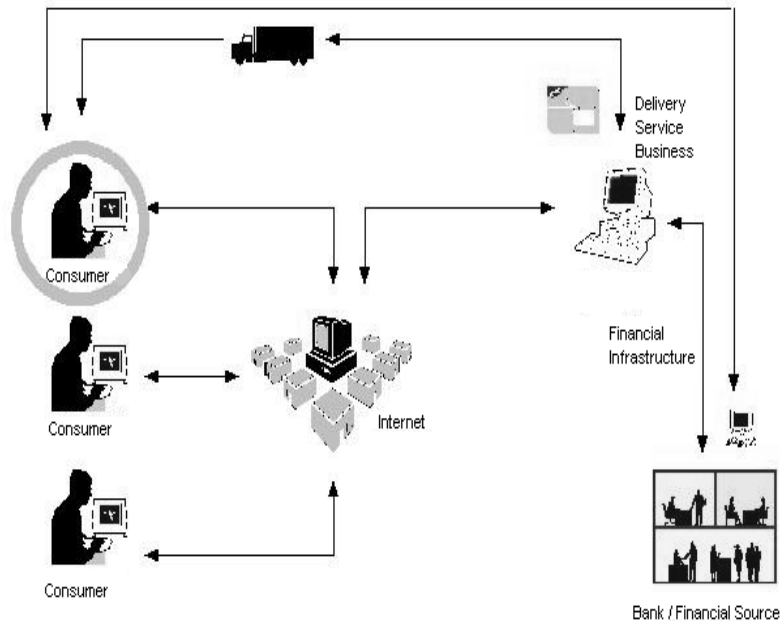


INTRODUCTION TO E-COMMERCE

E-Commerce or Electronic Commerce means buying and selling of goods, products, or services over the internet. E-commerce is also known as electronic commerce or internet commerce. These services provided online over the internet network. Transaction of money, funds, and data are also considered as E-commerce.



E-Commerce System

Low Entry Cost

Reduces Transaction Costs

Access to the global market

Online distribution

Secure market share

History of E-Commerce:

The history of Ecommerce seems rather short but its journey started over 40 years ago in hushed science labs

In the 1960s, very early on in the history of Ecommerce, its purpose was to exchange long distance electronic data. In these early days of Ecommerce, users consisted of only very large companies, such as banks and military departments, who used it for command control communication purposes. This was called EDI, and was used for electronic data interchange

Originally, electronic commerce was identified as the facilitation of commercial transactions electronically, using technology such as Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These were both

introduced in the late 1970s, allowing businesses to send commercial documents like purchase orders or invoices electronically.

The growth and acceptance of credit cards, automated teller machines (ATM) and telephone banking in the 1980s were also forms of electronic commerce

In 1982 Transmission Control Protocol and Internet Protocol known as TCP & IP was developed. This was the first system to send information in small packets along different routes using packet switching technology, like today's Internet! As opposed to sending the information streaming down one route

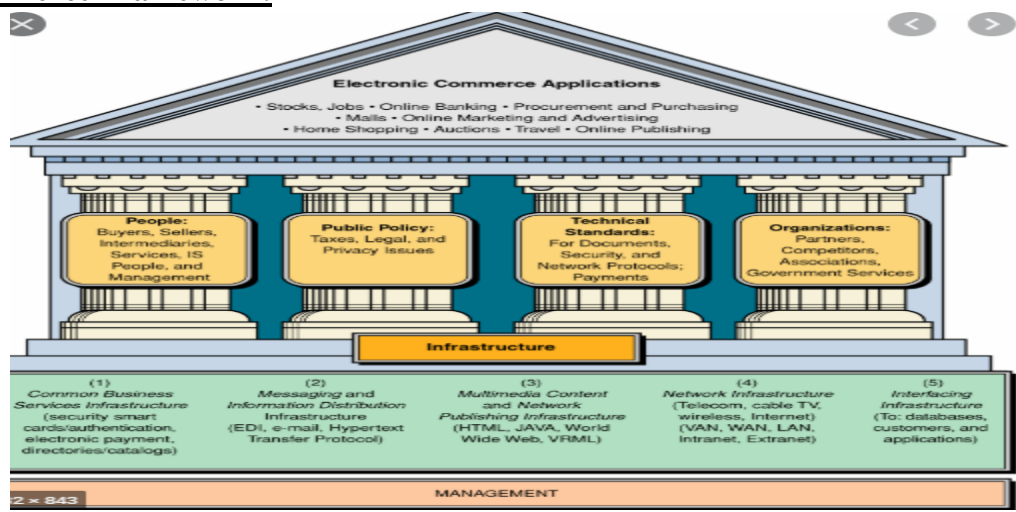
Beginning in the 1990s, electronic commerce would include enterprise resource planning systems (ERP), data mining and data warehousing

