| Session 1: Meaning, Definition and Importance of Information Technology			
Learning Outcome	Knowledge Evaluation	Performance Evaluation	Teaching & Training Method
Meaning of Information Technology Significance of Information Technology	Meaning and definition of information technology Relevance of information technology in current scenario.	What is information technology? What is the importance of information technology? Explain the uses of information technology.	Interactive Lecture
Session 2: Information technology in Functional areas of business			
Understanding role of Information Technology in different areas of business	Usage of Information technology in various areas of business.	How information technology is useful in different areas of business?	Interactive Lecture
Session 3: Meaning and Scope of E-business			
Meaning of E-business Scope of E-business	Features of	What do you mean by E-Business? Explain in detail scope of E-business.	Interactive Lecture
Session 4: Merits and Demerits of E-business			
		What are merits of E-business? What are demerits of E-business?	Interactive Lecture

Chapter-8

Information Technology in Business

8.1 Meaning, Definition and Importance of Information Technology

Introduction

One fine evening, Pranit was playing in park. He found an elderly couple in their late seventies Mrs. & Mr. Khanna of his society bearing an anxious expression on their faces. The kid out of concern asked them what is bothering them. Mr. Khanna told him he has forgotten to pay water bill which was due today itself. Secondly, the office would be closed where the bill has to be deposited. To add to it, his son had flown to US with his family for a holiday and he didn't want to bother him. Pranit immediately asked them if they have been using Internet banking. But they replied they never used it. Here this boy rescued them by helping them paying the bill digitally through a tablet bought by his son for them. He was really amazed and thankful to the little boy.
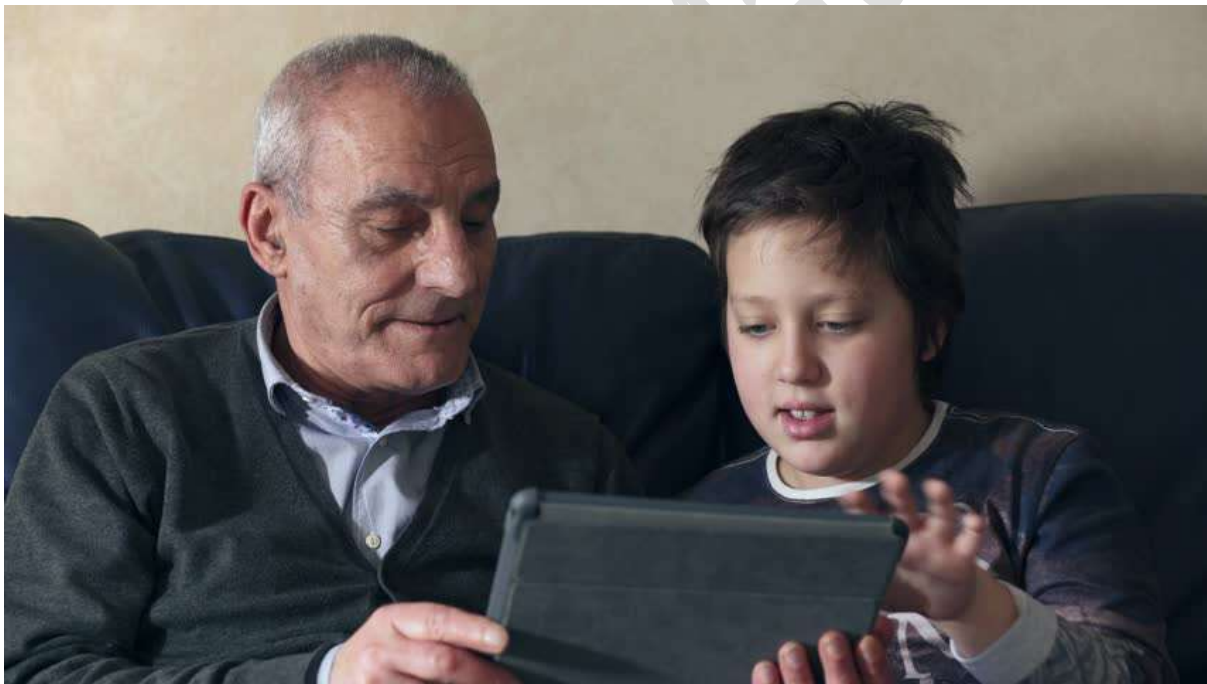
Mr. Khanna also told the little boy how banks used to work without computers. The banks maintained ledgers and folio numbers for each customer's account where all the transactions were recorded. Customer information was stored in individual post card. The cash withdrawal system was very time consuming. The banks also calculated quarterly interest on savings account manually.

