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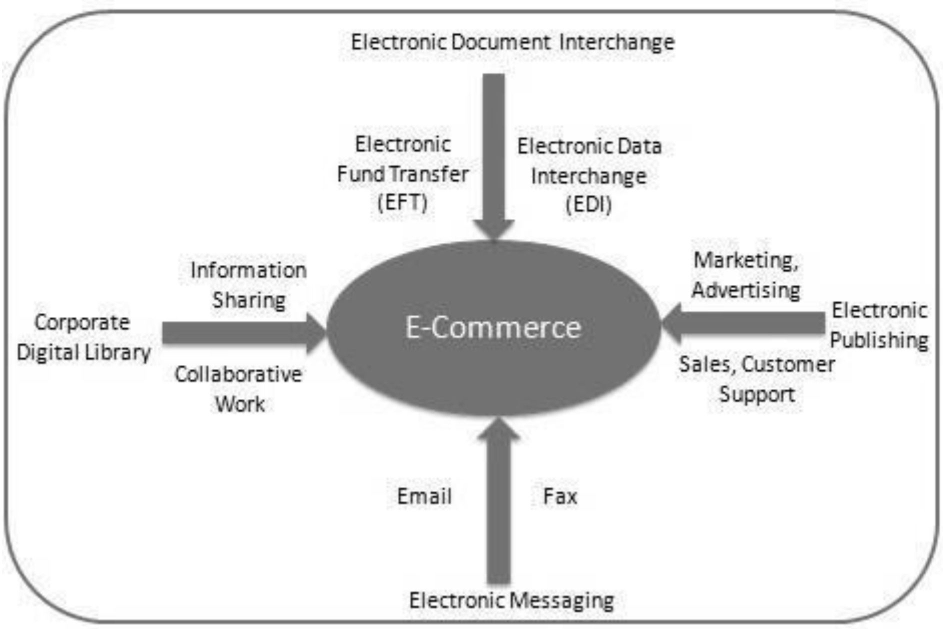
Topic: E-commerce

E-Commerce

Introduction

E-Commerce or Electronics Commerce is a methodology of modern business, which addresses the need of business organizations, vendors and customers to reduce cost and improve the quality of goods and services while increasing the speed of delivery. E-commerce refers to the paperless exchange of business information using the following ways:

- Electronic Data Exchange (EDI)
- Electronic Mail (e-mail)
- Electronic Bulletin Boards
- Electronic Fund Transfer (EFT)
- Other Network-based technologies



Traditional Commerce v/s E-Commerce

Traditional Commerce	E-Commerce
Heavy dependency on information exchange from person to person.	Information sharing is made easy via electronic communication channels making a little dependency on person to person information exchange.
Communication/transactions are done in synchronous way. Manual intervention is required for each communication or	Communication or transactions can be done in asynchronous way. The whole process is completely

transaction.	automated.
It is difficult to establish and maintain standard practices in traditional commerce.	A uniform strategy can be easily established and maintained in e-commerce.
Communications of business depends upon individual skills.	In e-commerce, there is no human intervention.
Unavailability of a uniform platform, as traditional commerce depends heavily on personal communication.	E-commerce websites provide the user a platform where all the information is available at one place.
No uniform platform for information sharing, as it depends heavily on personal communication.	E-commerce provides a universal platform to support commercial/business activities across the globe.

The Scope of E-Commerce

The potential for e-commerce development is enormous. Now a days one can buy products online through some sites like Flipkart and Amazon. In the age of e-commerce everything from gym equipment to laptops are available online. E-Commerce is a super set of business cases. It includes E-trading, E-Franchising, E-Mailing, E-Engineering etc. Scope of e-commerce can be enumerated as follows:

1. Exchange of digitized information
2. Technology-enabled
3. Customers retention
4. Accounting
5. Supplier integration
6. Support the exchange

1. **Exchange of digitized information:** The digitized information exchange can represent communications between two parties, coordination of the flow of goods and service, or transmission of electronic orders. These exchange can be between organizations or individuals.
2. **Technology-enabled:** E-Commerce is about technology-enabled transactions. Web browsers are perhaps the best Know of these technology-enabled customer interfaces. However, other interfaces including automated teller machines (ATMs) also fall in the general category of e-commerce. Business once managed transactions with customers and markets strictly through human interaction; In e-commerce, such transitions can be managed using technology.
3. **Customers retention:** E-Commerce enables organizations to get classified and customized market information that helps in retaining customers through fast order fulfillment and effective customers relationship management (CRM). End-to-End supply chain management in e-commerce provides the opportunity the overall flow of demand and supply and results in fruitful customers retention.
4. **Accounting:** Financial accounting, treasury management and asset management are best possible in e-commerce because of integrated database. Financial planning and strategy determination become more convenient in e-commerce.

