Unit -I: Introduction to e-Commerce
Benefits and Impact of e-Commerce, Classification & applications of e-Commerce,
Architectural Framework, e-commerce in India

Unit -II: Network Infrastructure for e-commerce
Intranet, Extranet, & Internet- How it works?
Internet Service Providers

Unit -III:
E-commerce Models
e-Marketing & e-Advertising

Unit -IV:
Mobile Commerce
E-Security

Unit -V:
Electronic Data Interchange
Electronic Payment Systems
e-CRM, e-SCM

Books Recommended/Suggested Reading:

2. Dave Chaffey: E-business & E-commerce Management, Pearson Education
E-commerce, short for electronic commerce, is trading in products or services using computer networks, such as 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.

It is a type of business model, or segment of a larger business model, that enables a firm or individual to conduct business over an electronic network, typically the internet.

Electronic commerce operates in all four of the major market segments: business to business, business to consumer, consumer to consumer and consumer to business. It can be thought of as a more advanced form of mail-order purchasing through a catalog. Almost any product or service can be offered via ecommerce, from books and music to financial services and plane tickets.

E-commerce businesses may employ some or all of the following:

- Online shopping web sites for retail sales direct to consumers
- Providing or participating in online marketplaces, which process third-party business-to-consumer or consumer-to-consumer sales
- Business-to-business buying and selling
- Gathering and using demographic data through web contacts and social media
- Business-to-business electronic data interchange
- Marketing to prospective and established customers by e-mail or fax (for example, with newsletters)
- Engaging in process for launching new products and services

E-commerce. the below table gives a clear idea about what they deal with.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Traditional Commerce</th>
<th>E-Commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heavy dependency on information exchange from person to person.</td>
<td>Information sharing is made easy via electronic communication channels making little dependency on person to person information exchange.</td>
</tr>
<tr>
<td>2</td>
<td>Communication/ transaction are done in synchronous way. Manual intervention is required for each communication or transaction.</td>
<td>Communication or transaction can be done in asynchronous way. Electronics system automatically handles when to pass communication to required person or do the transactions.</td>
</tr>
<tr>
<td>3</td>
<td>It is difficult to establish and maintain standard practices in traditional commerce.</td>
<td>A uniform strategy can be easily established and maintain in e-commerce.</td>
</tr>
<tr>
<td>4</td>
<td>Communications of business depends upon individual skills.</td>
<td>In e-Commerce or Electronic Market, there is no human intervention.</td>
</tr>
<tr>
<td>5</td>
<td>Unavailability of a uniform platform as traditional commerce depends heavily on personal communication.</td>
<td>E-Commerce website provides user a platform where all information is available at one place.</td>
</tr>
<tr>
<td>6</td>
<td>No uniform platform for information sharing as it depends heavily on personal communication.</td>
<td>E-Commerce provides a universal platform to support commercial / business activities across the globe.</td>
</tr>
</tbody>
</table>
Ecommerce has allowed firms to establish a market presence, or to enhance an existing market position, by providing a cheaper and more efficient distribution chain for their products or services. One example of a firm that has successfully used ecommerce is Target. This mass retailer not only has physical stores, but also has an online store where the customer can buy everything from clothes to coffee makers to action figures.

When you purchase a good or service online, you are participating in ecommerce. Some advantages of ecommerce for consumers are:

- **Convenience.** Ecommerce can take place 24 hours a day, seven days a week.
- **Selection.** Many stores offer a wider array of products online than they do in their brick-and-mortar counterparts. And stores that exist only online may offer consumers a selection of goods that they otherwise could not access.

But ecommerce also has its disadvantages for consumers:

- **Limited customer service.** If you want to buy a computer and you’re shopping online, there is no employee you can talk to about which computer would best meet your needs.
- **No instant gratification.** When you buy something online, you have to wait for it to be shipped to your home or office.
- **No ability to touch and see a product.** Online images don’t always tell the whole story about an item. Ecommerce transactions can be dissatisfying when the product the consumer receives is different than expected.

