

## **UNIT-I**

### **E-COMMERCE**

Everything you need to know about the E- Commerce. The term electronic commerce or e-commerce refers to any sort of business transaction that involves the transfer of information through the internet. By definition it covers a variety of business activities which use internet as a platform for either information exchange or monetary transaction or both at times.

E-commerce means using the Internet and the web for business transactions and/or commercial transactions, which typically involve the exchange of value (e.g., money) across organizational or individual boundaries in return for products and services.

#### Meaning

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. Online stores like Amazon, Flipkart, Shopify, Myntra, Ebay, Quikr, Olx are examples of E-commerce websites.

**E-commerce**, in full **electronic commerce**, maintaining relationships and conducting business transactions that include selling information, services, and goods by means of computer telecommunications networks.

#### Examples of E-Commerce

- Amazon
- Flipkart
- eBay
- Fiverr
- Upwork
- Olx
- Quikr

Ecommerce, also known as electronic commerce or internet commerce, refers to the buying and selling of goods or services using the internet, and the transfer of money and data to execute these transactions. Ecommerce is often used to refer to the sale of physical products online, but it can also describe any kind of commercial transaction that is facilitated through the internet.

Whereas e-business refers to all aspects of operating an online business, ecommerce refers specifically to the transaction of goods and services.

## **HISTORY OF E-BUSINESS**

The term electronic commerce or e-commerce refers to any sort of business transaction that involves the transfer of information through the internet. By definition it covers a variety of business activities which use internet as a platform for either information exchange or monetary transaction or both at times.

For example, the numbers of consumer brand retail sites like Amazon(dot)com and Flipkart(dot)com which normally provides information about products and also allows monetary transactions to happen over the internet.

On the contrary there are the auctions sites like Quicker(dot)com and Ebay(dot)com where the information about certain listed products and services are provided but the monetary transactions normally happen physically.

Apart from these two categories of e-commerce sites, there are some sites which enable businesses to exchange trading goods and also service between two or more companies. All of these forms of internet based business platforms are known as e-commerce.

Over the last decade the advent of e-commerce has actually transformed the manner in which people used internet. People now are not only just using internet for gathering information, leisure or socializing online but also at the same time they are seeking measures to conduct business.

Even popular social networking sites like Facebook(dot)com are allowing people to promote and sell products and services online and the introduction of computer and mobile based e-commerce application software like Shopify provides evidence of how e-commerce have boomed over the past 5 years

## **OBJECTIVES OF E-BUSINESS**

### **1. Development of Business-Relationship:**

The business development can be done through the e-commerce being the primary and the basic object. As their direct contact in between the company and the consumer, their business relationship will be enhanced. Hence the area of the market can be increased.

## **2. Better-Customer Service:**

As it is done round the clock, the customer will always have online help regarding the products. As all the information is furnished to the customer, it becomes easy to him to choose the best product among all other alternatives. As even the service can also be done through the net immediately, the customer service will be ballooned. By highlighting the customer service, the companies are trying to subjugate a lion-share in the market.

## **3. Getting more Customers:**

In these days it becomes the mandate of the companies to double its customers, and this can be done by rendering the value add service and maintaining the quality. Hence, it is also one of the primary objectives of the companies which supply impetus for the robust growth in sales and overall profit.

## **FEATURES OF E-COMMERCE**

### **E-Commerce is Technology-Enabled:**

Traditional commerce is taking place since times immemorial but E-commerce is result of integration of digital technology with business processes and commercial transactions. The technological foundations of E-commerce are internet, WWW and various protocols.

### **Technology Mediated:**

In E-commerce buyers and sellers meet in cyber space rather than physical place. Hence E-commerce does not involve face to face contact.

### **Universality:**

Buying and selling take place through websites in E-Commerce. The websites can be accessed from anywhere around the globe at any time therefore it possess the feature of universality.

### **Intercommunication:**

E-commerce technology ensures two way communications between buyer and seller. On one hand by using E-commerce firms can communicate with customers through E-commerce enabled websites. On the other end, customers can also fill order forms, feedback forms and can communicate with business operating firms.

### **Delivery of Information:**

E-commerce serves as the best channel of communication. E-commerce technologies ensure speedy delivery of information at very low cost and considerably increase information density as well.

