

E-Commerce

Module 1

E-Commerce

- E-commerce (**Electronic Commerce**) is the activity of electronically buying or selling of products over Internet.
- E-commerce simply means the way of doing business over the internet or we can simply state that having the facility to sell and purchase things without having to visit any physical store.

- E-commerce is concerned with the buying and selling of information, products and services over communication network.
- E-commerce helps to conduct traditional commerce through new ways of transferring and processing information.
- Electronic Data Interchange (or EDI) is an early form of e-commerce.

History of E-commerce

1970s

- E-commerce meant the facilitation of commercial transactions electronically, using technology such as **Electronic Data Interchange (EDI)** and **Electronic Funds Transfer (EFT)**, allowing businesses to send commercial documents electronically.

- EDI replaced traditional mailing and faxing of documents with a digital transfer of data from one computer to another.
- EDI is a process which allows one company to send information to another company electronically rather than with paper.
- Many business documents can be exchanged using EDI, but the two most common are purchase orders and invoices.

- Business entities conducting business electronically are called trading partners.
- **Electronic funds transfer (EFT)** are electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer-based systems, without the direct intervention of bank staff.

1980s

- The growth and acceptance of credit cards
- Automated teller machines (ATM)
- Telephone banking
- Airline reservation system

1990s

The internet commercialized and users flocked to participate in the form of dot-coms or internet startups.

2000s

Many European and American business companies offered their services through the World Wide Web.

Since then people began to associate the term 'e-commerce' .

- [Amazon.com](https://www.amazon.com) was one of the first ecommerce sites in the US to start selling products online and thousands of businesses have followed since.
- Amazon was one of the first online retailers to add user reviews with a rating scale for products. Customer reviews are now considered the most effective social media tactic for driving sales.

Traditional Commerce v/s E-Commerce

Sr. No.	Traditional Commerce	E-Commerce
1	Heavy dependency on information exchange from person to person.	Information sharing is made easy via electronic communication channels making little dependency on person to person information exchange.
2	Communication/ transaction are done in synchronous way. Manual intervention is required for each communication or transaction.	Communication or transaction can be done in asynchronous way. Electronics system automatically handles when to pass communication to required person or do the transactions.

3	It is difficult to establish and maintain standard practices in traditional commerce.	A uniform strategy can be easily established and maintain in e-commerce.
4	Communications of business depends upon individual skills.	In e-Commerce or Electronic Market, there is no human intervention.
5	Unavailability of a uniform platform as traditional commerce depends heavily on personal communication.	E-Commerce website provides user a platform where all information is available at one place.

Features of E-commerce

- **Non-Cash Payment**

- E-Commerce enables the use of credit cards, debit cards, electronic fund transfer via bank's website, and other modes of electronics payment.

- **24x7 Service availability (Ubiquity)**

- E-commerce automates the business of enterprises and the way they provide services to their customers. It is available anytime, anywhere. Consumer can enjoy convenience and want to take only least effort to make purchases.

- **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**

- 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.

- **Global reach**

- Buying selling has now become more convenient and cost effective than in traditional commerce.
- The ever increasing number of customers in an ecommerce business is a good indicator for their expansion and popularity.

- **Universal standards**

- Ecommerce use universal standards which mean they are shared by all nations around the world.

- **Ample Information**

- Customers need not depend on the services of sales people to get information about products and services.

- **Information density**

- The total amount and quality of information available to all market participants, consumers, and merchants alike.

- **personalization/Customization**

- **Personalization** - Merchants can target their marketing messages to specific individuals by adjusting the message to a person's name, interests, and past purchases.
- **Customization** - Changing the delivered product or service based on a user's preferences or prior behaviour.

Importance of E-commerce

- **Consumer sovereignty**

Consumer is the king in the market. Can shop anytime, anywhere and in any device. Orders can be placed over the internet and goods are delivered at the doorsteps of consumers.

- **Customisation**

High quality relationship between buyer and seller is essential for retaining customers in e-commerce environment. It becomes necessary for the company to enhance customer loyalty; otherwise the customer is full of choice to jump from one website to another.