In 1995, with the introduction of online payment methods, two companies that we all know of today took their first steps into the world of Ecommerce. Today Amazon and ebay are both amongst the most successful companies on the Internet

Types of E-Commerce

- Business To Business (B2B)
- Business To Consumer (B2C)
- Consumer To Business (C2B)
- Consumer To Consumer (C2C)
- Business To Government (B2G)

E-Commerce Framework:



Internet and Network Infrastructure

This layer is facilitated by the companies that provide enabling hardware, software and networking devices for the internet, internet service providers (ISPs), fiber optic cable makers, PC manufacturers, etc. Examples for such providers include CISCO, AT&T, AOL, etc. This layer also deals with the network framework which establishes an effective connection between the buyer and the supplier. The network lattice on which the internet works today is based on packet switching technique. In this technique, the message is broken down into small packets. Every packet bears the address of its source and destination. This way the message enjoys a flexible and

faster medium of communication. These packets are then assembled in order at the destination computer for ultimate delivery. The internet infrastructure works under the governance of certain protocols. These set of rules and regulations are collectively termed as TCP/IP protocol. Here TCP stands for Transmission Control protocol and IP signify Internet protocol.

Internet Applications Infrastructure

This layer is facilitated by companies that design software products for buyer's web- interface with the seller. Integrity at this layer enables a secure online transaction. Such companies comprise IBM, Adobe, Oracle, TCS, etc. These companies provide web development design and consultancy services to various online businesses. It is at this layer where the type of e-commerce is determined.

Internet Intermediaries

This layer facilitates the real scenario of e-commerce. It includes companies that establish links between the buyers and the sellers by creating the virtual market where the online trading takes place. It interfaces the application layer to the users. Interactive catalogs and directory support services are examples of this layer. While the interactive catalog deals with people, the directory catalog deal interacts directly with software applications. Online travel agents like Travelocity; Content Aggregators like Yahoo! and Google, etc are examples of such intermediaries.

Internet Commerce

This layer is facilitated by companies that sell products or services directly to consumers and businesses. These companies include the online retailers or the E-tailers like Amazon, Dell, eBay, etc.

Traditional Vs Electronic Business applications :

Both E-commerce vs Traditional commerce are popular choices in the market; let us discuss some of the major Difference Between E-commerce and Traditional commerce:

1. E-Commerce is completely an in digital and online mode where the communication is through electronic form completely whereas Traditional Commerce is completely offline and through in person or face to face.
2. E-Commerce is reachable worldwide and has more connectivity whereas Traditional Commerce is limited to a particular geographical area especially smaller.
3. E-Commerce information of exchange takes place in different forms either through digital ads or emails etc. whereas the information of exchange in Traditional Commerce happens in the form of hoardings or pamphlets distribution or through any physical mode of exchange.
4. E-Commerce can have one to one marketing whereas Traditional Commerce can have only one-way marketing.
5. E-Commerce can have several payment modes such as online transactions or digital wallets or cash on delivery whereas Traditional Commerce can have only cash payment in person.
6. The delivery of goods in E-commerce is either the on the same day or any other day depending on the availability of logistics and several other restrictions depending on the location of the customers whereas in traditional commerce the delivery of goods is instant.
7. E-commerce provides a lot of discounts and at lower rates whereas in Traditional commerce there will be no or fewer discounts and no other options except to approach different seller which takes time.
8. E-Commerce provides good customer services in different forms such as chat option or direct call with customer care executive whereas Traditional commerce does not provide any such customer support.

