

# Unit 12

## Applicability of ICT to Business

### Digital Economy

- Digital Economy refers to an economy that is based on digital technologies.
- The digital economy is also sometimes called the Internet Economy, the New Economy, or Web Economy.
- Economies have evolved with new inventions throughout the history of mankind.
- The Latest evolvement is because of the Internet.
- Internet is Global. Which makes it ideal for
- The Cloud concepts provide the infrastructure for the digital economy.
- Connectivity Cloud
- Resource Cloud
- Social Cloud

### New Business methods in digital economy

- Reverse Auctions
- Group Purchasing
- E-Marketplace

### Reverse Auctions

- In a reverse auction, the buyer puts up a request for a required good or service. Sellers then place bids for the amount they are willing to be paid for the good or service, and at the end of the auction the seller with the lowest amount wins.
- Reverse auctions gained popularity with the emergence of Internet-based online auction tools.

### Group Purchasing

- Group purchasing is a process that allows several individuals or businesses to come together for the purpose of purchasing various types of goods and services at discounted rates.
- Group buying websites have emerged as a major role in online shopping business. Typically, these websites feature a "deal of the day", with the deal starting once a set number of people agree to buy the product or service.

Eg:

[www.grouponworks.com](http://www.grouponworks.com)

### E-Marketplace

- An e-marketplace is an internet location owned by a company or consortium which allows other companies or individuals to get new suppliers or buyers for their products as well as develop trading networks which makes negotiating, settlement and delivery easier and more efficient.
- Eg: eBay, NASDAQ

## Business Models

### Types of Business Models

- Pure Brick
- Brick and Click
- Pure Click

### Pure Brick

- Companies that have a physical presence (A physical store) and offer face-to-face consumer experiences.
- Eg: Cargills Food city

### Brick and Click

- A company which integrates both online and physical presences.
- It may offer a number of products or services online, as well as face to face with the customer.
- Eg: Pizza hut, Sampath Bank

### Pure Click

- Both parties will not have a physical presence.
- Eg: ebay

### ICT in various business functions

- Accounting
- Human Resource
- Production
- Marketing and Sales
- Supply chain Management
- Business Communication

### Accounting & IT

- Most firms have accounting software packages to help produce statutory accounts and reports for bankers and management, as well as to help with the day-to-day control of its finances.
- The main components of an accounting system would include modules such as:
  - ❖ Invoicing
  - ❖ Bought ledger (trade creditors)
  - ❖ Sales ledger (trade debtors)
  - ❖ Bank reconciliation
  - ❖ Cash flow forecasts
  - ❖ Producing draft accounts and trial balances
- Eg: Sage, QuickBooks

### Human Resource & IT

- At the operational level of Human Resource Management, personnel records, benefits, schedules, compensations, training, and skills need to be digitally kept in an inventory.
- At the tactical level, the organizations can control relocation, contract, evaluate performance, appraisals, and manage work-flow.
- Whereas in the strategic level, long term personnel planning, rewarding, employee development and career planning, knowledge management, and succession planning can be done with efficiency and effectiveness by the use of ICT.

### Production & IT

- Manufacturing makes heavy use of automation.
- The benefits of automation include
  - ❖ Reduced piece cost over the life time of the production plant
  - ❖ Higher quality
  - ❖ More consistent quality
  - ❖ Can run 24 hours a day
  - ❖ Improved reliability
  - ❖ Huge volumes can be produced in a short time
- To carry out this automation, production engineers develop ingenious machines that are designed and built to complete a specific task.
- Much of this production plant include ICT elements such as industrial robots, programmable logic controllers, computer networks for coordinating the production process. Input / output devices and a whole array of sensors.

### Marketing & Sales with IT

- ICT is used in a variety of ways in the marketing field. Some of its uses include e-marketing, which is a method of contacting potential clients directly through their computers or mobile phones, e-mail marketing and forms on commercial websites, which allow the users to interact with the website directly and allow the marketer to gather information on prospective clients.

### Supply Chain Management

- Supply chain management (SCM) is the control of the supply chain as a process from supplier to manufacturer to wholesaler to retailer to consumer.
- There are essentially three goals of SCM:
- To reduce inventory
- To increase the speed of transactions with real-time data exchange
- To increase revenue by satisfying customer demands more efficiently.

### Business Communication & IT

- Good communication is essential to every organization: communication between organizations, and communication between parts of a single organization.
- A wide variety of communication systems are used such as
  - ❖ E-mail
  - ❖ Video Conferencing
  - ❖ Mobile Telephones
  - ❖ Internet telephony/VoIP
  - ❖ Facsimile (Fax)

### E-Commerce

#### What is e-commerce?

E-Commerce consists of buying and selling of products or services over electronic systems such as the Internet.

### E-Business

#### What is e-Business?

E-Business, is an internet business that applies information and communication technologies in support of all the activities of the business.

#### Types of e-business transactions

- B2B
- B2C
- C2C
- C2B
- B2E
- G2C

#### B2B (Business to business)

- Commerce transactions between businesses, such as between trading partners.
- Eg: A super market purchasing stock from a regional distributor online.

#### B2C (Business to consumer)

- Businesses serving end consumers with products and/or services.
- Eg: Saman purchases a license for an Antivirus Software through the Internet

#### C2C (Consumer to consumer)

- Involves the electronically facilitated transactions between consumers through some third party.
- eBay, online auctions

#### C2B (Consumer to business)

- A consumer publishes his/her requirement for a product or service, to which businesses respond in the form of bids.
- Eg: Reverse Auctions

### B2E (Business to Employee)

- Companies using internal networks to offer their employees products and services online
- Not necessarily online on the Web, but through an intra-business network.
- Eg: Special offers for Employees during seasons.

