile contract purchase and delivery mainly consumes of the sale of ring tones, wallpapers and games of mobile phones.

5) E-LEARNING: E-Learning comprises all forms of electronically supported learning and teaching's-Learning specially the computer and network skills and knowledge's-Learning applications include web-based learning, computer-based learning. Content is delivered via. The internet, intranet, audio, or video tape, satellite TV, and ED-ROM.Computer-Based Learning, refers to the use of computers as a key component of the education environment.

6) ONLINE SHOPPING:- Online shopping is the process whereby consumer directly buy goods or services from a sell in real time, without an intermediary services over the internet . Online shoppers commonly use credit card to make payments, however some systems enable users to create accounts and pay by alternative means ,such as

1. Billing to mobile phones and landline.
2. Cheque.
3. Postal money order.

7) SEARCH ENGINE:- A web search engine is designed to search for information on the WWW and FTP servers. The search results are generally presented in list of result and are often called hits. The information may consist of web pages, images, information, and other types of files.

8) ONLINE TRADING:- An online trading community provides participants with a structured method for trading bantering (exchanging goods with goods) or selling goods and services. These communities often have forums and chat rooms, designed to facilitate communication between the members.

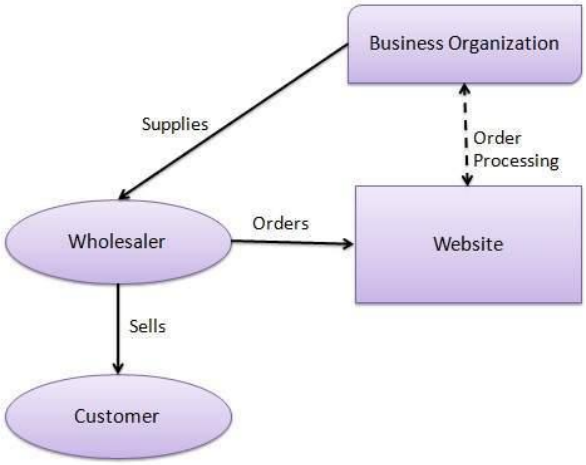
9) ENTERTAINMENT:- The conventional media that have been used for entertainment are
1. Books/magazines.
2. Radio.
3. Television/films.
4. Video games.

E-commerce business models can generally be categorized into the following categories.

- Business - to - Business (B2B)
- Business - to - Consumer (B2C)
- Consumer - to - Consumer (C2C)
- Consumer - to - Business (C2B)
- Business - to - Government (B2G)
- Government - to - Business (G2B)
- Government - to - Citizen (G2C)

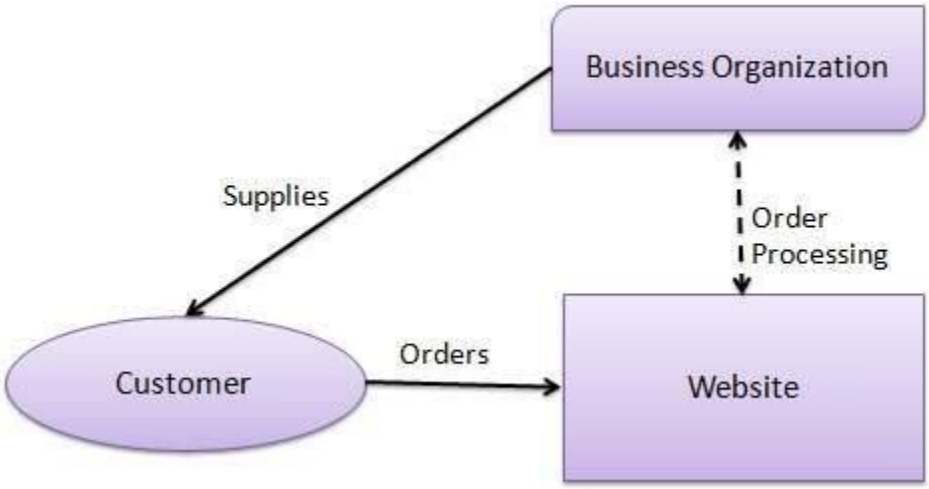
Business - to - Business

A website following the B2B business model sells its products to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company's website and after receiving the consignment, sells the endproduct to the final customer who comes to buy the product at one of its retail outlets.



Business - to - Consumer

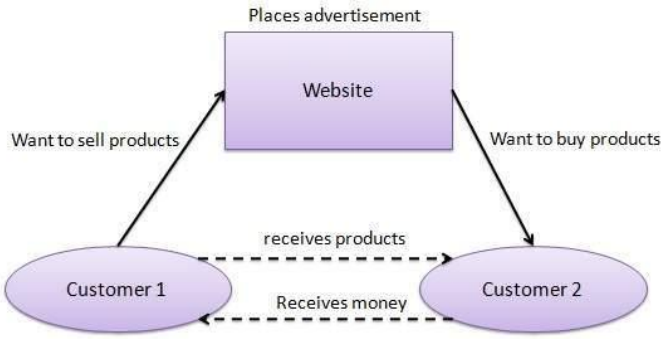
A website following the B2C business model sells its products directly to a customer. A customer can view the products shown on the website. The customer can choose a product and order the same. The website will then send a notification to the business organization via email and the organization will dispatch the product/goods to the customer.



Consumer - to - Consumer

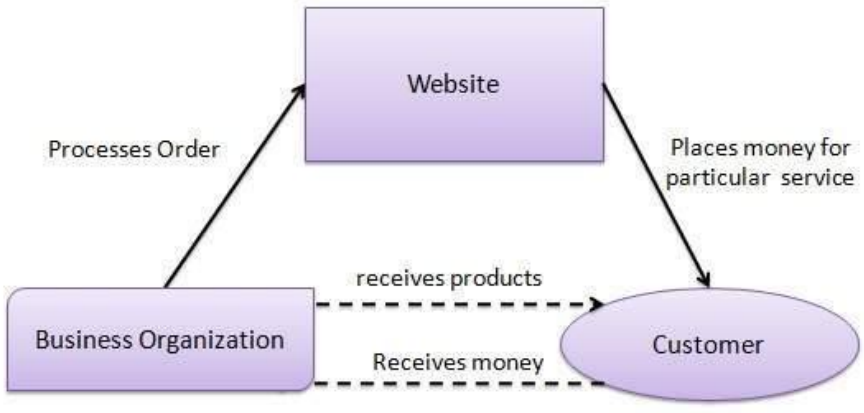
A website following the C2C business model helps consumers to sell their assets like residential property, cars, motorcycles, etc., or rent a room by publishing their information on the website.

Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website.



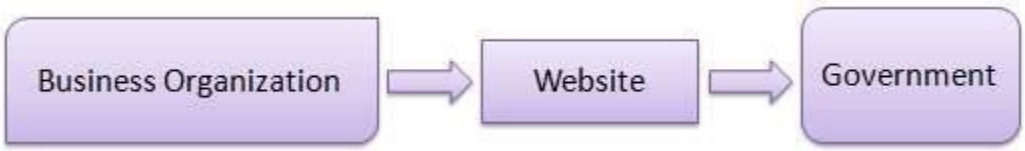
Consumer - to - Business

In this model, a consumer approaches a website showing multiple business organizations for a particular service. The consumer places an estimate of amount he/she wants to spend for a particular service. For example, the comparison of interest rates of personal loan/car loan provided by various banks via websites. A business organization who fulfills the consumer's requirement within the specified budget, approaches the customer and provides its services.



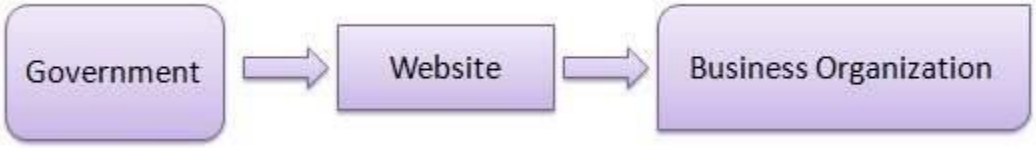
Business - to - Government

B2G model is a variant of B2B model. Such websites are used by governments to trade and exchange information with various business organizations. Such websites are accredited by the government and provide a medium to businesses to submit application forms to the government.



Government - to - Business

Governments use B2G model websites to approach business organizations. Such websites support auctions, tenders, and application submission functionalities.



Government - to - Citizen

Governments use G2C model websites to approach citizen in general. Such websites support auctions of vehicles, machinery, or any other material. Such website also provides services like registration for birth, marriage or death certificates. The main objective of G2C websites is to reduce the average time for fulfilling citizen's requests for various government services.

Consumer/Citizen-to-Government *(C2G)*

C2G applications usually include tax payment, issuance of certificates or other documents, etc. Although we cannot strictly define consumer or citizen to government as e-Commerce we can see several C2G applications under the scope of transactions that are done and handled more efficiently and effectively with e-Commerce systems and technologies.

Government to government (G2G)

Government to government (G2G) is the electronic sharing of data and/or information systems between government agencies, departments or organizations. The goal of G2G is to support e-government initiatives by improving communication, data access and data sharing.

What is 'Peer-to-Peer (P2P) Service'

A peer-to-peer (P2P) service is a decentralized platform whereby two individuals interact directly with each other, without intermediation by a third-party. Instead, the buyer and the seller transact directly with each other via the P2P service.

Consumer-to-Administration (C2A) or Administration-to-Consumer (A2C)

The C2A and A2C categories have emerged in the last decade. C2A examples include applications such as e-democracy. e-voting, information about public services and e-health. Using such services consumers can post concerns, request feedback, or information (on planning application progress) directly from their local governments/ authorities.

Business-to-Administration (B2A)

The B2A category covers all transactions that are carried out between businesses and government bodies using the Internet as a medium. This category has steadily evolved over the last few years. An example of a B2A model, is that of Accela.com, a software company that provides round the clock public access to government services for asset management, emergency response, permitting, planning, licensing,

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Established Under Section 3 of UGC Act 1956)
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(For the candidates admitted in 2016 onwards)

CLASS:III Bsc CT
16CTU602A - E-COMMERCE TECHNOLOGIES
UNIT 1

QUESTIONS	OPTION A	OPTION B	OPTION C	OPTION D	ANSWER
website of an educational institute provides informations regarding various…..	courses contents	students	faculty	all of these	all of these
today,internet has being very popular among…..	shopping	paying bills	banking	all of these	all of these
today many business have set up their own….	offices	websites	farms	factories	websites
….was one of the first applications of E-commerce on internet	scrabble	facebook	bookshops	playstore	bookshops
customers prefer purchasing books via….	internet	physical store	a mail	banks	internet
……..is an online bookstore website	www.amazon.com	www.gswan.gov.in	www.irctc.co.in	none of these	www.amazon.com
an electronic newspaper is also know as……	Elec-paper	M-paper	E-newspaper	E-paper	E-newspaper
The electronic newspaper has advantage over the……	printed newspaper	television news	radio news	all of these	all of these
the electronic newspaper removes the hassle of ….process.	reading	printing	writing	browsing	printing
with the advent of….technologies,the browser can be set to select the news interest of the reader.	digital	hybrid	android	analog	digital
…is the example of E-newspaper.	flipkart	amazon	washington post	washington DC	washington post
……..refers to business and organizations that sells products or services to consumers over the Internet using websites.	B2C	B2B	C2C	C2B	B2C
In……..business models the sellers can sell products directly to consumers.	B2C	B2B	C2C	C2B	B2C
apart from online retailing, ……..business model also includes services like online banking services.	B2C	B2B	C2C	C2B	B2B

……..is an example of B2C website	Rediff.com	fabmart.com	flipkart.com	d)All of these	All of these
Example of a …….. website is amazon.com.	B2C	B2B	C2C	C2B	B2B
……..refers to E-commerce activities between different business partners.	B2B	B2C	C2C	C2B	B2B
Auctions implemented using E-commerce technologies are known as……..auction.	traditional	physical	stand alone	online	online
An E-commerce feature is……..	Electronic advertising	b)E-payment system is followed	Reduces the per transaction cost	All of these	All of these
……..is the key factor for the growth of E-commerce in India.	The growth of technology facility	Increase in use of much wider product range	Evolution of the market place	All of these	All of these
Almost……..of Indian E-commerce business uses cash-on-delivery mechanism	50%	60%	80%	100%	80%
Which of the following is a good example of C2C model ?	Auction sites	E-newspaper	Online purchasing	Information services	Auction sites
Which of the following e-commerce business model is also part of E-governance ?	Business to Business (B2B)	Consumer to Business (c2B)	Consumer to Consumer (C2C)	Government to Citizen (G2C)	Government to Citizen (G2C)
.....option shows the Consumer to Business-C2B model.	www.bidstall.com	www.JeetLe.in	and both	www.amazon.com	and both
What is customer in B2B?	Independent person	b) Institute	With Navigation	Purchaser	Institute
.....is the most used e-commerce business model.	B2C and B2B	C2C and B2B	B2C and C2C	C2B and B2C	B2C and B2B
How the products are displayed in Consumer to Consumer-C2C model ?	Name wise	Category wise	As a Map	With Navigation	Category wise
……..refers to online non-commercial communication between the Government agencies and Government departments	G2B	G2G	G2C	G2E	G2G

The sharing of information on……..website helps in reducing IT costs.	G2C	G2B	G2G	G2E	G2B
In……..E-commerce model, the consumers are individuals	B2C	B2B	C2B	C2C	B2C
……..refers to the services and information provided by the government to the business organizations.	G2B	G2C	G2G	G2E	G2B
Commodity.com is an example of a ……..model of website.	C2C	B2C	B2B	C2B	B2B
Tradeindia.com is an example of a ……..model of website.	C2C	B2C	B2B	C2B	B2C
……..refers to E-commerce activities involving transactions between and among the consumers.	C2C	B2C	B2B	C2B	C2C
……..deals directly without involvement of third party.	B2C	C2C	B2B	C2B	C2C
Any Internet user can become a vendor of purchaser at……..websites.	B2C	B2B	C2C	C2B	C2C
Auctions sites are good example of……..model.	B2C	B2B	C2C	C2B	C2C
Example of a …….. website is amazon.com	B2C	B2B	C2C	C2B	B2B

UNIT-II

SYLLABUS

The Internet and WWW
Evolution of Internet, Domain Names and Internet - Organization (.edu, .com, .mil, .gov, .net etc), Types of Network, Internet Service Provider, World Wide Web, Internet & Extranet, Role of Internet in B2B Application, building own website, cost, time, reach, registering a domain name, web promotion, Target email, Banner, Exchange, Shopping Bots.

Evolution of Internet

The **Internet** is the global system of interconnected computer networks that use the Internet protocol suite (TCP/IP) to link devices worldwide. It is a *network of networks* that consists of private, public, academic, business, and government networks of local to global scope, linked by a broad array of electronic, wireless, and optical networking technologies. The Internet carries a vast range of information resources and services, such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), electronic mail, telephony, and file sharing.

DOMAIN NAME SYSTEM (DNS)

- IP address are tough for human to remember and impossible to guess. Domain Name System are usually used to translate a hostname or Domain name (eg. nec.edu.np) into an IP address (eg. 202.37.94.177).
- DNS makes its possible to refer to the Internet protocol(IP) based system(hosts) by human friendly names (domain names).
- Name resolution is that act of determining the IP address of a given hostname.
- The benefits of DNS are two folds. First Domain Name can be logical and easily remembered. Secondly, should an IP address for a host change, the domain name can still resolve transparently to the users or application.
- DNS name resolution is a critical Internet service. Many network services require functional name service for correct operation.
- Domain names are separated by dots with the topmost element on the right.
- Each element may be up to 63 characters long; the entire name may be at most 255 characters long. Letters, numbers or dashes may be used in an element.

Domain Name Space:

To have a hierarchical name space, a domain name space was designed. In this design the names are defined in aninverted-treestructurewiththeroot atthe top.Thetreecanhave only128levels: level0(root)tolevel127.

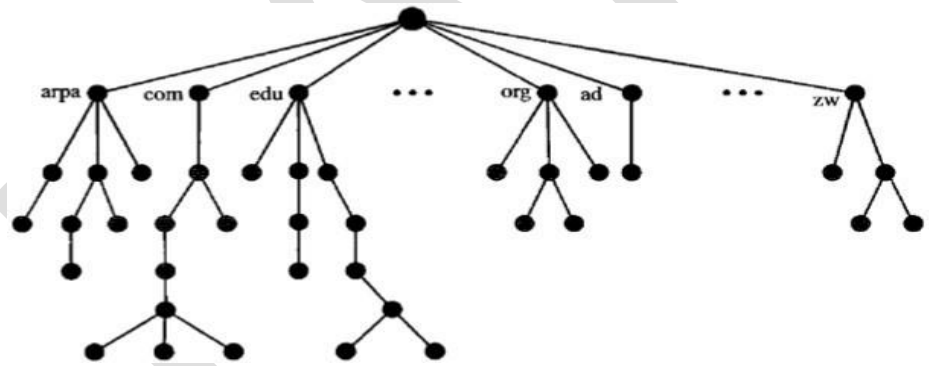


Fig: Domain Name Space

Domain Name

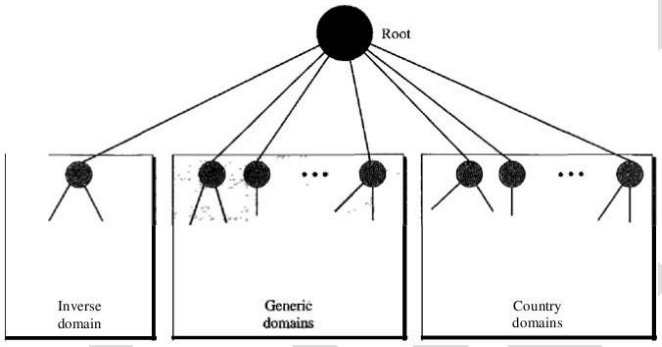
Each node in the tree has a domain name.

A full domain name is a sequence of labels separated by dots (.).

The domain names are always read from the node up to the root.

The last label is the label of the root (null). This means that a full domain name always ends in a null label, which means the last character is a dot because the null string is nothing. Figure shows some domainnames.

DNS in the Internet:



Generic Domains

The generic domains define registered hosts according to their generic behavior. Each node in the tree defines a domain, which is an index to the domain name space database

Label	*Description*
aero	Airlines and aerospace companies
biz	Businesses or firms (similar to "com")
com	Commercial organizations
coop	Cooperative business organizations
edu	Educational institutions
gov	Government institutions
info	Information service providers
int	International organizations
mil	Military groups
museum	Museums and other nonprofit organizations
name	Personal names (individuals)
net	Network support centers
org	Nonprofit organizations
pro	Professional individual organizations

Fig: Generic

Country Domains

The country domains section uses two-character country abbreviations (e.g., np for Nepal and us for United States). Second labels can be organizational, or they can be more specific, national designations. The United States, for example, uses state abbreviations as a subdivision of us (e.g., ca.us.).

Inverse Domain

The inverse domain is used to map an address to a name. This may happen, for example, when a server has received a request from a client to do a task. This type of query is called an inverse or pointer (PTR) query. To handle a pointer query, the inverse domain is

added to the domain name space with the first-level node called arpa (for historical reasons). The second level is also one single node named in-addr (for inverse address). The rest of the domain defines IP addresses.

Types of Network

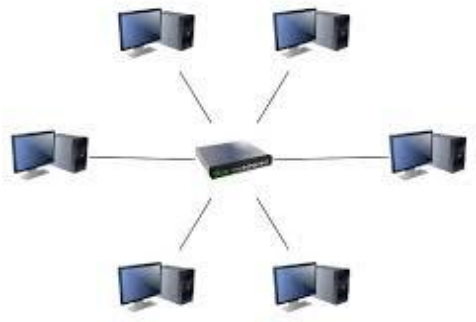
The **Network** allows computers to **connect and communicate** with different computers via any medium. LAN, MAN and WAN are the three major types of the network designed to operate over the area they cover. There are some similarities and dissimilarities between them. One of the major differences is the geographical area they cover, i.e. **LAN** covers the smallest area; **MAN** covers an area larger than LAN and **WAN**comprises the largest of all.

There are other types of Computer Networks also, like :

- PAN (Personal Area Network)
- SAN (Storage Area Network)
- EPN (Enterprise Private Network)
- VPN (Virtual Private Network)

Local Area Network (LAN) –

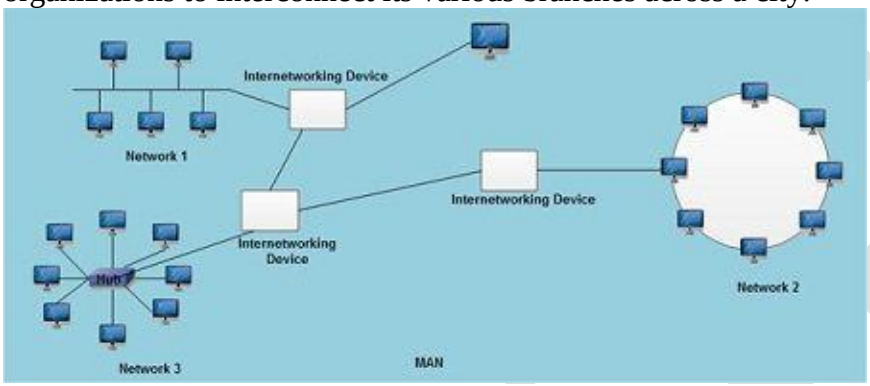
LAN or Local Area Network connects network devices in such a way that personal computer and workstations can share data, tools and programs. The group of computers and devices are connected together by a switch, or stack of switches, using a private addressing scheme as defined by the TCP/IP protocol. Private addresses are unique in relation to other computers on the local network. Routers are found at the boundary of a LAN, connecting them to the larger WAN.



MAN stands for Metropolitan Area Networks is one of a number of types of networks. A MAN is a relatively new class of network. MAN is larger than a local area network and as its name implies, covers the area of a single city. MANs rarely extend beyond 100 KM and frequently comprise a combination of different hardware and transmission media. It can be single network such as a cable TV network, or it is a means of connecting a number of LANs into a larger

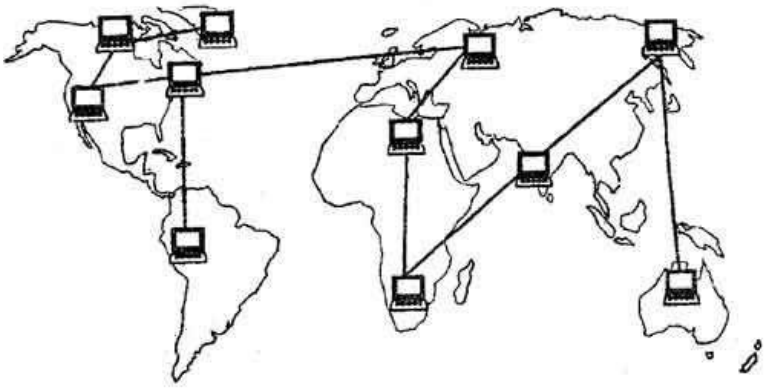
network so that resources can be shared LAN to LAN as well as device to device.

A MAN can be created as a single network such as Cable TV Network, covering the entire city or a group of several Local Area Networks (LANs). It this way resource can be shared from LAN to LAN and from computer to computer also. MANs are usually owned by large organizations to interconnect its various branches across a city.



WAN or Wide Area Network is a computer network that extends over a large geographical area, although it might be confined within the bounds of a state or country. A WAN could be a connection of LAN connecting to other LAN's via telephone lines and radio waves and may be limited to an enterprise (a corporation or an organization) or accessible to the public. The technology is high speed and relatively expensive.

There are two types of WAN: Switched WAN and Point-to-Point WAN. WAN is difficult to design and maintain. Similar to a MAN, the fault tolerance of a WAN is less and there is more congestion in the network. A Communication medium used for WAN is PSTN or Satellite Link. Due to long distance transmission, the noise and error tend to be more in WAN.



WAN

Internet Service Provider

ISP literally means Internet service provider or provider. It is a service (most of the time paid for) which allows you to connect to the Internet.

Why use an ISP?

Unless you have a specialized line (other than a telephone line), you cannot connect directly to the internet using your telephone line.

Indeed, the telephone line was not designed for this:

- it was originally designed to transport "voice", i.e. a frequency modulation in the range of the voice tone
- telephone servers only know how to start a conversation from a telephone number
- unless you resort to a special service, generally it is not possible to have communication between more than two points... So, the internet service provider is an intermediary (connected to the internet by specialized lines) which gives you access to the Internet, using a number which you enter using your modem, and which enables a connection to be established.

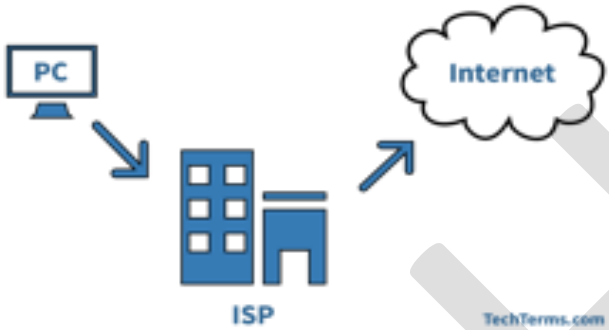
How does the ISP connect you to the Internet?

When you are connected to the Internet through your service provider, communication between you and the ISP is established using a simple protocol: PPP (Point to Point Protocol), a protocol making it possible for two remote computers to communicate without having an IP address. In fact your computer does not have an IP address. However an IP address is necessary to be able to go onto the Internet because the protocol used on the Internet is the TCP/IP protocol which makes it possible for a very large number of computers which are located by these addresses to communicate.

So, communication between you and the service provider is established according to the PPP protocol which is characterised by:

- a telephone call

•initialization of communication
•verification of the user name (login or userid)
•verification of the password Once you are "connected", the internet service provider lends you an IP address which you keep for the whole duration that you are connected to the internet. However, this address is not fixed because at the time of the next connection the service provider gives you one of its free addresses (therefore different because depending on its capacity, it may have several hundreds of thousand addresses.).



World Wide Web

WWW stands for **World Wide Web.** A technical definition of the World Wide Web is : all the resources and users on the Internet that are using the Hypertext Transfer Protocol (HTTP).

A broader definition comes from the organization that Web inventor **Tim Berners-Lee** helped found, the **World Wide Web Consortium (W3C).**

The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge.

In simple terms, The World Wide Web is a way of exchanging information between computers on the Internet, tying them together into a vast collection of interactive multimedia resources.

Internet and **Web** is not the same thing: Web uses internet to pass over the information.

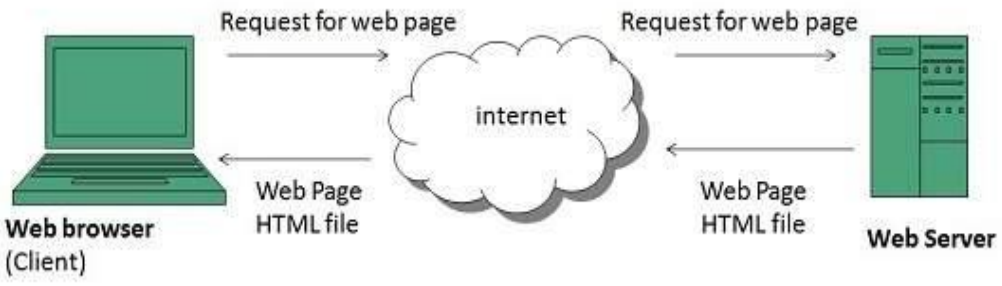
Evolution

World Wide Web was created by **Timothy Berners Lee** in 1989 at **CERN** in **Geneva.** World Wide Web came into existence as a proposal by him, to allow researchers to work together effectively and efficiently at **CERN.** Eventually it became **World Wide Web.**

WWW Operation

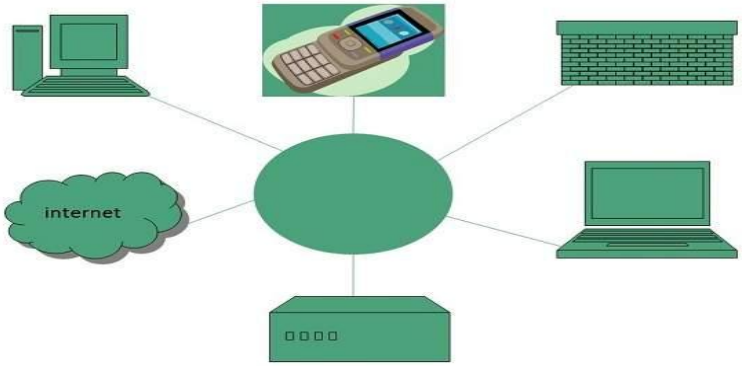
WWW works on client- server approach. Following steps explains how the web works:

1. User enters the URL (say, **http://www.tutorialspoint.com**) of the web page in the address bar of web browser.
2. Then browser requests the Domain Name Server for the IP address corresponding to www.tutorialspoint.com.
3. After receiving IP address, browser sends the request for web page to the web server using HTTP protocol which specifies the way the browser and web server communicates.
4. Then web server receives request using HTTP protocol and checks its search for the requested web page. If found it returns it back to the webs browser and close the HTTP connection.
5. Now the web browser receives the web page, It interprets it and display the contents of web page in web browser's window.