### **Electronic Completion of Business Processes:**

By using E-commerce we can perform business transactions like accounting and inventory through computers at global level.

**Virtual Communities:**

Virtual Communities are online communities created by means such as chat rooms and specifically designed sites like, where people can interact with each other having common interest using the internet.

**Inter-Disciplinary in Nature:**

Implementation of E-Commerce needs a lot of knowledge of managerial, technological, social and legal issues. Besides this, understanding of consumer behaviour, marketing tools and financial aspects is as crucial as designing interactive E- Commerce websites.

**Customization:**

With the use of E-commerce technology, the world is moving from mass-production to mass-customization. Product customization ensures that goods are tailor made as per the requirements and preferences **of customers.**

**ESSENTIAL PROCEDURES FOR E-COMMERCE****1. Product/Service:**

For E-commerce to happen there should be a product or service that has value and for which someone is willing to pay a price. If this criterion is met, then you can sell anything on ecommerce websites—gadgets, books, automobiles, grocery, toys, apparel, vegetables and digital goods such as music, e-books, software, air tickets, magazine subscriptions and the like.

**2. Processing Mechanism:**

The ecommerce website of a company should put an easy process in place so that the customer browsing through the site can place an order. The software that makes this happen is called a shopping cart.

**3. Payment Gateway:**

Once the customer fills the cart with items that he or she has shopped, the site should take the customer towards the payment gateway, which collects money electronically. If the product is downloadable such as music, e-book etc., the website must also provide for that after accepting payment from customer.

**4. Delivery of Product:**

Once customers make the payment, the e-commerce site must ensure the delivery of product in good condition on time. Logistics is a specialized function, so most sellers outsource it to third party logistics providers. Like Amazon using the services of FedEx.

### **5. After Sale Service:**

Customers need to be serviced pre-sales as well as post sales. Before the sale, customers might have queries about product features that are not mentioned on the website. They might have questions about customization and accessories. After the sale, customers might have queries related to the usage, repair or enhancement of the products or services that they have already purchased.

### **6. Reverse Logistics:**

There is no guarantee of supplying an error-free product. If products get damaged or stop functioning after a while, or a wrong product is delivered—the ecommerce seller must ensure the flow of products in the reverse direction—known as reverse logistics—where goods flow from customer to the seller.

## **IMPACTS OF E-COMMERCE ON THE GLOBAL ECONOMY:**

### ***Impacts on Direct Marketing:***

**Product Promotion** – E-commerce enhances promotion of products and services through direct, information-rich, and interactive contact with customers.

**Direct Savings** – The cost of delivering information to customers over the internet results in substantial savings to senders when compared with non-electronic delivery. Major savings are also realized in delivering digitized products versus physical delivery.

**Customer Service** – Customer service can be greatly enhanced by enabling customers to find detailed information online. Also, intelligent agents can answer standard e-mail questions in seconds and human experts' services can be expedited using help-desk software.

**Corporate Image** – On the web, newcomers can establish corporate images very quickly. Corporate image means trust, which is necessary for direct sales. Traditional companies such as Intel, Disney, Dell, and Cisco use their web activities to affirm their corporate identity and brand image.

**Markets**- The physical market disappears as does the need to deliver the goods to the marketplace. In a market space, which is an electronic market, goods are delivered directly to buyers when purchasing is completed making markets much more efficient.

### **Impacts on Organisation:**

#### **Technology and Organizational Learning:**

Rapid progress in e-commerce will force companies to adapt quickly to the new technology and offer them an opportunity to experiment with new products, services, and processes. New technologies require new organizational approaches.

#### **Changing Nature of Work:**

The nature of work and employment will be transformed in the digital age; it is already happening before our eyes. Driven by increased competition in the global marketplace, firms are reducing the number of employees down to a core of essential staff and outsourcing whatever work they can to countries where wages are significantly less expensive.

#### **Impacts on Manufacturing:**

The production systems are integrated with finance, marketing, and other functional systems, as well as with business partners and customers. Using web-based ERP systems, orders that are taken from customers can be directed to designers and to the production floor, within seconds. Production cycle time is cut by 50 percent or more in many cases, especially when production is done in a different country from where the designers and engineers are located.