- **New markets**

It is easier to penetrate and reaching of the customers across the world within minutes over internet. The net enables marketers to introduce and promote new products to meet the needs of the individual buyers all over the world.

- **Efficient use of resources**

Availability of plenty of information, no transportation cost and free entry into markets led to the efficient use of resources that will in turn reduce both cost and prices.

- **Low investment**

Running an ecommerce business requires far less capital investments compared to owning physical shops. The responsibility of e-commerce seller in an online shop is to promote the website and deliver quality products on-time to the customers.

- **Employment opportunities**

The indirect employment generated in industries like logistics, warehousing, IT and small and medium enterprises, and other support industries like payment solutions, marketers and advertisers.

- **Quick and speedy Disposal of Customers.**

Internet related technology can process transactions at a great speed and it takes less time to complete formalities with minimum investment.

- **Managing competition**

In this competitive market, those who satisfy and exceed customer's expectations are going to experience tremendous sales.

Emergence of the Internet

- The origin of internet was rooted in 1950's when the cold war was at its peak between America and the Soviet Union.
- A need was realized to connect the top universities of US.

- The first workable prototype of the Internet came in the late 1960s with the creation of **ARPANET**, or the **Advanced Research Projects Agency Network**.
- Used packet switching to allow multiple computers to communicate on a single network.

- In 1969, ARPAnet delivered its first message, a node-to-node communication from one computer to another.
- The message—“LOGIN”—was short and simple, but it crashed the ARPA network anyway: The receiver computer only received the note’s first two letters.
- Cheaper technology and the appearance of desktop computers in the early 1980 have allowed the rapid development of local area network (LAN) and as a result, the internet flourished.

Emergence of World Wide Web

- In 1989, **Tim Berners Lee**, published a proposal to build a “Hypertext project” called, “World Wide Web.”
- The World Wide Web (WWW), commonly known as the Web.
- It is an information system where documents and other web resources are identified by Uniform Resource Locators (URL) which may be interlinked by hypertext, and are accessible over the Internet.

- The resources of the WWW may be accessed by users by a software application called a web browser.
- The first web browser was called *WorldWideWeb* when it was written in 1990 it was the only way to see the web. Much later it was renamed to Nexus.
- Mosaic was the first browser to display images next to text, rather than in separate window.
- Today, the major web browsers are Chrome, Safari, Internet Explorer, Firefox, Opera, and Edge.

Advantages of E-commerce

- **International market**

The market for web based business is not restricted by any geographical boundaries. E-commerce enables business firms to have access to people all around the world.

- **Operational cost savings**

The cost of creating, processing, distributing, storing and retrieving paper based information has decreased.

- **Mass customisation**

E-commerce has revolutionised the way consumers buy goods and services. In the e-commerce environment firms are able to customise their products and services to the customer's requirements.

- **Lower telecommunications cost**

It is less costly to communicate over internet.

- **Digitisation of products and processes**

Digitisation of products and processes particularly in the case of software and music/video products, which can be downloaded or emailed directly to customers via the internet in digital or electronic format within 24 hour time.

Benefits of E-commerce to consumers

- **Easy Accessibility**

Ecommerce enables customers to shop or conduct transactions 24 hours a day, all year round from almost any location.

- **More choices**

Customers can now choose a wide range of products and customise. Customer can buy goods and services even from international suppliers.

- **Price comparisons**

Customers can make price comparisons either directly by visiting different sites, or by visiting a single site where prices of different sellers are exhibited.

- **Improved delivery processes**

This can range from the immediate delivery of digitised or electronic goods such as software or audio visual files by downloading via the internet, to the online tracking of the progress of packages being delivered by mail or courier.

Benefits of E-commerce to society

- **Flexible working practices**

Enabling people to work from home. Provide less stressful environment.

- **Connects people**

This helps people in both developing countries and rural areas to enjoy and access products which otherwise would not be so easily available to them.

- **Facilitates delivery of public services**

Ecommerce also facilitates delivery of public services. For example, public can make use of health services available over the internet for online consultation with doctors etc.

Challenges and limitations of Ecommerce

- **E-Infrastructural issues**

Internet is the backbone of ecommerce. In India, internet penetration is low.