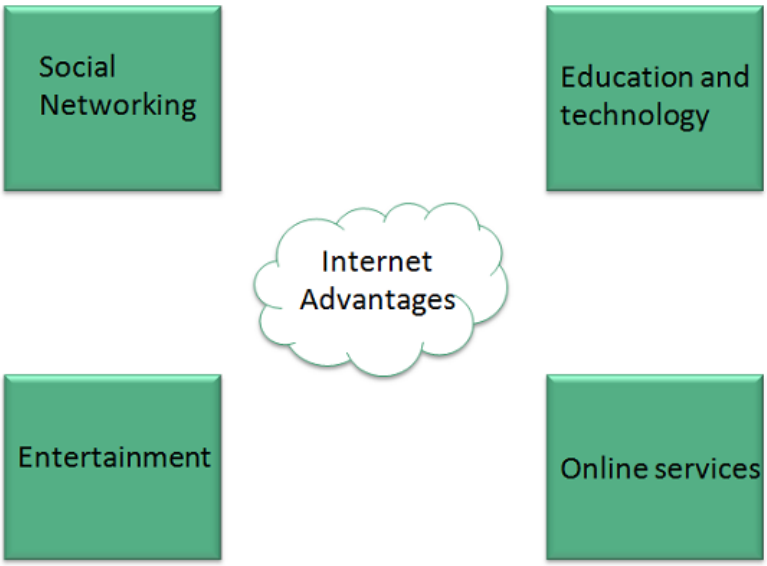
INTERNET AND EXTRANET

- The Internet is a global network of computers connected by network cables or through satellite links.
- It is also called the network of networks and the Super Network.
- When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs.
- No one actually owns the Internet, and no single person or organization controls the Internet in its entirety.
- But several organizations collaborate in its functioning and development.
    - Internet uses the standard Internet Protocol (TCP/IP).
    - Every computer in internet is identified by a unique IP address.
    - IP Address is a unique set of numbers (such as 110.22.33.114) which identifies a computer location.
    - A special computer DNS (Domain Name Server) is used to give name to the IP Address so that user can locate a computer by a name.
    - For example, a DNS server will resolve a name **http://www.tutorialspoint.com** to a particular IP address to uniquely identify the computer on which this website is hosted.
    - Internet is accessible to every user all over the world.



Advantages

Internet covers almost every aspect of life, one can think of. Here, we will discuss some of the advantages of Internet:



- Internet allows us to communicate with the people sitting at remote locations. There are various apps available on the wed that uses Internet as a medium for communication. One can find various social networking sites such as:
    - Facebook
    - Twitter

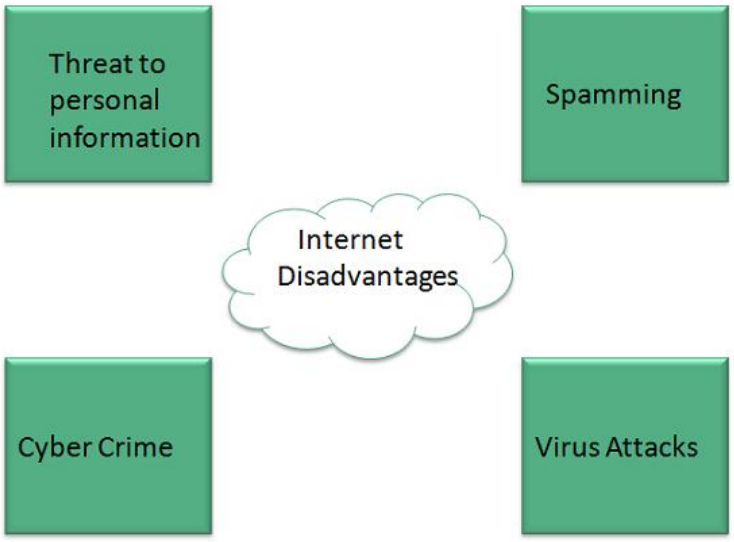
- Yahoo
- Google+
- Flickr
- Orkut

- One can surf for any kind of information over the internet. Information regarding various topics such as Technology, Health & Science, Social Studies, Geographical Information, Information Technology, Products etc can be surfed with help of a search engine.
- Apart from communication and source of information, internet also serves a medium for entertainment. Following are the various modes for entertainment over internet.
  - Online Television
  - Online Games
  - Songs
  - Videos
  - Social Networking Apps
- Internet allows us to use many services like:
  - Internet Banking
  - Matrimonial Services
  - Online Shopping
  - Online Ticket Booking
  - Online Bill Payment
  - Data Sharing
  - E-mail

- Internet provides concept of **electronic commerce**, that allows the business deals to be conducted on electronic systems

Disadvantages

However, Internet has proved to be a powerful source of information in almost every field, yet there exists many disadvantages discussed below:

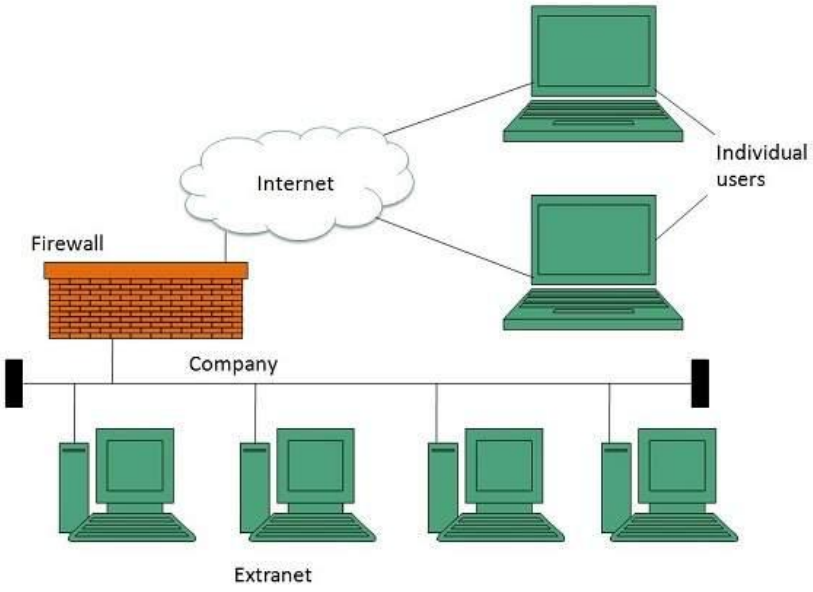


- There are always chances to loose personal information such as name, address, credit card number. Therefore, one should be very careful while sharing such information. One should use credit cards only through authenticated sites.
- Another disadvantage is the **Spamming**.Spamming corresponds to the unwanted e-mails in bulk. These e-mails serve no purpose and lead to obstruction of entire system.
- **Virus** can easily be spread to the computers connected to internet. Such virus attacks may cause your system to crash or your important data may get deleted.
- Also a biggest threat on internet is pornography. There are many pornographic sites that can be found, letting your children to use internet which indirectly affects the children healthy mental life.

- There are various websites that do not provide the authenticated information. This leads to misconception among many people.

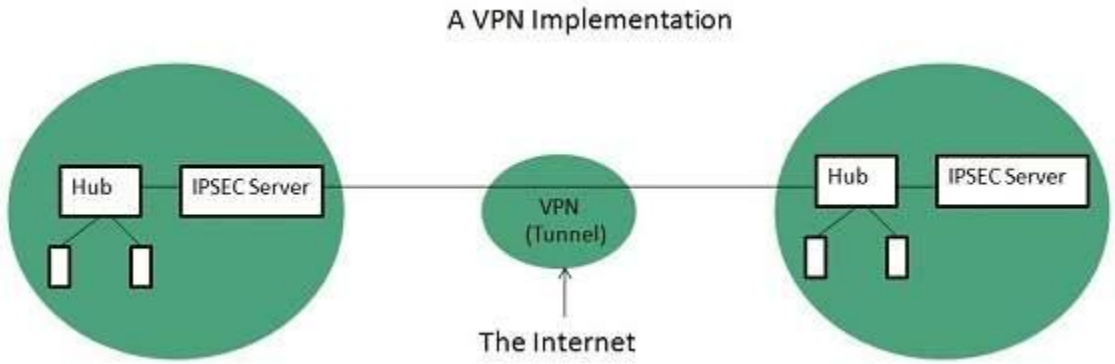
Extranet

Extranet refers to network within an organization, using internet to connect to the outsiders in controlled manner. It helps to connect businesses with their customers and suppliers and therefore allows working in a collaborative manner.



Implementation

Extranet is implemented as a Virtual Private Networks (VPN) because it uses internet to connect to corporate organization and there is always a threat to information security. VPN offers a secure network in public infrastructure (Internet).



Key Points

- The packet is encapsulated at boundary of networks in IPSEC complaint routers.
- It uses an encryption key to encapsulate packets and IP addresses as well.
- The packet is decoded only by the IPSEC complaint routers or servers.
- The message is sent over VPN via VPN Tunnel and this process is known as tunneling.

VPN uses **Internet Protocol Security Architecture (IPSEC)**Protocol to provide secure transactions by adding an additional security layer to TCP/IP protocol.

The role of internet technologies on B2B e-commerce

E-commerce is known as the most important facet of internet technologies nowadays. B2B e- commerce (Business to Business) which is one of business models in varying business over the internet. B2B e- commerce is the exchange of products and services between businesses rather than between business and consumers. Its competitive advantage not only in local and international market are recognized in the recent time and is believed to increased more rapidly in the next several years. More and more businesses are turned into B2B e- commerce especially there business is associated in World Wide Web. Buying and selling of goods are done through digital communication which offers a lot of benefits for business organization over a traditional way of making transaction. In the past, to succeed in the business and got a place in the marketplace depends on each strategy in running the business.

With e- commerce discrimination issues large, medium, small scale businesses have been eliminated. Internet technologies offer a chance to each business organization to excel in the market. Information has been made available in the internet. The company can search for the best strategy in running a business in different scope, as well as provide them information with

an update on current business trend and how to put their business inline. It enables them to make their business compete both in local and international market.

In this technological age, internet has been a necessity in almost all fields. Its contribution in e-business and e- commerce opens an opportunity to a faster, accurate and efficient customer service with a less consumed time and cost.

E- commerce centralizes business process that leads to faster, accurate and up to date data processing. For instance, once the companies cater order from customer via organizations website, the order taken out will be automatically recorded: update inventory with the latest available stocks, create invoice then manage payments. This process will only take a very short period of time as compare to traditional way of business process. Then delivery of orders is taken right afterwards. The strategic benefits of making the business e- commerce enabled is that it helps reduce the delivery time, labor cost and cost incurred most in the common areas: document preparation, error detection, mail preparation, telephone calling, data entry, overtime, supervision expenses. These tasks are included for the task to automatically perform by the e- commerce system.

Converting business into e- business also provides operational benefits, as mentioned human interaction is no longer that necessary. E- commerce include reducing both time and personnel required to complete business processes, and reducing strain on other resources.

With the continuous progress and development of internet technologies, it also offers progress and development in all the fields associated with it, including e- commerce. With that, e-commerce technology will not only become faster and smarter, but could completely transform the way companies' processes in terns of handling internal information and customer service.

In B2B e- commerce, one promising concept is the "collaborative commerce", in which companies set up hubs that can be used not only by their customers but can interact also with other companies site. This innovation was found out to change the way companies do business with one another. With these portals, companies that regularly do business with one another will be able to access real time information about product availability and pricing. Companies will be able to send invoices and pay liabilities.

In e- commerce, the internet serves as the primary medium to handle almost all of business transactions. It provides low cost advertising and fastest way of doing business open to all size of businesses.

BUILDING OWN WEBSITE,COST,TIME,

1. Create your product.
2. Determine pricing for your online store.
3. Figure out shipping options.
4. Choose your eCommerce platform.
5. Pick a domain name and brand.
6. Build your eCommerce website.
7. Set up your merchant account.
8. Add a SSL certificate to your website.
9. Start selling online!

1. Decide on your product.

If you've been dreaming of setting up an online storefront for a while, then you may well already have a product in mind that you'd like to sell. Whether it's something you make, like handcrafted furniture or handmade soap, or something you've found a source for at wholesale prices so you can sell it off at a profit, every eCommerce store has to start with a product.If there is already an established market, consider whether your product is unique enough to break in. Will you be able to compete on pricing.

2. Set your pricing.

Pricing can be one of the hardest aspects to get right when running a new business.If you price too low, you'll lose money or just barely break even – which won't make the time and effort you put into your online store worth it. If you price too high, you won't make enough sales and still risk losing money on the whole endeavor.

To figure out what pricing that makes the sense you have to first figure out your business' finances. This includes:

- the cost of materials to make your product
- web hosting for your eCommerce site

- taxes
- shipping
- the percentage credit cards
- additional marketing and advertising costs

3. Research shipping costs and options.

If you're selling a physical product, how will you deliver it to customers?

Your impulse may be to pass on the full cost of shipping to the client, and many online stores do take this route. However, it's important to note that shipping costs can have a strong psychological impact on consumers, with 44% saying they've abandoned an online purchase due to high shipping and handling costs.

Instead, consider offering one of these alternative shipping methods:

- Offer free shipping, no questions asked
- Offer free shipping and up your product pricing slightly to cover the cost
- Offer free shipping for orders of a certain size
- Offer a flat shipping fee

4. Choose your eCommerce web hosting.

When it comes to eCommerce, you have two options: use a marketplace that already exists like Etsy or Amazon, or building an eCommerce website and brand that's all your own.

If you want a website and brand that's all your own, many website hosting platforms (including HostGator) make it easy to find compatible eCommerce website hosting options that you can work with in the same space you use to work on your website. This way you can direct people to youronlinestore.com. You look like a real, live store!

An eCommerce software like Magento will make it easy for you to list your products, set your price, and add a shopping cart to the website. They take care of ensuring the process is intuitive for both you and your customers, so you can just focus on selling.

5. Pick a domain name and brand.

This is the fun part for business owners! Just think, what will customers be telling their friends when they talked about that awesome new product they just bought from _____? Fill in the blank with your brand.

Brainstorm words and phrases that say something about the products you'll be selling, and words and phrases that mean something to you. And be sure to stay away from names that have already been copyrighted by other businesses. Follow these top tips for choosing a domain name for your eCommerce website.

6. Build your eCommerce website.

Many hosting platforms can make at least part of this step easier by providing or a merchant site builder you can work from rather than having to build a website from scratch.

At this stage, you'll also need to work on writing web copy that describes your wares and helps persuade website visitors to buy.

Once you set up your site, you have to do more than just add your products. In addition to product pages, your eCommerce website development and planning should also include the following pages:

- A home page where you feature weekly deals and sale items
- An about page with a brief description of what you do
- A contact or customer service page so customers can easily reach you
- A blog where you post updates, industry news, and helpful tidbits

Aside from these pages, you will also have to consider your website's theme,eCommerce plugin options, Google Analytics, and all other practical aspects that will help create your online platform.

7. Set up a merchant account.

Online stores need a way to receive money – specifically, a way to receive credit card payments. A merchant account does the very important job of ensuring you can get paid.

You have options that range from big, familiar brand names like Chase and PayPal, to companies more focused on small businesses like BluePay and PaySimple. You will have to pay a small fee

to the company in order to get your money, but the ability to accept the money your customers send will make the fees well worth it.

8. Get your SSL certificate.

When you create your site, be sure to install a SSL certificate. These certificates provide the green lock you see next to URLs when you're shopping online, and they keep your customers' private information safe.

If customers are going to hand you their private payment information (or more accurately, enter it into a form on your website), you need to make sure the sensitive details will stay safe. An SSL certificate for your website encrypts all the sensitive information customers provide so that hackers won't be able to grab that credit card information as it's sent over the web.

9. Start selling!

Now it's time to start making money.

Once you launch your online store, you should start thinking about promotion. Content marketing, social media, and paid promotion are all areas worth looking into to start getting people to your website. Check out our post on cheap, easy ways to start marketing your business.

If you're not quite ready to make that level of investment in your online store, start with old-fashioned word of mouth. Talk to your friends about it, mention it to professional acquaintances, and bring it up at any events around town likely to attract the kind of people interested in what you're selling.

REGISTERING A DOMAIN NAME

Domain names are Web addresses that tell visitors where to find your online business. Yet did you know that domain names are also one of the most powerful tools used to build successful online businesses?

1. Registering Alternate Domain Name Extensions

Choosing a memorable, relevant domain name is only the beginning. In order for your domain name to really go to work for your business, it will need to help you attract visitors and search engines alike while also supporting your brand. Network Solutions Domain Name Scorecard is an online quiz that's designed to help you determine how well your

domain name is performing -- and help you find ways to improve it. This quick, informative quiz addresses the six key areas of domain name registration, including:

2. Registering Domain Names to Protect Your Brand

Why stop at registering a domain name such as janesbagels.com when registering multiple extensions – such as janesbagels.net and janesbagels.org – can help you capture a wider audience? When visitors arrive at the alternate extension domains, you can redirect them to your website.

3. Registering Descriptive Domain Names

A visitor may intend to visit janesbagels.com, but mistakenly type jansbagels.com instead. By anticipating these typing errors and registering them as domain names, you can catch visitors before they are led astray by a competitor who may use the same strategy to lure your visitors to their own site.

Registering domain names that describe your products and/or services is another helpful domain name strategy. In the example janesbagels.com, relevant descriptive domains may include references to breakfast or catering. Adding a geographic element, such as a city name, is also a good way for local businesses to capture visitors in their immediate area.

4. Extending Your Domain Registration Term

While many people renew their domain name registration annually, it is possible to renew for an extended term. This option, along with auto-renewal services, can help you avoid losing your domain name due to forgetfulness. Also, search engines may view a long-term domain name commitment favorably when indexing your site.

5. Electing Private Domain Registration

In today's world, private domain registration is more of a necessity than a luxury. Yet many continue to neglect this critical component of domain name registration. For a small monthly fee, private domain registration can keep your personal contact information out of the WHOIS database, where it is available to the public through a simple domain search.

6. Securing Your Domain Name Registration

By locking your domain name, you protect it from both unauthorized activity and human error - your own. When your domain is locked, a third party cannot transfer your domain to a different registrar without your consent. Domain locking also prevents you from making accidental changes to your domain name servers, which can disrupt your website and business email.

In as little as 30 seconds, Network Solutions' Domain Name Scorecard quiz can give you an overall score based on your domain name's rating in these six key areas. You can then use this information to unlock your domain name's full potential as a business building tool.

WEB PROMOTION

Search Engine Optimization (SEO)

When a user searches for a particular keyword, the search engines generate a search engine results page that ranks relevant sites. Considering that the majority of users will not look past the first page of results, achieving a "top 10" ranking should be part of your ecommerce website promotion plan. To do this, you'll need to "optimize" your site for the search engines which will crawl its content looking for indicators of relevancy. SEO for online stores is a multi-faceted website promotion tactic that includes keyword selection, link building, refreshing content, and tracking visitor behavior.

Search Engine Submission

Submitting your Web address to national and local search engines and directories including Google™, Yahoo!®, and Bing™ can be an especially helpful website promotion tactic when your ecommerce site is new to the Web - you won't have to wait for the search engines to find you among all the other online stores. Submissions can include a domain name alone, a specific page or an entire site. If you do want to submit your entire site, you will need to submit a sitemap. Keep in mind that, at minimum, you should submit your ecommerce website homepage.

Pay Per Click Advertising

Perhaps the most time-efficient of the website promotion tactics for online stores, Pay Per Click Advertising (PPC) can typically help your ecommerce website gain ground in search engines faster than SEO. Pay per click marketing begins with careful keyword selection. Next, you bid on your selected keywords - the higher your budget allows you to bid, the higher your ecommerce website will rank on the results page. Once the ad is launched, you'll pay only when a user clicks on your ad, which makes it important to use highly targeted and relevant copy. Your ecommerce website promotion plan should also involve creating customized landing pages for your PPC advertising, which will enhance visitor experience and increase customer confidence.

Online Press Releases

Press releases have long been an effective way to get out the "latest" news about your company. Online Press Releases accomplish the same goals for online stores, and then some - they not only help you connect with readers, but with search engines as well. When you use an online Press Release for ecommerce website promotion, you can boost your website's ranking, increase traffic and enhance brand recognition.

Ecommerce website promotion can help your business stand out from a crowd of online stores and reach the customers that you need. When your online store is ready to open for business, consider creating an ecommerce website promotion strategy balanced to meet your goals.

Banners: design tips, sizes & targeting

One of the advantages of running a site of this size and traffic levels is that I get to analyze many statistics in relation to advertising. While text link advertising is still one of the best ways to go for search engine ranking purposes, the humble banner still plays a big role in getting your message out there.

If you're considering using banners and just embarking on the design stage, bear in mind a few simple points, and you'll be well on your way to a successful campaign.

It's also important to remember that banners now come in a range of sizes, but there are certain standard sizes that most networks and webmasters will only deal with. A listing of those is also available in this article.

Banner design tips:

1. Banner file sizes

You can have the best looking banner in the world, but if it's too "heavy", nobody is going to hang around to watch it load. Try to keep it to around 25kb, but less is better. Ensure that you put a file size cap on your design specs if you are getting someone else to design banners for you. It's been my experience that there are thousands of great graphic designers out there, but few who understand that this aspect of banner development is a critical element.

2. Flash banners

Very pretty indeed - but effective? Probably not - in my experience anyway. I guess it boils down to your target audience. If your target is the "young, hip and happening" sector and you are promoting entertainment related products, then perhaps the complex animations that Flash offers may be useful, but as a general rule, steer clear of Flash generated banner designs. The other reason I suggest avoiding Flash banners is they can be rather kilobyte heavy and some sites aren't able to run them.

3. Call to action

Don't underestimate the power of a "Click now!" statements. Calls to action are a very important psychological tactic in getting people to click on your banners. Terms like "Offer ends soon!", "Hurry!", "Special limited offer!" also work well

4. Keep your banner design simple

You have very little time to convince people to click on your banner, so the more complex it is in terms of text and general design, the less chance of people clicking - make your point, make it quickly.

5. Use animation

Animation in my opinion is an absolute must. Bear in mind that your banner will be competing with other elements on the sites where it is displayed. Also use animation wisely; it should attract attention, not induce epileptic fits ;). Keep it simple.

6. Consider "alert" banner designs

We've all seen them; those banners that look like a standard Windows alert. Do they work? Yes, most definitely. I've seen clickthrough rates of up to 24% on these kinds of banners - and considering the "standard" click rate is around .5 - 1.5% across the board, this is excellent. There is a big *but* with using these kinds of banners -they are only highly effective to a relatively non-savvy audience and should only be used for promoting products that have a very broad appeal. Niche products should be promoted using relevant text or graphics.

Designing banners for ROI

ROI - the all important term when investing in anything promotion related, stands for Return On Investment. Not only might you be forking out on the initial design of your banners, but also for the results of the banner. This becomes critical if you will be paying for clicks or just CPM (cost per thousand) views.

If you will be paying for clicks, as an example, let's say you are selling televisions and using an "alert" banner as mentioned above. The text on your banner might state "Cheap T.V.s - click here!!" The problem is that the term "cheap" is a personal viewpoint, and your prices may not be considered cheap by site visitors. If you are paying X cents per click, then you would be better off with a statement like "Quality T.V.'s from $100!!". That way you can be fairly sure that the people who click on your banner are able to afford at least that amount.

If you will be paying for views, it's very important that not only will your banner be displayed on relevant sites, but that it will be able to stand out on the sites where it is displayed. That being the case, it's important to choose sites that will suit your banners, or design banners to suit the sites it will be displayed on.

New to Pay Per Click advertising?

Read our free beginners guide to PPC. Includes listings of companies offering free click credits!

Paying for banner design - how much?

How much should you expect to pay for a good banner design? That is a *very* difficult question. Prices can range in the hundreds of dollars if you utilize a well known graphic design house; with no guarantees of success.

Sometimes it's better using freelancer designers who have experience in this field. I recently paid $10 each for a series of banners and was very happy with the results - they were completed within 24 hours and look as good as any that I've seen.

A great place to request quotes for banner design is via ourprojects database, which is powered by one of the largest freelance collaboration service providers around. You can post your job requirements for free and then experienced graphic designers will bid on your job.

Where to run banner campaigns?

With your banners made up ready to go, you'll need somewhere to display them! You can hunt and peck for sites to run your banners, or try utilizing the power of one of the larger banner network - you'll then gain access to thousands of sites in a single buy. I recommend taking a look at the Valueclick Advertising network and Google Adwords (they also support banner ads)

Standard banner sizes - templates

While you can create a banner in any size you wish; many sites will only display banners of a particular size range. Before you spend money on hiring the services designer; check to ensure what sizes the ad network or sites where you want to display your banner will accept. The following is a list of standard banner sizes, as outlined by the Interactive Advertising Bureau.

You can click on the links below to see a sample of the size, and you are welcome to download a set of standard banner templates that I've created.

Standard rectangle banners & pop-ups sizes

300 x 250 - Medium Rectangle
250 x 250 - Square Pop-Up
240 x 400 - Vertical Rectangle
336 x 280 - Large Rectangle
180 x 150 - Rectangle

Standard banner & button sizes

468 x 60 - Full Banner
234 x 60 - Half Banner
88 x 31 - Micro Bar
120 x 90 - Button 1
120 x 60 - Button 2
120 x 240 - Vertical Banner
125 x 125 - Square Button
728 x 90 - Leaderboard

Standard skyscraper sizes

160 x 600 - Wide Skyscraper
120 x 600 - Skyscraper
300 x 600 - Half Page Ad

Click here to view article index

Our reviews of some of the best shopping carts around - free ecommerce solutions through to premium services offering affiliate programs, marketing modules & online soft goods delivery. Shopping cart software guide

Autoresponder software/mailing list manager
Read our beginners guide and reviews of all-in-one autoresponder & email marketing software solutions.

Credit card transaction fraud screening! Effective fraud screening is an essential part of running an online businesses. Fraud transactions cost you money and can threaten your merchant account. Pick up a stack of transaction screening tips in this free guide!

Need some advice/tools for writing/creating a web design, development or marketing proposal?

Shopping Bots

As more consumers discover and purchase on social, chatbots are becoming a crucial part of conversational commerce.

Bots allow brands to connect with customers at any time, on any device, and at any point in the customer journey.

Chatbots also cater to consumers' need for instant gratification and answers, whether stores use them to provide 24/7 customer support or advertise flash sales. This constant availability builds customer trust and increases eCommerce conversion rates.

Wondering how to get started with shopping bots? Here are the top 15 shopping bots and bot builders to check out.

Best Shopping Bots for eCommerce Stores

These shoping bots make it easy to handle everything from communication to product discovery.

1. WeChat

WeChat makes it easy for merchants to communicate with customers and browse their products.

The bot helps build customer relationships by allowing businesses to friend their customers within WeChat and market directly to them, and also makes transactions easier for the merchant with payment features.

WeChat's open API and SKD makes for an easy onboarding procedure.

2. Shopify Messenger

Shopify Messenger helps merchants by helping shoppers.

This bot creates a full shopping experience on Facebook Messenger. Consumers can browse the catalogue, get product recommendations, pay for their items, receive order and shipping confirmation, and make customer service requests.

As a sales channel, Shopify Messenger integrates with merchants' existing backend to pull in product descriptions, images, and sizes.

3. . BotCommerce

BotCommerce integrates with Shopify and Magento.

Merchants can answer product questions and talk to customers about order changes and returns via chat.

Additional features include a custom welcome message, order status updates, tracking number requests, and FAQ searches.

4.Letsclap

Letsclap is a platform that personalizes the bot experience for shoppers by allowing merchants to implement chat, images, videos, audio, and location information.

This lets eCommerce brands give their bot personality and adds authenticity to conversational commerce.

The platform also tracks stats on your customer conversations, alleviating data entry and playing a minor role as virtual assistant.