#### **Impacts on Finance:**

E-commerce requires special finance and accounting systems. Traditional payment systems are ineffective or inefficient for electronic trade. The use of the new payment systems such as electronic cash is complicated because it involves legal issues and agreements on international standards.

#### **Impact on Supply Chain Management:**

Electronic commerce and the internet are fundamentally changing the nature of supply chains, and redefining how consumers learn about, select, purchase, and use products and services. The result has been the emergence of new business-to business supply chains that are consumer-focused rather than product-focused. They also provide customized products and services.

### **EVALUATION OF E-COMMERCE**

E-business evolution has allowed companies to go from storing data on paper in physical filing cabinets to digital storage of much more data on servers. Electronic storage and processing has allowed companies to increase both the volume and speed of data storage and processing. Forecasting that used to be done manually with calculators is now rapid and more extensive using spreadsheets and dedicated computer programs. Businesses store data on customer

interactions and can access this data quickly. Future evolutionary trends are toward more data stored in the cloud.

## **Internet**

The Internet has become a key e-business technology. Evolving from a military and educational network to a commercial Internet in the early 1990s, the basis of websites and e-commerce was set with the development of the browser Netscape in 1994, and the founding of Amazon and eBay in 1995. The largest companies all have an Internet presence, and many offer goods and services for sale on their websites. As the Internet continues to evolve, even small businesses that don't have their own websites will develop them. With mobile devices generating more Internet traffic, websites have become increasingly mobile-friendly, with dedicated mobile apps allowing smartphones and tablets to access information.

## **Communication**

New electronic technologies have transformed communications in business. E-business evolved from pre-electronic paper mail, wire transmissions, and teletype to email, texting and fax, with the latter now on the verge of obsolescence. On the telephone side, long distance calls became substantially less expensive and Voice over Internet Protocol calls can be completely free to any Internet connection. New technologies like Skype and Google Hangouts make free video conferencing possible. Companies use these new e-business technologies to communicate more intensively with their employees and customers, and even to save on travel expenses for in-person meetings.

## **Digital Products**

A new sector of business has evolved around digital products that are downloaded from company servers via the Internet. E-business products such as e-books and MP3 tracks are suitable for delivery in this way. Apple's iTunes store and Amazon's Kindle are examples of successful e-businesses based on digital products. The software market is evolving into an e-business model where companies offer applications for downloading and no longer sell the programs on CDs or DVDs. E-businesses based on digital products have lower costs associated with manufacture and delivery, while companies have been able to maintain prices at higher levels, increasing profitability.

## **ADVANTAGES OF E-COMMERCE**

- E-commerce provides the sellers with a global reach. They remove the barrier of place (geography). Now sellers and buyers can meet in the virtual world, without the hindrance of location.

- Electronic commerce will substantially lower the transaction cost. It eliminates many fixed costs of maintaining brick and mortar shops. This allows the companies to enjoy a much higher margin of profit.
- It provides quick delivery of goods with very little effort on part of the customer. Customer complaints are also addressed quickly. It also saves time, energy and effort for both the consumers and the company.
- One other great advantage is the convenience it offers. A customer can shop 24×7. The website is functional at all times, it does not have working hours like a shop.
- Electronic commerce also allows the customer and the business to be in touch directly, without any intermediaries. This allows for quick communication and transactions. It also gives a valuable personal touch.

### **DISADVANTAGES OF E-COMMERCE**

- The start-up costs of the e-commerce portal are very high. The setup of the hardware and the software, the training cost of employees, the constant maintenance and upkeep are all quite expensive.
- Although it may seem like a sure thing, the e-commerce industry has a high risk of failure. Many companies riding the dot-com wave of the 2000s have failed miserably. The high risk of failure remains even today.
- At times, e-commerce can feel impersonal. So it lacks the warmth of an interpersonal relationship which is important for many brands and products. This lack of a personal touch can be a disadvantage for many types of services and products like interior designing or the jewelry business.
- Security is another area of concern. Only recently, we have witnessed many security breaches where the information of the customers was stolen. Credit card theft, identity theft etc. remain big concerns with the customers.

