

UNIT - I

Q. 1. What is e-commerce? Define.

Ans. E-commerce : E-commerce can be defined as a modern business methodology that addresses the needs of organizations, merchants and consumers to cut costs while improving the quality of goods and services and increasing the speed of service delivery.

Electronic commerce is an emerging concept that describes the process of buying and selling or exchanging of products, services and information *via*. telecommunication and computer networks including the internet.

Kalakota and Whinston (1997) define electronic commerce from various perspectives as :

1. From a communications perspective, e-commerce is the delivery of information, products/services, orders and payments over telephone lines, computer networks or any other electronic means.
2. From a business process perspective, e-commerce is the use of technology towards the automation of business transactions and workflow.
3. From a service perspective e-commerce is a tool that caters to the need of firms, consumers and management to cut down the transaction costs while improving the quality of goods/services and increasing the speed of delivery.
4. From an online perspective, e-commerce provides the capability of buying and selling products and information on the internet and other online services.

The infrastructure for e-commerce is networked computing, which is emerging as the standard computing environment in business, home and government. This allows users to access information stored in several places and to communicate and collaborate with others from their desktop computers or laptops.

This new type of computing is helping a large number of organisations in various fields to excel. Examples of some such organisations are :

- (i) Microsoft Expedia, an integrated online travel transaction site helps to choose a flight, buy an airline ticket, book a hotel, rent a car, etc. in only a few minutes.
- (ii) FedEx and UPS have made it easy for customers to track their packages and schedule pickups on the web.
- (iii) Cisco, an internet working company that makes routers and switches, can meet orders world wide in no time.

Generally the term "commerce" is viewed as transactions conducted for buying and selling between two parties. Therefore, the term "electronic commerce" may seem fairly narrow to some people. Another term generally used is "e-business". It serves customers and collaborating with business partners and conducting electronic transactions within an organisation. e-business is all about globalisation in business in terms of speed, cycle time, enhanced productivity, reaching new customers and sharing knowledge across the world.

Electronic commerce in its broadest scope, which is basically equivalent to e-business.

Q. 2. What do you understand by pure and partial electronic commerce?

Ans. Pure and Partial Electronic Commerce : E-commerce can take many forms depending upon the degree of digitization of the product/service sold, the delivery process and the payment process. A product can be physical or digital, a payment process can be physical or digital and a delivery process can be physical or digital. In traditional commerce all these three

dimensions are physical and in pure electronic commerce all the dimensions are digital. Pure e-commerce is combination of digital and physical e-commerce. If there is at least one digital dimension, the situation is considered as electronic commerce, but not a pure one. For example, buying a book from Amazon.com is not pure e-commerce because the book is delivered physically. However, buying a software from egghed is pure e-commerce because the product, payment and delivery are all digital.

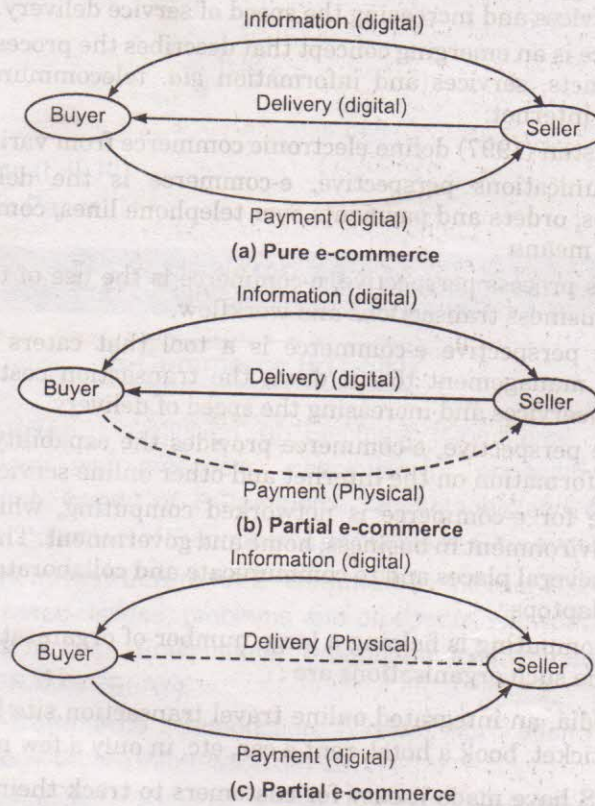


Fig. (a) Pure e-commerce (b) and (c) partial e-commerce.

