

# E-COMMERCE

## B.COM 4<sup>TH</sup> SEMESTER NOTES

### **UNIT-I:**

E-Business and E-Commerce: Introduction, Potential Benefits, Limitations, Classifications, Impact of E-Commerce on Business models. E-Commerce Applications: Entertainment, E-Marketing, E-Advertising, Search Engines, E-Banking, Mobile Commerce, Online Trading, ELearning, E-Shopping.

### **UNIT-II:**

Architecture Framework of E-Commerce: Application Services, Brokerage and Data Management, Interface layers, secure messaging, Middleware services and network infrastructure. Security Protocols: Open systems interconnection (OSI), TCP/IP, FTP, HTTP, SMTP, S-HTTP, SSL, NNTP, Messaging Protocols: Basic Mail Protocol, Security Enhanced Mail Protocol. Web Security Issues, Encryption Techniques: Symmetric and Asymmetric.

### **UNIT-III:**

Consumer Oriented E-Commerce Applications, Mercantile Process Model: Consumers Perspective and Merchant's Perspective. Electronic Payment Systems: Advantages and risks, Types of Payment System (Credit Cards, E-Cash, Smart-Cards).

### **UNIT-IV:**

Electronic Data Interchange: Non EDI System, Partial EDI System, Fully Integrated EDI System, Prerequisites for EDI. Issues of EDI: Legal issues, Security issues, Privacy issues.

### **UNIT-V:**

E-Marketing Techniques: Search Engines, Directories, Registrations, Solicited targeted E-mails, Interactive sites, Banners, Advertising, Spam Mails, E-mail, Chain letters. Applications of 5P's (Product, Price, Place, Promotion, People), EAdvertising Techniques: Banners, Sponsorships, Portals, and Online Coupons.

# UNIT

## **Meaning of business:-**

A business (also known as an enterprise or firm ) is an organization engaged in the trade of goods , services , or both to consumers .

## **Meaning of business:-**

A general term that refers to any type of business activity on the internet, including marketing, branding, and research.

**Branding:** - The process involved in creating a unique name and image for a product in the consumer's mind, mainly through advertising campaigns with a consistent theme.

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

**E-commerce:** - e-commerce means buying and selling of products or services over electronic systems such as the internet and other computer networks.

## **Difference between E-business and E-commerce:-**

In both cases , E stands for “Electronic networks “ and describes the applications of Electronic network technology – including internet and electronic data interchange (EDI) – to improve and change business process .

E-commerce covers outward - facing processes that touch customers , suppliers and external partners , including sales , marketing , order taking , delivery , customer service , purchasing of raw materials ---.

E-business includes E-commerce but also covers internal process such as production , inventory management , products development , finance , human resources , E-business strategy is more complex , productivity and cost savings .

Ex:-E-bay, Amazon.

Definition of E-commerce:-

Or

Write about E-commerce.

E-commerce means buying and selling of products or services over Electronic systems such as internet and other computer networks.

- ✓ This use of Electronic transmission medium (Tele communication) to Engage in the exchange, including buying and selling, of products and services either physically or digitally, from location to location.
- ✓ The key element of E-commerce is information processing.
- ✓ This information processing activity is in the form of business transactions.
- ✓ Some of the business transactions are :-

1. Transactions between company and the consumer over networks for the purpose of home shopping and home banking .
2. Transactions between trading partners .
3. Transactions for information distribution .

## **2. Explain activities of E-commerce?**

- a) Increasing the speed of service delivery.
- b) Use of computer networks to search and retrieve information in support of human and corporate decision –making.
- c) Buying and selling of information, products and services via computer network.
- d) Faster customer response and improve services quality.
- e) Advertising on the internet.
- f) Online electronic commerce payments i.e., electronic funds transfer.

## **3. Give some potential benefits of E-commerce.**

A. The most important features of E-commerce is

1. The global nature of the technology.
2. Low cost.
3. Opportunity to reach hundreds of millions of people.
4. Interactive nature.
5. Variety of possibilities.
6. Rapid growth of the supporting infrastructures.