### Advantages to Organizations

- Using E-Commerce, organization 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 organization 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 make them faster and efficient.
- E-Commerce reduces paper work a lot.
- E-Commerce increased the productivity of the organization. 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

- **24x7 support.** Customer can do transactions for the product or enquiry about any product/services provided by a company any time, any where from any location. Here 24x7 refers to 24 hours of each seven days of a week.
- E-Commerce application provides user more options and quicker delivery of products.
- E-Commerce application provides user more options to compare and select the cheaper and better option.
- 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 buy.
- E-Commerce provides option of virtual auctions.
- Readily available information. A customer can see the relevant detailed information within seconds rather than waiting for days or weeks.
- E-Commerce increases competition among the organizations and as result organizations provides substantial discounts to customers.
**Advantages to Society**

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

**E-Commerce framework**

![E-Commerce framework diagram](image-url)
E-Commerce in India

Despite being third largest user base in world, the penetration of Internet is low compared to markets like the United States, United Kingdom or France but is growing much faster, adding around 6 million new entrants every month.[3] The industry consensus is that growth is at an inflection point.

Now a days, we have more advertisements of websites flashing over television screen than that of products.

In India, cash on delivery is the most preferred payment method, accumulating 75% of the e-retail activities. Demand for international consumer products (including long-tail items) is growing much faster than in-country supply from authorised distributors and e-commerce offerings.

As of 2015, seven Indian e-commerce companies have managed to achieve billion-dollar valuation. Namely, Flipkart, Snapdeal, InMobi, Quikr, OlaCabs, and Paytm

Key drivers in Indian e-commerce are:

- Large percentage of population subscribed to broadband Internet, burgeoning 3G internet users, and a recent introduction of 4G across the country.
- Explosive growth of Smartphone users, soon to be world’s second largest smartphone userbase.
- Rising standards of living as result of fast decline in poverty rate.
- Availability of much wider product range (including long tail and Direct Imports) compared to what is available at brick and mortar retailers.
- Competitive prices compared to brick and mortar retail driven by disintermediation and reduced inventory and real estate costs.
- Increased usage of online classified sites, with more consumer buying and selling second-hand goods
- Evolution of Million-Dollar startups like Jabong.com, Saavn, Makemytrip, Bookmyshow, Zomato Etc.

Overall e-commerce market is expected to reach Rs 1,07,800 crores (US$24 billion) by the year 2015 with both online travel and e-tailing contributing equally. Another big segment in e-commerce is mobile/DTH recharge with nearly 1 million transactions daily by operator websites

There could be various methods of ecommerce marketing such as blog, forums, search engines and some online advertising sites like Google adwords and Adroll.

India has got its own version Cyber Monday known as Great Online Shopping Festival which started in December 2012, when Google India partnered with e-commerce companies including Flipkart, HomeShop18, Snapdeal, Indiatimes shopping and Makemytrip. “Cyber Monday” is a term coined in the USA for the Monday coming after Black Friday, which is the Friday after Thanksgiving Day. Most recent GOSF Great Online Shopping Festival was held during Dec 10 to 12, 2014.

In early June 2013, Amazon.com launched their Amazon India marketplace without any marketing campaigns. In July, Amazon had said it will invest $2 billion (Rs 12,000 crore) in India to expand business, after its largest Indian rival Flipkart announced $1 billion in funding. Amazon has also entered grocery segment with its Kirana now in Bangalore and is also planning to enter in various other cities like Delhi Mumbai and chennai and faces stiff competition with Indian Startups like onedaycart.com, bazaar cart, bigbasket etc. Flipkart is also planning to enter grocery segment soon.
The key to success in e-commerce is an efficient last-mile network to ensure timebound delivery while maintaining agility in the logistics chain. The fundamental SKU at the delivery point is a ‘parcel’, of varying shapes and sizes, while the pin-codes of the operation become the determinant of the last-mile network model. The up-stream infrastructure will then need to be built as a layer over this last-mile network with strategic location choices of fulfillment centers proximal to delivery modes. The operations will need to be tightly controlled in such a way that the inventory stocks are converted to parcels and pushed down the chain efficiently, as well as that the fulfillment centers are replenished. The balance between inventory and supply chain costs is therefore a dynamic decision to be taken, considering both cost and service level considerations.
UNIT 2

Intranet

This is a network that is not available to the world outside of the Intranet. If the Intranet network is connected to the Internet, the Intranet will reside behind a firewall and, if it allows access from the Internet, will be an Extranet. The firewall helps to control access between the Intranet and Internet to permit access to the Intranet only to people who are members of the same company or organisation.