Then there are also fulfillment problems. Even after the order is placed there can be problems with shipping, delivery, mix-ups etc. This leaves the customers unhappy and dissatisfied.

### **CONCEPTUAL FRAMEWORK**

Internet economy is a broader term which includes both e-commerce and e-business. There are various elements governing the process of online trading of goods and services. These elements are classified as different layers as per the framework given by Center for Research and Electronic Commerce (CREC) at the University of Texas in the following manner:

The term **e-commerce framework** is related to software frameworks for e-commerce applications. They offer an environment for building e-commerce applications quickly.

E-Commerce frameworks are flexible enough to adapt them to your specific requirements. As result, they are suitable for building virtually all kinds of online shops and e-commerce related (web) applications like the Aimeos e-commerce framework does.

An e-commerce framework must

- allow replacing all parts of the framework code
- forbid changes in the framework code itself
- contain bootstrap code to start the application
- be extensible by user-written code

E-Commerce frameworks should

- define the general program flow
- consist of reusable components
- be organized in functional domains

Examples of e-commerce frameworks are

- Spryker (Symfony only)
- Sylius (Symfony only)

They provide an overall structure for e-commerce related applications. Furthermore, they implement the general program flow e.g. how the checkout process works. Contrary to monolithic shop systems, existing program flow can not only be extended but completely changed according to your needs.

### **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.

## **INDIAN E-COMMERCE TOWARDS GLOBAL LEADERSHIP**

E-commerce is governed by multiple regulatory bodies and several horizontal regulations. There is a need for harmonisation of laws and regulations covering the e-commerce ecosystem, giving them a common definition and intent. A holistic policy framework for e-commerce should be able to, at the same time, adapt to the fast-changing technology and consumer preferences.

The envisaged approach will help in the development of an ecosystem that will support the industry, boost investments as well as protect consumer interest. The framework should also provide for an e-commerce facilitation unit in all relevant government ministries and sectoral departments, which serve as a point of interface for handling issues unique to the e-commerce sector. A holistic e-commerce framework should encompass the following:

1. A robust physical and digital infrastructure
  - Enhancing the logistics infrastructure

- Unlocking the value of digital payments
  - Enabling network infrastructure and access
  - A robust data protection framework
2. Thrust to 'Make in India'
  3. A level playing field between offline and online players in indirect taxation
  4. A conducive environment for cross border e-commerce
  5. Enabling ecosystem for domestic start-ups

## **THE INTERNET AS THE NETWORK INFRASTRUCTURE**

**Network infrastructure** is the hardware and software resources of an entire network that enable network connectivity, communication, operations and management of an enterprise network. It provides the communication path and services between users, processes, applications, services and external networks/the internet.

**The Internet** is a large system of inter-connected networks. The internet allows communication, Participation in simulations and games, Downloading of software, eBooks and music, E-commerce

## **SIX STAGES OF INTERNET GROWTH**

### **Experimental Networking**

It covers early years from 1965 under Department of technical community. This group developed not only technology but also the cooperative mechanism

### **Discipline specific Research**

It covers years from 1980-85. It build international online communities from all over the world.

### **General Research Networking**

It covers years from 1985-1991. It allow exchange of information and access to remote resources within the research and education community

### **Privatization and Commercialisation**

It cover years 1991 present. It support commercial transaction and connection for commercialisation organisation.

### **Restricted public data network for research and education**

To provide high performance computing environment. to develop provide and support research and education services.

## **National Information Infrastructure**

It is known as the I-way. The objective is to extend networking everywhere and enable new consumer applications.

## **MAJOR ECOMMERCE BUSINESS CLASSIFICATIONS**

Electronic commerce encompasses all online marketplaces that connect buyers and sellers. The internet is used to process all electronic transactions.

