8/10/23

Unit - I

E-commerce and its Technological aspects

E-commerce is the buying and selling of goods and services over electronic medium.
It is conducted over computers, tablets, smartphones and other smart devices.

Scope of E-commerce

1. Global reach - E-commerce allows businesses to reach a global audience, breaking down geographical barriers.

2. 24/7 Accessibility - Online platforms operate round the clock, providing customers with the convenience of shopping or accessing services at any time.

3. Diverse product offerings - Business can showcase a wide range of products or services, catering to various customer needs and preferences.

4. Cost Efficiency - Compared to traditional brick and mortar stores, e-commerce often involves lower operational costs, reducing the need for physical infrastructure.

5. Economic Opportunities - E-commerce creates job opportunities in areas such as digital marketing, logistics, web development and customer support.

6. Cross-border trade - E-commerce enables businesses to engage in international trade without the need for a physical presence in different countries.

7 Customer reviews and feedback - Online reviews and feedback play a crucial role in building trust, influencing purchasing decisions and improving products or services.

Electronic Markets

Electronic markets, also known as e-markets or online marketplaces, refer to digital platforms that facilitate buying and selling of goods and services over the internet. They offer a global reach, diverse product offerings and secure payment option. E-market may include features like consumer reviews, auction mechanisms and mobile accessibility, operating within legal frameworks and continuously evolving with technological advancements.

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WWW (World wide web) was invented by Tim Berners Lee.

Internet is a combination of network to network so it is called a inter network.

One who uses internet is called Netizens.

Internet is used for chatting, communication, travel bookings, ordering food, games, online education, online business, online investment, transfer money, transfer fund, shopping etc.
Internet has revolutionized in the whole world.

WWW (World wide web)

Brainchild - One who give idea, concept.

Tim Berners lee is the brainchild of www in 1980. He develop the programming language html on which the web is based. Web contains pictures and other multi-media elements in addition to text.

Users are attracted to the www because it is interacted, easy to use because it has graphics, text, sound, animation.

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Difference between Traditional shopping and Online shopping.

Traditional Shopping	Online Shopping
• Traditional shopping is the activity of visiting a shop and making purchases.	• Online shopping is the activity of purchasing goods and services over the internet.
• Customers are actually able to see what they are buying before they make the payment.	• Customers don't have the chance to physically see or touch the items they order.
• It is safe.	• ~~Their~~ There is risk of online frauds and online security issues.
• Doesn't allow customers the chance to compare prices easily.	• Allows customers to compare price and find the cheapest products.
• It's relatively easy to return products.	• There may be some complications in returning the products.
• May involve additional costs like transportation and parking.	• Comparatively lower costs, especially with discounts and free shipping options.

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EDI (Electronic data interchange)

EDI can be used to electronically transmit data such as purchase orders, invoices, shipping notices, and other business documents between two companies.

EDI involves EFT (Electronic fund transmitter) for transfer. EDI is much more easy and convenient and it has substituted.

EDI is a computer to computer exchange of business documents in a standard electronic format between two or more trading partners.

Benefits of EDI

1. Computers have speed up the business transaction many problems are eliminated.
2. Time delays are reduce.
3. Physical transportation of the documents is eliminated.
4. EDI generates a functional acknowledgement between sender and receiver.
5. The data is saved electronically which can be retrive at a future day.

Example - Walmart.

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Methods of EDI

There are two methods of EDI -

1. Point to Point - This method establishes a single connection between two business partners and is most commonly used between larger customers and suppliers with a lot of daily transaction.

2. Value added network (VAN) - This method uses a third party network to manage data transmission and is generally prefered by business to shield them from the ongoing complexities of supporting the varying communication protocols required by different business partners.