Q. 3. Explain the various e-commerce technologies.

Ans. E-commerce Technology : There are various technologies involved in e-commerce. Some of the technologies involved are :

1. Various networks like internet, intranet and extranet.
2. The customers or users must be provided secured transactions, information security, processing and payment services.
3. The employees of countries depend on a variety of internet and intranet resources to communicate and collaborate in support of their e-commerce work activities.
4. Business partners rely on internets and extranets to exchange information and accomplish secure transactions, including Electronic Data Interchange (EDI) and other supply chain and financial systems and databases.
5. Information system professionals and end users can use a variety of software tools to develop and manage the content and operations of the websites and other e-commerce resources of a company.

Q. 4. What are the various incentives for engaging in e-commerce?

Ans. Incentives for Engaging in E-commerce : Various incentives for engaging in e-commerce are given below :

1. Look and feel : Various shopping features, multimedia product catalog pages, website shopping areas and attractive web stores.

2. Advertising : It includes advertising at member sites, targeted web page advertising, discounts and special offers and e-mail promotions.

3. Selection and value : Attractive product selection, competitive pricing, guaranteed satisfaction and after sale customer support.

4. Service and performance : After sale services, fast and easy navigation, shopping and purchasing and prompt shipping and delivery.

5. Community relationships : Virtual communities of customers, suppliers, company representatives and others through related web-sites, chat rooms and newsgroups.

6. Security and reliability : Security of customer information and website transactions, trustworthy information about the product and reliable delivery of the product.

Q. 5. What are various categories of e-commerce based on the parties involved in a transaction?

Ans. Categories of Electronic Commerce Based on Type of Transactions : Depending on the type of transactions, the electronic commerce applications are divided into two main categories :

1. Buying and selling goods and services, usually referred to as electronic markets.
2. Facilitating inter and intra-organization flow of information, communication and collaboration. These are referred to as interorganizational systems.

Electronic Markets : A market is a network of interactions and relationships where information, products, services and payments are exchanged. In an electronic market, the business centre is not a physical building but an internet worked based location where business interactions occur. It is a site on the internet where shoppers and sellers meet.

In an electronic market transaction, the principal participants are – the buyer, the seller, the broker, the transaction handler and the banks of the buyer and the seller. The means of interconnection varies among the parties and can change from event to event, even between the same parties.

A typical electronic market is illustrated on the next page.

Interorganizational Information Systems

An interorganizational information system involves information flow among two or more organizations. The major objective is efficient transaction processing such as transmitting orders, bills, payments. These system can be built on the both public and private network. All arrangements on the nature and format of business documents, time of transactions and the communication networks to be used are predetermined.

Some of the common types of interorganizational e-commerce systems are :

1. Electronic Data Interchange (EDI) which consists of electronic transactions in predetermined formats over private networks or Value Added Networks (VANs) or even public networks.
2. Electronic Funds Transfer (EFT).
3. Electronic forms.
4. Integrated messaging delivery of e-mail and fax documents through a single electronic transmission system that can combine EDI, e-mail and electronic forms.

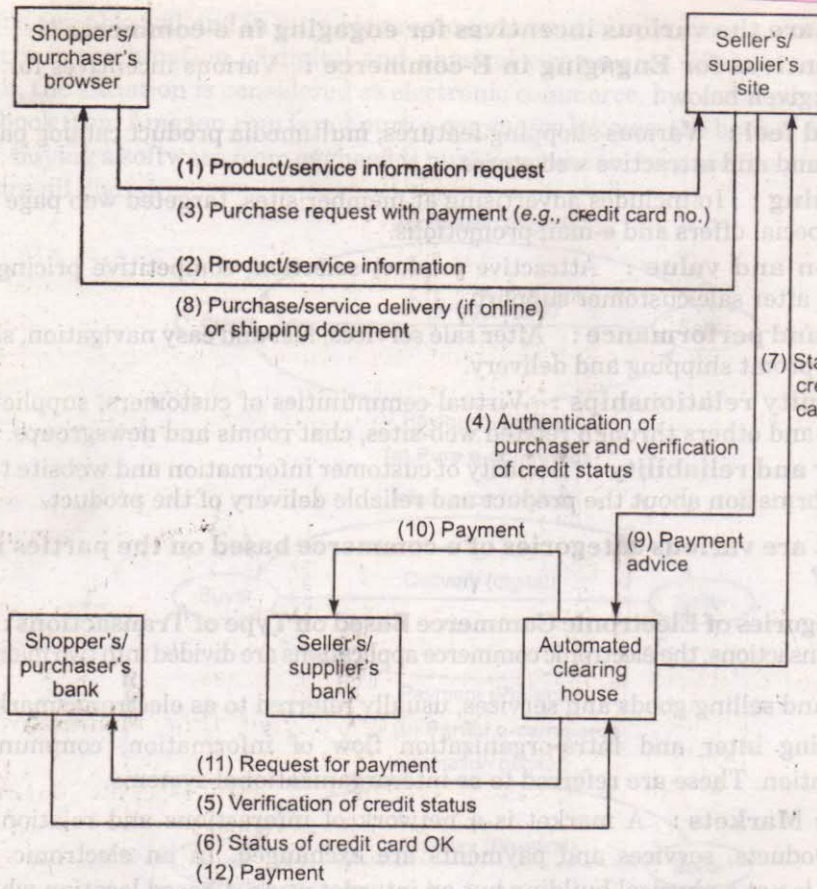


Fig. (a) An electronic market transaction.