Electronic commerce can be classified into four main categories. The basis for this simple classification is the parties that are involved in the transactions. So the four basic electronic commerce models are as follows,

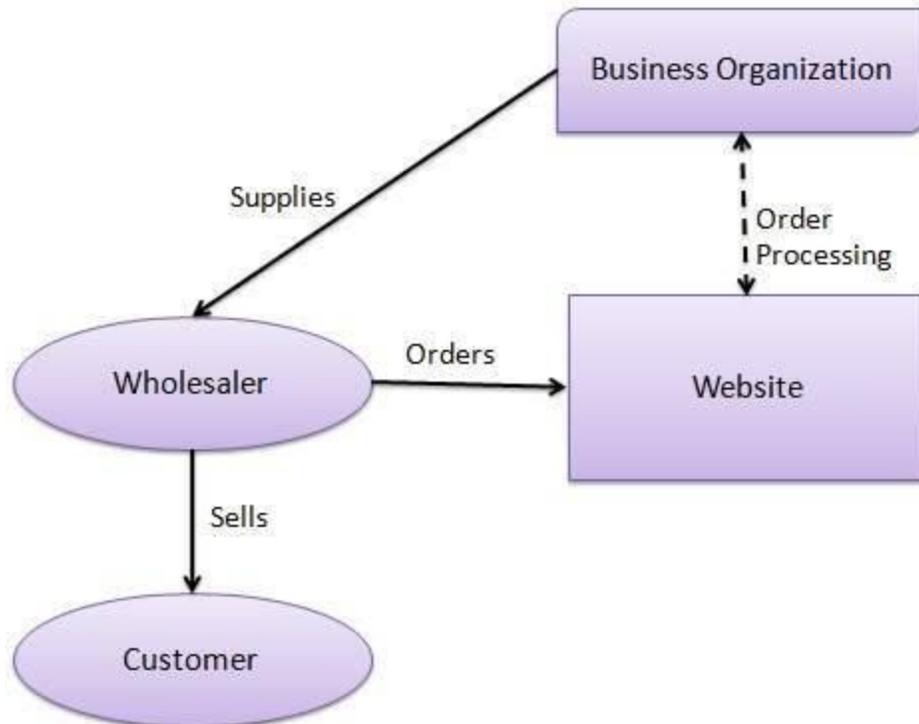
You'll need to familiarize yourself with each type of business model before you start your ecommerce business:

- Major Ecommerce Business Classifications
  - B2B: Business to Business Ecommerce
  - B2c: Business to Consumer Ecommerce
  - C2C: Consumer to Consumer Ecommerce
  - C2B: Consumer to Business Ecommerce
  - Government / Public Administration Ecommerce

### **1. Business to Business**

A B2B model focuses on providing products from one business to another. While many businesses in this niche are service providers, you'll find software companies, office furniture and supply companies, document hosting companies, and numerous other ecommerce business models under this heading. When a business sells a good or service to another business (e.g. A business sells software-as-a-service for other businesses to use)

This is Business to Business transactions. Here the companies are doing business with each other. The final consumer is not involved. So the online transactions only involve the manufacturers, wholesalers, retailers etc. A B2B ecommerce business typically requires more startup cash.



Business-to-business transactions and large corporate accounts are commonplace for firms in manufacturing. Samsung, for example, is one of Apple's largest suppliers in the production of the iPhone. Apple also holds B2B relationships with firms like Intel, Panasonic and semiconductor producer Micron Technology.

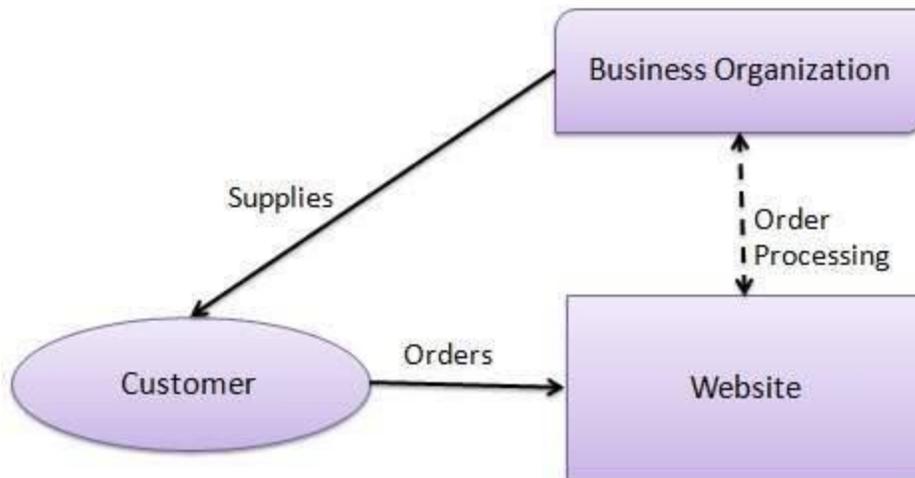
B2B transactions are also the backbone of the automobile industry. Many vehicle components are manufactured independently, and auto manufacturers purchase these parts to assemble automobiles. Tires, batteries, electronics, hoses and door locks, for example, are usually manufactured by various companies and sold directly to automobile manufacturers.