Internet Commerce

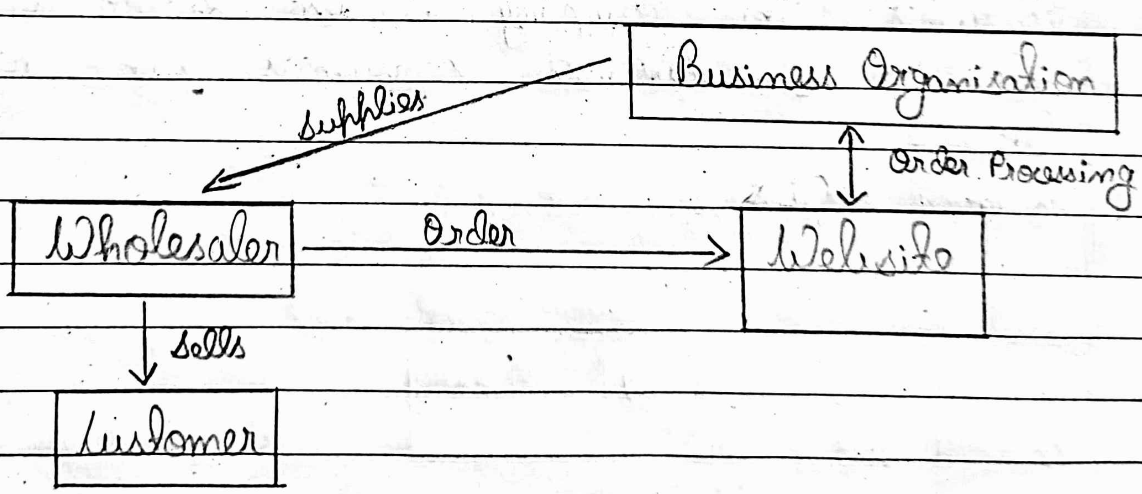
Internet commerce is also known as e-commerce or electronic commerce, refers to the buying and selling of goods and services over the internet.

It involves the online exchange of products, services or information between buyers and sellers.
It can reach a global audience, breaking down geographical barriers.

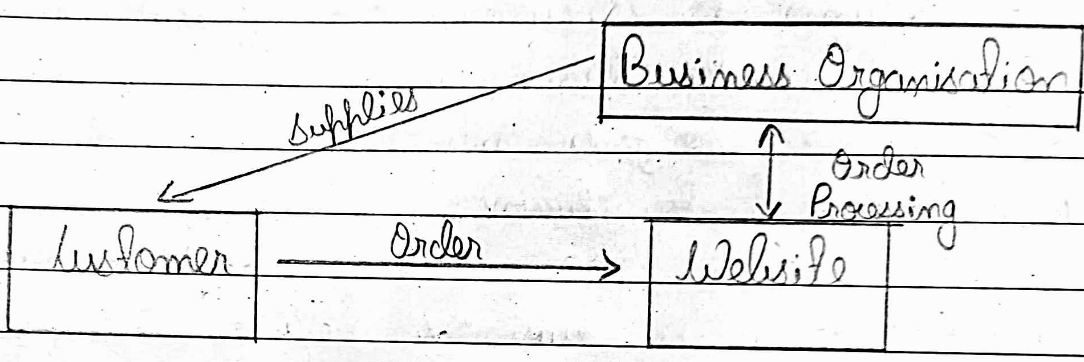
Types of E-commerce

1. B2B - Business to business
2. B2C - Business to consumer
3. C2C - Consumer to consumer
4. C2B - Consumer to business
5. B2G - Business to government
6. G2B - Government to business