If you don't want to take the time to create your own all-knowing shopping bot, Letsclap is a versatile tool that will make a unique bot to fit you and your customer.

It operates on Facebook Messenger, WeChat, and Telegram.

5.Kik Bot Shop

Kik Bot Shop focuses on the conversational part of conversational commerce.

It has 300 million registered users including H&M, Sephora, and Kim Kardashian.

Merchants create their own chatbot through the mobile app and — with marginal coding knowledge — configure it through an API Key using Python, JavaScript, or cURL.

Kik's guides walk less technically inclined users through the set-up process. In lieu of going alone, Kik also lists recommended agencies to take your projects from ideation to implementation.

Perhaps the easiest option to get started is Kik's app GiftGuru, which lets you upload products directly to the platform for users to discover and purchase:

6.Yellow Messenger

Inspired by Yellow Pages, this bot offers purchasing interactions for everything from movie and airplane tickets to eCommerce and mobile recharges.

Setting up Yellow Messenger requires more advanced technical knowledge than other bots mentioned here, but that means that it is one of the few options where you can build your own bot while relying on a hosted deployment.

You can create bots for Facebook Messenger, Telegram, and Skype, or build stand-alone apps through Microsoft's open sourced Azure services and Bot Framework.

Best shopping bots for customers

The rest of the bots here are customer-oriented, built to help shoppers find products.

They give valuable insight into how shoppers already use conversational commerce to impact their own customer experience.

[Tweet "Connect with your customers at any time, on any device, and at any point in the customer journey."]

7. Magic

Magic promises to get anything done for the user with a mix of software and human assistants– from scheduling appointments to setting travel plans to placing online orders.

The bot's breadth makes it a good starting point for anyone getting acquainted with the concept of conversational commerce, and a good testing ground for merchants looking to enter the space.

An attempt to confuse Magic ended up costing more than $500 and didn't get the job done.

eCommerce Takeaway: Scalable shopping bots are intuitive, comprehensive, and able to address difficult customer queries.

8. Operator

Operator is the first bot built expressly for global consumers looking to buy from U.S. companies.

It enables users to browse curated products, make purchases, and initiate chats with experts in navigating customs and importing processes. For merchants, Operator highlights the difficulties of global online shopping.

eCommerce Takeaway: The more complicated your shipping and distribution needs, the more important those challenges are to tackle.

Shopping bots for recommendations

9. 5Gifts4Her

Hosted on Facebook Messenger, 5Gifts4Her is designed for anyone with a case of gift-block.

Users search for keywords or strike up a conversation with shopping guide Sparkle to get recommendations based on Amazon profiles.

The bot also offers Quick Picks for anyone in a hurry and it makes the most of social by allowing users to share, comment on, and even aggregate wish lists.

eCommerce Takeaway: One of the primary reasons shoppers turn to a bot is for help. Automating product assistance improves customer experience.

10. CelebStyle

CelebStyle allows users to find products based on the celebrities they admire.

The bot opens by asking, "Which celeb's style do you wanna see?" and then provides a host of visually driven results.

eCommerce Takeaway: Aspirational photos inspire consumers to buy. Leverage this by including influencer recommendations and customer content within your bot.

Big box shopping bots

11. RooBot

RooBot by Blue Kangaroo lets users search millions of items, but they can also compare, price hunt, set alerts for price drops, and save for later viewing or purchasing.

The bot guides users through its catalog — drawn from across the internet — with conversational prompts, suggestions, and clickable menus.

eCommerce Takeaway: Build on the benefits of eCommerce by giving customers more options online than they would have in a store, while keeping the personality and flexibility of the brick-and-mortar experience.

12. H&M

H&M's bot functions much like a personal shopping assistant. After asking a few questions regarding the user's style preferences, sizes, and shopping tendencies, recommendations come in multiple-choice fashion.

The bot continues to learn each customer's preferences by combining data from subsequent chats, onsite shopping habits, and H&M's app.

eCommerce Takeaway: Personalize the consumer experience on your bot with smart technology to make the value well worth a few clicks in the beginning of the process.

13. Madi

This bot by Madison Reed helps users choose a hair color that reflects their personality.

The experience begins with questions about a user's desired hair style and shade.

Once parameters are set, users upload a photo of themselves and receive personal recommendations based on the image.

eCommerce Takeaway: Use your shopping bot to remove the guesswork and boost shopper confidence in the buying experince.

14. BlingChat

BlingChat helps anyone planning a wedding find and manage the various aspects of their event.

The bot content is aligned with the consumer experience, appropriately asking, "Do you?" after every suggested item.

eCommerce Takeaway: Create a bot with a consistent voice and personality to create a helpful and human experience with conversational commerce.

Comparison & discount shopping bot

15. Needed

Needed seeks to simplify the product search process. First, users create a shopping list of what they want to buy. The bot then searches local advertisements from big retailers and delivers the best deals for each item closest to the user.

eCommerce Takeaway: Meet the needs of on-the-go shoppers with an omnichannel experience and real-time results.

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(For the candidates admitted in 2016 onwards)

CLASS:III Bsc CT **UNIT 3**

SUBJECT:E-Commerce Technologies

Question	Option 1	Option 2	Option 3	Option 4
URL stands for:	Uniform Resource L	Universal Resource Locator	Universal Random Locator	Uniform Random Locator
SET protocol on internet stands for:	Secure Electronic Tr	Secure Internet Transaction	Secure Establish Transaction	Secure Electronic Transmission
Information Technology Act, 2000 is based on which Model Law of ECommerce adopted by United Nation:	UNICITIRAL	UNCITRAL	UNICITRAL	UNCITIRAL
Which of the following are empty tag:	Paragraph Tag	Pre-Tag	Horizontal Rule Tag	Emphasized Text
Who breaks into other people's computer system and steals and destroys information:	Hackers	Software	Hacktivists	Script Kiddies
Which one is not a layer of E-Commerce infrastructure:	Physical Layer	Product Layer	Service Layer	None
Which process is used to re install data from a copy when the original data has been lost	Backup	Recovery	Bench marking	Data cleansing

What is the percentage of customers who visit a website and actually buy something:	Affiliate Program	Click-through	Spam	Conversion rate
The solution for all business needs is:	EDI	ERP	SCM	None of These
Digital Cash has following characteristic	Anonymity	Security	Confidentiality	All of Above
Amazon.com is well known for which E-Commerce marketing technique:	Banner ads	Pop-up ads	Affiliated Programs	Viral Marketing
What floods a website with so many request for service that it slows down or crashes:	Computer virus	Worm	Denial of service attack	None of above
Mobile Commerce can be defined as –	M-Phil	M-Business	M-Com	M-organisation
Which type of e-commerce focuses on consumers dealing with each others?	B2B	B2C	C2B	C2C
Which of the following is not the benefit of online stoke trading?	Handy tools	Proper information	Time consuming	Flexibility
Which of the following are the way of approach?	Phone	email	In person	All of the above
Which of the following activity is explaining how the product meets that person or company's need?	Presentation	Follow-up	Qualifying	Prospective
Which of the following activity should be done after presentation?	Handling objection	Closing the sale	Following-up	None of the above
What is the final step of traditional selling strategy?	Following-up	Closing the sales	Approach	Pre approach
Before planning a sale, which or the following activity is conducted by the sales person?	Approach	Research	Follow-up	Presentation
Which of the following is the foundational step of the sales process?	Solve the objection	Follow-up	Prospecting	Presentation

Which of the following is not a part of traditional selling strategy?	Approach	Pre approach	Presentation	Online sales
Which of the following are the steps of traditional selling strategy?	Prospecting	Qualifying	Approach	All of the above.
Mobile computing devices include	Personal digital assi	Smart phone	Black berry	All of above
SET stands for	Surety Electronic Tr	Secure Electronic Transaction	Silent Electronic Transaction	None of above
Following is not type of Smart card.	Memory Cards	Shared Key Cards	Signature Creating Cards	Secured Key Cards
Benefits of M-commece include	Convenience in trar	Flexibility	Less time	All of above
The term Internet is the assemblage of two words;	Inter connection &	Intercontinental & Network	Interface & Network	None of above
What type of commerce is enabled by technology?	Path-to-profitability	E-commerce	EBuy	Internet
What term refers to an organization's ability to tailor its products and services to its customers?	Specialization	Target commerce or T-commerce	Mass customization	Adaption
What term refers to the small web page that opens automatically with an ad when you visit some web sites?	Marketing page	I-ad	Affiliate ad	Pop-up ad

Answer
Uniform Resource Locator
Secure Electronic Transaction
UNCITRAL
Horizontal Rule Tag
Hackers
None
Recovery

Conversion rate
ERP
All of Above
Affiliated Programs
Denial of service attack
M-Business
C2C
Time consuming
All of the above
Presentation
Handling objection
Following-up
Research
Prospecting

Online sales
All of the above.
All of above
Secure Electronic Transaction
Secured Key Cards
All of above
Inter connection & Network
E-commerce
Mass customization
Pop-up ad

UNIT-III

SYLLABUS

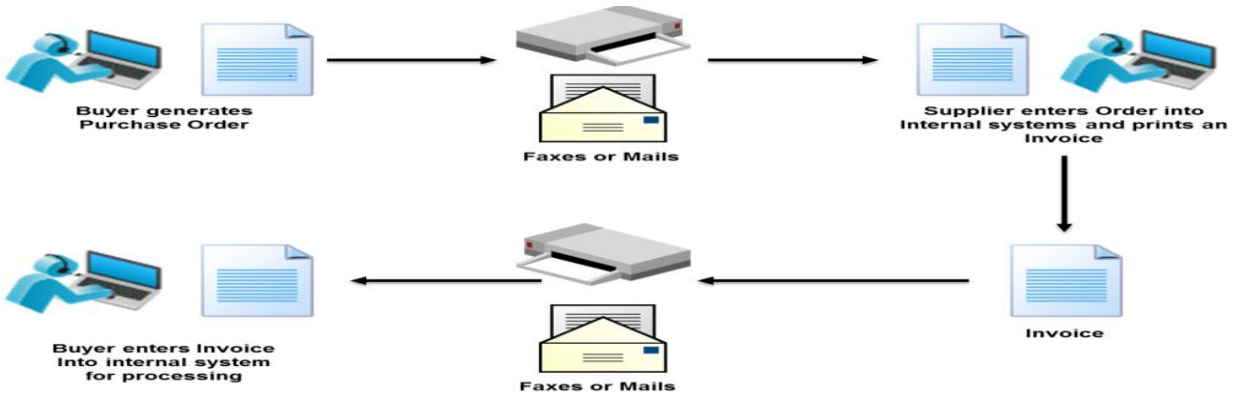
Electronic data exchange introduction, concepts of EDI and Limitation, Application of EDI, Disadvantages of EDI, EDI model, Electronic Payment System: Introduction, Types of Electronic Payment system, Payment types, Value exchange system, credit card system electronic fund transfer, Paperless bill, modern payment cash, Electronic cash.

Electronic Data Interchange (EDI)

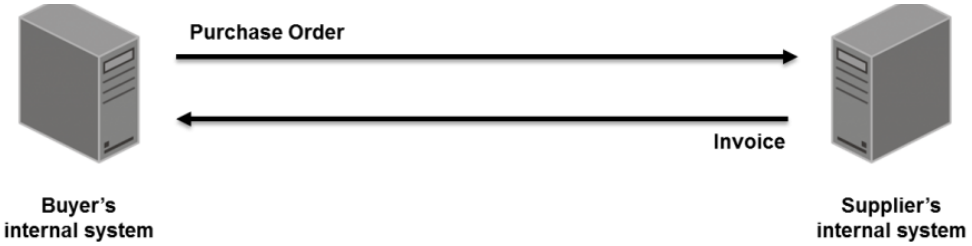
Electronic Data Interchange (EDI) is the computer-to-computer exchange of business documents in a standard electronic format between business partners.

By moving from a paper-based exchange of business document to one that is electronic, businesses enjoy major benefits such as reduced cost, increased processing speed, reduced errors and improved relationships with business partners. Learn more about the benefits of EDI here. » Each term in the definition is significant:

- **Computer-to-computer**– EDI replaces postal mail, fax and email. While email is also an electronic approach, the documents exchanged via email must still be handled by people rather than computers. Having people involved slows down the processing of the documents and also introduces errors. Instead, EDI documents can flow straight through to the appropriate application on the receiver's computer (e.g., the Order Management System) and processing can begin immediately. A typical manual process looks like this, with lots of paper and people involvement:



The EDI process looks like this — no paper, no people involved:



- **Business documents** – These are any of the documents that are typically exchanged between businesses. The most common documents exchanged via EDI are purchase orders, invoices and advance ship notices. But there are many, many others such as bill of lading, customs documents, inventory documents, shipping status documents and payment documents.
- **Standard format**– Because EDI documents must be processed by computers rather than humans, a standard format must be used so that the computer will be able to read and understand the documents. A standard format describes what each piece of information is and in what format (e.g., integer, decimal, mmddyy). Without a standard format, each company would send documents using its company-specific format and, much as an English-speaking person probably doesn't understand Japanese, the receiver's computer system doesn't understand the company-specific format of the sender's format.
  - There are several EDI standards in use today, including ANSI, EDIFACT, TRADACOMS and ebXML. And, for each standard there are many different versions, e.g., ANSI 5010 or EDIFACT version D12, Release A. When two businesses decide to exchange EDI documents, they must agree on the specific EDI standard and version.
  - Businesses typically use an EDI translator – either as in-house software or via an EDI service provider – to translate the EDI format so the data can be used by their internal applications and thus enable straight through processing of documents.
- **Business partners** – The exchange of EDI documents is typically between two different companies, referred to as business partners or trading partners. For example, Company A may buy goods from Company B. Company A sends orders to Company B. Company A and Company B are business partners.

Concepts of EDI

EDI stands for **Electronic Data Interchange**. **Electronic data interchange** (**EDI**) is the computer-to-computer exchange of business documents between companies.**EDI** replaces the faxing and mailing of paper documents. **EDI** documents use specific computer record formats that are based on widely accepted standards.

5 Limitations of EDI

While countless businesses enjoy the benefits of EDI, some companies are still cautious to try it out due to the following limitations of EDI.

1. Cost of Implementation.

It is true that EDI provides massive cost savings benefits but for small businesses re-designing and implementing software applications to fit in EDI into current applications can be quite costly. Such limitations of EDI must be considered if you plan on implementing such system.

2. Electronic System Safety

EDI also necessitates substantial investment in computer networks and security systems for maximum security. Any EDI system installed would require protection from hacking, malware, viruses, and other cybersecurity threats.

3. Preliminary Setup Consumes Time

Not only is the implementation of EDI system expensive to install, but it also consumes a considerable amount of time to set up the essential parts. Thus, such limitations of EDI can hinder fast-tracking of services if urgently required.

4. Several Standards to Maintain.

Numerous businesses looking to implement EDI also consider the several standards involved. These limitations of EDI do not allow small businesses to exchange data with larger establishments that make use of latest edition of a document standard. Some known measures include ANSI ASC X12, GS1 EDI, HL7, TRADACOMS, and UN/EDIFACT.

5. Suitable Backup System

EDI implementation also requires regular maintenance as the business functionality is highly dependent on it. Some robust data backup system is needed in case of system crash or for statistical purpose. Such limitations of EDI can cost some substantial amount to implement.

EDI Applications in Business

Although EDI was developed to improve transportation and trade, it has spread everywhere. In short, EDI has grown from its original (and somewhat limited) use as expediter of the transfer of trade goods to facilitator of standard format data between any two computer systems.

An examination of EDI usage in various industries provides insight into the business problems that EDI is attempting to solve. We will present four very different scenarios in industries that use EDI extensively:

1. International or cross-border trade,
2. Financial EDI or electronic funds transfer (EFT),
3. Health care EDI for insurance claims processing, and
4. Manufacturing and retail procurement.

Let us describe the EDI business applications briefly:

1. International or cross-border trade

EDI has always been very closely linked with international trade. Over the last few years, significant progress has been made toward the establishment of more open and dynamic trade relations. Recent years have brought the General Agreement on Tariffs and Trade (GATT); the Free Trade Agreement (NAFTA) among the United States, Canada, and Mexico; and the creation of the European Union. These developments have meant the lifting of long-standing trade restrictions. Many countries, and in particular developing countries, have made significant efforts to liberalize and adjust their trade policies. In this context, trade efficiency, which allows faster, simpler, broader and less costly transactions, is a necessity. It is a widely held view that trade efficiency can be accomplished only by using EDI as a primary global transactions medium.

2. Financial EDI or electronic funds transfer (EFT)

Financial EDI comprises the electronic transmission of payments and remittance information between a payer, payee, and their respective banks. This section examines the ways business-to-business payments are made today and describes the various methods for making financial EDI payments.

Financial EDI allows businesses to replace the labor-intensive activities associated with issuing, mailing, and collecting checks through the banking system with automated initiation, transmission, and processing of payment instructions. Thus it eliminates the delays inherent in processing checks.

Types of Financial EDI: Traditionally, wholesale or business-to-business payment is accomplished using checks, EFT, and automated clearinghouses (ACH) for domestic and

international funds transfer. ACH provides two basic services to industrial and financial corporate customers (including other banks): (1) fast transmission of information about their financial balances throughout the world, and (2) the movement of money internationally at rapid speed for settlement of debit/credit balances. Banks have developed sophisticated cash management systems on the back of these services that essentially reduce the amount of money companies leave idly floating in low-earning accounts.

Thus, three principal types of noncash payment instruments currently used for business-to-business payments: checks, electronic funds transfers, and automated clearinghouse (ACH) transfers.

3. Health care EDI for insurance claims processing

Providing good and affordable health care is a universal problem. In 1994, the American public spent $1 trillion on health care, nearly 15 percent of the gross domestic product (GDP). National health care expenditures have risen by 10.5 percent each year for the past eight years—more than double the rate of increase in the consumer price index. It is estimated that $3.2 billion in administrative savings are expected to be achieved by switching from being paper-based to an EDI implementation. Employers could save $70 million to $110 million by using EDI for enrollment and to certify that a prescribed procedure is covered under the subscriber's health insurance contract.

4. Manufacturing and retail procurement

Both manufacturing and retail procurement are already heavy users of EDI. In manufacturing, EDI is used to support just-in-time. In retailing, EDI is used to support quick response.

Just-in-Time and EDI: Companies using JIT and EDI no longer stock thousands of large parts in advance of their use. Instead, they calculate how many parts are needed each day based on the production schedule and electronically transmit orders and schedules to suppliers every day or its some cases every 30 minutes. Parts are delivered to the plant "just in time" for production activity.

Quick Response and EDI: Taking their cue from the efficiencies manufacturers have

gained from just-in-time manufacturing techniques, retailers are redefining practices through the entire supply chain using quick response (QR) systems. For the customer, QR means better service and availability of a wider range of products. For the retailer and suppliers, QR may mean survival in a competitive marketplace. Much of the focus of QR is in reduction of lead times using event-driven EDI. Occurrences such as inventories falling below a specified level immediately trigger a chain of events including automatic ordering from one company's application directly into the other's application. In QR, EDI documents include purchase orders, shipping notices, invoices, inventory position, catalogs, and order status.

The Advantages and Disadvantages of Electronic Data Interchange (EDI)

It is quite easy to see how the technology we use today has vastly improved the processes of many industries. For one, technology improves the workforce by introducing something known as Electronic Data Interchange, or EDI. According to the National Institute of Standards and Technology, EDI is "the computer-to-computer interchange of strictly formatted messages that represent documents other than monetary instruments."

In addition, the NIST states that EDI could also refer to "a sequence of messages between two parties, either of whom may serve as originator or recipient. The formatted data representing the documents may be transmitted from originator to recipient via telecommunications or physically transported on electronic storage media."

EDI ADVANTAGES

It should not come as much of a surprise that there are many advantages to using EDI in your business.

- Cost effective: cutting paper waste and all paper processing quickly reduces paper costs
- Efficiency: cloud-computing and machine learning eliminates computational repetition, redundancies, and errors that would be more common among humans
- Speed: the electronic transfer of data ensures more consistency and accuracy without sacrificing pace
- Accuracy: by using cloud computing technology, you are able to transfer documents faster than would have otherwise been possible
- Service: faster processing means better customer service, over all; in turn, helping you to expand your customer base
-

EDI DISADVANTAGES

As with all things, wherever there are advantages their might also be disadvantages. So, with that, here are some ways that EDI might not serve your business; which means you should consider a different way to network and incorporate information technology.

- EDI uses multiple standards which can often limit how many devices can be connected to the network. The XML web-text language, for example, does not have strict standardization and that allows for multiple programmers to contribute to the coding.
- In addition to rigorous standards, EDI could also have too many rigorous standards bodies with too many document formats which can malfunction in the face of cross-compatibility issues, which you will definitely encounter as you continue to apply more standards
- EDI has a higher price point, which can be a little pricey for new business owners
- Large companies might actually find that EDI can limit the types of partnerships you can develop.

The EDI Model

There are three logical levels or "layers" of standards required to achieve EDI information transfer, each layer having its own controlling standards organisations (although some organisations may define more than one layer). This structured approach to EDI allows for the maximum flexibility and also enables future developments in technology and standards to be easily incorporated.

From the lowest layer upward, these three layers are:

• The Communications Standards - Defining just how the data is to be transferred from the sender to the receiver.

• The Syntax Standards - Defining what overall standards format the EDI file will be in.

• The Message Standards - Defining exactly what the message is and what information is to be placed where within this message.

These standards are going to be further described in the following sections but it is important to remember that whatever standards are used within each layer, the layering process is required to allow flexibility. For example not all users will wish to use a specific communication protocol; some may even wish to copy the data onto a floppy disk and send it in the post! So the communications level is now a floppy disk but the higher levels still remain. This principle of multiple methods of achieving the same goal is found over and over again within the EDI regime. It is not an attempt at duplication but is designed to give users the best possible solution and flexibility in all cases. The Communications Standards are described in a section of their own.

Electronic Payment System:

Introduction

PAYELECTRONİC

An e-payment system is a way of making transactions or paying for goods and services through an electronic medium, without the use of checks or cash. It's also called an electronic payment system or online payment system. Read on to learn more.

The electronic payment system has grown increasingly over the last decades due to the growing spread of internet-based banking and shopping. As the world advances more with technology development, we can see the rise of electronic payment systems and payment processing devices. As these increase, improve, and provide ever more secure online payment transactions the percentage of check and cash transactions will decrease.

While customers pay for goods/services by cash, check, or credit cards in conventional businesses, online buyers may use one of the following EPSs to pay for products/services

purchased
online:

• Electronic funds transfer (EFT): EFT involves electronic transfer of money by financial institutions.

• Payment cards : They contain stored financial value that can be transferred from the customer's computer to the businessman's computer.

• Credit cards : They are the most popular method used in EPSs and are used by charging against the customer credit.

• Smart cards: They include stored financial value and other important personal and financial information used for online payments.

• Electronic money (e-money/e-cash): This is standard money converted into an electronic format to pay for online purchases.

• Online payment: This can be used for monthly payment for Internet, phone bills, etc.

• Electronic wallets (e-wallets) : They are similar to smart cards as they include stored financial value for online payments.

• Micro-payment systems : They are similar to e-wallets in that they include stored financial value for online payments; on the other hand, they are used for small payments, such as kurus in Turkey .

• Electronic gifts : They are one way of sending electronic currency or gift certificates from one individual to another. The receiver can spend these gifts in their favorite online stores provided they accept this type of currency.

• Although these groups appear to be separate, there is some overlap among them. When the industry matures, this duplication in naming and function ought to be renamed. For example, e-wallets can be classified as payment cards when they are used to store credit card information or as e-money when they store electronic currency. The standardization of payment mechanisms on the Internet is essential to the success of e-commerce. Businesses offering domestic and international services must have assurance that payment will be received, that it is secure and that it is valid. Addressing security issues is crucial to the acceptance of online payment standards: consumers and merchants must be able to trust that their information is kept intact and remains secure during transmission. SET and SSL are two standards that protect the integrity of online transactions.

E Electronic payment methods

One of the most popular payment forms online are credit and debit cards. Besides them, there are also alternative payment methods, such as bank transfers, electronic wallets, smart cards or bitcoin wallet (bitcoin is the most popular cryptocurrency).

E-payment methods could be classified into two areas, credit payment systems and cash payment systems.

1. **Credit Payment System**

- Credit Card — A form of the e-payment system which requires the use of the card issued by a financial institute to the cardholder for making payments online or through an electronic device, without the use of cash.

- E-wallet — A form of prepaid account that stores user's financial data, like debit and credit card information to make an online transaction easier.
- Smart card — A plastic card with a microprocessor that can be loaded with funds to make transactions; also known as a chip card.

2. **Cash Payment System**

- Direct debit — A financial transaction in which the account holder instructs the bank to collect a specific amount of money from his account electronically to pay for goods or services.
- E-check — A digital version of an old paper check. It's an electronic transfer of money from a bank account, usually checking account, without the use of the paper check.
- E-cash is a form of an electronic payment system, where a certain amount of money is stored on a client's device and made accessible for online transactions.
- Stored-value card — A card with a certain amount of money that can be used to perform the transaction in the issuer store. A typical example of stored-value cards are gift cards.

3. **Electronic funds transfer :ELECTRONİC FUNDS TRANSFER** (EFT)

Electronic funds transfer is one of the oldest electronic payment systems. EFT is the groundwork of the cash-less and check-less culture where and paper bills, checks, envelopes, stamps are eliminated. EFT is used for transferring money from one bank account directly to another without any paper money changing hands. The most popular application of EFT is that instead of getting a paycheck and putting it into a bank account, the money is deposited

to an account electronically. EFT is considered to be a safe, reliable, and convenient way to conduct business. The advantages of EFT contain the following:

- Simplified accounting
- Improved efficiency
- Reduced administrative costs
- Improved security

4. **Charge Cards**

Charge cards are similar to credit cards except they have no revolving credit line, so the balance must be paid off every month. Credit, debit, and charge card methods of payments have been successfully utilized in the pre-Internet period, and they are often used in the e-commerce world as well. Some of the reasons for their popularity in the e-commerce world are their availability (most customers own one of these cards), ease of use, and acceptance. To use these cards as an online payment system, a well-defined process is followed. A brief description follows. To accept payment cards payments, a merchant must have a merchant account with a bank. The buyer will be required to submit their credit-card number, expiration date and shipping and billing information when making a purchase online using a payment card. (Figure 4.3) A customer using his/her browser clicks on a product on the merchant's web site and adds it to an electronic shopping cart. The customer provides the shipping instructions and payment card information. This information is sent securely over the Internet to the merchant's commerce site (Step 1). The server software adds the merchant identification to the information transmitted. The merchant then submits this information to the acquiring bank with which the merchant holds an account (Step 2). The merchant bank transmits this information to the customer's bank for authorization. Then, the buyer's account information is verified. This involves the issuing bank from which the buyer obtained the credit card, and the credit-card association (Step 3). Verification is received by the acquiring bank (Step 4) and is passed on to the merchant (Step 5) who then ships the product (Step 6). Payment cannot be issued to the merchant until the product has been shipped.

5. **Smart Cards**

A smart card is about the size of a credit card, made of a plastic with an embedded microprocessor chip that holds important financial and personal information. The microprocessor chip is loaded with the relevant information and periodically recharged. In addition to these pieces of information, systems have been developed to store cash onto the chip. The money on the card is saved in an encrypted form and is protected by a password to ensure the security of the smart card solution. In order to pay via smart card it is necessary to introduce the card into a hardware terminal. The device requires a special key from the issuing bank to start a money transfer in either direction. Smart cards can be disposable or rechargeable. A popular example of a disposable smart card is the one issued by telephone companies. After using the pre-specified amount, the card can be discarded. Smart cards have been extensively used in the telecommunications industry for years. Smart-card technology can be used to hold information on health care, transportation, identification, retail, loyalty programs and banking, to name a few. Smart cards enable information for different purposes to be stored in one location. The microprocessor chip can process different types of information, and therefore, various industries use them in different ways. Due to their multipurpose functions, their popularity in Turkey is also on the rise. Smart cards are broadly classified into two groups:

Contact

This type of smart card must be inserted into a special card reader to be read and updated. A contact smart card contains a microprocessor chip that makes contact with electrical connectors to transfer the data.