According to these features, E-commerce benefits are classified into 3 types.

- Benefits to organization.
- Benefits to consumers.
- Benefits to society.

### **Benefits to organization:-**

Following are the benefits of Ecommerce to organizations

1. E-commerce expands the market place to national and international level.
2. E-commerce decreases the cost of creating, processing, distributing, storing, and retrieving paper based information.
3. Ability for creation highly specialized business.
4. E-commerce reduces the time between the outlay of capital and the receipt of products and services.
5. E-commerce initiates business processes reengineering projects.

### **Benefits to consumers**

The following are the benefits of E-commerce to consumer

1. E-commerce enables customer to shop or do \other transactions 24hrs a day, all year round from almost any location.
2. E-commerce provides customers with more choices they can select from many vendors and from many products.
3. In some cases, especially with digitized products E-commerce allows quick delivery.
4. Customer can retrieve relevant and detailed information in seconds, rather than days or weeks .
5. E-Commerce facilitates competition, which results in substantial discounts

6. E-Commerce allows consumers to interact with other customers and exchange ideas as well as compare experiences.

### **BENEFITS TO SOCIETY:**

The following are the benefits of E-Commerce to society:

1. E-Commerce enables more individuals to work at home and to do less travelling for shopping resulting in less traffic on the roads and lower air pollution.
2. E-Commerce enables people in rural areas to enjoy products and services that are not available to them. This includes opportunities to learn professions and earn college degrees.
3. E-Commerce facilitates delivery of public services such as health care education and distribution of Government social services at a reduced cost and or improved quality.

### **CLASSIFICATIONS OF E-COMMERCE:**

#### **EXPLAIN CLASSIFICATION OF E-COMMERCE.**

Ans: A common classification of E-Commerce is by the nature of transactions. There are six types of E-Commerce:

1. **BUSINESS - TO - BUSINESS (B2B):** It includes the IOS transactions and electronic market transactions between organizations.
  - IOS Transactions means Inter Organizational Information Systems refers to flow of standard transactions information between business partners, such as placing orders, building or paying.
2. **BUSINESS TO CUSTOMERS (B2C):** These are retailing transactions with individual shoppers.
3. **CUSTOMER TO CUSTOMER :** In this transaction customer sells directly to customers example : selling residential properties, cars, etc.,
4. **NON BUSINESS E-COMMERCE:** An increased no. of non-business institutions such as academic institutions, not for profit institutions religious, organizations, social organizational activities.
5. **CUSTOMER TO BUSINESS (C2B):** This category includes individuals who sell products are services to organizations.
6. **.INTRA BUSINESS E-COMMERCE:** In this category includes all internal organizational activities, usually preformed on intranets, that involves exchange of goods, services are information.

#### **4. What are the limitations of E-Commerce**

The limitations of E-Commerce can be grouped into 1) Technical 2) Non-Technical

### **Technical limitations of E-Commerce are**

1. There is a lack of system security, reliability, standards and some communication protocols.
2. There is insufficient telecommunication band width.
3. Soft ware development tools are changing rapidly.
4. It is difficulty to integrate the internet and soft ware with some existing application data basis.
5. Some electronic commerce soft ware might not be fit without some network are may be incompatible with some operating systems or other components.

### **NON-TECHNICAL LIMITATIONS:**

1. COST AND JUSTIFICATION: - The cost of developing E-Commerce in house is very costly and made mistakes due to lack of experience may result in delays.
2. SECURITY AND PRIVACY: - these issues are especially important in the B2C area, especially security issues which are privacy measures are constantly improved. EC Industry has a very long and difficult task of convincing customers that online transactions are secure and they will keep.
3. Lack of trust and user resistance: - Customers do not trust on unknown faceless sellers, paperless transactions and electronic money.