The current age referred as Information age, Digital age or New Media age has paved the way for great revolution in various spheres of business and industry. We cannot imagine our lives without information technology and computers.

An office without computers

Meaning of Information Technology (I.T) – It is a set of tools, processes, methods and related equipment to collect, process and present information.

Definition

According to Attaran, "Information technology is defined as capabilities offered to organizations by computers, software applications, and telecommunications to deliver data, information, and knowledge to individuals and processes".

This is the era of Information Technology. Everyone is dependent on information technology. It is used everywhere- business, industry, home, education, entertainment and science.

Fig 1: Various aspects of Information Technology

Before understanding relation of information technology with business, we should understand that it is made of two words Information and Technology.

Information is all about communicating and receiving of knowledge and data.

Technology means the body of knowledge that is used to develop tools and machines for solving various organisational problems.

Joseph Gobbles has said "He who runs the information runs the show."That means the firms which are successful in managing information will survive.

Information systems are established tools which are expert in finding the position of the business and alert the companies of eventual crisis possibilities in the future.

Information technology includes usage of computers, networks, mobile and wireless devices, satellite telecommunications, robotics, electronic mail, and automated office equipment.

Characteristics of Information:-

- Accuracy
  This means information is free from errors and mistakes. It also means the information is from bias. Incorrect information can lead to wrong decisions.
- Timeliness
  It means the information should reach the receiver within a defined time. The information should be latest. There should not be any delays.
- Relevance
  This means particular information may be useful for one person while it may not be useful to another person. Information should be useful enough so that managers can draw decisions out of it.
- Complete
  Information should be complete to be used for making right decisions.

In organisations, information systems are employed which enable transforming data into information to generate knowledge which helps in decision making.

Importance of Information Technology

Information technology has tremendously paved the way of business organisations towards innovation and growth. Over the past years, there have been improvements in productivity and efficiency with the adoption of information based systems. In the following sections, we will understand how information technology is important and its application in various functions of business.

Figure 2: Importance of Technology

Advantages of Information Technology in business:-

- Office Automation: This involves using computer and communication technology for managing organisational information. It includes usage of computers, telephones, e-mail and machines. Nowadays

- **Communication:** Information technology has made it easier for the organisations to communicate with the customers, suppliers and employees.
- **Business Analysis:** Business Analysis is aimed at providing solutions to various complex business problems. Information technology suggests various tools and techniques which are customised according to a given problem.

- **Better organised data:** Information Systems have made it easier to compile and organise data at one place to be made available to various users as per their needs.
- **Reduction in Cost:** Owing to data availability at one place, automation, faster problem solving with accuracy and speed results in decrease in cost.
- **Productivity improvement:** Again automation, higher speed, accuracy and reliability of data leads to improvements in productivity.

Information Technology in different areas of business

Information technology has got role to play in almost functional areas of the business. It can be said that it has to play an imperative part now. Let us understand in detail how business enterprises use IT in different functions of business.

Figure 3: Usage of IT in different areas of business

Finance & Accounting

Information technology is used in finance and accounting functions of the firms. All the financial information pertaining to daily entries of sales, purchases, salary disbursements, etc. are easily handled in various financial softwares. For example, firms are primarily dependent on Tally for journal entries as well as preparation of financial statements. Business enterprises also use software packages for various processes like payroll, billing, budgeting, etc.

Human Resource Management

The firms can easily rely on IT tools as far as the function of Human resource management (HRM) is concerned. Beginning from the functions of recruitment to employee exit, information technology is a great help to companies. Owing to availability of easy communication on internet, HR managers can get the resumes of perspective employees on their E-mails. Besides this, they can take aptitude tests and interviews of the candidates online. Other areas whereby IT can be utilised for daily attendance, maintaining information of employees, compensation management, performance appraisal, etc. This saves on unnecessary human effort as well as costs on paper work. Firms also make use of HRM softwares for these discussed activities.