Contact-less This type of smart card can be read from a short distance using radio frequency. A contact-less smart card also contains a microprocessor chip and an antenna that allows data to be transmitted to a special card reader without any physical contact. This type of smart card is useful for people who are moving in vehicles or on foot. They are used extensively in European countries for collecting payment for highway tolls, train fares, parking, bus fares, and admission fees to movies, theaters, plays, and so forth. Smart cards can accommodate a variety of applications that allow the customer to make purchases from a credit account,

debit account, or stored value on the card. These cards can even have multiple applications operating at the same time. The customer, for example, could have a frequent flyer program working on the same card as the customer debit or credit account. This enables the customer to earn points in his or her favorite program. Several computer manufacturers (e.g. Compaq) are developing keyboards that include smart card slots that can be read like bank credit cards. A smart card can be programmed for different applications. Some cards contain programming and data to support multiple applications, and some can be updated with new applications after they are issued. IBM, Microsoft, Schlumberger, and Bull are among the major players in smart card development and utilization. Some of the advantages of smart cards include the following:

- Stored many types of information
- Not easily duplicated
- Not occupy much space
- Portable
- Low cost to issuers and users
- Included high security

The disadvantages of smart cards are the lack of universal standards for their design and utilization. On the other hand, smart card applications are expected to increase as a result of the resolution of these disadvantages in the near future.

5. Electronic Cash (E-cash)

(E-CASH) Similar to regular cash, e-cash enables transactions between customers without the need for banks or other third parties. When used, e-cash is transferred directly and immediately to the participating merchants and vending machines. Electronic cash is a secure and convenient alternative to bills and coins. This payment system complements credit, debit, and charge cards and adds additional convenience and control to everyday customer cash transactions. E-cash usually operates on a smart card, which includes an embedded microprocessor chip. The microprocessor chip stores cash value and the security features that make electronic transactions secure. Mondex, a subsidiary of MasterCard (Mondex Canada Association) is a good example of e-cash. (Appendix I) E-

cash is transferred directly from the customer's desktop to the merchant's site. Therefore, e-cash transactions usually require no remote authorization or personal identification number (PIN) codes at the point of sale. E-cash can be transferred over a telephone line or over the Web. The microprocessor chip embedded onto the card keeps track of the e-cash transactions. Using e-cash the customer has two options: a stand-alone card containing e-cash or a combination card that incorporates both e-cash and debit . How a typical e-cash system works: A customer or merchant signs up with one of the participating banks or financial institutions. The customer receives specific software to install on his or her computer. The software allows the customer to download "electronic coins" to his or her desktop. The software manages the electronic coins. The initial purchase of coins is charged against the customer's bank account or against a credit card. When buying goods or services from a web site that accepts e-cash, the customer simply clicks the "Pay with e-cash" button. The merchant's software generates a payment request, describing the item(s) purchased, price, and the time and date. The customer can then accept or reject this request. When the customer accepts the payment request, the software residing on the customer's desktop subtracts the payment amount from the balance and creates a payment that is sent to the bank or the financial institution of the merchant, and then is deposited to the merchant's account. The attractive feature of the entire process is its turnaround time which is a few seconds. The merchant is notified and in turn ships the goods.

8. **Electronic Check (E- check)**

E-check is the result of cooperation among several banks, government entities, technology companies, and e-commerce organizations. An e-check uses the same legal and business protocols associated with traditional paper checks. It is a new payment instrument that combines high-security, speed, convenience, and processing efficiencies for online transactions. It shares the speed and processing efficiencies of all-electronic payments. An e-check can be used by large and small organizations, even where other electronic payment solutions are too risky or not appropriate. The key advantages of e-checks are as follows:

- Secure and quick settlement of financial obligations
- Fast check processing
- Very low transaction cost E-check is being considered for many online transactions.

9. **Electronic wallets (E-Wallets)**

Electronic wallets being very useful for frequent online shoppers are commercially available for pocket, palm-sized, handheld, and desktop PCs. They offer a secure, convenient, and portable tool for online shopping. They store personal and financial information such as credit cards, passwords, PINs, and much more. To facilitate the credit-card order process, many companies are introducing electronic wallet services. E-wallets allow you to keep track of your billing and shipping information so that it can be entered with one click at participating merchants' sites. E-wallets can also store echecks, e-cash and your credit-card information for multiple cards. A popular example of an e-wallet on the market is *Microsoft Wallet* . To obtain Microsoft Wallet, one needs to set up a Microsoft Passport. After establishing a Passport, a Microsoft e- wallet can be established. Then, e-wallets can be used for micro-payments. They also eliminate reentering personal information on the forms, resulting in higher speed and efficiency for online shoppers. Microsoft Passport consists of several services including the following [5]: A single sign-in, wallet and kids passport services. A single sign-in service allows the customer to use a single name and password at a growing number of participating e-commerce sites. The shopper can use to make fast online purchases with a wallet service. Kids' passport service helps to protect and control children's online privacy.

10. **Micro Payment**

MİCRO-PAYMENT Merchants must pay a fee for each credit-card transaction that they process; this can become costly when customers purchase inexpensive items. The cost of some items could actually be lower than the standard transaction fees, causing merchants to incur losses. Micro-payments are used for small payments on the Web. The process is similar to e-wallet technology where the customer transfers some money into the wallet on his or her desktop and then pays for digital products by using this wallet. Using micro-payment one will be able to pay for one article from a professional journal, a chapter from a scientific book, or one song from a CD on the Web.

There are many vendors involved in micro-payment systems. IBM offers micropayment wallets and servers. IBM micro-payment systems allow vendors and merchants to sell content, information, and services over the Web. It provides universal acceptance and offers comprehensive security. This micro-payment system can be used for billing by banks and financial institutions, Internet service providers (ISPs), content providers (offering games, entertainment, archives, etc.), telecommunications, service providers (offering fax, e-mail, or phone services over the Web), and by premium search engines and specialized databases.

The initial screen of Qpass. A number of companies will allow for outsourcing the payment-management systems. Many of these systems can handle multiple payment methods including micro-payments. Qpass is an example of a company that can manage micro-payments for payper-download, subscription-based and pay-per-click systems. Qpass enables periodicals such as *The NewYork Times* and *The Wall Street Journal* to offer subscriptions over the Web. Customers who buy products and services through a Qpass-enabled company receive monthly bills that include descriptions of all purchases made during that month. Additional services

offered by Qpass include the Qpass Power Wallet, which registers passwords, credit-card information and other preferences necessary to make online transactions more efficient customer service marketing and sales assistance.

Psychology at Micro-payment:

Many developers have tried to push micro-payment solutions to the Internet, but only very few have succeeded. The difficulty was never the technical implementation but the Internet itself. Every company on the Internet gives away small pieces of information for free. Thus it is hard to validate the need to pay for small bits of information. The other issue is a psychological difficulty . If you have the choice of paying a one-time fee of 20 YTL or paying 50 kurus for every transaction, about 80 percent of the people will either pay the one-time fee or use the service only very seldom as it requires a new payment each time. It makes financial calculations more difficult as you do not know in advance how much money the service will cost and spending money means always thinking about it for a while. Most people will prefer to think once about it and use the system as often as they need it. Otherwise they will first think about the costs and how they can be justified and then decide maybe not to use it .

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University)

(Established Under Section 3 of UGC Act 1956)

Coimbatore – 641 021

(For the candidates admitted in 2016 onwards)

CLASS:III Bsc CT **UNIT 3**

SUBJECT:E-Commerce Technologies

Question	Option 1	Option 2	Option 3	Option 4
URL stands for:	Uniform Resource L	Universal Resource Locator	Universal Random Locator	Uniform Random Locator
SET protocol on internet stands for:	Secure Electronic Tr	Secure Internet Transaction	Secure Establish Transaction	Secure Electronic Transmission
Information Technology Act, 2000 is based on which Model Law of ECommerce adopted by United Nation:	UNICITIRAL	UNCITRAL	UNICITRAL	UNCITIRAL
Which of the following are empty tag:	Paragraph Tag	Pre-Tag	Horizontal Rule Tag	Emphasized Text
Who breaks into other people's computer system and steals and destroys information:	Hackers	Software	Hacktivists	Script Kiddies
Which one is not a layer of E-Commerce infrastructure:	Physical Layer	Product Layer	Service Layer	None
Which process is used to re install data from a copy when the original data has been lost	Backup	Recovery	Bench marking	Data cleansing

What is the percentage of customers who visit a website and actually buy something:	Affiliate Program	Click-through	Spam	Conversion rate
The solution for all business needs is:	EDI	ERP	SCM	None of These
Digital Cash has following characteristic	Anonymity	Security	Confidentiality	All of Above
Amazon.com is well known for which E-Commerce marketing technique:	Banner ads	Pop-up ads	Affiliated Programs	Viral Marketing
What floods a website with so many request for service that it slows down or crashes:	Computer virus	Worm	Denial of service attack	None of above
Mobile Commerce can be defined as –	M-Phil	M-Business	M-Com	M-organisation
Which type of e-commerce focuses on consumers dealing with each others?	B2B	B2C	C2B	C2C
Which of the following is not the benefit of online stoke trading?	Handy tools	Proper information	Time consuming	Flexibility
Which of the following are the way of approach?	Phone	email	In person	All of the above
Which of the following activity is explaining how the product meets that person or company's need?	Presentation	Follow-up	Qualifying	Prospective
Which of the following activity should be done after presentation?	Handling objection	Closing the sale	Following-up	None of the above
What is the final step of traditional selling strategy?	Following-up	Closing the sales	Approach	Pre approach
Before planning a sale, which or the following activity is conducted by the sales person?	Approach	Research	Follow-up	Presentation
Which of the following is the foundational step of the sales process?	Solve the objection	Follow-up	Prospecting	Presentation

Which of the following is not a part of traditional selling strategy?	Approach	Pre approach	Presentation	Online sales
Which of the following are the steps of traditional selling strategy?	Prospecting	Qualifying	Approach	All of the above.
Mobile computing devices include	Personal digital assi	Smart phone	Black berry	All of above
SET stands for	Surety Electronic Tr	Secure Electronic Transaction	Silent Electronic Transaction	None of above
Following is not type of Smart card.	Memory Cards	Shared Key Cards	Signature Creating Cards	Secured Key Cards
Benefits of M-commece include	Convenience in trar	Flexibility	Less time	All of above
The term Internet is the assemblage of two words;	Inter connection &	Intercontinental & Network	Interface & Network	None of above
What type of commerce is enabled by technology?	Path-to-profitability	E-commerce	EBuy	Internet
What term refers to an organization's ability to tailor its products and services to its customers?	Specialization	Target commerce or T-commerce	Mass customization	Adaption
What term refers to the small web page that opens automatically with an ad when you visit some web sites?	Marketing page	I-ad	Affiliate ad	Pop-up ad

Answer
Uniform Resource Locator
Secure Electronic Transaction
UNCITRAL
Horizontal Rule Tag
Hackers
None
Recovery

Conversion rate
ERP
All of Above
Affiliated Programs
Denial of service attack
M-Business
C2C
Time consuming
All of the above
Presentation
Handling objection
Following-up
Research
Prospecting

Online sales
All of the above.
All of above
Secure Electronic Transaction
Secured Key Cards
All of above
Inter connection & Network
E-commerce
Mass customization
Pop-up ad

SUBJECT NAME :E-COMMERCE TECHNOLOGY **CLASS : III B.Sc. (CT)**
SUBJECT CODE :16CTU602A **UNIT IV** **SEMESTER : VI**
BATCH (2016-2019)

UNIT-IV

SYLLABUS

Planning for Electronic Commerce
Planning Electronic commerce initiates, linking objectives to business strategies, measuring cost objectives, comparing benefits to Costs, strategies for developing electronic commerce web sites.

Planning Electronic Commerce Initiatives

In setting the objectives for an electronic commerce initiative, managers should consider the strategic role of the project, its intended scope, and the resources available for executing it. In this section, you will learn how to identify objectives and link those business objectives to business strategies. In later sections of this chapter, you will learn about Web site development strategies and how to manage the implementation of an electronic commerce initiative.

Identifying Objectives

Businesses undertake electronic commerce initiatives for a wide variety of reasons. Objectives that businesses typically strive to accomplish through electronic commerce include: increasing sales in existing markets, opening new markets, serving existing customers better, identifying new vendors, coordinating more efficiently with existing vendors, or recruiting employees more effectively.

The types of objectives vary with the size of the organization. For example, small companies might want a Web site that encourages site visitors to do business using existing channels rather than through the Web site itself to reduce the cost of the site. A site that offers only product or service information is much less expensive to design, build, and maintain than a site that offers transaction handling, bidding, communications, or other capabilities. Decisions regarding resource allocations for electronic commerce initiatives should consider the expected benefits and costs of meeting the objectives. These decisions should also consider the risks inherent in the electronic commerce initiative and compare them to the risks of in action - failure to act could concede a strategic advantage to competitors.

SUBJECT NAME :E-COMMERCE TECHNOLOGY **CLASS : III B.Sc. (CT)**
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Linking Objectives to Business Strategies

Businesses can use tactics called downstream strategies to improve the value that the business provides to its customers. Alternatively, businesses can pursue upstream strategies that focus on reducing costs or generating value by working with suppliers or inbound shipping and freight service providers.

The Web is a tremendously attractive sales channel for many firms however, companies can use electronic commerce in a variety of ways to do much more than sell. They can use the Web to complement their business strategies and improve their competitive positions. As you learned in earlier chapters of this book, electronic commerce opportunities can inspire businesses to undertake activities such as:

Business Activities:	♦ Building brands ♦ Enhancing existing marketing programs ♦ Selling products and services ♦ Selling advertising ♦ Developing a better understanding of customer needs ♦ Improving after-sale service and support ♦ Purchasing products and services ♦ Managing supply chains ♦ Operating auctions ♦ Building virtual communities and Web portals

Measuring Benefits

Some benefits of electronic commerce initiatives are tangible and easy to measure. These include such things as increased sales or reduced costs. Other benefits are intangible and can be much more difficult to measure, such as increased customer satisfaction. When identifying benefit objectives, managers should try to set objectives that are measurable, even when those objectives are for intangible benefits .For example, success in achieving a goal of increased customer satisfaction might be measured by counting the number of first-time customers who return to the site and buy.

Many companies create Web sites to build brands or enhance their existing marketing programs. These companies can set goals in terms of increased brand awareness, as measured by market

research surveys and opinion polls. Companies that sell goods or services online can measure sales volume in units or dollars. A complication that occurs in measuring either brand awareness or sales is that the increases can be caused by other things that the company is doing at the same time or by a general improvement in the economy. A good marketing staff or outside consulting firm can help a company sort out the effects of marketing and sales programs. Firms may need these groups to help set and evaluate these kinds of goals for electronic commerce initiatives.

Managing Costs

At first glance, the task of identifying and estimating costs may seem much easier than the task of setting benefits objectives. However, many managers have found that information technology project cost scan be as difficult to estimate and control as the benefits of those projects. Since Web development uses hardware and software technologies that change even more rapidly than those used in other information technology projects , managers often find that their experience does not help much when they are making estimates.

Managing Costs:	♦ **Total cost of ownership:** In addition to hardware and software costs, the project budget must include the costs of hiring, training, and paying the personnel who will design the Web site, write or customize the software, create the content, and operate and maintain the site. Many organizations now track costs by activity and calculate a total cost for each activity. These cost numbers are called total cost of ownership. ♦ **Change management:** The process of helping employees copes with changes introduced in the workplace. Change management techniques include communicating the need for change to employees, allowing employees to participate in the planning for the change, and other tactics designed to help employees feel that they are a part of the change. ♦ **Opportunity cost:** The foregone benefits that a company could have obtained from an electronic commerce initiative that they chose not to pursue.

Change management deals with how changes to the system are managed so they don't degrade

system performance and availability. Change management is especially critical in today's highly decentralized, network-based environment where users themselves may be applying many changes. A key cause of high cost of ownership is the application of changes by those who don't fully understand their implications across the operating environment.

In effective change management, all changes should be identified and planned for prior to implementation. Back-out procedures should be established in case changes create problems. Then, after changes are applied, they are thoroughly tested and evaluated. This article describes the process steps for change management and factors critical to its success.

Step1: Define change management process and practices

- **Procedures for handling changes** -how changes are requested, how they are processed and scheduled for implementation, how they are applied, and what the criteria are for backing out changes that cause problems
- **Roles and responsibilities of the IT support staff-** who receives the change request, who tracks all change requests, who schedules change implementations, and what each entity is supposed to do
- **Measurements for change management** - what will be tracked to monitor the efficiency of the change management discipline
- **Tools to be used**
- **Type of changes to be handled and how to assign priorities-**priority assignment methodology and escalation guidelines
- **Back-out procedures** - Actions to take if applied changes do not performs expected or cause problems to other components of the system

Step2: Receive change requests

Receive all requests for changes, ideally through a single change coordinator. Change requests can be submitted on a change request form that includes the date and time of the request.

Step3: Plan for implementation of changes

Examine all change requests to determine:

- Change request prioritization
- Resource requirements for implementing the change
- Impact to the system
- Back-out procedures
- Schedule of implementation

Step4: Implement and monitor the changes; back out changes if necessary

At this stage, apply the change and monitor the results. If the desired outcome is not achieved, or if other systems or applications are negatively affected, back out the changes.

Step5: Evaluate and report on change implemented

Provide feedback on all changes to the change coordinator, whether they were successful or not. The change coordinator is responsible for examining trends in the application of changes, to see if:

- Change implementation planning was sufficient.
- Changes to certain resources are more prone to problems.

Step6: Modify change management plan if necessary

You may need to modify the entire change management process to make it more effective. Consider reexamining your change management disciplines if:

- Changes are not being applied on time.
- Notenough changes are being processed.
- Toomany changes are being backed out.
- Changes are affecting the system availability.
- Not all changes are being covered.

Comparing Benefits to Costs

Most companies have procedures that call for an evaluation of any major expenditure of funds. These major investments in equipment, personnel, and other assets are called capital projects or capital investments. The techniques that companies use to evaluate proposed capital projects range from very simple calculations to complex computer simulation models. However, no matter how complex the technique, it always reduces to a comparison of benefits and costs. If the benefits exceed the costs of a project by a comfortable margin, the company invests in the project.

Strategies for Developing Electronic Commerce Web Sites

When companies began establishing their presences on the Web, the typical Web site was a static brochure that was not updated frequently with new information and seldom had any capabilities for helping the company's customers or vendors transact business. As Web sites have become the

home not only of transaction processing but also of automated business processes of all kinds, these Web sites have become important parts of companies' information systems infrastructures.

Internal Developments. Outsourcing

Although many companies would like to think that they can avoid electronic commerce site development problems by outsourcing the entire project, savvy leaders realize that they cannot. No matter what kind of electronic commerce initiative a company is contemplating, the initiative's success depends on how well it is integrated into and supports the activities in which the business is already engaged. Using internal people to lead all projects helps to ensure that the company's specific needs are addressed and that the initiative is congruent with the goals and the culture of the organization. Outside consultants are seldom able to learn enough about an organization's culture to accomplish these objectives. However, few companies are large enough or have sufficient in-house expertise to launch an electronic commerce project without some external help. Even Wal-Mart, with annual sales of more than $150 billion, did not undertake its 2000 Web site relaunch alone. The key to success is finding the right balance between outside and inside support for the project. Hiring another company to provide the outside support for all or part of the project is called outsourcing.

Internal Developmentvs. Outsourcing:	♦ **The internal team:** The first step in determining which parts of an electronic commerce project to outsource is to create an internal team that is responsible for the project. This team should include people with enough knowledge about the Internet and its technologies to know what kinds of things are possible. Team members should be creative thinkers who are interested in taking the company beyond its current boundaries, and they should be people who have distinguished themselves in some way by doing something very well for the company. ♦ **Early outsourcing:** In many electronic commerce projects, the company outsources the initial site design and development to launch the project quickly. The outsourcing team then trains the company's information systems professionals in the new technology before handing the operation of the site over tothem.

	♦ **Late outsourcing:** In the more traditional approach to information systems outsourcing, the company's information systems professionals do the initial design and development work, implement the system, and operate the system until it becomes a stable part of the business operation. Once the company has gained all the competitive advantage provided by the system, the maintenance of the electronic commerce system can be outsourced. ♦ **Partial outsourcing:** The company identifies specific portions of the project that can be completely designed, developed, implemented, and operated by another firm that specializes in a particular function.

Selecting a Hosting Service

Because the company's information on customers, products, pricing, and other data will be placed in the hands of the service provider, the vendor's security policies and practices are very important, as you learned in Chapter 10. No matter what security guarantees the service provider offers, the company should monitor the security of the electronic commerce operation through its own personnel or by hiring a security consulting firm.

New Methods for Implementing Partial Outsourcing

An incubator is a company that offers start-up companies a physical location with offices, accounting and legal assistance, computers, and Internet connections at a very low monthly cost. Sometimes, the incubator offers seed money, management advice, and marketing assistance as well. In exchange, the incubator receives an ownership interest in the company, typically between 10 percent and 50 percent. When the company grows to the point that it can obtain venture capital financing or launch a public offering of its stock, the incubator sells all or part of its interest and reinvests the money in a new incubator candidate. One of the first Internet incubators was Idea lab, which helped companies such as Cars Direct.com, Overture, and Tickets.com get their starts.

Fast Venturing

In fast venturing, an existing company that wants to launch an electronic commerce initiative joins external equity partners and operational partners that can offer the experience and skills needed to develop and scale up the project very rapidly. Equity partners are usually banks or venture capitalists that sometimes offer money, but are more likely to offer experience gained from guiding other start-ups that they have funded. Operational partners are firms, such as systems integrators, consultants, and Web portals, that have experience in moving projects along and scaling up prototypes.

Managing Electronic Commerce Implementations

The best way to manage any complex electronic commerce implementation is to use formal management techniques. Project management, project portfolio management, specific staffing, and post implementation audits are methods businesses use to efficiently administer their electronic commerce projects.

Project Management

Project management is a collection of formal techniques for planning and controlling the activities undertaken to achieve a specific goal. Project management was developed by the U.S. military and the defense contractors that worked with the military in the 1950s and the 1960s to develop weapons and other large systems. Not only was defense spending increasing in those years, but individual projects were becoming so large that it became impossible for managers to maintain control over them without some kind of assistance.

The project plan includes criteria for cost, schedule, and performance - it helps project managers make intelligent trade-off decisions regarding these three criteria. For example, if it becomes necessary for a project to be completed early, the project manager can compress the schedule by either increasing the project's cost or decreasing its performance.

Project Portfolio Management

Project portfolio management is a technique in which each project is monitored as if it were an investment in a financial portfolio. The CIO records the projects in a list (usually using spreadsheet or database management software) and updates the list

regularly with current information about each project's status.

Staffing for Electronic Commerce

Regardless of whether the internal team decides to outsource parts of the design and implementation activity, it must determine the staffing needs of the electronic commerce initiative. The general areas of staffing that are most important to the success of an electronic commerce initiative include:

General Areas of Staffing:	♦ Business managers ♦ Project managers♦ Account managers ♦ Applications specialists ♦ Web programmers ♦ Web graphics designers ♦ Content creators ♦ Content managers or editors ♦ Customer service ♦ Systems administration ♦ Network operations ♦ Database administration

Post implementation Audits

A post implementation audit (also called a post audit review) is a formal review of a project after it is up and running. It gives managers a chance to examine the objectives, performance specifications, cost estimates, and scheduled delivery dates that were established for the project in its planning stage and compare them to what actually happened. In the past, most project reviews focused on identifying individuals to blame for cost overruns or missed delivery dates. Because many external forces in technology projects can overwhelm the best efforts of managers, this blame identification approach was generally unproductive, as well as uncomfortable, for the managers on the project.

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(For the candidates admitted in 2016 onwards)

CLASS:III Bsc CT

16CTU602A - E-COMMERCE TECHNOLOGIES

UNIT IV

QUESTIONS	OPTION A	OPTION B	OPTION C	OPTION D	ANSWER
The person who places the product on the website is known as the……..	seller	bidder	member	none of these	seller
The person who bids for a product on the website is known as the……..	seller	bidder	member	none of these	bidder
..of the auction website are required to provide their basic contact information.	seller	bidder	member	none of these	member
……..is an auction website.	ebay.com	Flipkart.com	c)Gswan.gov.in	incometax.com	ebay.com
Various……..options are provided to the bidder on the auction site.	payment	selection	c)bidding	selling	payment
……..is an auction website	www.irctc.co.in	www.ubid.com	www.bsnl.co.in	www.astroved.com	www.ubid.com
Now-a-days many business websites provide their product…….online over Internet.	catalogue	images	videos	all of these	all of these
The customers select the products from the websites by adding them to an online……..	box	corner	shoppingcart	file	shoppingcart

Now-a-days some websites provide holiday packages along with……..	clothes	airline tickets	mobile	toys	airline tickets
……..is the Indian railways website for booking railway ticket.	Railways.com	Tickets.co.in	irctc.co.in	Railtickets.co.in	irctc.co.in
In online billing, companies send their bills through…….	E-mail	Fast-Mail	Slow-Mail	Post	E-mail
The bills can be paid online on the company's website using……..	credit card	debit card	bothand	cheque	bothand
Companies can also get the information or details about the customers by filling the……..online.	forms	information	database	none of these	forms
How is the e-commerce business compared to the traditional one ?	Fast	b)Medium	Slow	Can't say	Fast
Which of the following e-commerce business model is also part of E-governance ?	Business to Business (B2B)	Consumer to Business (c2B)	Consumer to Consumer (C2C)	Government to Citizen (G2C)	Government to Citizen (G2C)
E-commerce business is not bound to.....	time	choice	product	price	time
The variety of products and service make online shopping..... .	attractive	convenient	and both	none of these	and both
Software vendors allow.....to their licensed customers	to download the code	to download recent update	to download latest versions	all of these	to download recent update
Today the simplest products utilize sophisticated electronics which require.....	specialized knowledge (	b)special knowledge for maintenance	technical	all of these	all of these

Companies provide..... Online over internet for better marketing.	Catalogue	working process	ingredients of products	explanation of products	Catalogue
Order is given at the time of.....in online shopping.	log-in	b)registration	c)checkout	d)checking	log-in
Website of an educational institute provides information regarding various……..	courses contents	students	faculty	All of these	All of these
Website of business organization provides information regarding their……..	products	suppliers	banks	Bothand	Bothand
Today many businesses have set up their own……..	offices	websites	farms	factories	websites
The use of Internet for conducting any business activities is known as……..	E-commerce	F-commerce	G-commerce	None of these	E-commerce
Online book stores should have……..on their website	categories	picture and description	price and reviews	All of these	All of these
The bills can be paid online on the company's website using……..	credit card	debit card	bothand	cheque	bothand
Students can view their……..using the website from anywhere	results	enrolment form	exam schedule	All of these	All of these
After selling the products, companies provide……..support to the customer.	physical	medical	c)online	all of these	online
The URL of State Bank of India is……..	www.sbi.com	www.sbionline.com	www.statebankofindia.com	www.onlinesbi.com	www.onlinesbi.com

In……..commerce, the business has to compete within a single industry and limited geographical area.	conventional	established	physical	d)traditional	traditional
……..in India is experiencing a remarkable growth and successfully changing the way people transact.	M-commerce	Net Banking	c)E-commerce	None of these	E-commerce
……..gives better and quicker customer service	M-commerce	F-Banking	E-commerce	L-commerce	E-commerce
The use of Internet for conducting business activities is known as..... .	Electronic commerce	internet commerce	e-mail commerce	international commerce	Electronic commerce
Which type of information is provided by the professional websites ?	Information of products	Specialties of products	Supplier and price	All of these	All of these

UNIT-V

SYLLABUS

Internet marketing
The PROS and CONS of online shopping, the CONS of online shopping, Justify an internet business, Internet marketing techniques, The E-Cycle of Internet marketing, personalization e-commerce.

The Pros and Cons of Online Shopping

The internet can be a great resource for shoppers looking to expand their choices of products to buy and an invaluable way for saving money. Online stores are highly competitive not only with other online stores, but also with brick-and-mortar competitors. Price-comparison websites make **deal hunting** easier and also help guide shoppers to online stores with the best reputations by posting reviews submitted by other shoppers.

Point-of-sale advantages include stores offering no shipping charges and free ship-to-store charges. A lot of online stores do not pass on sales tax (unless required by the state) to customers, which can add up to substantial savings for those shoppers who buy primarily online.

The advantages of shopping online include:

- The stores are almost never closed.
- Shoppers can shop in their pajamas.
- Online shoppers save on gas.
- There are no parking hassles.
- Online shoppers rarely have to deal with aggressive salespeople.
- There are no annoying crowds.
- Online shoppers do not have to wait in long lines to check out.
- Many online retailers allow shoppers to post reviews about the products that they purchased.
- There are more choices for buying **refurbished products**.
- Online sales representatives often receive more intensive product training than those at the local stores.