- 5. Shared databases information stored in repositories is shared between trading partners.
- 6. Supply Chain Management (SCM). Co-operation between a company and its suppliers and/or customers inventory management, demand forecasting and order fulfillment.

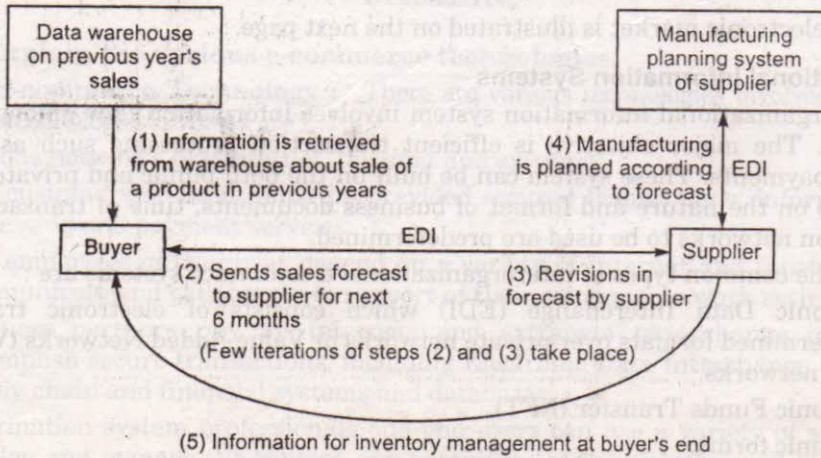


Fig. (b) An interorganisational e-commerce system.

Categories of E-commerce based on Transacting Parties

Based on the types of parties (business, consumers, etc.) involved, e-commerce may be of the following types :

1. Business-to-Business (B2B): This type of electronic commerce includes the interorganizational transactions and electronic market transactions between organizations or businesses.

2. Business-to-Consumer (B2C): These are retailing transactions with individual shoppers. An online shopper buying from any site is an example of B2C e-commerce.

3. Consumer-to-Consumer (C2C): In this category a consumer or individual sells directly to another consumer or individual. Examples are individuals selling residential property, cars, etc, online. Several auction sites allow individuals to put items up for auctions. Advertising personal services on the internet and selling knowledge and expertise on-line is another example of C2C e-commerce.

4. Consumer-to-Business (C2B): This category includes individuals who sell products and services to organizations. For example, online consultancy to a business manufacturing machine parts.

5. Intra-business (organisational): This category includes all internal organisational activities, usually performed on intranets. These may involve on line training, EDI for inter-office memos, exchange of inter-departmental information, etc.

Q. 6. What are the driving forces behind the fact that businesses are fast switching over to e-commerce in this business activities?

Ans. The Driving Forces for E-commerce: Today's business environment is influenced greatly by market, economical, societal and technological factors creating a lot of competition. Also these factors are unpredictable in that they may change unexpectedly at any time. Such changes in the business world have been defined as business pressures. In order to succeed in this dynamic world, companies must take actions such as lowering costs and improving quality, etc.

The various environmental business pressures on companies today can be grouped into three categories : Market, societal and technological.

These are summarized in the table given below :

Market and economic pressure	— Strong competition
	— Global economy
	— Extremely low labour cost in some countries
	— Frequent changes in market demands
	— Increasing expectations of consumers
	— Awareness among consumers
Societal and environmental pressures	— Government regulations
	— Reduction in government subsidies
	— Increased importance of ethical and legal issues
	— Rapid political changes
Technological pressures	— Rapid technological obsolescence
	— New technologies
	— Information overload.

Major Business Pressures

Organisations, in order to survive in this competitive business environment, react through various responses and actions. These are :

1. Continuous Improvement Efforts
2. Business Process Re-engineering (BPR)
3. Business Alliances

In all these responses Electronic Commerce plays a major role in helping business to survive.

1. Continuous Improvement Efforts : Many organisations are continuously involved in improvement efforts in the areas of productivity improvement, Total Quality Management (TQM), managing information and technology, customer service and other areas. For example, Dell Computers receives its orders electronically and moves them via ERP software (Enterprise Resource Planning) into the just-in-time assembly operation.