5. **Supplier integration:** For lowering inventory-carrying costs and broader availability of material and opportunities suppliers network can be integrated through EDI to implement just-in-time (JIT) inventory management.
6. **Support the exchange:** E-Commerce includes intra and interorganizational activities that support the exchange. The scope of e-commerce includes all electronically based intra and interorganizational activities that directly or indirectly support marketplace exchange. In this sense, we are talking about a phenomenon that affects both How business organizations relate to external parties customers, suppliers, partners, competitors, and markets and how they operate internally in managing activities, processes and systems.

__Internet and its impact on traditional businesses:__

The business world is always in a dynamic state with new innovations and practices changing the landscape every few years. But ever since the advent of the Internet, the business world has undergone a revolutionary change. This article explores how the internet is changing traditional businesses:

1. Online Shopping

Before the advent of the Internet, we had to walk down into a store and purchase all the things we need. However, the scenario is completely different now. Physical stores are still there and some people still prefer to visit them. However, thanks to the Internet, online shopping has grown significantly in popularity. We can buy things right from the comfort of our house. All you have to do is just visit any of the E-Commerce websites which are there. Right from groceries, to movie or flight tickets to birthday cakes or chocolate gifts anything can be purchased online and delivered wherever you need them. Scroll through the different items and just order the things which you need. Since it is extremely convenient and because of the attractive offers which online businesses frequently offer, more and more people are gradually switching to online shopping.

2. Customer Service

Before the Internet, businesses could have easily survived for many years, even if their customer service was average.But now it is not possible.

Because of the Internet, the customers have become very powerful and influential. This is why one of the major objectives of any modern day business is to provide high-quality customer service to all their clients. Nowadays, most people check the reviews before doing business. If your brand has bad reviews in the various social networking sites or other online forums, then it will be very difficult to survive for you.

3. Businesses are more productive

Because of the Internet, businesses are much faster and more productive than they used to be before the introduction of the Internet. Initially, meetings used to be conducted in a physical room where people from different parts of the world gathered together.

But nowadays, thanks to video conferencing facilities, there is no need for the parties to be physically present at the same place. Video conferences can be held from anywhere and at any time. This has also resulted in a lot of savings for them.

Apart from that, businesses nowadays are also not restricted to any specific geographical region. They can sell their products anywhere they want.

4. Customized Product options for customers

In the online stores, you will also be able to purchase customized items specially designed for you. For example, if you want to gift a necklace to your Mother on her birthday with her name on it, then they will do it for you. For a physical store, this would be difficult as they mostly derive their margins from mass produced items.

But a lot of internet only stores can make products of this kind. You can order personalized stationery items like pens or diaries, personalized wine glasses and even personalized chocolate gifts. The best thing about customized gifts is that they havea personal touch to them; that's why online gifting is so popular nowadays.

5. Marketing

Because of the popularity of the Internet, there has also been a significant change in the marketing strategies of a company. Traditional marketing methods like TV advertisements and hoardings are not so popular nowadays. Digital Marketing is the latest trend.

Techniques like Search Engine Optimization (SEO) are growing in popularity. Brands are also promoting their products through their social media accounts.

On social media platforms like Facebook, it is also possible to create customized advertisements for the several target groups of customers that you want to attract.

Thus, the internet has drastically changed traditional businesses. From marketing to the operation of a business, almost everything has changed. However, it is a change in the positive direction. Businesses are much more productive and efficient nowadays.