### G2C (Government to Consumer)

- Services are provided by the government to the citizens through the Internet.
- Eg: Online License renewals, Tax payments

### Virtual Storefronts

- A virtual storefront is a website that allows a person to browse, order, and pay for a product or service online.
- Usually consists of
- Product/Service Catalogue
- For example, a person may visit a certain website to look for a new book. They can read reviews and then purchase the book from that site.

### Information Brokers

- An individual or an organization which stores related data about products or services and sells that data at a commission
- It is easy for the consumers as the information on what they are looking for can be accessed at one place.
- Eg: [www.ebay.com](http://www.ebay.com), [www.geekvillage.com](http://www.geekvillage.com)

### Online Marketplace

- An online marketplace is a type of e-commerce site where product and inventory information is provided by multiple third parties, whereas transactions are processed by the marketplace operator.
- In general, because marketplaces contain products from a wide range of providers, selection is usually wider, availability is higher, and prices are more competitive.
- Examples of online marketplaces are
  - ❖ Etsy
  - ❖ UniSquare
  - ❖ eBay
  - ❖ Flipkart
  - ❖ Rakuten

### Content Provider

- Any group, business, organization, or individual that provides news, statements, e-posts, pictorials, letters information, Web pages, entertainment, or documents to the World Wide Web or Internet.
- Eg: [www.Wikipedia.org](http://www.Wikipedia.org)

### Online Service Provider

- An online service provider is any company, organization or group that provides an online service.
- These types of services may include Web sites, discussion forums, chat rooms, or Web mail.
- OSPs may also refer to a company that provides dial-up access to the Internet.
- Eg: Gmail, Yahoo, AOL, SLT

### Portal

- A Web portal or public portal refers to a Web site or service that offers a broad array of resources and services
- These include
  - ❖ e-mail
  - ❖ Forums
  - ❖ search engines
  - ❖ online shopping malls
- The first Web portals were online services, that provided access to the Web, but now most search engines have transformed themselves into Web portals.
- Examples for portals.
  - ❖ [www.gov.lk](http://www.gov.lk)
  - ❖ [www.google.com](http://www.google.com)
  - ❖ [www.yahoo.com](http://www.yahoo.com)

### Virtual Community

- Communities that are not visible to the user are called by this name.
- News, telephone conversations, newsletters, are communicated to a mass of individuals through electronic post.
- Virtual communities are used for the purpose of
  - ❖ meeting people
  - ❖ exchange of stories
  - ❖ working together
  - ❖ Political movements
  - ❖ Disease awareness
- Virtual communities often use chat boxes and news bulletins to exchange information and hold conversations among its members.

### Advantages of e-Business

- Provision of support, operations and guidance after sales of goods.
- Selection of attractive items
- Competitive pricing
- Assurance of satisfaction
- Speedy Service
- Easily accessible pages
- Quick purchase and distribution
- Advertisements
- Awards and commissions
- Provision of personal attention to customer
- Chat Boxes, e-societies, social interrelations of newsgroups

### Disadvantages of e-Business

- Absence of confidence in items ordered and the information.
- Absence in connections between marketing companies.
- Reliability of credit notes becoming a problem in cash settlements.
- Insecurity of regarding balance cash.
- Lack of security of goods sent.

### E-Marketing

#### Philosophy of marketing

Market philosophy is a marketing idea that considers production, sales and customer satisfaction.

The marketing philosophy is regarded as very simple yet of utmost importance.

At its very core is the concept of striving to satisfy the customer's needs and wants, while at the same time achieving the organization's goals?

#### Product Customization

- Shoppers want to customize products according to their requirement, which is commonly known as me-commerce.
- The concept is gaining popularity and is becoming a key business for small retailers.
- Online tools have been provided so that the customers may change the product according to their requirement.

### Web Advertising

- Online advertising, also called Internet advertising, uses the Internet to deliver promotional marketing messages to consumers. It includes
  - ❖ Email marketing
  - ❖ Search engine marketing
  - ❖ Social media marketing
  - ❖ Display advertising (including web banner advertising)
  - ❖ Mobile advertising.

### Database Marketing

#### What is Database Marketing?

- Database marketing is a form of direct marketing using databases of customers or potential customers to generate personalized communications in order to promote a product or service for marketing purposes.
- Database marketing emphasizes the use of statistical techniques to develop models of customer behavior from sources such as charity donation forms, application, product warranty cards, subscription forms, and credit application forms.
- These databases are known as data warehouses and AI techniques are used to perform "data mining" to decide marketing strategies.

#### Predicting customer behavior through AI

- Advances in artificial intelligence (AI) eventually could speed-up customer analytics to give companies faster insights into individual buying patterns and a bulk of other consumer habits.
- AI represents the cutting edge in data mining, a technology that uses special algorithms to generate patterns from large amounts of customer information (Data warehouses).
- Currently, the technology is used mostly to analyze data for genetics, pharmaceutical and other scientific research.

#### Competitive advantage through IT

- By incorporating IT into business processes, even smaller companies have a chance of increasing their market share against the larger companies who are well established.
- Increasing revenues
  - ❖ Web presence
  - ❖ E commerce
  - ❖ Customer Relationship Management (CRM) Software
- Increase productivity & reduce operating costs
  - ❖ Computer networks
  - ❖ Automation software
  - ❖ Enterprise Resource Planning (ERP) Software
- Securing the privacy of customers and employees
  - ❖ Customer Loyalty / employee retention