Marketing

Marketing function in current scenario has evolved a lot recently. This is to be attributed to the information technology and development of communication facilities. Marketing department is the face of the company. It deals with creating, communicating and delivering value to the customers. IT has provided wings to marketing. The companies can reach to its customers through using tools like **digital marketing** and **Customer relationship management (CRM).** Digital marketing is promotion of products and services using digital channels to reach consumers. This include

~Social media marketing-Facebook, Twitter, Instagram

~Mobile Phones- SMS, MMS

~Television & Radio Channels

~Electronic Billboards

Customer-relationship management (**CRM**) is a tactic to manage a company's relations with current and potential customers. The objectives of CRM are customer retention, increasing sales, improving customer service and thereby increasing profitability. There are many softwares available at the disposal of firms to manage CRM. These softwares store information about current and prospective customers. Such information consists of the data about the products the customers buy, when do they buy, how much quantity is bought, etc. These softwares also assist in sales forecasting.

Sales

Technology has got an important role to play in driving sales growth. It helps increasing market penetration. It enables automatic order placement. For example, Swiggy, Myntra, Amazon, etc. are online platforms whereby the customers place order on the website using laptop or a smartphone. Companies usually use an ERP for managing sales which handles issues starting like customer inquiry handling, pricing control, order control and sales invoice processing etc. It is integrated with various other resource planning softwares used by firms.
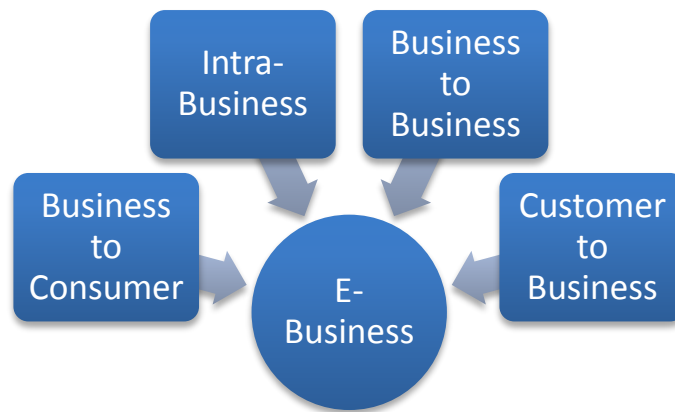
Electronic Business (E-Business)

The terms "E-business" and "E-commerce" are used interchangeably these days. But they are different. The term *e* is common in them which means electronic. Electronic Business means the use of internet, extranet, web, and intranet to conduct businesses. Electronic commerce (e-commerce) is the marketing, buying and selling of products or services over the Internet. It involves the entire scope of online product and service sales. On the other hand, E- business is basically purchasing or selling of goods and services or other business activities on the Internet. It also refers to the processes and tools that allow organizations to use Internet-based technologies and infrastructure, both within and outside the organisation in conducting daily business processes.

Scope of E- Business

The scope of E-business is increasing day by day. This has to be attributed to increase in the number of 3G/4G mobile internet users and a large number of smartphone users. The other reasons contributing to this growth is need for automation, reduction in the cost of internet facilities and provision of banking payment services online.

Figure 4: Scope of E-Business

Since business involves interaction amongst different parties, let us understand the scope of E-business from the point of view of parties involved in it.