Service providers also engage in B2B transactions. Companies specializing in property management, housekeeping, and industrial cleanup, for example, often sell these services exclusively to other businesses, rather than individual consumers.

## 2. Business to Consumer

The B2C sector is what most people think of when they imagine an ecommerce business. This is the deepest market, and many of the names you'll see here are known quantities offline, too. B2C sales are the traditional retail model, where a business sells to individuals, but business is conducted online as opposed to in a physical store. When a business sells a good or service to an individual consumer (e.g. You buy a pair of shoes from an online retailer).

Business to Consumer. Here the company will sell their goods and/or services directly to the consumer. The consumer can browse their websites and look at products, pictures, read reviews. Then they place their order and the company ships the goods directly to them. Popular examples are Amazon, Flipkart, Jabong etc.



### Consumer Shopping Procedure

Following are the steps used in B2C e-commerce –

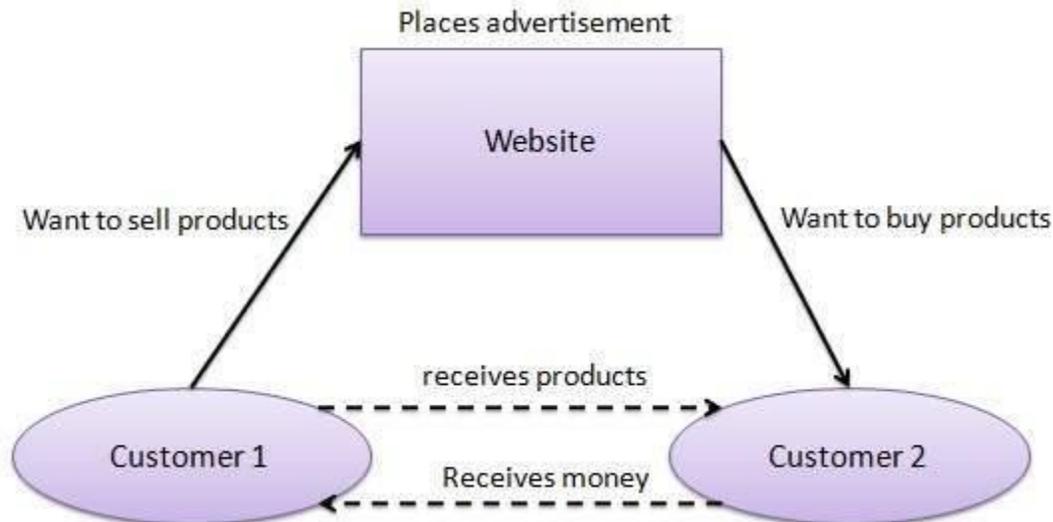
A consumer –

- determines the requirement.
- searches available items on the website meeting the requirement.
- 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.

### 3. Consumer to Consumer

B2B and B2C are fairly intuitive concepts for most of us, but the idea of C2C is different Consumer to consumer, where the consumers are in direct contact with each other. No company is involved. It helps people sell their personal goods and assets directly to an interested party. Usually, goods traded are cars, bikes, electronics etc. OLX, Quikr etc follow this model. When a consumer

sells a good or service to another consumer (e.g. You sell your old furniture on eBay to another consumer).



The C2C market has evolved since the late 1990s in large part because of the Internet and e-commerce. In a C2C market, one consumer buys goods from another consumer using a third-party business to facilitate the transaction.