<u>E-payment System:</u>

E-commerce sites use electronic payment, where electronic payment refers to paperless monetary transactions. Electronic payment has revolutionized the business processing by reducing the paperwork, transaction costs, and labor cost. Being user friendly and less time-consuming than manual processing, it helps business organization to expand its market reach/expansion. Listed below are some of the modes of electronic payments −

- Credit Card
- Debit Card
- Smart Card
- E-Money
- Electronic Fund Transfer (EFT)

Credit Card

Payment using credit card is one of most common mode of electronic payment. Credit card is small plastic card with a unique number attached with an account. It has also a magnetic strip embedded in it which is used to read credit card via card readers. When a customer purchases a product via credit card, credit card issuer bank pays on behalf of the customer and customer has a certain time period after which he/she can pay the credit card bill. It is usually credit card monthly payment cycle. Following are the actors in the credit card system.

The card holder − Customer

The merchant − seller of product who can accept credit card payments.

The card issuer bank − card holder's bank

The acquirer bank − the merchant's bank

The card brand − for example , visa or Mastercard.

Credit Card Payment Process

Step	Description
Step 1	Bank issues and activates a credit card to the customer on his/her request.

Step 2	The customer presents the credit card information to the merchant site or to the merchant from whom he/she wants to purchase a product/service.
Step 3	Merchant validates the customer's identity by asking for approval from the card brand company.
Step 4	Card brand company authenticates the credit card and pays the transaction by credit. Merchant keeps the sales slip.
Step 5	Merchant submits the sales slip to acquirer banks and gets the service charges paid to him/her.
Step 6	Acquirer bank requests the card brand company to clear the credit amount and gets the payment.
Step 6	Now the card brand company asks to clear the amount from the issuer bank and the amount gets transferred to the card brand company.

Debit Card

Debit card, like credit card, is a small plastic card with a unique number mapped with the bank account number. It is required to have a bank account before getting a debit card from the bank. The major difference between a debit card and a credit card is that in case of payment through debit card, the amount gets deducted from the card's bank account immediately and there should be sufficient balance in the bank account for the transaction to get completed; whereas in case of a credit card transaction, there is no such compulsion.

Debit cards free the customer to carry cash and cheques. Even merchants accept a debit card readily. Having a restriction on the amount that can be withdrawn in a day using a debit card helps the customer to keep a check on his/her spending.

Smart Card

Smart card is again similar to a credit card or a debit card in appearance, but it has a small microprocessor chip embedded in it. It has the capacity to store a customer’s work-related and/or personal information. Smart cards are also used to store money and the amount gets deducted after every transaction.

Smart cards can only be accessed using a PIN that every customer is assigned with. Smart cards are secure, as they store information in encrypted format and are less expensive/provides faster processing. Mondex and Visa Cash cards are examples of smart cards.

E-Money

E-Money transactions refer to situation where payment is done over the network and the amount gets transferred from one financial body to another financial body without any involvement of a middleman. E-money transactions are faster, convenient, and saves a lot of time.

Online payments done via credit cards, debit cards, or smart cards are examples of emoney transactions. Another popular example is e-cash. In case of e-cash, both customer and merchant have to sign up with the bank or company issuing e-cash.

Electronic Fund Transfer

It is a very popular electronic payment method to transfer money from one bank account to another bank account. Accounts can be in the same bank or different banks. Fund transfer can be done using ATM (Automated Teller Machine) or using a computer.

Nowadays, internet-based EFT is getting popular. In this case, a customer uses the website provided by the bank, logs in to the bank's website and registers another bank account. He/she then places a request to transfer certain amount to that account. Customer's bank transfers the amount to other account if it is in the same bank, otherwise the transfer request is forwarded to an ACH (Automated Clearing House) to transfer the amount to other account and the amount is deducted from the customer's account. Once the amount is transferred to other account, the customer is notified of the fund transfer by the bank.

Security threats with E-commerce:

Security is an essential part of any transaction that takes place over the internet. Customers will lose his/her faith in e-business if its security is compromised. Following are the essential requirements for safe e-payments/transactions −

Confidentiality − Information should not be accessible to an unauthorized person. It should not be intercepted during the transmission.

Integrity − Information should not be altered during its transmission over the network.

Availability − Information should be available wherever and whenever required within a time limit specified.

Authenticity − There should be a mechanism to authenticate a user before giving him/her an access to the required information.

Non-Repudiability − It is the protection against the denial of order or denial of payment. Once a sender sends a message, the sender should not be able to deny sending the message. Similarly, the recipient of message should not be able to deny the receipt.