➢ **Business to Business (B2B)**

It means electronic exchange of products, services or information between businesses rather than between businesses and consumers. The transaction may be between a manufacturer and wholesaler or a wholesaler and a retailer and vice-versa too.
The activities included in it are: -
Inquiry about products
Placing orders
Making payments
Making complaints about the product or service

➢ **Business to Consumer (B2C)**

Business-to-consumer (B2C) refers to a financial transaction or online sale between a business and consumer. B2C involves a service or product exchange from a business to a consumer, whereby traders sell products to consumers.
The activities included in B2C model are: -
Product or service inquiry
Placing the order
Making payment
Giving Feedback
There are different types of B2C businesses: -
   ✓ Direct Seller: - It is the most common model in which people buy goods from online retailers. The online retailer can be a manufacturer or an online version of a department store that sells products from different manufacturers. E.g. Vijay Sales an Electronics Showroom deals in products of different companies and has an online channel.
   ✓ Online Intermediaries: -These intermediaries don't actually own products or services but provide a common platform for buyers and sellers. E.g. Yaatra.com and Makemytrip these travel companies are liaison between customers and the businesses like hotels, airlines.

✓ Community based: - Web communities help marketers and advertisers to promote their products to the consumers. Users can see the content as per their interests and preferences. For e.g. Facebook, Twitter and Instagram are these online communities.
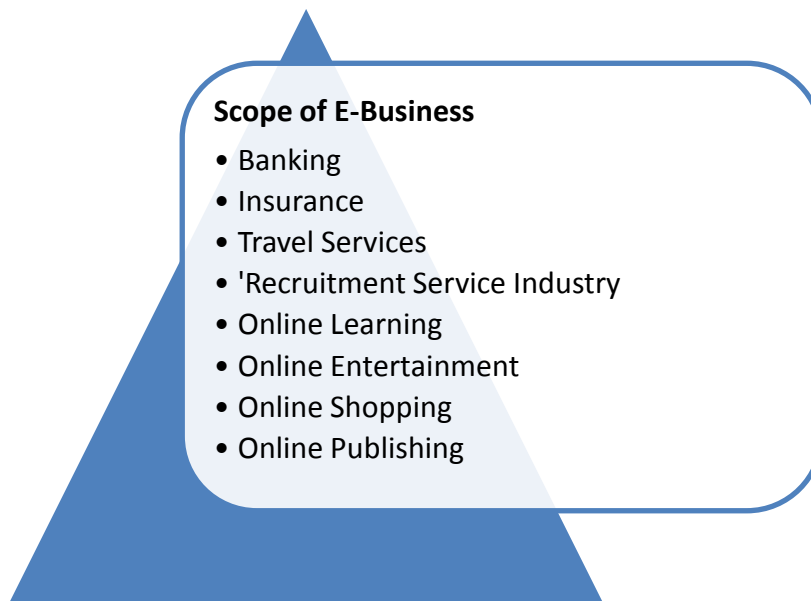
➤ IntraBusiness

In this type of e-business model, parties involved in the electronic transactions are from within a business firm, hence, the name Intra-business. Electronic exchange of information has helped the integration of all the departments of the firm. For instance, the marketing department can assess the demand and convey to the production department. Further production department can communicate with the procurement division for purchasing raw materials on time. Here, the purchase department will speak to the finance department for the requisition of funds. Hence, IT enabled communication can save on cost and time. This communication is done on Intranet. An intranet is a private network accessible only to an organization's staff. For convenient facilitation of business process firms make use of Enterprise Resource Planning software for better integration.

➤ Consumer to Business (C2B)

C2B is also known as consumer-to-business model. This change is an entire transition from the traditional business model whereby business provides goods and services to the consumers. Examples of C2B business models: -

✓ Reverse auctions, in which customers quote the price for a product or service they wish to buy.

✓ When a consumer provides a business with a fee-based opportunity to market the business's products on the consumer's blog.

Scope of E-business is also found in following industries: -

Scope of E-Business
- Banking
- Insurance
- Travel Services
- 'Recruitment Service Industry
- Online Learning
- Online Entertainment
- Online Shopping
- Online Publishing

Figure 5: Scope of E-business in different Industries

Merits of E-business

➢ **Lower costs**

E-business helps in decreasing transaction costs. It saves paper and stationery costs. It is cheaper than traditional business models. The business man running an E-business model (particularly B2C) doesn't need to spend on purchasing physical space and maintaining it. He also saves costs on recruitment as there is no need to hire and train people for store. The only cost is hiring a person who is proficient on technology and computer skills.

➢ **Time saving**

E-business helps in saving time for both the consumers and the business. On one hand, customer need not visit the store and waste their time. E-business permits for fast conversations between parties concerned in a business. This helps in quicker decision-making which saves time.