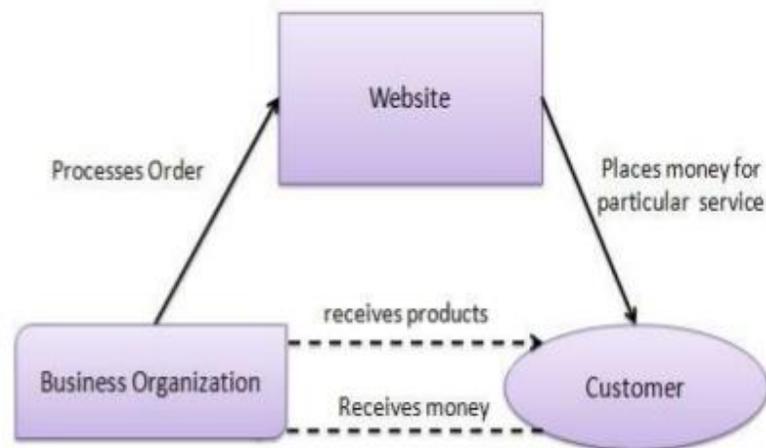
Online auction sites and other e-commerce platforms provide a third-party marketplace where consumers can buy and sell goods. EBay and Amazon.com are two prominent third-party C2C providers. EBay is a top auction site where individuals can list goods for customers to bid on. Amazon.com is the world's largest online retailer. The company operates as both a B2C and a C2C market, meaning it markets goods directly to customers and allows users to sell goods themselves. These C2C facilitators earn fees or commissions by allowing sellers to list and sell goods through their websites.

#### 4. Consumer to Business

This is the reverse of B2C, it is a consumer to business. So the consumer provides a good or some service to the company. Say for example an IT freelancer who demos and sells his software to a company. This would be a C2B transaction. Created by the rise of the ecommerce sector and growing consumer confidence in online business, these sites allow customers to trade, buy, and sell items in exchange for a small commission paid to the site. Opening a C2C site takes careful planning.



# Consumer - to - Business (C2B)



Despite the obvious success of platforms like eBay and Craigslist, numerous other auction and classified sites (the main arenas for C2C) have opened and quickly closed due to **unsustainable models**.

C2B business models like most of C2C models like Ebay are based on 3 players: a consumer acting as seller, a business acting as buyer and an intermediary dealing with the connection between sellers and buyers.

## Consumer

A consumer in the C2B business model can be any individual who has something to offer either a service or a good. The individual is paid for the work provided to the companies. Depending on the model, the "consumer" can be:

- A webmaster/ blogger offering advertising service (through Google Adsense program for example or amazon.com affiliation program)
- A photographer or a designer offering stock images to companies by selling his artwork through Fotolia or istockphoto for example
- Any individual answering a poll through a survey site

- Any individual with connections offering job hiring service by referring someone through referral hiring sites like jobster.com

## **Business**

Business in the C2B business model represents any companies buying goods or services to individual through intermediaries. Here are some examples of potential companies which can be such clients:

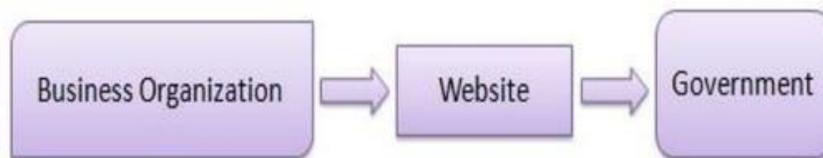
- Any company which wants to fill a job (through referral hiring sites)
- Any company needing to advertise online (through Google Adwords program for example)
- Any advertising agency which needs to buy a stock photo (through microstock sites)

## **BUSINESS TO GOVERNMENT (B2G)**

Business to government (B2G) is the sale and marketing of goods and services to federal, state, or local agencies. In modern lingo, there are three basic business models: business to consumer (B2C), business to business (B2B), and business to government (B2G). B2G is not an insignificant chunk of business. The federal government alone spends about \$8.5 billion a day. Notably, a portion of its business is supposed to be spent on small business suppliers.

B2B business can be as modest as a small business providing IT support services to a town government. Or, it can be as big as Boeing, which builds helicopters, missile defense systems, B-52 Bombers, and Air Force One, among many other products, for the U.S. Defense Department.

### **B2G E-commerce**



## REFERENCE

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