In its simplest form, an Intranet can be set up on a networked PC without any PC on the network having access via the Intranet network to the Internet.

For example, consider an office with a few PCs and a few printers all networked together. The network would not be connected to the outside world. On one of the drives of one of the PCs there would be a directory of web pages that comprise the Intranet. Other PCs on the network could access this Intranet by pointing their browser (Netscape or Internet Explorer) to this directory - for example U:\inet\index.htm

Extranet

An Extranet is actually an Intranet that is partially accessible to authorised outsiders. The actual server (the computer that serves up the web pages) will reside behind a firewall. The firewall helps to control access between the Intranet and Internet permitting access to the Intranet only to people who are suitably authorised. The level of access can be set to different levels for individuals or groups of outside users. The access can be based on a username and password or an IP address (a unique set of numbers such as 209.33.27.100 that defines the computer that the user is on).

Internet

This is the world-wide network of computers accessible to anyone who knows their Internet Protocol (IP) address - the IP address is a unique set of numbers (such as 209.33.27.100) that defines the computer's location. Most will have accessed a computer using a name such as http://www.hcidata.com. Before this named computer can be accessed, the name needs to be resolved (translated) into an IP address. To do this your browser (for example Netscape or Internet Explorer) will access a Domain Name Server (DNS) computer to lookup the name and return an IP address - or issue an error message to indicate that the name was not found. Once your browser has the IP address it can access the remote computer. The actual server (the computer that serves up the web pages) does not reside behind a firewall - if it did, it would be an Extranet. It may implement security at a directory level so that access is via a username and password, but otherwise all the information is accessible. To see typical security have a look at a sample secure directory - the username is Dr and the password is Who (both username and password are case sensitive).
Conclusion

- Intranet is shared content accessed by members within a single organization.
- Extranet is shared content accessed by groups through cross-enterprise boundaries.
- Internet is global communication accessed through the Web.

The main difference between the three is accessibility. The Internet is public while the other two are highly restricted. Home users, if they use one at all, would only use an intranet to share files between computers and typically use the Internet when searching for and sharing information. Businesses and organizations are the main users of both intranets and extranets in order to restrict access to confidential data.

ISP

An Internet service provider (ISP) is an organization that provides services for accessing, using, or participating in the Internet. Internet service providers may be organized in various forms, such as commercial, community-owned, non-profit, or otherwise privately owned.

Internet services typically provided by ISPs include Internet access, Internet transit, domain name registration, web hosting, Usenet service, and colocation.

ISPs provide Internet access, employing a range of technologies to connect users to their network.

Internet service providers in INDIA
State owned (govt owned) ISP’S

BSNL - servicing all of India except Mumbai and Delhi. FTTH, Triple-play Broadband Services provided by ADSL and VDSL. Also providing internet services over GPRS, 3G, as well as WiMax.

MTNL - servicing Mumbai and Delhi. Also providing GPRS and 3G internet services.

The two companies are also pioneering 3G services in selected circles. BSNL has also started EVDO (ev-datopt) services since November, 2007.

Privately owned, nationwide

- Aircel - GPRS & 3G
- Hathway - Broadband over Cable
- DEN BOOM NET-Download and Upload Speeds Up to 100Mbit/s
- Idea cellular - GPRS & 3G
- Reliance Communications - ADSL, GPRS & 3G, Metro-Ethernet, CDMA/EV-DO, Wimax
- Reliance Industries - LTE (to be launched)
- Tata DoCoMo - Fiber Broadband, GPRS & 3G
- Tata Indicom - ADSL, CDMA/EV-DO, Metro-Ethernet, WiMax, GPON
- Vodafone - GPRS & 3G
- Dvois Broad Band Pvt Ltd - www.dvois.com
- Airtel- ADSL,[10] GPRS, 3G & 4G,GPON.
- You Broadband - Broadband over Cable,[9][10]
- SwiftMail Communications Ltd -[11]

Conclusion

ISP is Short for Internet Service Provider, it refers to a company that provides Internet services, including personal and business access to the Internet. For a monthly fee, the service provider usually provides a software package, username, password and access phone number. Equipped with a modem, you can then log on to the Internet and browse the World Wide Web and USENET, and send and receive e-mail. For broadband access you typically receive the broadband modem hardware or pay a monthly fee for this equipment that is added to your ISP account billing.