- **Online sales representatives** often have more flexibility with making decisions such as applying coupons, meeting competitors' prices and expediting shipping at no extra charge.

The Disadvantages of Shopping Online

Sometimes a deal that looks great falls short of what has been advertised. Communicating dissatisfaction can be difficult online and often takes enormous patience and tenacity to achieve satisfaction. Problem-solving **face-to-face with local store employees** is often faster and more satisfying. Contacting the next level of management is much easier at local stores than online.

Other disadvantages of shopping online include:

- Online shoppers do not have the ability to physically inspect or try on the items being considered for purchase.
- Online shoppers sometimes lose the power to negotiate the price and payment terms that may exist in local stores.
- Items ordered online are sometimes **back ordered**, but shoppers may not find out until weeks later. This is particularly problematic when buying gifts.
- Online shoppers do not always know if a site is a **legitimate retail store and if is safe to shop**.
- Restocking and shipping costs are often charged on returns.

- Online shoppers often do not have a person (or the same person) to talk to when dealing with a problem.
- It is sometimes easier to get money refunded locally when the item purchased drops in price within the guaranteed price period.
- Online shoppers do not get to take advantage of seasonal statewide tax-free shopping events.

Other Pros and Cons of Online Shopping

Pros: Many online stores sell products at **really low prices** because of the lack of money spent on overhead. Local stores have operating costs like water, heat, and air that are figured, at least partially, into the markup of the products.

Cons: Online stores advertising free products will sometimes increase the cost of shipping so that they profit from the purchase. For example, shoppers may get three free software programs,

but paying $14.95 in shipping or handling charges is higher than what would normally be charged and likely covers the cost of the three items plus shipping.

Advantages and Disadvantages of Online Shopping

Advantages of online shopping

Due to rapid growth of technology, business organizations have switched over from the traditional method of selling goods to electronic method of selling goods. Business organizations use internet as a main vehicle to conduct commercial transactions.

Online stores do not have space constraints and a wide variety of products can be displayed on websites. It helps the analytical buyers to purchase a product after a good search.

1. Convenience of online shopping

Customers can purchase items from the comfort of their own homes or work place. Shopping is made easier and convenient for the customer through internet. It is also easy to cancel the transactions.

The following table depicts the factors which motivate the online shoppers to buy products online.

Top 6 reasons given by shoppers in buying through internet

1. Saves time and efforts.
2. Convenience of Shopping at home.
3. Wide variety / range of products are available.
4. Good discounts / lower prices.
5. Get detailed information of the product.
6. We can compare various models / brands.

Source: I-Cube 2006, a syndicated product of IMRB International.

2. No pressure shopping

Generally, in physical stores, the sales representatives try to influence the buyers to buy the product. There can be some kind of pressure, whereas the customers are not pressurized in any way in online stores.

3. Online shopping saves time
Customers do not have to stand in queues in cash counters to pay for the products that have been purchased by them. They can shop from their home or work place and do not have to spend time traveling. The customers can also look for the products that are required by them by entering the key words or using search engines.

4. Comparisons
Companies display the whole range of products offered by them to attract customers with different tastes and needs. This enables the buyers to choose from a variety of models after comparing the finish, features and price of the products on display, Sometimes, price comparisons are also available online.

5. Availability of online shop
The mall is open on 365 x 24 x 7. So, time does not act as a barrier, wherever the vendor and buyers are.

6. Online tracking
Online consumers can track the order status and delivery status tracking of shipping is also available.

7. Online shopping saves money
To attract customers to shop online, e-trailers and marketers offer discounts to the customers. Due to elimination of maintenance, real-estate cost, the retailers are able to sell the products with attractive discounts through online. Sometimes, large online shopping sites offer store comparison.

Ease of use is the prime reason that drives the success of e-commerce. Though internet provides a quick and easy way to purchase a product, some people prefer to use this technology only in a limited way. They regard internet as a means for gathering more information about a product before buying it in a shop. Some people also fear that they might get addicted to online shopping.

The major disadvantages of online shopping are as follows.

1. Delay in delivery
Long duration and lack of proper inventory management result in delays in shipment. Though the duration of selecting, buying and paying for an online product may not take more than 15

minutes; the delivery of the product to customer' s doorstep takes about 1-3 weeks. This frustrates the customer and prevents them from shopping online.

2. Lack of significant discounts in online shops
Physical stores offer discounts to customers and attract them so this makes it difficult for e-tailers to compete with the offline platforms.

3. Lack of touch and feel of merchandise in online shopping
Lack of touch-feel-try creates concerns over the quality of the product on offer. Online shopping is not quite suitable for clothes as the customers cannot try them on.

4. Lack of interactivity in online shopping
Physical stores allow price negotiations between buyers and the seller. The show room sales attendant representatives provide personal attention to customers and help them in purchasing goods. Certain online shopping mart offers service to talk to a sales representative,

5. Lack of shopping experience
The traditional shopping exercise provides lot of fun in the form of show-room atmosphere, smart sales attendants, scent and sounds that cannot be experienced through a website. Indians generally enjoy shopping. Consumers look forward to it as an opportunity to go out and shop.

6. Lack of close examination in online shopping
A customer has to buy a product without seeing actually how it looks like. Customers may click and buy some product that is not really required by them. The electronic images of a product are sometimes misleading. The colour, appearance in real may not match with the electronic images.

People like to visit physical stores and prefer to have close examination of good, though it consumes time. The electronic images vary from physical appearance when people buy goods based on electronic images.

7. Frauds in online shopping
Sometimes, there is disappearance of shopping site itself. In addition to above, the online payments are not much secured. So, it is essential for e-marketers and retailers to pay attention to this issue to boost the growth of e-commerce. The rate of cyber crimes has been increasing and customers' credit card details and bank details have been misused which raise privacy issues.

Customers have to be careful in revealing their personal information. Some of the e-tailers are unreliable.

Internet Business:

The **internet** has become a vital tool for the success of **businesses**. ... The **internet**has become an essential tool for marketing and advertising. A **business** can present itself to customers with the use of a website or online advertisements.

Importance of Internet in Business

Importance of internet in business: You can understand the importance of the internet in business by the inventions of Digital Marketing, Internet banking and eCommerce business models. The Internet is providing great benefits for business communication. The Internet is the easiest way for a business to connect with customer and clients. The business organisation is using the high-speed internet to speed up the production.

Uses of the internet in business: Companies are getting customer data and buying habits and creating marketing strategies based on the analysis. New and innovative online business models are coming. Everyone is searching online business ideas. People are working from home for companies around the world. Business information is fastest than ever. So, you can see from all of this is that internet is now the backbone of offline business to sell online. And the internet is a heart for online business.

Inventions of new internet technologies for businesses: Internet technology invented new methods of doing business. Internet is important for business development. Internet technology provides powerful communication and marketing tools. The Internet is a new Bazaar in which you can find online shops, online degree programs and a lot more. You can browse various educational and business development websites, management service platforms anytime &

anywhere.

Internet is in role of business successor: important to make business successful. Internet helps businesses to grow, achieve goals and become successful in this competitive market. Marketing is important in business and in this case internet is the first and most important marketing tool business owners are looking for. Internet provides great benefits for entrepreneurs to create business infrastructure based on customer's data and information.

Business success is impossible without internet in this modern era. Internet transformed the education, communication and methods of receiving and giving data. Internet technology provides great data management sources for businesses to launch unique and creative solutions for customers.

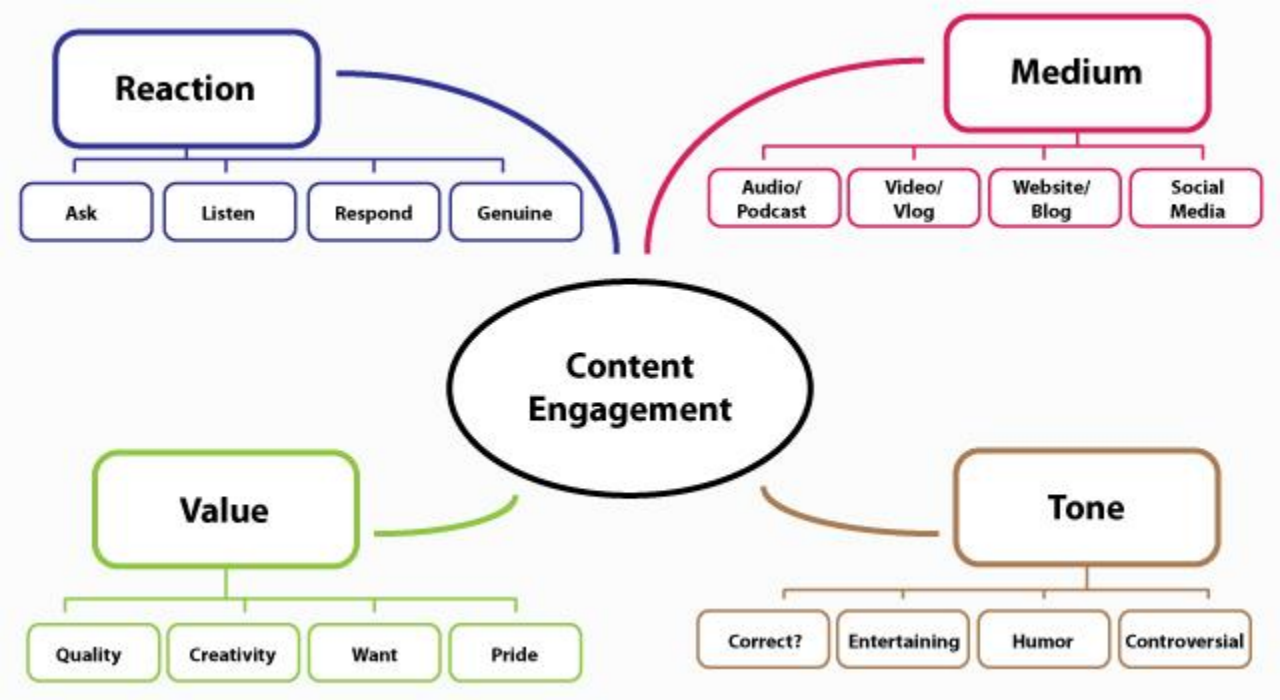
Internet Marketing Techniques

Top 8 Technologies for Successful Ecommerce Marketing

Ecommerce marketers must stay updated and aware of the latest technologies in order to boost their business online. They can achieve this by analyzing the market, the hit trends of the previous year and willingness to try something new. Stay with us as we are going to tell you the top marketing technologies that you should use to reinvigorate your ecommerce in 2017:

1. Engagement with Content

Content is the key in order to get high rankings and therefore, it must be original, unique and most of all engaging. Ensure that your blogs, website content and product descriptions have all these qualities. However, a customer doesn't always have time to go through the content and that is why you must incorporate the latest technology for engagement. A customer shouldn't get bored upon visiting your website as it can be fatal for your business, thus ensure that you maintain engagement with content.



2. Programmatic Advertising is More Effective

This year, ecommerce businesses are allocating more budgets on Programmatic Advertising. As compared to traditional methods that need human buyers, salespeople, and immense guesswork, Programmatic Advertising presents you with enhanced cost efficiency as well as speed. Using the new technologies, Programmatic uses the data analytics in order to determine the right audience and the appropriate ad format that will be projected to that audience. This automation will also save a lot of your time that you can use on other crucial aspects of your businesses.

Zenith is a marketing and advertising agency that published a report stating, "Programmatic will become the principal method of trading digital display this year, accounting for 51% of expenditure, and will rise to 58% of expenditure in 2017."

3. Engagement with Bots

The majority of the ecommerce marketers depend on CTRs and website visits to understand the potency of their **online marketing** campaigns, however, these methods fail to present a clear picture. Instead of spending your whole budget to enhance CTRs and website visits, you must allocate some budget in using the Chatbots technology as it is a new yet effective method to

enhance customer engagement. As compared to traditional advertisements and videos, conversing with Chatbots is more natural and engaging. A number of ecommerce giants are using latest technologies and Artificial Intelligence (AI) based on chatbots to establish brand engagement.

4. Customization for Better Customer Experience & Brand Engagement

This isn't exactly a new strategy, but it will align with your efforts towards improving customer experience and brand engagement. Online product customization has tremendous revenue potential and has its unique space in the online world.

With customization, you can charge more for the same products as customers are willing to pay more for self-designed products, compared to non-customized ones. It is also likely that customers would be willing to talk about these products; these are their own creations! You should promote such interactions by allowing customers to easily share their designs in the social space.

5. Engagement with AR (Augmented Reality) and VR (Virtual Reality)

As everyone knows, Pokemon Go became the most popular game of all times which shows how successful and important AR and VR are going to be in **e-commerce marketing** as well. It is crucial for ecommerce companies worldwide to remodel around artificial intelligence. AR and VR are also becoming important to enhance customer engagement and ecommerce owners are developing strategies and immersive experiences. It will help in increasing customer engagement and also in transforming the shopping experience of customers.

6. Think Beyond Apps

It is vital for ecommerce owners to understand the fact that in order to engage customers, apps are no longer going to be the only channel. There have been many "mobile first" and "mobile only" marketing strategies in the past years but the future is going to be different. **Mobile app development companies** are adapting to the new technologies and transforming their processes and offerings according to the demands of the market. It is important to develop apps for larger screens. show that people tend to use mobile for casual browsing, while they make most of their online purchases via desktop. Instead of trying to change this behavior, you should gauge customer journey across all screen sizes and make it seamless for them to switch devices.

7. Voice First Browsing is Becoming a New Trend

With the advancing technology, voice first browsing ought to be your primary focus this year as voice search trend is constantly rising. *It is said in a report that "mobile voice searches have tripled in the past two years (2014-15)."* It is also becoming very famous because of a number of unique innovation and new hardware around this technology. People now are excited to use voice search which has resulted in the introduction of technologies such as Amazon Echo, Apple AirPods, and Google Home. Doing away with the screens, the vocal communication and interaction will have a remarkable effect on the internet and web experience of people as they can now use it without getting distracted while doing other works such as exercising, driving, walking, etc.

8. Fastest Means for Delivery and Returns

The marketing department must always pay attention to delivery as well as returns because it has an important role in providing customer satisfaction. When a customer receives the product at quick speed or gets it exchanged or returned without any hassles, their loyalty towards the brand increases as well. So ensure to allocate some amount from your budget to delivery as well.

The E-Cycle of Internet marketing

Stage One: Setting Corporate and Business-Unit Strategy

Corporate strategy addresses the interrelationship between the various business units in a firm, including decisions about which units should be kept, sold, or augmented. Business-unit strategy focuses on how a particular unit in the company attacks a market to gain competitive advantage.

Stage Two: Framing the Market Opportunity

Stage two entails the analysis of market opportunities and an initial first pass of the business concept—that is, collecting sufficient online and offline data to establish the burden of proof of opportunity assessment.

Stage Three: Formulating the Marketing Strategy

Internet marketing strategy is based upon corporate, business-unit, and overall marketing strategies of the firm. The marketing strategy goals, resources, and sequencing of actions must be tightly aligned with the business-unit strategy. Finally, the overall marketing strategy comprises

both offline and online marketing activities.

Stage Four: Designing the Customer Experience

Firms must understand the type of customer experience that needs to be delivered to meet the market opportunity. The experience should correlate with the firm's positioning and marketing strategy. Thus, the design of the customer experience constitutes a bridge between the high-level marketing strategy (step three) and the marketing program tactics (step five).

Stage Five: Designing the Marketing Program

Stage five entails designing a particular combination of marketing actions (termed levers) to move target customers from awareness to commitment. The framework used to accomplish this task is the Market space Matrix. The Internet marketer has six classes of levers (e.g., pricing, community) that can be used to create target customer awareness, exploration, and commitment to the firm's offering.

Stage Six: Crafting the Customer Interface

The Internet has shifted the locus of the exchange from the Marketplace (i.e., face-to-face interaction) to the Market space (i.e., screen-to-face interaction). The key difference is that the nature of the exchange relationship is now mediated by a technology interface. This interface can be a desktop PC, subnotebook, personal digital assistant, mobile phone, wireless applications protocol (WAP) device, or other Internet-enabled appliance.

Stage Seven: Evaluating the Marketing Program

This last stage involves the evaluation of the overall Internet marketing program. This includes a balanced focus on both customer and financial metrics. It emphasizes customer actions as well as financial metrics used to track the success of marketing programs.

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Ecommerce Personalization

What is Ecommerce Personalization?
Ecommerce Personalization is the term used by online retailers that refers to the practice of creating personal interactions and experiences on ecommerce sites by dynamically showing content, media, or product recommendations based on browsing behavior, purchase history data, demographics and psychographics.
To begin the journey to advanced ecommerce personalization, any company with a transactional ecommerce site should be able to capture data and personalize experience based on:

- Context
  - Type of device
  - Time of day
  - Time and location
  - Referral source
- Behavior
  - Recently viewed products and categories
  - Items from abandoned carts
- History

- Past purchases
- Loyalty program member
- Past email interactions

Beyond those initial data points, there are thousands more that can be considered, but a human could never take all of them into account. With the help of machine learning, the personalization platform is able to consider all these different data points as context to determine what will work best for the customer in real time.

Ecommerce Personalization Goal Metrics

In order to measure success, a business must first define the goal metrics for its personalization efforts. Retailers frequently use personalization to optimize for Revenue, Conversion Rate, Bounce Rate, or Engagement; but you might also choose to develop your own metrics or choose from a variety of other options, including:

- Average Page Views
- Add-to-Cart Rate
- Cart Abandonment Rate
- Revenue Per Session
- Average Order Value
- Total Time on Site

Multi-Device Ecommerce Personalization

Increasingly, customers are using more than one device to interact with brands. Retailers who are tracking their customers across multiple devices are able to gain valuable data on who their most valuable customers are, how often those customers are interacting with their brand, and what those on-site experiences look like. Statistics show significant increases in product view rate, purchase rate and average order value with multi-device versus single device personalization:

- Product view rate is 88% v. 58%
- Purchase rate is 55% v. 6%
- AOV is $130 v. $115

As a result, the customers who receive all the benefits of a more cohesive, personalized experience, are able to deliver more value to the retailer as a direct result of being recognized throughout their journey.
Read the latest EQ from Monetate, The Cross-Device Imperative, and get the stats and insights that guide the industry.

Ecommerce and Omni channel Personalization
Until now, personalization has been primarily limited to online channels. Digital-only approaches are still valuable, but in the customer's mind they have one relationship with you—not one for every channel. That relationship needs to be consistent across all interactions, whether online, offline, in-store, in email, or on mobile. To create an experience that makes the customer feel truly recognized, your personalization platform and strategy need to be in all of those places.

The Benefits of Omni channel Personalization include:

- Ability to personalize products, content, and copy on any customer channel
- Linking customers' online behavior to in-store by notifying local stores via their clientelling app when a particular user browsed specific items online
- Linking customers' online browsing behavior to personalize the in-app experience and trigger relevant push notifications leveraging geofencing
- Enabling a POS feedback loop that ensures that online product recommendations and email promotions can be individualized to reflect in-store purchases.

The Monetate Intelligent Personalization Engine™ is the only platform that combines cross-channel customer identification, cross-channel action, and state-of-the-art measurement and optimization to build, grow, and automatically improve customer experiences. This empowers marketers to reach each customer in new and meaningful ways and create engaging and immersive experiences that lift conversions and revenue.

KARPAGAM ACADEMY OF HIGHER EDUCATION

(Established Under Section 3 of UGC Act 1956)

Coimbatore – 641 021

(For the candidates admitted in 2016 onwards)

CLASS:III Bsc CT

16CTU602A - E-COMMERCE TECHNOLOGIES

UNIT V

QUESTIONS	OPTION A	OPTION B	OPTION C	OPTION D	ANSWER
Another name for Electronic marketing is……..	E-banking	internet-marketing	Net-Banking	None of these	Net-Banking
The major area of business and commercial activities where E-commerce is widely used today is……..	banking and insurance	auction of goods	marketing and selling	All of these	All of these
……..was one of the first applications of E-commerce on internet.	Scrabble	Facebook	Bookshops	Playstore	Bookshops
Today, internet is being used by people for……..	shopping	paying bills	banking	All of these	All of these
Products like……..are treated online.	books	gadgets	tickets	All of these	All of these
Because of Internet, a drastic change is observed in the lifestyles of……..parts of India.	urban	rural	society	modern	rural
)……..is the key factor for the growth of E-commerce in India.	The growth of technology facility	Increase in use of much wider product range	Evolution of the market pl	All of these	All of these
Which is the website for the online auction?	www.eBay.com	www.amazon.com	www.irctc.co.in	www.gswan.gov.in	www.eBay.com
..... is the website for the online auction	www.onlineauction.com	www.mybids.in	www.ubid.com	All of these	All of these
Companies provide..... Online over internet for better marketing.	Catalogue	working process	ingredients of products	explanation of products	Catalogue
The catalogue displays different categories of products with	images	videos	written	3D format	images

What can customer do in the shopping cart ?	Add the products to shopping cart	Review products has selected	Delete selected product	All of these	All of these
Order is given at the time of.....in online shopping.	log-in	registration	checkout	checking	registration
Which is the example of online support service?	Instructions sent by bank to customers	Reminders of banks or institute	and both	Bill sent to the customers by institute	and both
Which is the example of information service website ?	www.gseb.org	www.irctc.co.on	www.eBay.com	www.amazon.com	www.gseb.org
Software companies provide online support for.....	installation	configuration of software	any query related to software	all of these	all of these
Software vendors allow.....to their licensed customers.	to download the code	)to download recent update	to download latest versions	all of these	to download recent update
.....has made the whole world a global market where anyone can purchase and sale	E-Commerce	G-Commerce	N-Commerce	I-Commerce	E-Commerce
.....is the process for people to purchase through bidding.	Auction	Marketing	Registration	Online bookstore	Auction
The user who bids for product on internet is called.....	auctioneer	bidder	businessman	customer	auctioneer
Someone who places the product for auction is called.....	auctioneer	bidder	businessman	customer	bidder
To sell an item through online auction, ... is needed first .	registration	booking	purchasing	transferring	registration
Which of the following is an example for online bookstore?	Amazon	irctc	Gmail	yahoo	Amazon
Cash on Delivery is.....method according to online retail vendors.	Cheap	costly	can’t say	none of these	costly

)www.buybooksindia.com is an online……..website.	government	railway	newspaper	bookstore	bookstore
To sell an item through an online site, there is a need to……..with the site.	sell	buy	register	have contact	register
After shopping online the user needs to provide……..details.	shipping	user	payment	booking	shipping
Today……..can be purchased through Internet.	groceries	toys	mobile	all of these	all of these
)……..is the popular site for marketing and selling.	www.homeshop18.com	www.flipkart.com	www.myntra.com	All of these	all of these
After selling the products, companies provide……..support to the customer.	physical	medical	online	all of these	online
The concept of marketing mix was developed by ……..	N.H.Borden	Philip katter	stanton	W.Anderson	N.H.Borden
…….is the act of obtaining a desired object from someone by offering something in return	Marketing myopia	Selling	Exchange	Delivery	Exchange
Its combination of quality,service&price……	Marketing Triad	Customer value triad	Customer satisficstion traid	service quality traid	Customer value triad
…….model is highly firm centric,where the firm believes that the competitive edge lies in its abili	Conventional	Contempory	competitive	None of the above	Conventional
…….are the form of human needs take as shaped by culture &individual personality.	Wants	Demands	needs	Social Needs	Social Needs
……is a want for specific product backed by on ability to pay.	Demand	need	want	customer	Demand
……is the father of mordern marketing	Peter drucker	Philip Kotler	Lester Wunderman	Abraham Maslow	Philip Kotler

Marketing is the process which aims at……	Production	Profit making	Satisfication customer need	selling products	Satisfication customer need
Marketers often use the term……..to cover various groupings of customers	buying power	demographic segment	market	people	market
Testing before launching a product is known as……	acid test	concept testing	market test	Test marketing	Test marketing
…..is not an online store.	Flipkart	eBay	)Railway	Amazon	Railway
…..gives better and quicker customer service.	M-commerce	F-Banking	E-commerce	L-commerce	E-commerce
The products that customers prefer to touch, smell or examine precisely are difficult to sell using……..	M-commerce	Net-Banking	E-commerce	None of these	E-commerce
Online retailers have also started offering a……..option, which is most preferred method in India.	Cheque-on-delivery	cash-on-delivery	Card-on-delivery	All of these	cash-on-delivery
Almost……..of Indian E-commerce business uses cash-on-delivery mechanism.	50%	60%	80%	100%	80%
For the consumer, ……..makes it easy to reject products at that point of delivery.	Cheque-on-delivery	cash-on-delivery	Card-on-delivery	All of these	cash-on-delivery
……..sales would rise in coming years with availability of faster broadband services & new application	M-commerce	Net-Banking	E-commerce	None of these	E-commerce
Using E-commerce, a customer can purchase any product anywhere anytime and conduct business.	24x7	48x7	12x12	24x12	24x7

The cost of opening a physical store is very……..as compared to doing business on Internet.	low	high	not so good	None of these	high
……..coverage can be reached through creating a website and uploading it on Internet.	International	Universal	Large-scale	Global	Global

Reg.No _____
[16ITU602A/16CTU602A]

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INFORMATION TECHNOLOGY

Sixth Semester
FIRST INTERNAL EXAMINATION – DECEMBER 2018

E-COMMERCE TECHNOLOGIES

Class: III B.Sc. IT (A&B) & CT **Duration :** 2 Hours
Date & Session: 17.12.2018 & AN **Maximum:** 50 Marks

PART-A(20 X 1 = 20 Marks)
Answer ALL the Questions

1.The use of Internet for conducting any business activities is known as_____.
a) E-Commerce b) F-Commerce c) G-Commerce d) Commerce

2. An electronic newspaper is also known as _____.
a) Elec-paper b) M-paper c) E-newspaper d) E-paper

3. Another name for electronic banking is _____.
a) E-banking b) Internet baking c) Net-banking d) None

4. The _____ is a limitation of E-commerce.
a)Security b) Privacy c) Lack of trust d) All the above

5. The person who places the product on the website is known as _____.
a) Seller b) Bidder c) Member d) Buyer

6. The _____ refers to business and organizations that sells products or services to consumers over the Internet using websites.
a) B2C b) B2B c) C2C d) C2B

7. In _____ business models the sellers can sell products directly to consumers.
a) B2C b) B2B c) C2C d) C2B

8. Apart from online retailing, _____ business model also includes services like online banking services.
a) B2C b) B2B c) C2C d) C2B

9. Example of a _____ website is amazon.com
a)B2C b)B2B c) C2C d) C2B

10. The _____ is an example of B2C website.
a) Rediff.com b) fabmart.com c) flipkart.com d) All of these

11. Full form of eBooks is _____.
a) Example Books b) E-commerce Books c) Electronic Books d) None of these

12. The solution for all business needs is _____.
a) EDI b) ERP c) SCM d) None of the above

13. Which is a function of E-commerce _____.
a) marketing b) advertising c) warehousing d) all of the above

14. Which of the following is not a key element of a business models _____.
    a) Value proposition b) Competitive c) Market strategy d) Universal standards
15. Tool that is used to transfer data/files among computers on the Internet
    a) TCP b) FTP c) Gopher d) Archie
16. HTML is a_____.
    a) Programming Language b) Scripting Language c) Web Browser d) Network Protocol
17. The internet is_____.
    a) Network of networks b) Web site c) Host d) Server
18. DNS is_____.
    a) The distributed hierarchical naming system b) The vertical naming system
    c) The horizontal naming system d) The client server system
19. Products like_____ are treated online.
    a) Books b) gadgets c) tickets d) All of these
20. To sell an item through an online site, there is a need to……..with the site.
    a) Sell b)buy c)register d)have contact

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. What is E-Commerce?
22. What are the goals of E-Commerce?
23. Define Domain Name.

PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

24. a) Mention about the functions of E-Commerce.
    (OR)
    b) List out the advantages and disadvantages of E-commerce.

25. a) Write about the applications of E-Commerce.
    (OR)
    b) Explain in detail about categories of E-Commerce.

26. a) Explain about the types of network.
    (OR)
    b) Describe briefly about World Wide Web.

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20. To sell an item through an online site, there is a need to_____with the site.
    a) Sell b)buy **c)register** d)have contact

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. What is E-Commerce?

- **E-commerce** is the activity of buying or selling of products on online services or over the Internet.
- Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.