9. E-Commerce accepts the return of the products if not interested or not liked by the customer within 7 – 15 days depending on the seller whereas Traditional commerce does not provide such return policy until there is damage in the product.
10. E-Commerce provides a lot of products in scope and a wide variety of products irrespective of brands and types of products whereas Traditional commerce has limited number of products with a particular seller as space is limited.

The anatomy of E-Commerce applications.

- Multimedia Content for E-Commerce Applications
- Multimedia Storage Servers & E-Commerce Applications
 - i. Client-Server Architecture in Electronic Commerce
 - ii. Internal Processes of Multimedia Servers
 - iii. Video Servers & E-Commerce
- Information Delivery/Transport & E-Commerce Applications
- Consumer Access Devices

Multimedia Content for E-Commerce Applications

Multimedia content can be considered both fuel and traffic for electronic commerce applications.

The technical definition of multimedia is the use of digital data in more than one format, such as the combination of text, audio, video, images, graphics, numerical data, holograms, and animations in a computer file/document. See in Fig.

Multimedia is associated with Hardware components in different networks.

The Accessing of multimedia content depends on the hardware capabilities of the customer.

Multimedia Storage Servers & E-Commerce Applications

E-Commerce requires robust servers to store and distribute large amounts of digital content to consumers.

These Multimedia storage servers are large information warehouses capable of handling various content, ranging from books, newspapers, advertisement catalogs, movies, games, & X-ray images.

These servers, deriving their name because they serve information upon request, must handle large-scale distribution, guarantee security, & complete reliability

i. Client-Server Architecture in Electronic Commerce

All e-commerce applications follow the client-server model

Clients are devices plus software that request information from servers or interact known as message passing

Mainframe computing , which meant for “dump”

The client server model, allows client to interact with server through request-reply sequence governed by a paradigm known as message passing.

The server manages application tasks, storage & security & provides scalability-ability to add more clients and client devices(like Personal digital assistants to Pc’s. See in fig.

ii. Internal Processes of Multimedia Servers

The internal processes involved in the storage, retrieval & management of multimedia data objects are integral to e-commerce applications.

A multimedia server is a hardware & software combination that converts raw data into usable information & then dishes out.

It captures, processes, manages, & delivers text, images, audio & video.

It must do to handle thousands of simultaneous users.

Include high-end symmetric multiprocessors, clustered architecture, and massive parallel systems.

iii. Video Servers & E-Commerce

The electronic commerce applications related to digital video will include

1. Telecommunicating and video conferencing
2. Geographical information systems that require storage & navigation over maps
3. Corporate multimedia servers
4. Postproduction studios
5. shopping kiosks.

Consumer applications will include video-on-demand.

The figure which is of video-on demand consist video servers, is an link between the content providers (media) & transport providers (cable operators)

Information Delivery/Transport & E-Commerce Applications

Transport providers are principally telecommunications, cable, & wireless industries.

Information Transport Providers	Information Delivery Methods
<ul style="list-style-type: none"> •Telecommunication companies •Cable television companies •Computer-based on-line servers •Wireless communications 	<p>long-distance telephone lines; local telephone lines</p> <p>Cable TV coaxial, fiber optic & satellite lines</p> <p>Internet; commercial on-line service providers</p> <p>Cellular & radio networks; paging systems</p>

Consumer Access Devices

Information Consumers	Access Devices
<ul style="list-style-type: none"> •Computers with audio & video capabilities 	<p>Personal/desktop computing</p> <p>Mobile computing</p>

E-COMMERCE

- Telephonic devices

Videophone

- Consumer electronics

Television + set-top box Game systems

- Personal digital assistants (PDAs)

Pen-based computing, voice-driven computing