### **E-COMMERCE APPLICATIONS:**

EXPLAIN E-COMMERCE APPLICATIONS:

O R

Explain briefly applications of E-Commerce:

Ans: Globally E-Commerce is applied in the following fields.

1. E Marketing
2. E-Advertising
3. E-Banking
4. Mobile Commerce
5. E-Learning
6. E-Shopping
7. Online training
8. Search Engines
9. Entertainment

**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

**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.

Best example for E-Banking is ATM.

An ATM is an electronic fund transfer terminal capable of handling cash deposits, transfer between ALCS, Balance enquiries, cash withdrawals, and pay bills.

SERVICES THROUGH E-BANKING:

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

Customers should never share personal information's like pin nos., passwords, etc., with any one.

Through internet banking, you can check your transactions at any time of the day, and as many times as you want.

**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.
4. Local base services

Local discount offers

Local weather

5. Information services

6. **MOBILE BANKING:** Banks and other financial institutions used mobile commerce to allow their customers to assess account information and make transactions, such as purchasing, withdrawals etc.,

7. **MOBILE BROWSING:** Using a mobile browser- A www browser on mobile device customers can shop online without having to be at their personal computer.

**5) E-LEARNING:** E-Learning comprises all forms of electronically supported learning and teaching.

E-Learning is essentially the computer and network-enabled transfer of skills and knowledge.

E-Learning applications and processes include web-based learning, computer-based learning.

Content is delivered via. The internet, intranet/extranet, audio, or video tape, satellite TV, and ED-ROM.

Computer-Based Learning, sometimes abbreviated to CBL, refers to the use of computers as a key component of the education environment.

E-Learning is naturally suited to distance and flexible learning, but can also be used in conjunction with face-to-face teaching.

E-Learning can also refer to the educational website such as those offering learning scenarios, worst and interactive exercises for children.

Communication technologies are used in E-Learning.

A learning management system (LMS) is software used for delivering, tracking, and managing training /education.

#### **6) ONLINE SHOPPING:-**

Online shopping is the process where by consumer directly buy goods or services from a seller in real time, without an intermediary services over the internet .it is a form of E-commerce

An online shop, e-shop, e-store, internet shop, web shop, web store, online store, or virtual shop evokes the physical analogy of buying products or services in a shopping center.

The process is called business-to-consumer (B2C) online shopping. When a business buys from another business it is called business-to-business (B2B) online shopping.

In order to shop online, one must be able to have access to a computer, a bank account and debit card.

Online shopping widened the target audience to men and women of the middle class.

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. Debit cards.
4. Gift cards
5. Postal money order.

Online stores are usually available 24 hours a day, and many consumers have internet access both at work and at home.

Online stores must describe products for sale with text, photos, and multimedia files .

One advantage of shopping online is being able to quickly seek out deals for items or services with many different vendors.

Another major advantage for retailers is the ability to rapidly switch suppliers and vendors without disrupting users shopping experience.

#### **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.

Some search engines also mine data available in database or open directories.

Search engines work by storing information about many web pages, which they retrieve from the HTML it self.

When a user enters a query into a search engine (typically by using keywords), the engine examines its index and provides a listing of best matching according to its criteria.

Most search engines support the use of Boolean operator AND, OR, and NOT.

Some search engines, such as GOOGLE, store all or part of the source page as well as information about the web pages.

#### **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.

A formal trading community consists of a website or network of websites that facilitates and track made transactions.

While trading any used items online, be sure to include the condition and quality of the product so as the receiver can determine its overall value.

A trading circle is a form of online trading design to facilitate viewing of television series and episode media.

#### **9) ENTERTAINMENT:-**

The conventional media that have been used for entertainment are

1. Books/magazines.
2. Radio.
3. Television/films.
4. Video games.

The internet as an entertainment media is not a elastic by itself, but rather a unique interactions of all of the above media.

Computer based systems have been used as an entertainment medium in the form of video games , CD , ROMs , etc..