22. What are the goals of E-Commerce?

- Catch more customers.
- Increase the traffic.
- Make more sales.
- Build a good will.
- Best customer service.
- Minimum Shipping time.
- Increase the number of reviews.
- Get Positive feedback.
- Reduce the number of refund item.
- Customer follow up

23. Define Domain Name.

- Each node in the tree has a domain name.
- A full domain name is a sequence of labels separated by dots (.).
- The domain names are always read from the node up to the root.
- The last label is the label of the root (null). This means that a full domain name always ends in a null label, which means the last character is a dot because the null string is nothing.

PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

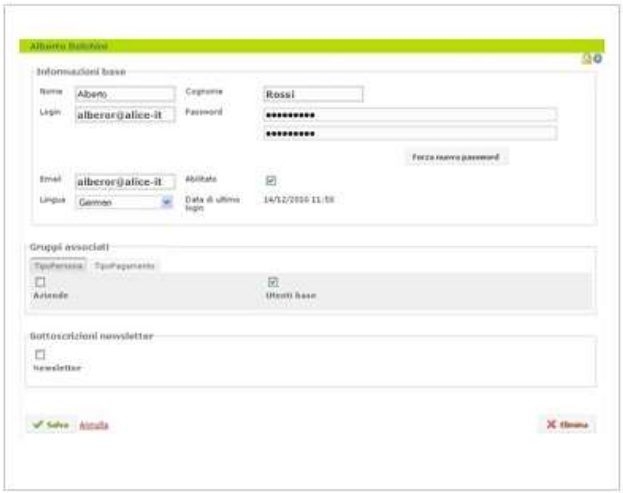
24. a) Mention about the functions of E-Commerce.

These are the typical functions of an e-commerce system available both on back office and front office:

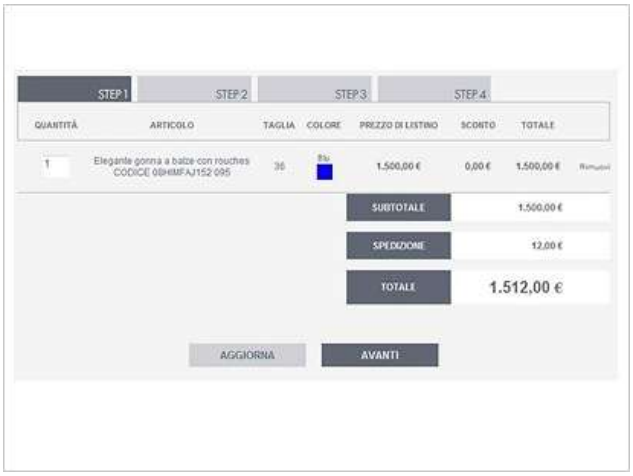
- Registration
- Basket
- Payment
- Product management
- Orders management
- VAT and shipping costs

Registration

In order to make a purchase, users must register with the site, providing all the information needed for shipping and billing.
The data will be stored on a database and will be available from the back office.



Basket



The basket is a tool that, like a shopping basket, allows users to select the products they want and then go to the checkout for payment.
Managing the basket means:

- summarising user requests within the possibilities offered by the catalogue

- checking the basket and possibly cancel/modify the items placed in it
- starting the payment process for the selected products

Payment

The payment system is a mechanism that facilitates dialogue between the parties involved in financial transactions: the bank, the store and you with your credit card.

After filling in the order, the customer enters his/her credit card number that travels along a channel solely accessible to the bank. The bank checks the customer's account and decides whether or not to authorise the payment.

The operation takes a few moments. If approved, the bank performs the transaction and transfers the payment to the account. If denied the user is notified that the transaction cannot be completed and his order is cancelled.

Product management

This is the main part of the e-commerce system and provides all the features required for product placement, order fulfilment, etc.., key to the management of online sales.

In detail the features in the system are: 

- **Product management**: this makes it possible to define a product via a set of standard fields:
  - product code
  - category
  - subcategory
  - product name
  - description
  - image, zoom
  - sizes available
  - price in euros
  - 'pieces' in stock

  The products can be searched by category and subcategory.
  The back-office feature that allows you to associate related products to further stimulate online sales is very useful.

- **Order management**: the order is the card that summarises all the delivery and order information to enable correct delivery. It includes:
  - list of products purchased
  - user information
  - details of place of delivery
  - delivery time information
  - payment information

  Managing the order means crossing the information on the registration database, the data in the basket, the delivery information and verification data relating to the payment credit rating.

  All this information is summarised in a form identified by a number or reference code (order number).

Listing orders and customer details

From the back office of the site you can search and sort orders by:

- customer
- order status
- date
- payment

Orders may be printed for attachment to the shipment (packing list).

VAT and shipping costs

In addition to the cost of products purchased, the system manages the VAT and the shipping charges.

The e-commerce module is able to manage VAT rates in countries within and outside the EU. Shipping costs both fixed and variable based on the weight and volume of the shipment.

Discounts

Discounts and promotions are managed for a single product or product category.

This second phase of the site requires a detailed analysis of your current storage and order management systems with which it will be necessary to integrate.

(OR)

b) List out the advantages and disadvantages of E-commerce.

Advantages to Organizations

- Using e-commerce, organizations can expand their market to national and international markets with minimum capital investment. An organization can easily locate more customers, best suppliers, and suitable business partners across the globe.
- E-commerce helps organizations to reduce the cost to create process, distribute, retrieve and manage the paper based information by digitizing the information.
- E-commerce improves the brand image of the company.
- E-commerce helps organization to provide better customer services.

- E-commerce helps to simplify the business processes and makes them faster and efficient.
- E-commerce reduces the paper work.
- E-commerce increases the productivity of organizations. It supports "pull" type supply management. In "pull" type supply management, a business process starts when a request comes from a customer and it uses just-in-time manufacturing way.

Advantages to Customers

- It provides 24x7 support. Customers can enquire about a product or service and place orders anytime, anywhere from any location.
- E-commerce application provides users with more options and quicker delivery of products.
- E-commerce application provides users with more options to compare and select the cheaper and better options.
- A customer can put review comments about a product and can see what others are buying, or see the review comments of other customers before making a final purchase.
- E-commerce provides options of virtual auctions.
- It provides readily available information. A customer can see the relevant detailed information within seconds, rather than waiting for days or weeks.
- E-Commerce increases the competition among organizations and as a result, organizations provides substantial discounts to customers.

Advantages to Society

- Customers need not travel to shop a product, thus less traffic on road and low air pollution.
- E-commerce helps in reducing the cost of products, so less affluent people can also afford the products.
- E-commerce has enabled rural areas to access services and products, which are otherwise not available to them.
- E-commerce helps the government to deliver public services such as healthcare, education, social services at a reduced cost and in an improved manner.

DISADVANTAGES OF ECOMMERCE

- Any one, good or bad, can easily start a business. And there are many bad sites which eat up customers' money.
- There is no guarantee of product quality.
- Mechanical failures can cause unpredictable effects on the total processes.
- As there is minimum chance of direct customer to company interactions, customer loyalty is always on a check.

- There are many hackers who look for opportunities, and thus an ecommerce site, service, payment gateways, all are always prone to attack.

The Scope of E-commerce

E-commerce encompasses a broad range of activities. The core component includes trading of physical goods and services. The conventional activities include.

- Searching for product information
- Ordering product
- Paying for goods and services
- Customer service

E-commerce also includes the business activities:

- Pre-sales and post –sales support
- Internal electronic mail and massaging
- Online publishing of corporate documents and forms
- Managing corporate finance and personal systems
- Manufacturing logistic management
- Supply chain management for inventory
- Facilitation of contact between traders
- Tracking orders and shipments
- Advertising and promotion of products and services

25. a) Write about the applications of E-Commerce.

1)E-MARKETING : E-Marketing also known as Internet marketing, Online marketing, Web marketing. It is the marketing of products or services over the internet. It is consider to be broad in scope because not refers to marketing on the internet but also done in Email and wireless media. E-Marketing ties together the creative and technical aspects of the internet, including design development, advertising and sales. Internet marketing is associated with several business models ie., B2C, B2B, C2C. Internet marketing is inexpensive when examine the ratio of cost to the reach of the target.

2)E-ADVERTISING: It is also known as online advertising it is a form of promotion that uses internet and world wide web to deliver marketing messages to attracts customers. Example: Banner ads, Social network advertising, online classified advertising etc.The growth of these particular media attracts the attention of advertisers as a more productive source to bring in consumers. An online advertisement also offers various forms of animation. The term online advertisement comprises all sorts of banner advertisement, email advertising, in game advertising and key soon.

3) E-BANKING OR INTERNET BANKING: Means any user with a personal computer and browser can get connected to his banks, website to perform any of the banking functions. In internet banking system the bank has a centralized data base i.e., web-enabled. example for E-Banking is ATM.

SERVICES THROUGH E-BANKING:

- Bill payment service.
- Fund Transfer
- Investing through internet Banking
- Shopping

4) MOBILE-COMMERCE: Mobile Commerce also known as M-Commerce, is the ability to conduct, commerce as a mobile device, such as mobile phone. SERVICES ARE:
1. Mobile ticketing
2. Mobile Vouchers, Coupons and
3. Mobile contract purchase and delivery mainly consumes of the sale of ring tones, wallpapers and games of mobile phones.

5) E-LEARNING: E-Learning comprises all forms of electronically supported learning and teaching's-Learning specially the computer and network skills and knowledge's-Learning applications include web-based learning, computer-based learning. Content is delivered via. The internet, intranet, audio, or video tape, satellite TV, and ED-ROM.Computer-Based Learning, refers to the use of computers as a key component of the education environment.

6) ONLINE SHOPPING:- Online shopping is the process whereby consumer directly buy goods or services from a sell in real time, without an intermediary services over the internet . Online shoppers commonly use credit card to make payments, however some systems enable users to create accounts and pay by alternative means ,such as
1. Billing to mobile phones and landline.
2. Cheque.
3. Postal money order.

7) SEARCH ENGINE:- A web search engine is designed to search for information on the WWW and FTP servers. The search results are generally presented in list of result and are often called hits. The information may consist of web pages, images, information, and other types of files.

8) ONLINE TRADING:- An online trading community provides participants with a structured method for trading bantering (exchanging goods with goods) or selling goods and services. These communities often have forums and chat rooms, designed to facilitate communication between the members.
9) ENTERTAINMENT:- The conventional media that have been used for entertainment are
1. Books/magazines.
2. Radio.
3. Television/films.
4. Video games.

(OR)

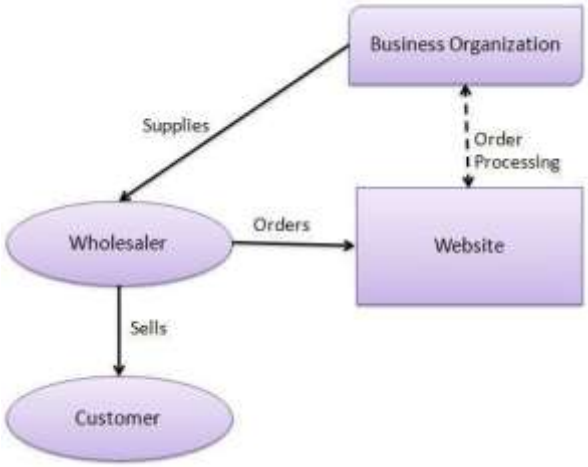
b) Explain in detail about categories of E-Commerce.

E-commerce business models can generally be categorized into the following categories.

- Business - to - Business (B2B)
- Business - to - Consumer (B2C)
- Consumer - to - Consumer (C2C)
- Consumer - to - Business (C2B)
- Business - to - Government (B2G)
- Government - to - Business (G2B)
- Government - to - Citizen (G2C)

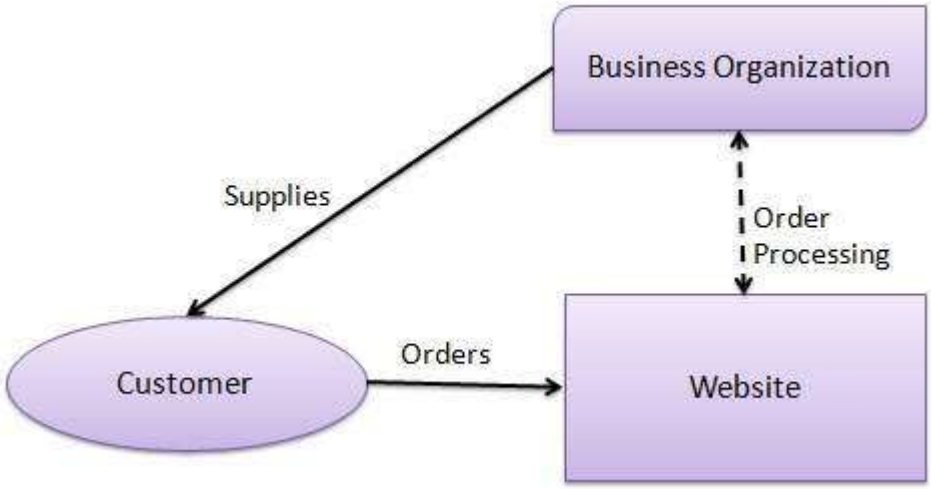
Business - to - Business

A website following the B2B business model sells its products to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company's website and after receiving the consignment, sells the endproduct to the final customer who comes to buy the product at one of its retail outlets.



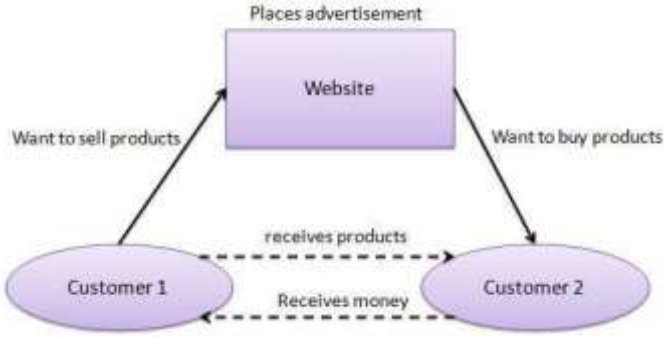
Business - to - Consumer

A website following the B2C business model sells its products directly to a customer. A customer can view the products shown on the website. The customer can choose a product and order the same. The website will then send a notification to the business organization via email and the organization will dispatch the product/goods to the customer.



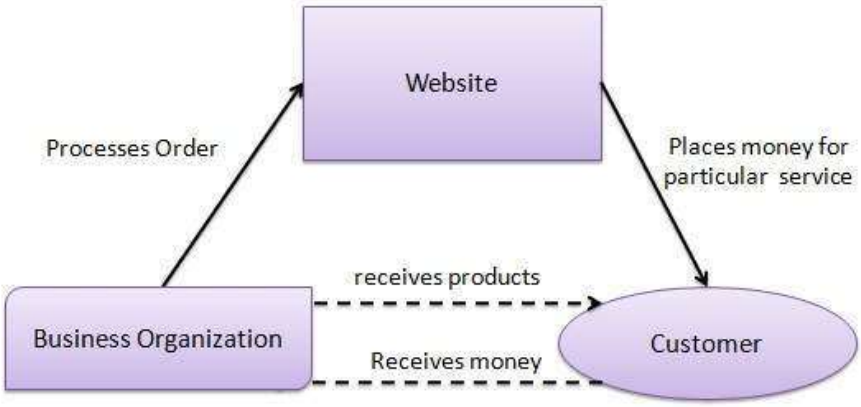
Consumer - to - Consumer

A website following the C2C business model helps consumers to sell their assets like residential property, cars, motorcycles, etc., or rent a room by publishing their information on the website. Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website.



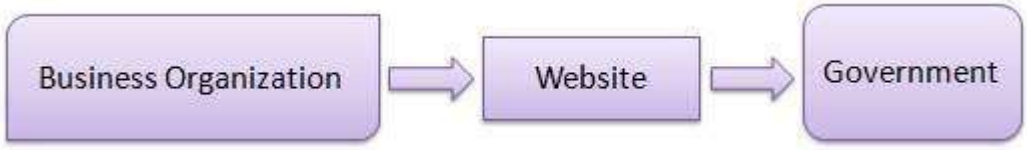
Consumer - to - Business

In this model, a consumer approaches a website showing multiple business organizations for a particular service. The consumer places an estimate of amount he/she wants to spend for a particular service. For example, the comparison of interest rates of personal loan/car loan provided by various banks via websites. A business organization who fulfills the consumer's requirement within the specified budget, approaches the customer and provides its services.



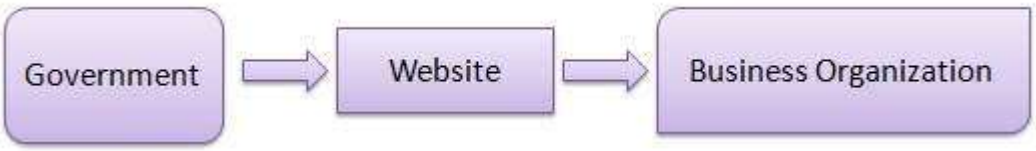
Business - to - Government

B2G model is a variant of B2B model. Such websites are used by governments to trade and exchange information with various business organizations. Such websites are accredited by the government and provide a medium to businesses to submit application forms to the government.



Government - to - Business

Governments use B2G model websites to approach business organizations. Such websites support auctions, tenders, and application submission functionalities.



Government - to - Citizen

Governments use G2C model websites to approach citizen in general. Such websites support auctions of vehicles, machinery, or any other material. Such website also provides services like registration for birth, marriage or death certificates. The main objective of G2C websites is to reduce the average time for fulfilling citizen's requests for various government services.

Consumer/Citizen-to-Government *(C2G)*

C2G applications usually include tax payment, issuance of certificates or other documents, etc. Although we cannot strictly define consumer or citizen to government as e-Commerce we can see several C2G applications under the scope of transactions that are done and handled more efficiently and effectively with e-Commerce systems and technologies.

Government to government (G2G)

Government to government (G2G) is the electronic sharing of data and/or information systems between government agencies, departments or organizations. The goal of G2G is to support e-government initiatives by improving communication, data access and data sharing.What is **'Peer-to-Peer (P2P) Service'**A peer-to-peer (P2P) service is a decentralized platform whereby two individuals interact directly with each other, without intermediation by a third-party. Instead, the buyer and the seller transact directly with each other via the P2P service.

Consumer-to-Administration (C2A) or Administration-to-Consumer (A2C)

The C2A and A2C categories have emerged in the last decade. C2A examples include applications such as e-democracy. e-voting, information about public services and e-health. Using such services consumers can post concerns, request feedback, or information (on planning application progress) directly from their local governments/ authorities.

Business-to-Administration (B2A)

The B2A category covers all transactions that are carried out between businesses and government bodies using the Internet as a medium. This category has steadily evolved over the last few years. An example of a B2A model, is that of Accela.com, a software company that provides round the clock public access to government services for asset management, emergency response, permitting, planning, licensing

26. a) Explain about the types of network.

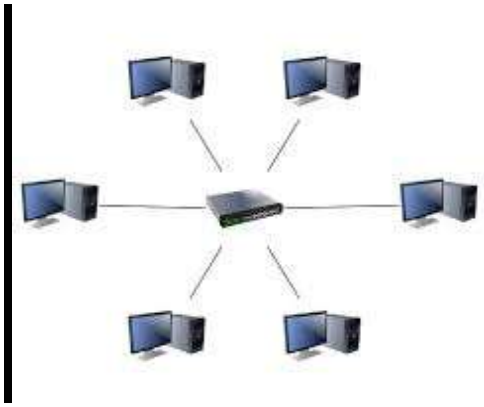
TYPES OF NETWORK

The **Network** allows computers to **connect and communicate** with different computers via any medium. LAN, MAN and WAN are the three major types of the network designed to operate over the area they cover. There are some similarities and dissimilarities between them. One of the major differences is the geographical area they cover, i.e. **LAN** covers the smallest

area; **MAN** covers an area larger than LAN and **WAN**comprises the largest of all. There are other types of Computer Networks also, like :

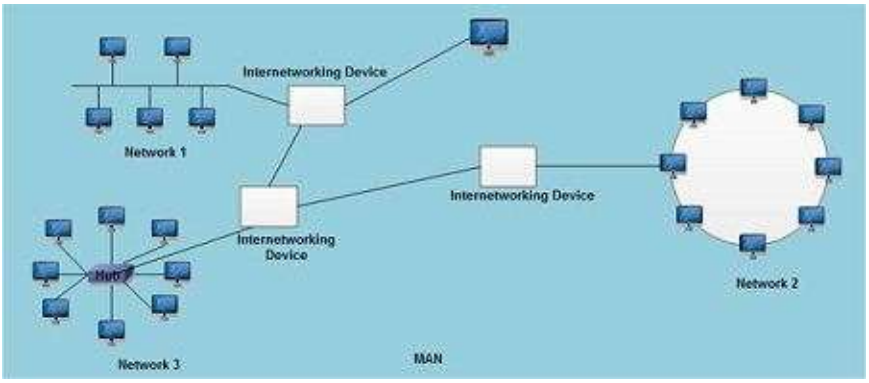
- PAN (Personal Area Network)
- SAN (Storage Area Network)
- EPN (Enterprise Private Network)
- VPN (Virtual Private Network)

Local Area Network (LAN) – LAN or Local Area Network connects network devices in such a way that personal computer and workstations can share data, tools and programs. The group of computers and devices are connected together by a switch, or stack of switches, using a private addressing scheme as defined by the TCP/IP protocol. Private addresses are unique in relation to other computers on the local network. Routers are found at the boundary of a LAN, connecting them to the larger WAN.



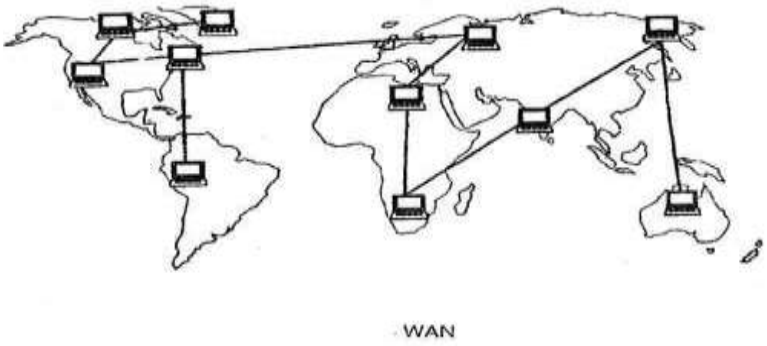
MAN stands for Metropolitan Area Networks is one of a number of types of networks. A MAN is a relatively new class of network. MAN is larger than a local area network and as its name implies, covers the area of a single city. MANs rarely extend beyond 100 KM and frequently comprise a combination of different hardware and transmission media. It can be single network such as a cable TV network, or it is a means of connecting a number of LANs into a larger network so that resources can be shared LAN to LAN as well as device to device.

A MAN can be created as a single network such as Cable TV Network, covering the entire city or a group of several Local Area Networks (LANs). It this way resource can be shared from LAN to LAN and from computer to computer also. MANs are usually owned by large organizations to interconnect its various branches across a city.



WAN or Wide Area Network is a computer network that extends over a large geographical area, although it might be confined within the bounds of a state or country. A WAN could be a connection of LAN connecting to other LAN's via telephone lines and radio waves and may be limited to an enterprise (a corporation or an organization) or accessible to the public. The technology is high speed and relatively expensive.

There are two types of WAN: Switched WAN and Point-to-Point WAN. WAN is difficult to design and maintain. Similar to a MAN, the fault tolerance of a WAN is less and there is more congestion in the network. A Communication medium used for WAN is PSTN or Satellite Link. Due to long distance transmission, the noise and error tend to be more in WAN.



(OR)

b) Describe briefly about World Wide Web.

WORLD WIDE WEB

WWW stands for **World Wide Web.** A technical definition of the World Wide Web is : all the resources and users on the Internet that are using the Hypertext Transfer Protocol (HTTP).

A broader definition comes from the organization that Web inventor **Tim Berners-Lee** helped found, the **World Wide Web Consortium (W3C).**

The World Wide Web is the universe of network-accessible information, an embodiment of human knowledge.

In simple terms, The World Wide Web is a way of exchanging information between computers on the Internet, tying them together into a vast collection of interactive multimedia resources.

Internet and **Web** is not the same thing: Web uses internet to pass over the information.

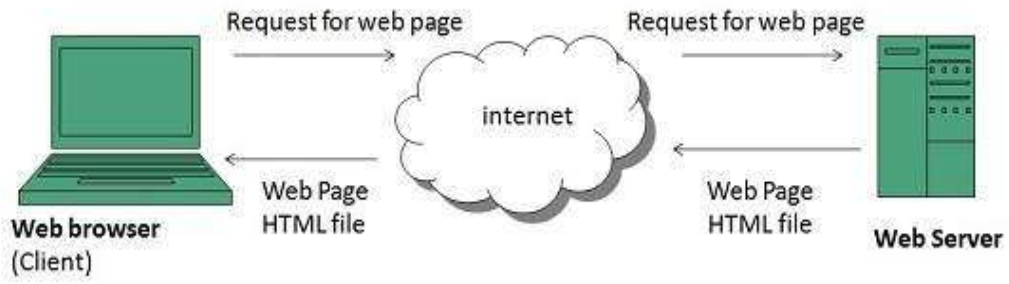
Evolution

World Wide Web was created by **Timothy Berners Lee** in 1989 at **CERN** in **Geneva.** World Wide Web came into existence as a proposal by him, to allow researchers to work together effectively and efficiently at **CERN.** Eventually it became **World Wide Web.**

WWW Operation

WWW works on client- server approach. Following steps explains how the web works:

1. User enters the URL (say, **http://www.tutorialspoint.com**) of the web page in the address bar of web browser.
2. Then browser requests the Domain Name Server for the IP address corresponding to www.tutorialspoint.com.
3. After receiving IP address, browser sends the request for web page to the web server using HTTP protocol which specifies the way the browser and web server communicates.
4. Then web server receives request using HTTP protocol and checks its search for the requested web page. If found it returns it back to the webs browser and close the HTTP connection.
5. Now the web browser receives the web page, It interprets it and display the contents of web page in web browser's window.



Reg.No _____
[16ITU602A/16CTU602A]

KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act 1956)
Coimbatore – 641 021

INFORMATION TECHNOLOGY/COMPUTER TECHNOLOGY
Sixth Semester
SECOND INTERNAL EXAMINATION – FEB 2019

E-COMMERCE TECHNOLOGIES

Class: III B.Sc. IT (A&B) & CT **Duration :** 2 Hours
Date & Session: 04.02.2019 & AN **Maximum :** 50 Marks

PART-A(20 X 1 = 20 Marks)
Answer ALL the Questions

1. Apart from online retailing _____ business model also includes services like online banking services.
   a) B2C b) B2B c) C2C d) C2B
2. After shopping online the user needs to provide _____ details.
   a) shipping b) user c) payment d) booking
3. Today _____ can be purchased through Internet.
   a) groceries b) toys c) mobile d) all of these
4. The ticket booked on the Indian Railway site is sent to the users mail and is called ____of the ticket.
   a) R-copy b) Ticket copy c) E-copy d) T-copy
5. The booked ticket details is also sent to the users mobile in the form of a _____.
   a) mail b) Phone call c) SMS d) LMS
6. The solution for all business needs is:
   a) EDI b) ERP c) SCM d) None
7. Combination of two or more topologies are called _____.
   a) Star b) Bus c) Ring d) Hybrid
8. Digital Cash has following characteristic_____.
   a) Anonymity b) Security c) Confidentiality d) All of Above
9. Amazon.com is well known for which E-Commerce marketing technique _____.
   a) Banner ads b) Pop-up ads c) Affiliated Programs d) Viral Marketing
10. Combination of two or more networks are called _____.
    a) Star b) Bus c) Ring d) Internet

11. National Internet Service Provider (ISP) networks are connected to one another by private switching stations called _____.
    a) Network Access Points b) Peering Points c)National ISP d) Regional ISP
12. A communication path way that transfers data from one point to another is called _____.
    a) Link b) Node c) Medium d) Topology
13. The _____ can be done using internet.
    a) Bill payment b) Banking c) Purchase d) All of these
14. Mobile computing devices include _____.
    a) Personal digital assistance b) Smart phone c) Black berry d) All of above
15. SET stands for _____.
    a) Surety Electronic Transaction b) Secure Electronic Transaction
    c) Silent Electronic Transaction d) None of above
16. Following is not type of Smart card.
    a) Memory Cards b) Shared Cards c) Signature Cards d) Secured Key Cards
17. Companies provide _____ Online over internet for better marketing.
    a) Catalogue b) working process c) ingredients d) explanation of products
18. which of the following is not the benefit of online stoke trading?
    a) Handy tools b)Proper information c)Time consuming d)Flexibility
19. Which of the following is the way of approach?
    a) Phone b) email c) In person d) All of the above
20. Which of the following activity is explaining how the product meets that person or company's need?
    a) Presentation b) Follow-up c) Qualifying d) Prospective

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. Define Web promotion.
22. Define Credit card.
23. What is electronic payment system?

PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

24. a) Write about intranet and extranet.
    (OR)
    b)Discuss about the steps to build the own website.
25. a) Illustrate about the concepts of EDI.
    (OR)
    b) Explain briefly about the EDI model.
26. a) Write in detail about electronic payment system.
    (OR)
    b) Discuss about different types of Electronic Card Payment system.

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    a) Presentation b) Follow-up c) Qualifying d) Prospective

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. Define Web promotion.

When a user searches for a particular keyword, the search engines generate a search engine results page that ranks relevant sites. Considering that the majority of users will not look past the first page of results, achieving a "top 10" ranking should be part of your ecommerce website promotion plan. To do this, you'll need to "optimize" your site for the search engines which will crawl its content looking for indicators of relevancy. SEO for online stores is a multi-faceted website promotion tactic that includes keyword selection, link building, refreshing content, and tracking visitor behavior.

22. Define Credit card.

Credit Card — A form of the e-payment system which requires the use of the card issued by a financial institute to the cardholder for making payments online or through an electronic device, without the use of cash.

23. What is electronic payment system?

One of the most popular payment forms online are credit and debit cards. Besides them, there are also alternative payment methods, such as bank transfers, electronic wallets, smart cards or bitcoin wallet (bitcoin is the most popular cryptocurrency).
E-payment methods could be classified into two areas, credit payment systems and cash payment systems.

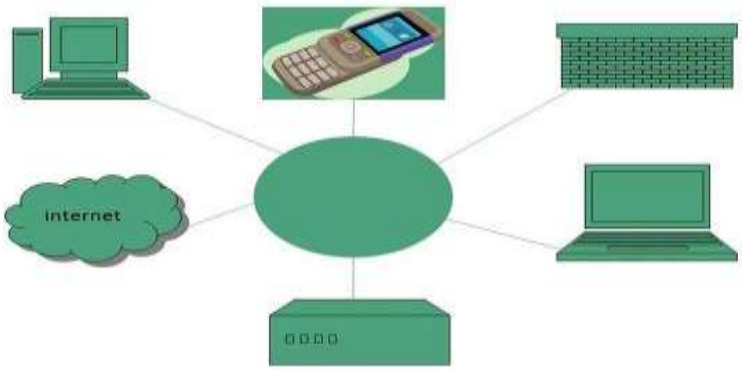
PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

24. a) Write about intranet and extranet.

INTERNET AND EXTRANET

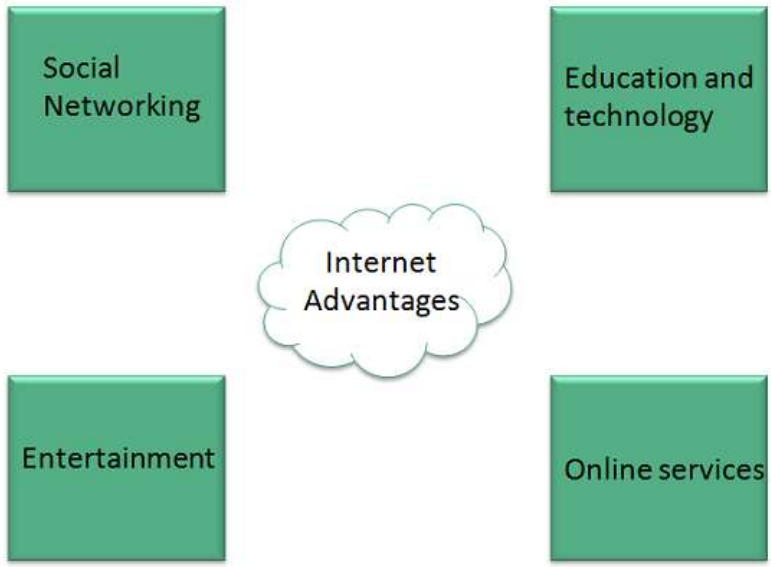
- The Internet is a global network of computers connected by network cables or through satellite links.
- It is also called the network of networks and the Super Network.
- When two computers are connected over the Internet, they can send and receive all kinds of information such as text, graphics, voice, video, and computer programs.
- No one actually owns the Internet, and no single person or organization controls the Internet in its entirety.
- But several organizations collaborate in its functioning and development.
    - Internet uses the standard Internet Protocol (TCP/IP).
    - Every computer in internet is identified by a unique IP address.
    - IP Address is a unique set of numbers (such as 110.22.33.114) which identifies a computer location.
    - A special computer DNS (Domain Name Server) is used to give name to the IP Address so that user can locate a computer by a name.
    - For example, a DNS server will resolve a name **http://www.tutorialspoint.com** to a particular IP address to uniquely identify the computer on which this website is hosted.

- Internet is accessible to every user all over the world.



Advantages

Internet covers almost every aspect of life, one can think of. Here, we will discuss some of the advantages of Internet:

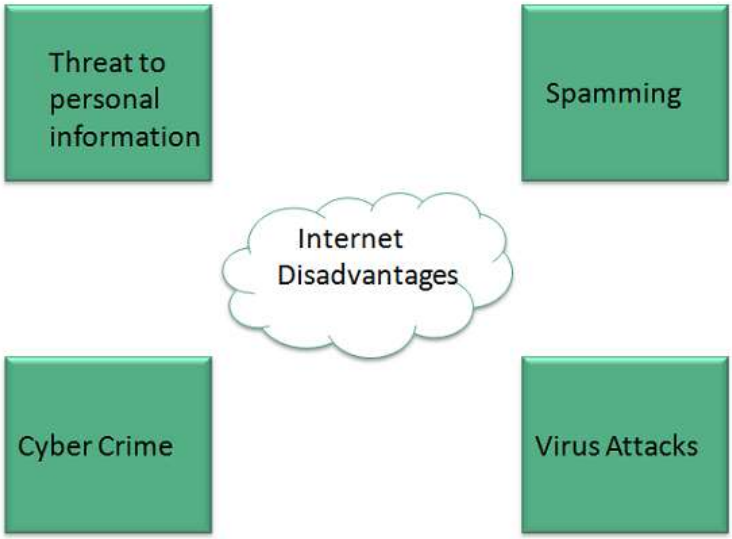


- Internet allows us to communicate with the people sitting at remote locations. There are various apps available on the wed that uses Internet as a medium for communication. One can find various social networking sites such as:
    - Facebook
    - Twitter
    - Yahoo
    - Google+

    - Flickr
    - Orkut
- One can surf for any kind of information over the internet. Information regarding various topics such as Technology, Health & Science, Social Studies, Geographical Information, Information Technology, Products etc can be surfed with help of a search engine.
- Apart from communication and source of information, internet also serves a medium for entertainment. Following are the various modes for entertainment over internet.
    - Online Television
    - Online Games
    - Songs
    - Videos
    - Social Networking Apps
- Internet allows us to use many services like:
    - Internet Banking
    - Matrimonial Services
    - Online Shopping
    - Online Ticket Booking
    - Online Bill Payment
    - Data Sharing
    - E-mail
- Internet provides concept of **electronic commerce**, that allows the business deals to be conducted on electronic systems

Disadvantages

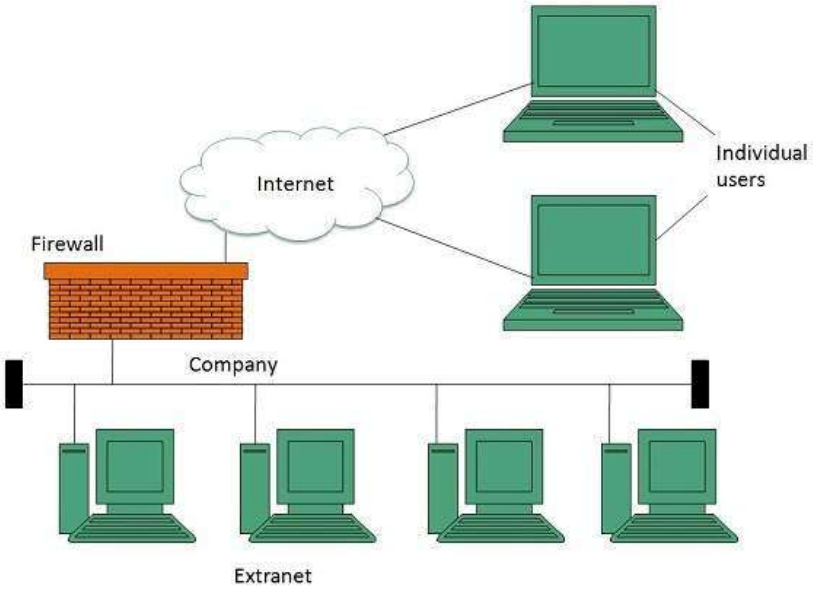
However, Internet has proved to be a powerful source of information in almost every field, yet there exists many disadvantages discussed below:



- There are always chances to loose personal information such as name, address, credit card number. Therefore, one should be very careful while sharing such information. One should use credit cards only through authenticated sites.
- Another disadvantage is the **Spamming**.Spamming corresponds to the unwanted e-mails in bulk. These e-mails serve no purpose and lead to obstruction of entire system.
- **Virus** can easily be spread to the computers connected to internet. Such virus attacks may cause your system to crash or your important data may get deleted.
- Also a biggest threat on internet is pornography. There are many pornographic sites that can be found, letting your children to use internet which indirectly affects the children healthy mental life.
- There are various websites that do not provide the authenticated information. This leads to misconception among many people.

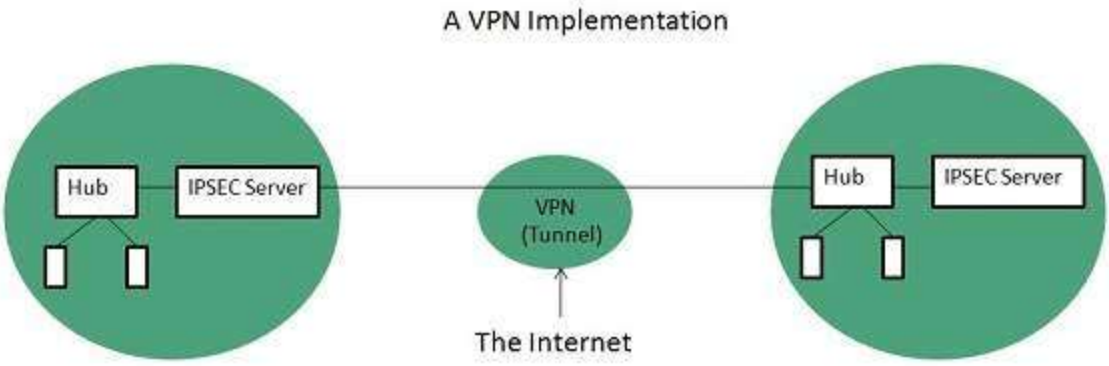
Extranet

Extranet refers to network within an organization, using internet to connect to the outsiders in controlled manner. It helps to connect businesses with their customers and suppliers and therefore allows working in a collaborative manner.



Implementation

Extranet is implemented as a Virtual Private Networks (VPN) because it uses internet to connect to corporate organization and there is always a threat to information security. VPN offers a secure network in public infrastructure (Internet).



(OR)

b)Discuss about the steps to build the own website.

BUILDING OWN WEBSITE,COST,TIME,

1. Create your product.
2. Determine pricing for your online store.
3. Figure out shipping options.
4. Choose your eCommerce platform.
5. Pick a domain name and brand.

6. Build your eCommerce website.
7. Set up your merchant account.
8. Add a SSL certificate to your website.
9. Start selling online!

1. Decide on your product.

If you've been dreaming of setting up an online storefront for a while, then you may well already have a product in mind that you'd like to sell. Whether it's something you make, like handcrafted furniture or handmade soap, or something you've found a source for at wholesale prices so you can sell it off at a profit, every e Commerce store has to start with a product. If there is already an established market, consider whether your product is unique enough to break in. Will you be able to compete on pricing.

2. Set your pricing.

Pricing can be one of the hardest aspects to get right when running a new business.If you price too low, you'll lose money or just barely break even – which won't make the time and effort you put into your online store worth it. If you price too high, you won't make enough sales and still risk losing money on the whole endeavor.

To figure out what pricing that makes the sense you have to first figure out your business' finances. This includes:

- the cost of materials to make your product
- web hosting for your eCommerce site
- taxes
- shipping
- the percentage credit cards
- additional marketing and advertising costs

3. Research shipping costs and options.

If you're selling a physical product, how will you deliver it to customers?

Your impulse may be to pass on the full cost of shipping to the client, and many online stores do take this route. However, it's important to note that shipping costs can have a strong psychological impact on consumers, with 44% saying they've abandoned an online purchase due to high shipping and handling costs.

Instead, consider offering one of these alternative shipping methods:

- Offer free shipping, no questions asked
- Offer free shipping and up your product pricing slightly to cover the cost
- Offer free shipping for orders of a certain size
- Offer a flat shipping fee

4. Choose your eCommerce web hosting.

When it comes to eCommerce, you have two options: use a marketplace that already exists like Etsy or Amazon, or building an eCommerce website and brand that's all your own.

If you want a website and brand that's all your own, many website hosting platforms (including HostGator) make it easy to find compatible eCommerce website hosting options that you can work with in the same space you use to work on your website. This way you can direct people to youronlinestore.com. You look like a real, live store!

An eCommerce software like Magento will make it easy for you to list your products, set your price, and add a shopping cart to the website. They take care of ensuring the process is intuitive for both you and your customers, so you can just focus on selling.

5. Pick a domain name and brand.

This is the fun part for business owners! Just think, what will customers be telling their friends when they talked about that awesome new product they just bought from _____? Fill in the blank with your brand.

Brainstorm words and phrases that say something about the products you'll be selling, and words and phrases that mean something to you. And be sure to stay away from names that have already been copyrighted by other businesses. Follow these top tips for choosing a domain name for your eCommerce website.

6. Build your eCommerce website.

Many hosting platforms can make at least part of this step easier by providing or a merchant site builder you can work from rather than having to build a website from scratch.

At this stage, you'll also need to work on writing web copy that describes your wares and helps persuade website visitors to buy.

Once you set up your site, you have to do more than just add your products. In addition to product pages, your eCommerce website development and planning should also include the following pages:

- A home page where you feature weekly deals and sale items
- An about page with a brief description of what you do
- A contact or customer service page so customers can easily reach you

- A blog where you post updates, industry news, and helpful tidbits

Aside from these pages, you will also have to consider your website's theme, eCommerce plugin options, Google Analytics, and all other practical aspects that will help create your online platform.

7. Set up a merchant account.

Online stores need a way to receive money – specifically, a way to receive credit card payments. A merchant account does the very important job of ensuring you can get paid.

You have options that range from big, familiar brand names like Chase and PayPal, to companies more focused on small businesses like BluePay and PaySimple. You will have to pay a small fee to the company in order to get your money, but the ability to accept the money your customers send will make the fees well worth it.

8. Get your SSL certificate.

When you create your site, be sure to install a SSL certificate. These certificates provide the green lock you see next to URLs when you're shopping online, and they keep your customers' private information safe.

If customers are going to hand you their private payment information (or more accurately, enter it into a form on your website), you need to make sure the sensitive details will stay safe. An SSL certificate for your website encrypts all the sensitive information customers provide so that hackers won't be able to grab that credit card information as it's sent over the web.

9. Start selling!

Now it's time to start making money.

Once you launch your online store, you should start thinking about promotion. Content marketing, social media, and paid promotion are all areas worth looking into to start getting people to your website. Check out our post on cheap, easy ways to start marketing your business.

25. a) Illustrate about the concepts of EDI.

Concepts of EDI

EDI stands for **Electronic Data Interchange**. **Electronic data interchange** (**EDI**) is the computer-to-computer exchange of business documents between companies.**EDI** replaces the faxing and mailing of paper documents. **EDI** documents use specific computer record formats that are based on widely accepted standards.

5 Limitations of EDI

While countless businesses enjoy the benefits of EDI, some companies are still cautious to try it out due to the following limitations of EDI.

1. Cost of Implementation.

It is true that EDI provides massive cost savings benefits but for small businesses re-designing and implementing software applications to fit in EDI into current applications can be quite costly. Such limitations of EDI must be considered if you plan on implementing such system.

2. Electronic System Safety

EDI also necessitates substantial investment in computer networks and security systems for maximum security. Any EDI system installed would require protection from hacking, malware, viruses, and other cybersecurity threats.

3. Preliminary Setup Consumes Time

Not only is the implementation of EDI system expensive to install, but it also consumes a considerable amount of time to set up the essential parts. Thus, such limitations of EDI can hinder fast-tracking of services if urgently required.

4. Several Standards to Maintain.

Numerous businesses looking to implement EDI also consider the several standards involved. These limitations of EDI do not allow small businesses to exchange data with larger establishments that make use of latest edition of a document standard. Some known measures include ANSI ASC X12, GS1 EDI, HL7, TRADACOMS, and UN/EDIFACT.

5. Suitable Backup System

EDI implementation also requires regular maintenance as the business functionality is highly dependent on it. Some robust data backup system is needed in case of system crash or for statistical purpose. Such limitations of EDI can cost some substantial amount to implement.

(OR)

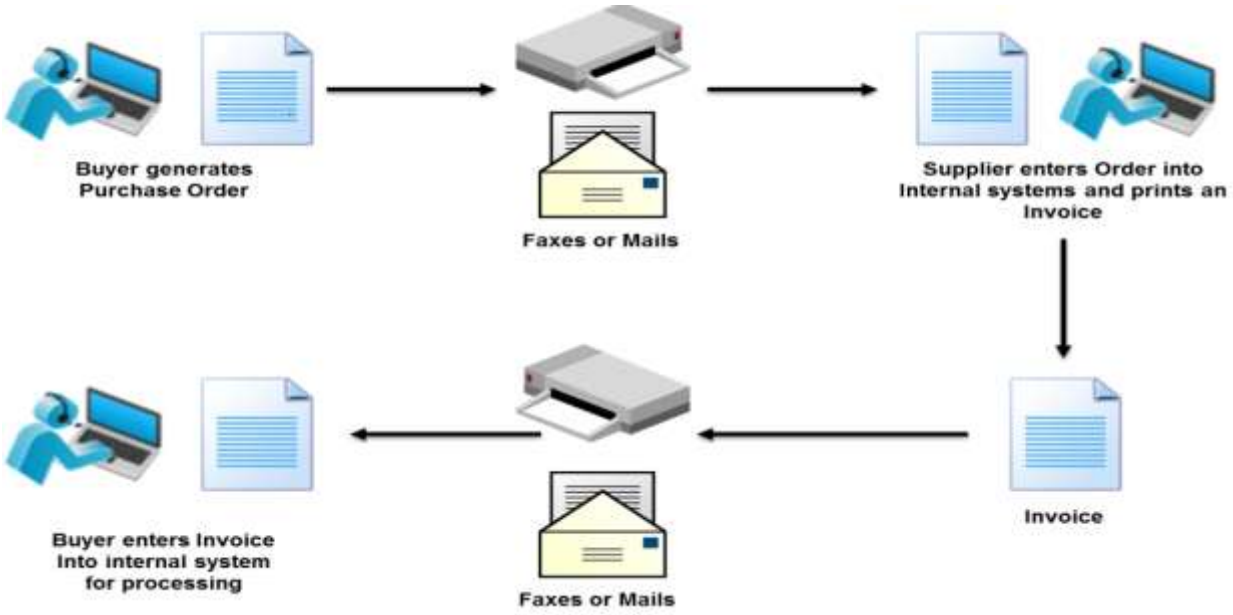
b) Explain briefly about the EDI model.

Electronic Data Interchange (EDI)

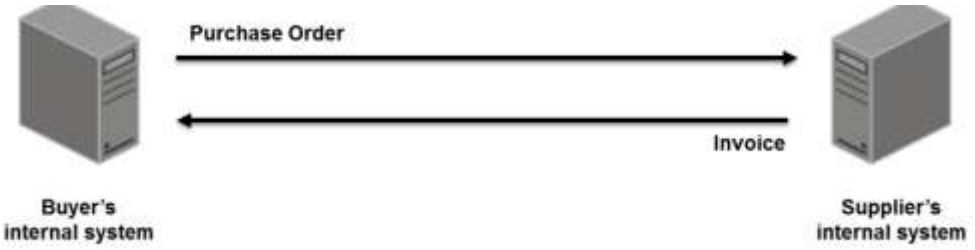
Electronic Data Interchange (EDI) is the computer-to-computer exchange of business documents in a standard electronic format between business partners.

By moving from a paper-based exchange of business document to one that is electronic, businesses enjoy major benefits such as reduced cost, increased processing speed, reduced errors and improved relationships with business partners. Learn more about the benefits of EDI here. »
Each term in the definition is significant:

- **Computer-to-computer**– EDI replaces postal mail, fax and email. While email is also an electronic approach, the documents exchanged via email must still be handled by people rather than computers. Having people involved slows down the processing of the documents and also introduces errors. Instead, EDI documents can flow straight through to the appropriate application on the receiver's computer (e.g., the Order Management System) and processing can begin immediately. A typical manual process looks like this, with lots of paper and people involvement:



The EDI process looks like this — no paper, no people involved:



- **Business documents** – These are any of the documents that are typically exchanged between businesses. The most common documents exchanged via EDI are purchase orders, invoices and advance ship notices. But there are many, many others such as bill of lading, customs documents, inventory documents, shipping status documents and payment documents.
- **Standard format**– Because EDI documents must be processed by computers rather than humans, a standard format must be used so that the computer will be able to read and understand the documents. A standard format describes what each piece of information is and in what format (e.g., integer, decimal, mmddyy). Without a standard format, each company would send documents using its company-specific format and, much as an English-speaking person probably doesn't understand Japanese, the receiver's computer system doesn't understand the company-specific format of the sender's format.
    - There are several EDI standards in use today, including ANSI, EDIFACT, TRADACOMS and ebXML. And, for each standard there are many different versions, e.g., ANSI 5010 or EDIFACT version D12, Release A. When two businesses decide to exchange EDI documents, they must agree on the specific EDI standard and version.
    - Businesses typically use an EDI translator – either as in-house software or via an EDI service provider – to translate the EDI format so the data can be used by their internal applications and thus enable straight through processing of documents.
- **Business partners** – The exchange of EDI documents is typically between two different companies, referred to as business partners or trading partners. For example, Company A may buy goods from Company B. Company A sends orders to Company B. Company A and Company B are business partners.

26. a) Write in detail about electronic payment system.

Electronic Payment System:

Introduction

An e-payment system is a way of making transactions or paying for goods and services through an electronic medium, without the use of checks or cash. It's also called an electronic payment system or online payment system. Read on to learn more.

The electronic payment system has grown increasingly over the last decades due to the growing spread of internet-based banking and shopping. As the world advances more with technology development, we can see the rise of electronic payment systems and payment processing devices. As these increase, improve, and provide ever more secure online payment transactions the percentage of check and cash transactions will decrease.

While customers pay for goods/services by cash, check, or credit cards in conventional businesses, online buyers may use one of the following EPSs to pay for products/services

purchased online:

• Electronic funds transfer (EFT): EFT involves electronic transfer of money by financial institutions.

• Payment cards : They contain stored financial value that can be transferred from the customer's computer to the businessman's computer.

• Credit cards : They are the most popular method used in EPSs and are used by charging against the customer credit.

• Smart cards: They include stored financial value and other important personal and financial information used for online payments.

• Electronic money (e-money/e-cash): This is standard money converted into an electronic format to pay for online purchases.

• Online payment: This can be used for monthly payment for Internet, phone bills, etc.

• Electronic wallets (e-wallets) : They are similar to smart cards as they include stored financial value for online payments.

• Micro-payment systems : They are similar to e-wallets in that they include stored financial value for online payments; on the other hand, they are used for small payments, such as kurus in Turkey .

• Electronic gifts : They are one way of sending electronic currency or gift certificates from one individual to another. The receiver can spend these gifts in their favorite online stores provided they accept this type of currency.

• Although these groups appear to be separate, there is some overlap among them. When the industry matures, this duplication in naming and function ought to be renamed. For example, e-wallets can be classified as payment cards when they are used to store credit card information or as e-money when they store electronic currency. The standardization of payment mechanisms on the Internet is essential to the success of e-commerce. Businesses offering domestic and international services must have assurance that payment will be received, that it is secure and that it is valid. Addressing security issues is crucial to the acceptance of online payment standards: consumers and merchants must be able to trust that their information is kept intact and remains secure during transmission. SET and SSL are two standards that protect the integrity of online transactions.

(OR)

b) Discuss about different types of Electronic Card Payment system.

E Electronic payment methods

One of the most popular payment forms online are credit and debit cards. Besides them, there are also alternative payment methods, such as bank transfers, electronic wallets, smart cards or bitcoin wallet (bitcoin is the most popular cryptocurrency).
E-payment methods could be classified into two areas, credit payment systems and cash payment systems.

1. **Credit Payment System**
   - Credit Card — A form of the e-payment system which requires the use of the card issued by a financial institute to the cardholder for making payments online or through an electronic device, without the use of cash.

   - E-wallet — A form of prepaid account that stores user's financial data, like debit and credit card information to make an online transaction easier.
   - Smart card — A plastic card with a microprocessor that can be loaded with funds to make transactions; also known as a chip card.

2. **Cash Payment System**
   - Direct debit — A financial transaction in which the account holder instructs the bank to collect a specific amount of money from his account electronically to pay for goods or services.
   - E-check — A digital version of an old paper check. It's an electronic transfer of money from a bank account, usually checking account, without the use of the paper check.
   - E-cash is a form of an electronic payment system, where a certain amount of money is stored on a client's device and made accessible for online transactions.
   - Stored-value card — A card with a certain amount of money that can be used to perform the transaction in the issuer store. A typical example of stored-value cards are gift cards.
3. **Electronic funds transfer :CTRONİC FUNDS**

   Electronic funds transfer is one of the oldest electronic payment systems. EFT is the groundwork of the cash-less and check-less culture where and paper bills, checks, envelopes, stamps are eliminated. EFT is used for transferring money from one bank account directly to another without any paper money changing hands. The most popular application of EFT is that instead of getting a paycheck and putting it into a bank account, the money is deposited to an account electronically. EFT is considered to be a safe, reliable, and convenient way to conduct business. The advantages of EFT contain the following:

   • Simplified accounting
   • Improved efficiency
   • Reduced administrative costs
   • Improved security

4. **Charge Cards**

Charge cards are similar to credit cards except they have no revolving credit line, so the balance must be paid off every month. Credit, debit, and charge card methods of payments have been successfully utilized in the pre-Internet period, and they are often used in the e-commerce world as well. Some of the reasons for their popularity in the e-commerce world are their availability (most customers own one of these cards), ease of use, and acceptance. To use these cards as an online payment system, a well-defined process is followed. A brief description follows. To accept payment cards payments, a merchant must have a merchant account with a bank. The buyer will be required to submit their credit-card number, expiration date and shipping and billing information when making a purchase online using a payment card. (Figure 4.3) A customer using his/her browser clicks on a product on the merchant's web site and adds it to an electronic shopping cart. The customer provides the shipping instructions and payment card information. This information is sent securely over the Internet to the merchant's commerce site (Step 1). The server software adds the merchant identification to the information transmitted. The merchant then submits this information to the acquiring bank with which the merchant holds an account (Step 2). The merchant bank transmits this information to the customer's bank for authorization. Then, the buyer's account information is verified. This involves the issuing bank from which the buyer obtained the credit card, and the credit-card association (Step 3). Verification is received by the acquiring bank (Step 4) and is passed on to the merchant (Step 5) who then ships the product (Step 6). Payment cannot be issued to the merchant until the product has been shipped.