- **Logistics & supply chain**

Logistics failure in any area leads to very harmful damage to company's future and can hurt the brand overall.

- **Branding & marketing**

To get people to come on an e-commerce site and make a purchase involves heavy cost due to branding and marketing.

- **Declining margins**

Big offers like huge discounts, offers are given to customers which resulting in very low profits.

- **Security**

There are numerous reports of websites and databases being hacked to, and security loopholes in software.

- **Security and privacy**

Privacy of an individual customer is greatly affected because of sharing some critical information about a customer.

- **Pressure for innovation**

Pressure to innovate and develop business models to exploit the new opportunities may sometimes leads to strategies harmful to the organization.

- **Price wars**

Facing increased competition from both national and international competitors often leads to price wars and subsequent occurrence of losses for the organization.

- **Compatibility issues with technology**

There are problems where old business systems cannot communicate with web based and internet infrastructures.

- **Cost of updating technology**

Not only the initial cost of buying equipment but additional investment to update technology regularly to be compatible with the changing requirement of the internet, websites and applications is also a major limitation.

- **Financial commitment**

Computing equipment is needed for individuals to participate in the new digital economy, which means an initial capital cost to customers.

- **Computer literacy**

A basic technical knowledge is required of both computing equipment and navigation of the internet and the world wide web.

- **No personal contact**

Customers are more comfortable in buying products physically face to face. Customers are unable to touch and feel goods being sold online. A lack of trust exists because they are interacting with computers.

- **Breakdown in human interaction**

As people become more used to interacting electronically there could be an erosion of personal and social skills.

- **Wasted resources**

As new technology outdated quickly, creates the problems to dispose of all the old computers, keyboards, other hardware or software.

- **Tax related issues**

Tax structure of India creates accounting problems for indian online business companies.

E-commerce in India

- The concept of e-commerce first formally came forth in 1991, a time when internet practically did not even exist in India.
- Commercial internet services in india were launched only in 1995. Before that, internet was only meant for the use of educational and research communities.
- It was only in 2002, when the IRCTC introduced an online reservation system, that the public widely accepted the internet as something fruitful.

- E-commerce has transformed the way business is done in India.
- The Indian E-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017.

- Much of the growth for the industry has been triggered by an increase in internet and smartphone penetration.
- As of August 2020, the number of internet connections in India significantly increased to ~760 million, driven by the ‘Digital India’ programme.

- Factors such as increased use of smartphones convenient and economic internet access lead to the growth of ecommerce. This is also lead to the increase in the sales through mobile commerce.
- Companies have introduced return policies ranging from 7 - 30 days, free home delivery and “cash on delivery” model.
- It is estimated that most of all online transactions in India are based on the cash on delivery (COD) payment methodology.

E-transition challenges for Indian corporates

- The internet is changing the way of business in all industries and corporate companies in India.
- Indian corporate executives are facing several challenges since they want to move with IT based technologies for effective performance.
- These challenges are mainly classified as :
 - Internal resisting issues
 - External driving factors

Internal resisting issues

- **Bureaucratic resistance**

Ecommerce may compel staff to follow new method of operation instead of traditional way doing things. The fear among staff is a major barrier for a transition to ecommerce.

- **Cultural changes**

Implementation of e commerce is done by young tech talents. They come in the organization with modern culture that are entirely different from traditional culture maintained by the existing staff.

- **Lack of preparation**

Going for ecommerce require a good amount of home work. Lack of adequate preparation is one of the challenges for effective transition to ecommerce.

- **Lack of resources**

Lack of funds, non availability of expert staff, absence of training facilities to the existing employees are major barriers facing by organisation.

External driving forces

- **Strong competition**

Now competitions are the part of any business and companies are implementing new techniques every day to face the attack from their competitors.

- **Increase expectation of consumers**

The expectation of consumers about quality and services are very high, so it works like driving force for ecommerce.

- **Government regulations**

In order to regulate ecommerce business and other internet related activities the IT Act gives various provisions which provide a right environment for the ecommerce.

- **Technological changes**

Technology is a factor which provides e commerce an opportunity to become and perfect solution for business.

The End

Thank You

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