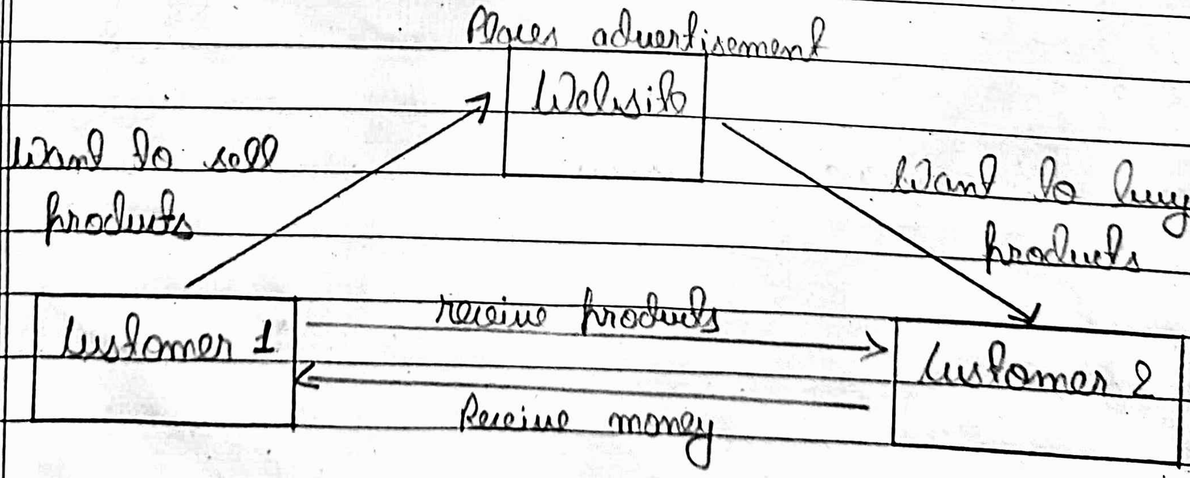
1. B2B - This is a business between one business company to another e-commerce business company directly. These company deals in large quantity of goods and they deal regularly with one another.
Ex- Manufacturing company, Bank.



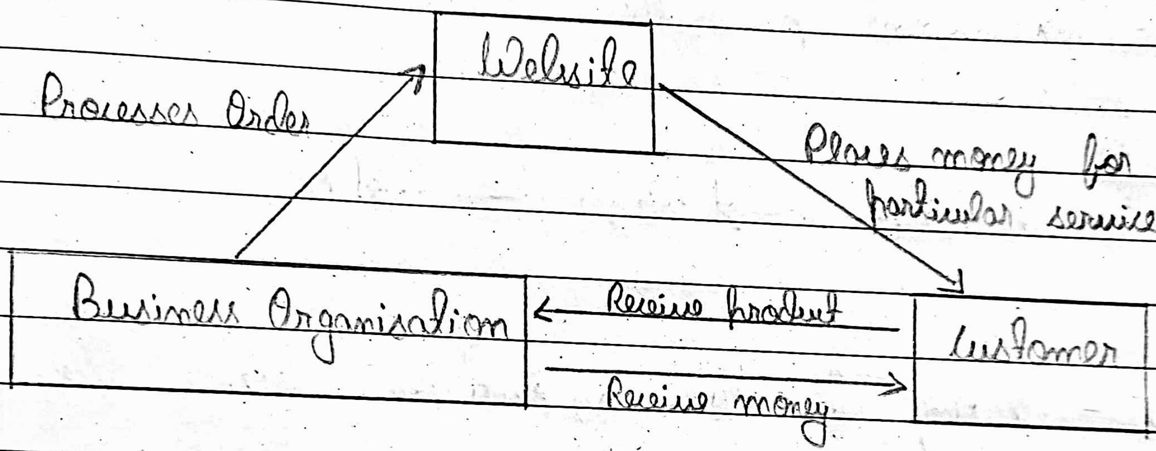
2 B_2C - These company deals directly to the consumer. The process of selling products and services directly between a business and consumer who are the end user of its products or services.