5. **Smart Cards**

A smart card is about the size of a credit card, made of a plastic with an embedded microprocessor chip that holds important financial and personal information. The microprocessor chip is loaded with the relevant information and periodically recharged. In addition to these pieces of information, systems have been developed to store cash onto the chip. The money on the card is saved in an encrypted form and is protected by a password to ensure the security of the smart card solution. In order to pay via smart card it is necessary to introduce the card into a hardware terminal. The device requires a special key from the issuing bank to start a money transfer in either direction. Smart cards can be disposable or rechargeable. A popular example of a disposable smart card is the one issued by telephone companies. After using the pre-specified amount, the card can be discarded. Smart cards have been extensively used in the telecommunications industry for years. Smart-card

technology can be used to hold information on health care, transportation, identification, retail, loyalty programs and banking, to name a few. Smart cards enable information for different purposes to be stored in one location. The microprocessor chip can process different types of information, and therefore, various industries use them in different ways. Due to their multipurpose functions, their popularity in Turkey is also on the rise. Smart cards are broadly classified into two groups:

Contact

This type of smart card must be inserted into a special card reader to be read and updated. A contact smart card contains a microprocessor chip that makes contact with electrical connectors to transfer the data.

Contact-less This type of smart card can be read from a short distance using radio frequency. A contact-less smart card also contains a microprocessor chip and an antenna that allows data to be transmitted to a special card reader without any physical contact. This type of smart card is useful for people who are moving in vehicles or on foot. They are used extensively in European countries for collecting payment for highway tolls, train fares, parking, bus fares, and admission fees to movies, theaters, plays, and so forth. Smart cards can accommodate a variety of applications that allow the customer to make purchases from a credit account, debit account, or stored value on the card. These cards can even have multiple applications operating at the same time. The customer, for example, could have a frequent flyer program working on the same card as the customer debit or credit account. This enables the customer to earn points in his or her favorite program. Several computer manufacturers (e.g. Compaq) are developing keyboards that include smart card slots that can be read like bank credit cards. A smart card can be programmed for different applications. Some cards contain programming and data to support multiple applications, and some can be updated with new applications after they are issued. IBM, Microsoft, Schlumberger, and Bull are among the major players in smart card development and utilization. Some of the advantages of smart cards include the following:

- Stored many types of information
- Not easily duplicated
- Not occupy much space
- Portable
- Low cost to issuers and users
- Included high security

The disadvantages of smart cards are the lack of universal standards for their design and utilization. On the other hand, smart card applications are expected to increase as a result of the resolution of these disadvantages in the near future.

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KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed to be University)
(Established Under Section 3 of UGC Act 1956)
Coimbatore – 641 021

INFORMATION TECHNOLOGY
Sixth Semester
THIRD INTERNAL EXAMINATION – MARCH 2019

E-COMMERCE TECHNOLOGIES

Class: III B.Sc. IT (A&B) & CT **Duration :** 2 Hours
Date & Session: 11.03.19 & AN **Maximum :** 50 Marks

PART-A(20 X 1 = 20 Marks)
Answer ALL the Questions

1. Today many businesses have set up their own _____.
   a) offices b) websites c) farms d) factories
2. The use of Internet for conducting any business activities is known as _____.
   a) E-commerce b) F-commerce c) G-commerce d) None
3. For the consumer _____ makes it easy to reject products at that point of delivery.
   a) Cheque-on-delivery b) cash-on-delivery c) Card-on-delivery d) All of these
4. The ____ sales would rise in coming years with availability of faster broadband services & new application.
   a) M-commerce b) Net-Banking c) E-commerce d) None
5. Using _____ E-commerce, a customer can purchase any product anywhere anytime and conduct business.
   a) 24x7 b) 48x7 c) 12x12 d) 24x12
6. The e-commerce business compared to the traditional one as _____.
   a) Fast b) Medium c) Slow d) Can't say
7. To sell an item through online auction, _____ is needed first.
   a) registration b) booking c) purchasing d) transferring
8. Which of the following is an example for online bookstore?
   a) Amazon b) irctc c) Gmail d) yahoo
9. Cash on Delivery is _____ method according to online retail vendors.
   a) Cheap b) costly c) can't say d) none of these
10. The _____ coverage can be reached through creating a website and uploading it on Internet.
    a)International b)Universal c) Large-scale d) Global
11. Now-a-days many business websites provide their product____ online over Internet.
    a) catalogue b) images c) videos d) all of these
12. Which one is not a layer of E-Commerce infrastructure:
    a)Physical Layer b)Product Layer c)Service Layer d)None
13. Which process is used to reinstall data from a copy when the original data has been Lost Backup
    a) Recovery b) Bench marking c) Data cleansing d) Recovery
14. What is the percentage of customers who visit a website and actually buy something:
    a)Affiliate Program b)Click-through c) Spam d)Conversion rate

15. Which of the following are empty tag _____.
    a) Paragraph Tag b) Pre-Tag c)Horizontal Rule Tagd) Emphasized Text
16. A communication path way that transfers data from one point to another is called _____.
    a) Link b) Node c) Medium d) Topology
17. Another name for Electronic marketing is _____.
    a) E-banking b) internet-marketing c)Net-Bankingd) None
18. In online billing, companies send their bills through _____.
    a) E-mail b) Fast-Mail c) Slow-Mail d) Post
19. Mobile Commerce can be defined as _____.
    a) M-Phil b) M-Business c) M-Com d) M-organization
20. The bills can be paid online on the company's website using _____.
    a) credit card b) debit card c) both a and b d) cheque

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. What are the linking objectives to business strategies?
22. What are the demerits of E-Commerce?
23. Define Internet Marketing.

PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

24. a) Describe about the measuring benefits of E-Commerce.
    (OR)
    b) How to develop a website for the Electronic Business.

25. a) Explain about E-cycle of Internet Marketing.
    (OR)
    b) Discuss about steps in Personalize Organization.

26. a) Explain different types of techniques used in E-Commerce.
    (OR)
    b) Differentiate between Internet Business and Internet Marketing.

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INFORMATION TECHNOLOGY
Sixth Semester
THIRD INTERNAL EXAMINATION – MARCH 2019

E-COMMERCE TECHNOLOGIES

Class: III B.Sc. IT (A&B) & CT **Duration :** 2 Hours
Date & Session: 11.03.19 & AN **Maximum :** 50 Marks

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a) credit card b) debit card **c) both a and b** d) cheque

PART-B (3 X 2 = 6 Marks)
(Answer ALL the Questions)

21. What are the linking objectives to business strategies?

Linking objectives to business strategies businesses. Linking Objectives to Business Strategies Businesses can use tactics called downstream strategies to improve the value that the business provides to its customers.

22. What are the demerits of E-Commerce?

There can be lack of system **security**, **reliability** or standards owing to poor implementation of e-commerce. The software development industry is still evolving and keeps changing rapidly. In many countries, network bandwidth might cause an issue.

23. Define Internet Marketing.

Internet marketing, or **online marketing**, refers to advertising and **marketing**efforts that use the Web and email to drive direct sales via electronic commerce, in addition to sales leads from websites or emails.

PART-C (3 X 8 = 24 Marks)
(Answer ALL the Questions)

24. a) Describe about the measuring benefits of E-Commerce.

Measuring Benefits

Some benefits of electronic commerce initiatives are tangible and easy to measure. These include such things as increased sales or reduced costs. Other benefits are intangible and can be much more difficult to measure, such as increased customer satisfaction. When identifying benefit objectives, managers should try to set objectives that are measurable, even when those objectives are for intangible benefits .For example, success in achieving a goal of increased customer satisfaction might be measured by counting the number of first-time customers who return to the site and buy.

Many companies create Web sites to build brands or enhance their existing marketing programs. These companies can set goals in terms of increased brand awareness, as measured by market research surveys and opinion polls. Companies that sell goods or services online can measure sales volume in units or dollars. A complication that occurs in measuring either brand awareness or sales is that the increases can be caused by other things that the company is doing at the same time or by a general improvement in the economy. A good marketing staff or outside consulting firm can help a company sort out the effects of marketing and sales programs. Firms may need these groups to help set and evaluate these kinds of goals for electronic commerce initiatives.

Managing Costs

At first glance, the task of identifying and estimating costs may seem much easier than the task of setting benefits objectives. However, many managers have found that information technology project cost scan be as difficult to estimate and control as the benefits of those projects. Since Web development uses hardware and software technologies that change even more rapidly than those used in other information technology projects , managers often find that their experience does not help much when they are making estimates.

Managing Costs:	♦ **Total cost of ownership:** In addition to hardware and software costs, the project budget must include the costs of hiring, training, and paying the personnel who will design the Web site, write or customize the software, create the content, and operate and maintain the site. Many organizations now track costs by activity and calculate a total cost for each activity. These cost numbers are called total cost of ownership. ♦ **Change management:** The process of helping employees copes with changes introduced in the workplace. Change management techniques include communicating the need for change to employees, allowing employees to participate in the planning for the change, and other tactics designed to help employees feel that they are a part of the change. ♦ **Opportunity cost:** The foregone benefits that a company could have obtained from an electronic commerce initiative that they chose not to pursue.

Change management deals with how changes to the system are managed so they don't degrade system performance and availability. Change management is especially critical in today's highly decentralized, network-based environment where users themselves may be applying many changes. A key cause of high cost of ownership is the application of changes by those who don't fully understand their implications across the operating environment.

In effective change management, all changes should be identified and planned for prior to implementation. Back-out procedures should be established in case changes create problems. Then,

after changes are applied, they are thoroughly tested and evaluated. This article describes the process steps for change management and factors critical to its success.

Step1: Define change management process and practices

- **Procedures for handling changes** -how changes are requested, how they are processed and scheduled for implementation, how they are applied, and what the criteria are for backing out changes that cause problems
- **Roles and responsibilities of the IT support staff**- who receives the change request, who tracks all change requests, who schedules change implementations, and what each entity is supposed to do
- **Measurements for change management** - what will be tracked to monitor the efficiency of the change management discipline
- **Tools to be used**
- **Type of changes to be handled and how to assign priorities**-priority assignment methodology and escalation guidelines
- **Back-out procedures** - Actions to take if applied changes do not performs expected or cause problems to other components of the system

Step2: Receive change requests

Receive all requests for changes, ideally through a single change coordinator. Change requests can be submitted on a change request form that includes the date and time of the request.

Step3: Plan for implementation of changes

Examine all change requests to determine:

- Change request prioritization
- Resource requirements for implementing the change
- Impact to the system
- Back-out procedures
- Schedule of implementation

Step4: Implement and monitor the changes; back out changes if necessary

At this stage, apply the change and monitor the results. If the desired outcome is not achieved, or if other systems or applications are negatively affected, back out the changes.

Step5: Evaluate and report on change implemented

Provide feedback on all changes to the change coordinator, whether they were successful or not. The change coordinator is responsible for examining trends in the application of changes, to see if:

- Change implementation planning was sufficient.
- Changes to certain resources are more prone to problems.

Step6: Modify change management plan if necessary

You may need to modify the entire change management process to make it more effective. Consider reexamining your change management disciplines if:

- Changes are not being applied on time.
- Notenough changes are being processed.
- Toomany changes are being backed out.

- Changes are affecting the system availability.
- Not all changes are being covered.

(OR)

b) How to develop a website for the Electronic Business.

When companies began establishing their presences on the Web, the typical Web site was a static brochure that was not updated frequently with new information and seldom had any capabilities for helping the company's customers or vendors transact business. As Web sites have become the home not only of transaction processing but also of automated business processes of all kinds, these Web sites have become important parts of companies' information systems infrastructures.

Internal Developments. Outsourcing

Although many companies would like to think that they can avoid electronic commerce site development problems by outsourcing the entire project, savvy leaders realize that they cannot. No matter what kind of electronic commerce initiative a company is contemplating, the initiative's success depends on how well it is integrated into and supports the activities in which the business is already engaged. Using internal people to lead all projects helps to ensure that the company's specific needs are addressed and that the initiative is congruent with the goals and the culture of the organization. Outside consultants are seldom able to learn enough about an organization's culture to accomplish these objectives. However, few companies are large enough or have sufficient in-house expertise to launch an electronic commerce project without some external help. Even Wal-Mart, with annual sales of more than $150 billion, did not undertake its 2000 Web site relaunch alone. The key to success is finding the right balance between outside and inside support for the project. Hiring another company to provide the outside support for all or part of the project is called outsourcing.

Internal Developmentvs. Outsourcing:	♦ **The internal team:** The first step in determining which parts of an electronic commerce project to outsource is to create an internal team that is responsible for the project. This team should include people with enough knowledge about the Internet and its technologies to know what kinds of things are possible. Team members should be creative thinkers who are interested in taking the company beyond its current boundaries, and they should be people who have distinguished themselves in some way by doing something very well for the company. ♦ **Early outsourcing:** In many electronic commerce projects, the company outsources the initial site design and development to launch the project quickly. The outsourcing team then trains the company's information systems professionals in the new technology before handing the operation of the site over tothem.

	♦ **Late outsourcing:** In the more traditional approach to information systems outsourcing, the company's information systems professionals do the initial design and development work, implement the system, and operate the system until it becomes a stable part of the business operation. Once the company has gained all the competitive advantage provided by the system, the maintenance of the electronic commerce system can be outsourced. ♦ **Partial outsourcing:** The company identifies specific portions of the project that can be completely designed, developed, implemented, and operated by another firm that specializes in a particular function.

Selecting a Hosting Service

Because the company's information on customers, products, pricing, and other data will be placed in the hands of the service provider, the vendor's security policies and practices are very important, as you learned in Chapter 10. No matter what security guarantees the service provider offers, the company should monitor the security of the electronic commerce operation through its own personnel or by hiring a security consulting firm.

25. a) Explain about E-cycle of Internet Marketing.

The E-Cycle of Internet marketing

Stage One: Setting Corporate and Business-Unit Strategy

Corporate strategy addresses the interrelationship between the various business units in a firm, including decisions about which units should be kept, sold, or augmented. Business-unit strategy focuses on how a particular unit in the company attacks a market to gain competitive advantage.

Stage Two: Framing the Market Opportunity

Stage two entails the analysis of market opportunities and an initial first pass of the business concept—that is, collecting sufficient online and offline data to establish the burden of proof of opportunity assessment.

Stage Three: Formulating the Marketing Strategy

Internet marketing strategy is based upon corporate, business-unit, and overall marketing strategies of the firm. The marketing strategy goals, resources, and sequencing of actions must be tightly aligned with the business-unit strategy. Finally, the overall marketing strategy comprises both offline and online marketing activities.

Stage Four: Designing the Customer Experience

Firms must understand the type of customer experience that needs to be delivered to meet the market opportunity. The experience should correlate with the firm's positioning and marketing strategy. Thus, the design of the customer experience constitutes a bridge between the high-level marketing strategy (step three) and the marketing program tactics (step five).

Stage Five: Designing the Marketing Program

Stage five entails designing a particular combination of marketing actions (termed levers) to move target customers from awareness to commitment. The framework used to accomplish this task is the Market space Matrix. The Internet marketer has six classes of levers (e.g., pricing, community) that can be used to create target customer awareness, exploration, and commitment to the firm's offering.

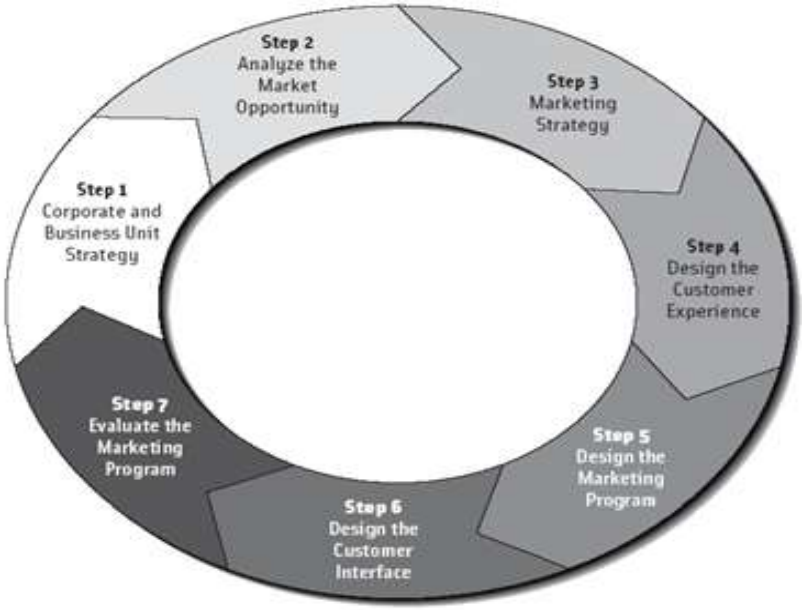
Stage Six: Crafting the Customer Interface

The Internet has shifted the locus of the exchange from the Marketplace (i.e., face-to-face interaction) to the Market space (i.e., screen-to-face interaction). The key difference is that the nature of the exchange relationship is now mediated by a technology interface. This interface can be a desktop PC, subnotebook, personal digital assistant, mobile phone, wireless applications protocol (WAP) device, or other Internet-enabled appliance.

Stage Seven: Evaluating the Marketing Program

This last stage involves the evaluation of the overall Internet marketing program. This includes a balanced focus on both customer and financial metrics. It emphasizes customer actions as well as financial metrics used to track the success of marketing programs.

Elite Infoworld is a leading company in digital marketing will provide you different services like Search engine optimization, social media optimization and internet marketing Services.



(OR)

b) Discuss about steps in Personalize Organization.

Ecommerce Personalization is the term used by online retailers that refers to the practice of creating personal interactions and experiences on ecommerce sites by dynamically showing content, media, or product recommendations based on browsing behavior, purchase history data, demographics and psychographics.

To begin the journey to advanced ecommerce personalization, any company with a transactional ecommerce site should be able to capture data and personalize experience based on:

- Context
  - Type of device
  - Time of day
  - Time and location
  - Referral source
- Behavior
  - Recently viewed products and categories
  - Items from abandoned carts
- History
  - Past purchases
  - Loyalty program member
  - Past email interactions

Beyond those initial data points, there are thousands more that can be considered, but a human could never take all of them into account. With the help of machine learning, the personalization platform is able to consider all these different data points as context to determine what will work best for the customer in real time.

Ecommerce Personalization Goal Metrics

In order to measure success, a business must first define the goal metrics for its personalization efforts. Retailers frequently use personalization to optimize for Revenue, Conversion Rate, Bounce Rate, or Engagement; but you might also choose to develop your own metrics or choose from a variety of other options, including:

- Average Page Views
- Add-to-Cart Rate
- Cart Abandonment Rate
- Revenue Per Session
- Average Order Value
- Total Time on Site

Multi-Device Ecommerce Personalization

Increasingly, customers are using more than one device to interact with brands. Retailers who are tracking their customers across multiple devices are able to gain valuable data on who their most valuable customers are, how often those customers are interacting with their brand, and what those on-site experiences look like. Statistics show significant increases in product view rate, purchase rate and average order value with multi-device versus single device personalization:

- Product view rate is 88% v. 58%
- Purchase rate is 55% v. 6%
- AOV is $130 v. $115

As a result, the customers who receive all the benefits of a more cohesive, personalized experience, are able to deliver more value to the retailer as a direct result of being recognized throughout their journey.

Read the latest EQ from Monetate, The Cross-Device Imperative, and get the stats and insights that guide the industry.

Ecommerce and Omni channel Personalization

Until now, personalization has been primarily limited to online channels. Digital-only approaches are still valuable, but in the customer's mind they have one relationship with you—not one for every channel. That relationship needs to be consistent across all interactions, whether online, offline, in-store, in email, or on mobile. To create an experience that makes the customer feel truly recognized, your personalization platform and strategy need to be in all of those places.

The Benefits of Omni channel Personalization include:

- Ability to personalize products, content, and copy on any customer channel
- Linking customers' online behavior to in-store by notifying local stores via their clientelling app when a particular user browsed specific items online
- Linking customers' online browsing behavior to personalize the in-app experience and trigger relevant push notifications leveraging geofencing
- Enabling a POS feedback loop that ensures that online product recommendations and email promotions can be individualized to reflect in-store purchases.

The Monetate Intelligent Personalization Engine™ is the only platform that combines cross-channel customer identification, cross-channel action, and state-of-the-art measurement and optimization to build, grow, and automatically improve customer experiences. This empowers marketers to reach each customer in new and meaningful ways and create engaging and immersive experiences that lift conversions and revenue.

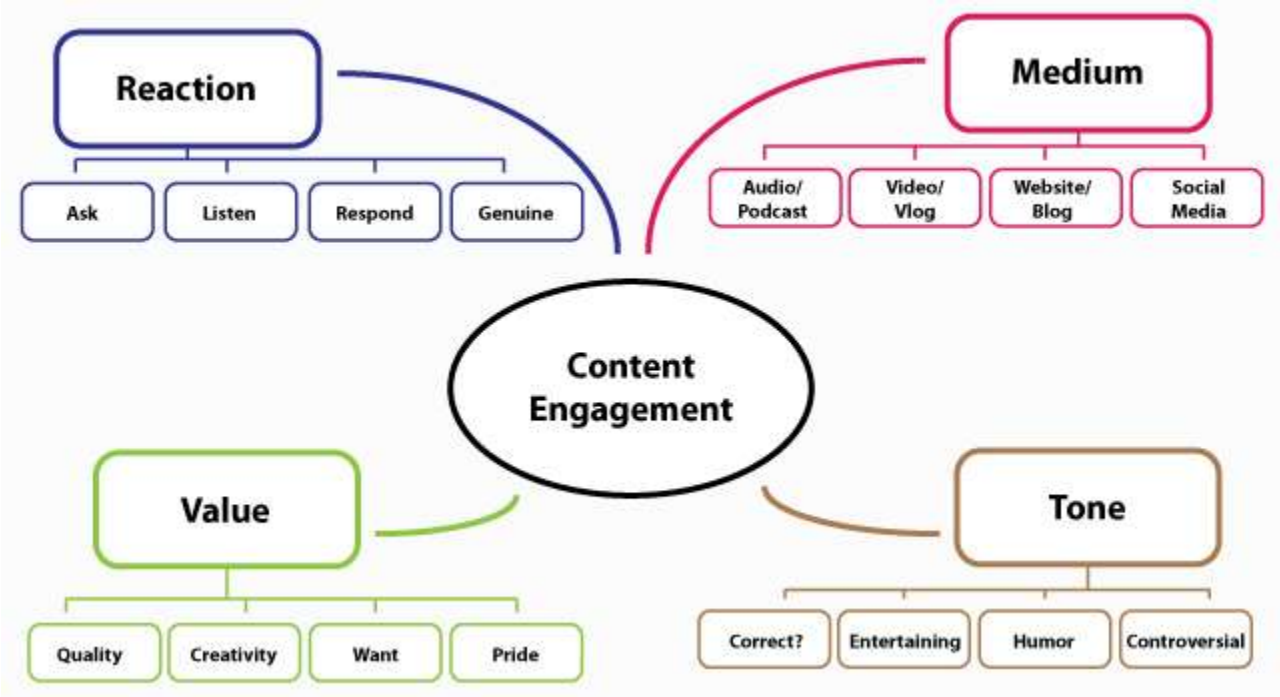
26. a) Explain different types of techniques used in E-Commerce.

Top 8 Technologies for Successful Ecommerce Marketing

Ecommerce marketers must stay updated and aware of the latest technologies in order to boost their business online. They can achieve this by analyzing the market, the hit trends of the previous year and willingness to try something new. Stay with us as we are going to tell you the top marketing technologies that you should use to reinvigorate your ecommerce in 2017:

1. Engagement with Content

Content is the key in order to get high rankings and therefore, it must be original, unique and most of all engaging. Ensure that your blogs, website content and product descriptions have all these qualities. However, a customer doesn't always have time to go through the content and that is why you must incorporate the latest technology for engagement. A customer shouldn't get bored upon visiting your website as it can be fatal for your business, thus ensure that you maintain engagement with content.



2. Programmatic Advertising is More Effective

This year, ecommerce businesses are allocating more budgets on Programmatic Advertising. As compared to traditional methods that need human buyers, salespeople, and immense guesswork, Programmatic Advertising presents you with enhanced cost efficiency as well as speed. Using the new technologies, Programmatic uses the data analytics in order to determine the right audience and the appropriate ad format that will be projected to that audience. This automation will also save a lot of your time that you can use on other crucial aspects of your businesses.

Zenith is a marketing and advertising agency that published a report stating, "Programmatic will become the principal method of trading digital display this year, accounting for 51% of expenditure, and will rise to 58% of expenditure in 2017."

3. Engagement with Bots

The majority of the ecommerce marketers depend on CTRs and website visits to understand the potency of their **online marketing** campaigns, however, these methods fail to present a clear picture. Instead of spending your whole budget to enhance CTRs and website visits, you must allocate some budget in using the Chatbots technology as it is a new yet effective method to enhance customer engagement. As compared to traditional advertisements and videos, conversing with Chatbots is more natural and engaging. A number of ecommerce giants are using latest technologies and Artificial Intelligence (AI) based on chatbots to establish brand engagement.

4. Customization for Better Customer Experience & Brand Engagement

This isn't exactly a new strategy, but it will align with your efforts towards improving customer experience and brand engagement. Online product customization has tremendous revenue potential and has its unique space in the online world.

With customization, you can charge more for the same products as customers are willing to pay more for self-designed products, compared to non-customized ones. It is also likely that customers would be willing to talk about these products; these are their own creations! You should promote such interactions by allowing customers to easily share their designs in the social space.

5. Engagement with AR (Augmented Reality) and VR (Virtual Reality)

As everyone knows, Pokemon Go became the most popular game of all times which shows how successful and important AR and VR are going to be in **e-commerce marketing** as well. It is crucial for ecommerce companies worldwide to remodel around artificial intelligence. AR and VR are also becoming important to enhance customer engagement and ecommerce owners are developing strategies and immersive experiences. It will help in increasing customer engagement and also in transforming the shopping experience of customers.

6. Think Beyond Apps

It is vital for ecommerce owners to understand the fact that in order to engage customers, apps are no longer going to be the only channel. There have been many "mobile first" and "mobile only" marketing strategies in the past years but the future is going to be different. **Mobile app development companies** are adapting to the new technologies and transforming their processes and offerings according to the demands of the market. It is important to develop apps for larger screens. show that people tend to use mobile for casual browsing, while they make most of their online purchases via desktop. Instead of trying to change this behavior, you should gauge customer journey across all screen sizes and make it seamless for them to switch devices.

7. Voice First Browsing is Becoming a New Trend

With the advancing technology, voice first browsing ought to be your primary focus this year as voice search trend is constantly rising. *It is said in a report that "mobile voice searches have tripled in the past two years (2014-15)."* It is also becoming very famous because of a number of unique innovation

and new hardware around this technology. People now are excited to use voice search which has resulted in the introduction of technologies such as Amazon Echo, Apple AirPods, and Google Home. Doing away with the screens, the vocal communication and interaction will have a remarkable effect on the internet and web experience of people as they can now use it without getting distracted while doing other works such as exercising, driving, walking, etc.

8. Fastest Means for Delivery and Returns

The marketing department must always pay attention to delivery as well as returns because it has an important role in providing customer satisfaction. When a customer receives the product at quick speed or gets it exchanged or returned without any hassles, their loyalty towards the brand increases as well. So ensure to allocate some amount from your budget to delivery as well.

(OR)

b) Differentiate between Internet Business and Internet Marketing.

The marketing methods or platforms you use are known as channels. Digital marketing involves using online channels to promote the benefits of your products. Sending emails, blogging, and connecting on social media all fall into this broad category. Online channels allow remote, but authentic, interactions that build loyalty. Common channels for digital marketing include:

- Business websites and blogs
- Search engine optimization
- Email subscriber lists
- Social media sites
- Business networking sites
- Online testimonials and review sites
- Video-sharing sites
- Press release distributors
- Paid internet advertising
- Apps and online tools

Digital marketing has become one of the most effective ways to reach customers. In a 2015 survey, Pew Research Center reported that 21 percent of Americans go online "almost constantly," and 42 percent are online multiple times a day. With so many people using mobile devices, it's quite common to be online all the time.

Connecting with people you can't see may seem like a challenge. In reality, the internet creates a lot of new opportunities to learn about customers. As a result, you're able to draw more people to your business through targeted marketing.

Internet marketing involves building a web presence and turning the resulting traffic into sales. When the internet was younger, the four major marketing activities involved:

- Creating websites
- Buying pay-per-click-ads
- Setting up web storefronts
- Using keyword groups to capture search engine traffic

Yet, online marketing has grown to include many activities that don't involve internet search engines, paid ads, or websites. People are using a wide range of digital devices to get online and interact with

content. By reaching customers through online channels they frequently use, you can influence their buying choices offline.

Think about how often you connect with brands. Customers form positive opinions about products or services from reading blogs. Interactive video ads prompt viewers to make decisions. Customers receive coupons for local stores straight from smartphone apps. Internet marketing is a major subcategory of digital marketing. And digital marketing encompasses diverse online and offline tactics that drive digital engagement.