➢ **No physical restrictions**

There are no geographical boundaries for e-business. The main benefit of E-business is that anyone can order anything from anywhere at any time.

➢ **Eliminates place and accessibility issues**

Due to ready availability of internet, the consumer need not to go store to buy products. The shops and stores are opened for limited hours only. The internet is reachable across the entire world and available for all the time zones.

➢ **Lower barriers to entry**

Internet doesn't distinguish between small and large firms. They have similar opportunities of trading on the web platform.

➢ **Acts as a low-cost advertising medium**

E-business is one of the minimum cost advertising mode. The products and services can be displayed on the web portals of the firms along with other websites like Facebook, Instagram, etc. This is cheaper than other methods of advertisements.

Demerits of E-business:

➢ **Lacks personal touch**

The major drawback of E-business is that it takes away the human touch. Some people prefer talking to the salesmen to understand about the product details. Virtual screens cannot provide such human element.

➢ **Security issues**

The consumer transacting online has to share various details which include name, phone number, address and bank details. There is a threat of safety of this information due to rampant hackers. Digital payments are prone to online banking frauds.

➢ **Internet Connectivity**

E-business needs to constant internet connectivity. It may not be available in remote or rural areas. Also, some people may not be having internet connection to do online transactions. Besides this, the connectivity should be strong to run the business and avoid any delays in processing the orders and the payments.

➢ **High Initial Costs**

For successful e-business ventures, the preliminary costs have to be spent on installing connection costs, purchasing hardware and software, setting the entire system and finally its maintenance.

➢ **Highly competitive**

The E-business market is flourishing at a fast pace. The firms already into this business have to strive hard to maintain their position while the new players who intend to enter have to take careful steps of entry and establish themselves. This depends on how nicely the products are displayed on their web portal as well as the services these E-business companies provide.

➢ **Dearth of skilled manpower**

Business enterprises face shortage of skilled personnel who continuously update the internet facilities and update the webpages. Owing to advent of many E-business companies across globe, there is a requirement of technical staff who can do the maintenance of webpages of the firm. Otherwise, the webpage remains static which require frequent changes.

Summary

- Information Technology (IT) has got a pervasive role in business as well as daily life.
- IT is useful in various areas of business.
- E-business has evolved a great way for increasing profits of firms.
- Scope of E-business is prevalent across different business domains and industries.
- E-business has got various advantages-time and cost saving, low cost advertisement, etc.
- It has disadvantages also- lacks personal touch, security issues, high entry costs, etc.

Keywords: - Information Technology, E-business, E-Commerce

Self-Test Questions

I.   Choose the correct answer:

1. E-business that involves a business activity proposed by consumer towards a business is known as:

    a) Business to Business(B2B) b) Consumer to Business (C2B) c) Business to Consumer (B2C) d) Consumer to Consumer (C2C)

2. Information Technology enables.................. exchange.

    a) People b) Market c) Information   d) Automatic

3. CRM stands for:

    a) Customer Relations Management b) Customer Relationship Management c) Both a & b d) None of the above

4. Which of the following describes E-commerce?

    a) Doing Business b) Surfing Internet c) Sale of goods d) Doing business electronically

II.   Fill in the blanks:

1. ………………….. is a private network available only for internal staff of the organisation.

2. ………………. commerce is buying, selling, or trading, conducted between two or more businesses.

3. …………………..information can lead to wrong decisions.

4. E-business helps in saving ………………..and……………….

III.   True or False

1. E-commerce and E-business are same terms.

2. IT does not improve competitive advantage.

3. E-business companies face major security issues.

4. IT cannot help in recruitment and training.

IV.   Answer the following briefly:

1. What are the advantages of Information Technology in business?

2. Explain in brief in what functional areas of business IT can be used?

3. What are the merits of E-business?

4. Why are the limitations of E-business?

V.   Answer in detail:

1. What is the scope of E-business in current scenario?

VI.   Activity

1. Conduct a market survey to assess the satisfaction level of online shopping. Take a sample size of 50 respondents who do online shopping frequently.