Online books /newspapers, online radio, online television, online firms, and online games are common place in internet where we can entertain.

Online social networking websites are one of the biggest sources of E-entertainment for today's tech-savvy (who have knowledge interest in) generation.



## **IMPACT OF COMPUTER TECHNOLOGY:-**

### **THE ICDT MODEL:-**

A model developed by ALBERT ANGETHRN called the information, communication, distribution; transaction (ICDT) model is used as a basis for discussing the internet strategy of business.

VIRTUAL VIRTUAL  
INFORMATION  
SPACE

TRADITIONAL MARKET PLACE

Angrhrn's model is based on four virtual spaces

#### **1. Virtual information space :-**

- a) This space is where a firm displays information about their organization, products, or services.
- b) This space is the easiest space for a business to enter and it is first step to enter into a market place.

For E-commerce major concerns are:

- i. The information that is displayed is accurate a current.
- ii. Customer can easily find the services and can reach the info easily.
- iii. The site is accessible without long wait.

#### **2. Virtual distribution space:-**

- i. This space is used to deliver the product or services requested or purchased by the consumer.

For E-commerce, major concerns are

- ii. Delivery of products and services only the legitimate, approved customers.
- iii. Reliable delivery of products and services

#### **3. Virtual transaction space :-**

This space is used to initiate and execute business transactions, such as sales orders.

The major concern contributing to these reluctances is data security.

Reliability of vendor.

Reputability of trading partner.

Privacy concern by customers.

#### **4. Virtual communication space :-**

This space is used to enable relation-ship-building , negotiation ,and exchange of ideas such as chat rooms , forums and communities .

#### **Three pillars of E-commerce:-**

The three electronic pillars of E-commerce which support open market processes :

- 1) Electronic information.
- 2) Electronic relationship.
- 3) Electronic transactions.

1) Electronic information is similar to virtual information space . The WWW is viewed as a “global responsibility “, of documents and multimedia data , constructing an electronic information pillar is easy most word processing software packages will easily convert the documents into a web-readable format ,in the website , the web page does not freeze or links do not head the visitor to a dead end .

2) Electronic relationships is the central pillar and this is similar to virtual communication placing information on products and services offer on a web site does not mean that potential customer or guests will visit that web site again , once they are visited .

3) The electronic transactions pillar is similar to virtual transactions space and also encompasses virtual distribution space. Many business have built an electronic inf pillar and some have but or are building an electronic community pillar and fewer have constructed electronic transactions pillar.

Two problems in constructing the pillar are:-

- 1) Engaging a meaningful sufficient, negotiable data.
- 2) Keeping data transactions data secure.

# UNIT

## **CONSUMER ORIENTED APPLICATIONS**

### **MERCANTILE PROCESS MODEL: -**

Mercantile process is an interaction model between consumer and Merchants for online commerce.

- This is necessary to buy and sell goods, a buyer, a seller, and other parties should follow some standard business processes.
- The establishment of a common merchant process (or set off processes) is must to increase the convenience for customers.
- A well established standard process using processing credit cards purchases contributed more for the E-Commerce.

There are three types of mercantile models.

- Mercantile models from the consumer's perspective
- Mercantile models from the merchant's perspective

### **MERCANTILE MODELS FROM THE CONSUMER'S PERSPECTIVE:-**

The online consumer expects quality, convenience, value, low price and control.

To meet these expectations, the business process model from consumer's perspective grouped seven activities into 3 phases.

- Seven activities are
- |                                |                              |
|--------------------------------|------------------------------|
| 1)Product / service search     | 1)Pre-purchase determination |
| 2)Product selection            |                              |
| 3)Negotiations of terms        |                              |
| 4) Placement of order          | 2)Purchases consumption      |
| 5)Authorization of payment     |                              |
| 6)Receipt for payment          |                              |
| 7)Customer service and support | 3)Post purchase interaction  |