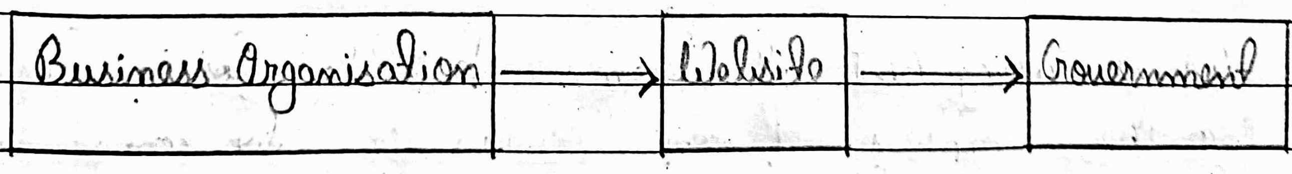
3 C_2C - When one consumer sells goods or services to other consumer online.
selling of old furnitures, machines to the another consumer. This company is also known as Auction site. In C_2C business consumers can negotiate, bargen.
Example - OLX,



4 C_2B – A business model where individual consumers offer products, services, or information to businesses. In this model, consumers act as suppliers and business act as consumers.
Example – linkedin, shaadi.com.



5. B_2G – It involves transactions between business and government entities. In this model, business provide goods, services or information to government agencies.
Example – Business give government to tax, business provide latest technology to government.



6. G2B - It refers to the transaction where government entities provide services or information to business. This can include online portals for businesses to access government services, submit regulatory filings or obtain necessary permits.
Ex- Government pass the tender.

Government → Website → Business Organisation

EDI - Sharing of data, information electronically.

The three main component of EDI

1. Standards
2. Networks / Software
3. Communication Networks

EDI Standards

While using EDI it becomes possible for a business on the computer of one organisation to communicate directly with the business on the computer of other organisation. This exchange of information should be independent of hardware, software or any other tool between these two organisation. It is required to extract data from this business app and transform this to a standard form which is widely accepted.

This standard data when used and received at the destination. When received to the destination and automatically delivered in the acceptable standard form.

The exchange of business document in the standard format lay down the rules and regulation of the data to be used.

Eg.- In US a transportation industry was the 1st company to develop EDI standard in 1987 (EDIFACT)

EDI Software

EDI software consist of computer instruction that translate ~~and~~ the information from unstructure companies specific format to the structure EDI format and then communicate EDI message.

EDI software also receive the message and translate them to the company so that major function of EDI software are -

a) Data conversion
b) Data formatting
c) Message communicating

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Communication Networks

EDI documents are electronically exchanged over communication networks which connect the trading partners to one another. These documents are stored in users mail box on the networks EDI server from where they can be downloaded/uploaded at the user convenience. These network provide users with a single point interface to the trading company handling.

Architectural Framework of E-commerce.

	Layers	Components.
1	Application Services	• C_2B • B_2B • Intra Organisational
2.	Brokerage and Data management	• Order Processing • Mail order houses • Payment schemes • Clearing house • Virtual mail.
3.	Interface layer	• Software agent • Catalogue options • Directory support functions.

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4.	Secure Messaging	• Secure hyper text • Transfer protocol • Encrypted e-mail • EDI • Remote programming
5	Middle ware services	• Structured documents • Compound documents
6.	Network Infrastructure	• Wireless - Cellular radio • Wireline - Fibre optic

1 Application layer - This layer is responsible for providing the user interface and the functionality of e-commerce application. It includes the digital storefront, product catalog, shopping cart and check out process.

2. Interface and support services - This layer provides the necessary support services for the application layer. It includes the product information mangjor (PIM) order management system and payment processing system.

3. Management layer - This layer is responsible for managing the business logic of the e-commerce application. It includes the customer relationship management (CRM) system, inventory management system,

and content management ~~and content~~ system (CMS).

4. Messaging layer - This layer is responsible for handling the communication between different components of the e-commerce application. It includes the middleware services and the messaging services.

5. Middleware services - This layer provides the necessary middleware services for the e-commerce application. It includes the structured document interchange, remote programming and software agents.

6. Network service layer - This layer provides the necessary network services for the e-commerce application. It includes the basic communication services and wireline communication services.