Encryption − Information should be encrypted and decrypted only by an authorized user.

Auditability − Data should be recorded in such a way that it can be audited for integrity requirements.

Measures to ensure Security

Major security measures are following −

Encryption − It is a very effective and practical way to safeguard the data being transmitted over the network. Sender of the information encrypts the data using a secret code and only the specified receiver can decrypt the data using the same or a different secret code.

Digital Signature − Digital signature ensures the authenticity of the information. A digital signature is an e-signature authenticated through encryption and password.

Security Certificates − Security certificate is a unique digital id used to verify the identity of an individual website or user.

Types of E-commerce:

E-commerce business models can generally be categorized into the following categories.

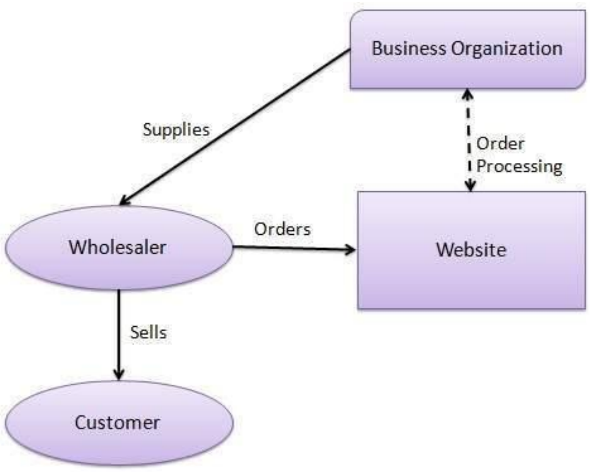
- Business- to - Business (B2B)

□ Business- to - Consumer (B2C)

□ Consumer- to - Consumer (C2C)

□ Business-to-Business-to-Consumer (B2B2C)

Business - to - Business
A website following the B2B business model sells its products to an intermediate buyer who then sells the product to the final customer. As an example, a wholesaler places an order from a company's website and after receiving the consignment, sells the end-product to the final customer who comes to buy the product at one of its retail outlets.



B2B identifies both the seller as well as the buyer as business entities. B2B covers a large number of applications, which enables business to form relationships with their distributors, re-sellers, suppliers, etc. Following are the leading items in B2B eCommerce.

- Electronics
- Shipping and Warehousing
- Motor Vehicles
- Petrochemicals
- Paper
- Office products
- Food
- Agriculture

Key Technologies

Following are the key technologies used in B2B e-commerce −

Electronic Data Interchange (EDI) − EDI is an inter-organizational exchange of business documents in a structured and machine processable format.

Internet − Internet represents the World Wide Web or the network of networks connecting computers across the world.

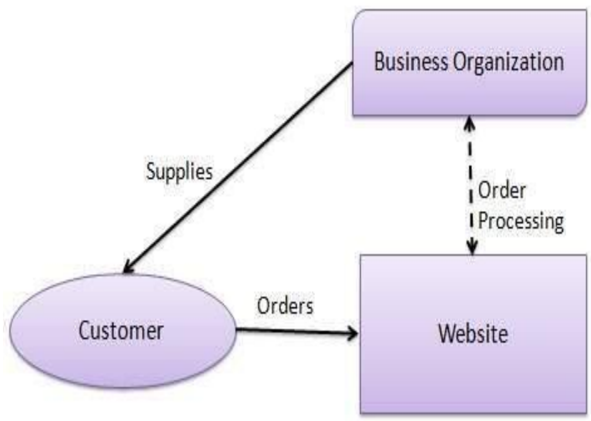
Intranet − Intranet represents a dedicated network of computers within a single organization.

Extranet − Extranet represents a network where the outside business partners, suppliers, or customers can have a limited access to a portion of enterprise intranet/network.

Back-End Information System Integration − Back-end information systems are database management systems used to manage the business data.

Business-to-Consumer(B2C)

A website following the B2C business model sells its products directly to a customer. A customer can view the products shown on the website. The customer can choose a product and order the same. The website will then send a notification to the business organization via email and the organizat ion will dispatch the product/goods to the customer.



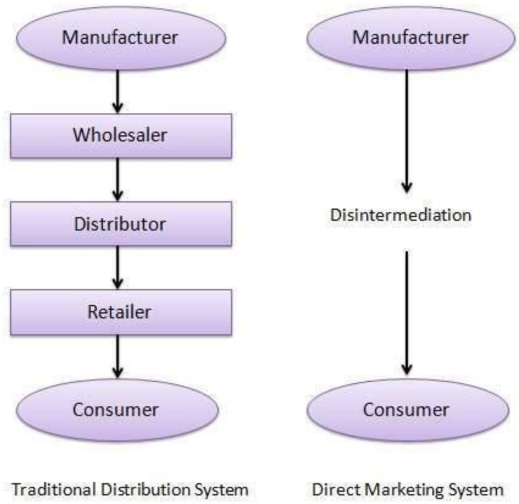
In the B2C model, a consumer goes to the website, selects a catalog, orders the catalog, and an email is sent to the business organization. After receiving the order, goods are dispatched to the customer. Following are the key features of the B2C model −

- Heavy advertising required to attract customers.
- High investments in terms of hardware/software.
- Support or good customer care service.

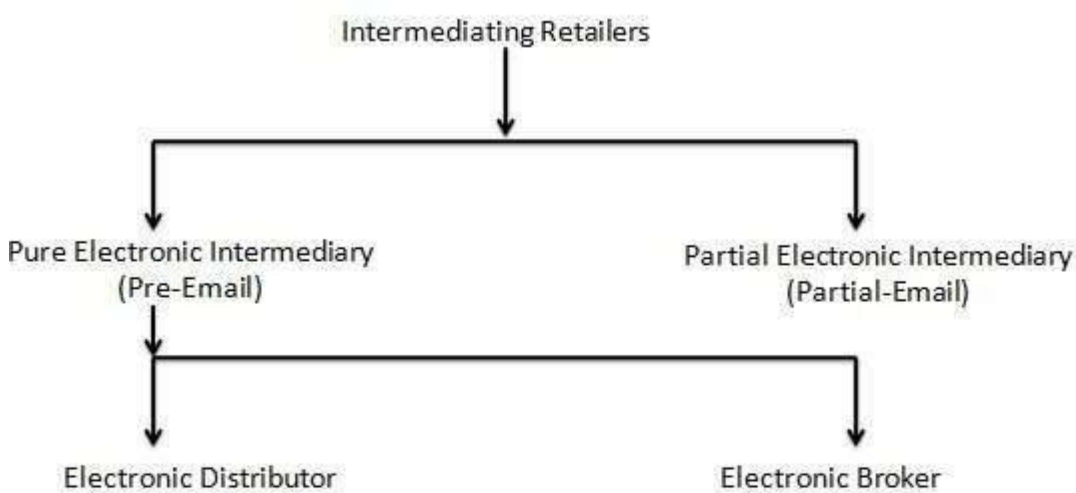
Following are the steps used in B2C e-commerce −

- A consumer −
- determines the requirement.
- searches available items on the website meeting the requirment.
- compares similar items for price, delivery date or any other terms.
- places the order.
- pays the bill.
- receives the delivered item and review/inspect them.
- consults the vendor to get after service support or returns the product if not satisfied with the delivered product.
- Disintermediation and Re-intermediation

In traditional commerce, there are intermediating agents like wholesalers, distributors, and retailers betwee n the manufacturer and the consumer. In B2C websites, a manufacturer can sell its products directly to potential consumers. This process of removal of business layers responsible for intermediary functions is called **disintermediation**.

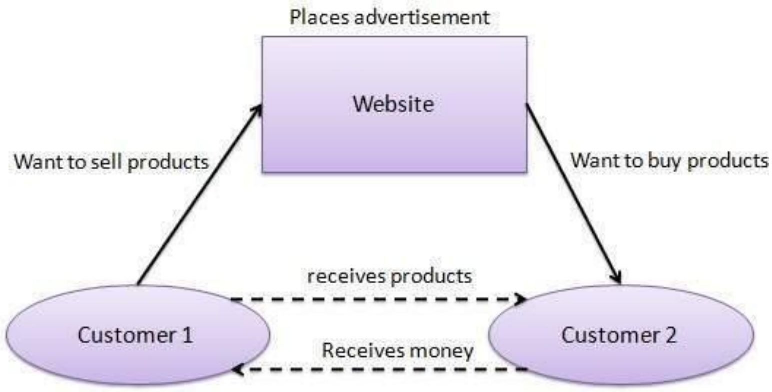


Nowadays, new electronic intermediary breeds such as e-mall and product selection agents are emerging. This process of shifting of business layers responsible for intermediary functions from traditional to electronic mediums is called **re-intermediation**.



Consumer - to - Consumer

A website following the C2C business model helps consumers to sell their assets like residential property, cars, motorcycles, etc., or rent a room by publishing their information on the website. Website may or may not charge the consumer for its services. Another consumer may opt to buy the product of the first customer by viewing the post/advertisement on the website.



Business to Business to Consumer (B2B2C)

B2B2C is a business model where online, or e-commerce, businesses and portals reach new markets and customers by partnering with consumer-oriented product and service businesses. A business developing a product, service or solution partners with another business to use a particular service, such as an e-commerce website, portal or blog. The two business combine forces and promote mutually beneficial products, services and/or solutions.

As an example of a B2B2C model, Business A pays Business B for users, leads or sales generated by Business B's business or website. Business A then uses Business B's channels to locate prospective customers. Business B provides its customers with new and relevant services, facilitating an increased customer base and earned revenue for sold products and services.

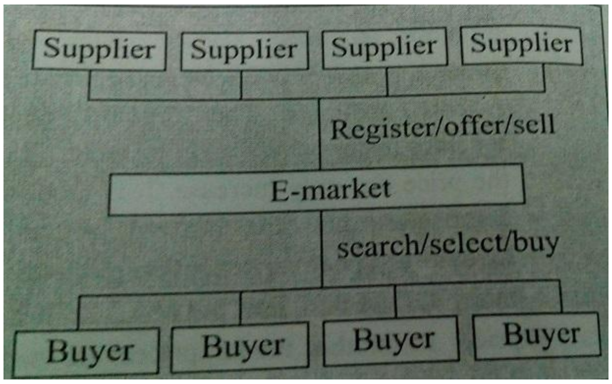
E-market

An online marketplace is an e-commerce site that brings sellers and buyers together in one place.

Basically, an electronic market is a website where companies can buy from and sell to each other using a common technology platform. They are the commerce sites on the internet that allow a large number of buyers and suppliers to meet and trade with each other. They are also known as electronic marketplaces, online markets, e-hubs, or business-to-business markets.

An electronic market is an inter-organizational information system they allow the participating buyers and sellers to exchange information about prices and product offerings. The firm operating the system is referred to as the intermediary, which may be a market participant- a buyer or seller, an independent third party, or a multi-firm consortium.

Electronic markets are the foundation or of electronic commerce. They potentially integrate advertising, product ordering, delivery of products, and payment systems. Many electronic markets also offer additional services, such as payment or logistics services that help members complete a transaction. They may also support community activities like distributing industry news, sponsoring online discussions, and providin g research on customer demand or industry forecasts for components and raw materials.



What does an online marketplace do?

An online marketplace is an e-commerce site that connects sellers with buyers. It's often known as an electronic marketplace and all transactions are managed by the website owner. Companies use online marketplaces to reach customers who want to purchase their products and services. Examples of online marketplaces include Amazon, eBay, and Craigslist.

Functions of E-Markets:-

E-markets serve three particular functions:

They act as an exchange for business transactions-not only purchasing but also for checking price and stock availability, invoicing and order chasing.

They manage catalog content, converting product information into a common format understood by all parties.

They provide additional services to support the trading process such as shipping, payment, tendering and determining a company's financial status.

What are the benefits of an online marketplace?

The biggest advantages of an online marketplace and the reasons many businesses sell via online marketplaces is that:

- It is an additional source of revenue.
- It cuts marketing costs.
- It allows companies to internationalize its business.
- It creates transparency in availability, stock levels, and prices.
- It is a great way for customers to compare prices.
- It allows your company to function 24/7.
- It generates trust between your brand and customers.
- Customers are more likely to purchase from an online marketplace with a wide range of options.
- Businesses need to pay a fee/percentage of sales to the online marketplace platform.
- Selling via your own e-commerce site vs. via a marketplace.