2. Business Process Re-engineering : BPR refers to major innovations in the organisation's structure and the way it conducts the business.

Information technology and electronic commerce play a major role in BPR. For example, EDI facilitates rapid paperless transactions that enable companies to reduce paperwork as well as manpower.

3. Business Alliance : Many companies enter into business alliances with their suppliers, customers and even competitors. Through such alliances, companies can share resources, form permanent business relationships. An example of a business alliance is between Cisco systems who are world's largest manufacturer of telecommunication products and Jabil and Hamilton Corporation, a major electronics parts supplier. The two share a virtual manufacturing company arrangement for their business transactions. An order placed for a Cisco 1600 router arrives simultaneously at Cisco in San Jose, California and Jabil in St. Petersburg, Florida. Jabil immediately starts to build the router by drawing parts from three online inventories. It is then shipped directly to the customer by Jabil. At the same time Cisco sends an invoice to the customer and Jabil and Hamilton bills Cisco electronically. Thus, Cisco's virtual manufacturing company alliance with Jabil and Hamilton gives them an agile, build-to-order capability in the fiercely competitive telecommunication equipment industry.

Supply chain management is another example of a business alliance which is heavily supported by e-commerce.

**Q. 7. What are needs of e-commerce in changing the business environment?
Or What is the impact of e-commerce on business activities? (2009)**

Ans. Impact of Electronic Commerce : The impact of electronic commerce in the business world can be categorised into the following categories :

1. Impact on Direct Marketing : Traditional direct marketing is done through mailing catalogue or telemarketing. However, with the spread of internet direct marketing via the internet (B2C) has grown tremendously. Some of the impacts of electronic commerce on direct marketing are :

(a) Product Promotion and Advertising : E-commerce enhances promotion of products and services through direct and interactive contact with the customers. One-to-one or direct advertisement is served more effectively.

(b) New Sales Channels : Internet has opened up new sales channels for the businesses enabling direct reach to global customers.

(c) Direct Savings : As compared to the exchange of information through the traditional methods as mailing, etc. or through VANs, the exchange of information between businesses (B2B) or between a customer and a business (B2C or C2B) results in substantial savings to the senders, in the form of reduced paper costs, mailing costs, etc.

(d) Reduced Cycle Time : The delivery of digitized products and services can be reduced to seconds. Also for the physical delivery, the administrative costs such as sending/receiving orders, invoicing, inventory management, etc. can be reduced considerably through the use of EDI.

(e) Customer Service : Customer services can be greatly enhanced by enabling the customers to find detailed information online. For example, status of online packets are traced by Fed Ex. Also online help desks for customers can answer their queries quickly. Sending credit card bills, bank statements, etc. online to the customers are all examples of enhanced customer service through internet.

(f) Brand or Corporate Image : On the web, companies and especially newcomers can establish corporate images very quickly. A classic example is that of Amazon.com which took only a period of three years to establish itself on the web.

(g) Customization : E-commerce provides for the customization of products/services according to the user's requirements and budget. This is in contrast to ordering from a store which is usually limited to standard products. Such customization provides a competitive advantage and also increases the overall demand for certain products and services.

2. Impact on Organizational Structures : With the growth of e-commerce companies will adopt new business structures, refined organizational structure and their product. The impact of e-commerce on business organizations may be discussed in the following areas :

(a) Technology and Organizational Learning : Organizations conducting their businesses using the old traditional methods need to catch up fast with the new technology in order to survive in the e-business world. Organisations need to master the new technologies and understand their power to reshape customer relationships and promote their products/services.

(b) Changing Work Culture : The large scale adoption and use of e-commerce applications in the business world will have drastic impact on the nature of work and employment. As a part of organizational learning, will have to either train their existing people extensively or do with an entirely new group of people already experienced to work in this digital age.

This has already started showing its effects as firms have already started reducing their staff.

Another strategy adopted by firms is to outsource whatever work they can give to countries where the wages are significantly less expensive.

The upheaval brought on by these changes is creating new opportunities and new risks and forcing businesses and the workers into new ways of thinking about jobs, careers and salaries.

At the same time, the digital age companies will have to constantly empower their workers by providing them with every possible means to expand their knowledge and skillbase.

(c) New Product Capabilities : E-commerce allows for customization of products and services based on the user's needs. Such customization in the design and manufacturing may redefine the organisation's missions and the manner in which they operate.

Many suppliers built Customer profile and the group of customers. These can be used as a source of information for improving products or designing new ones.

(d) New Business Models : The impact of e-commerce will not only be on individual companies and their products but entire industries. The intermediaries help to organize the virtual markets and provide value added services ranging from acting as a trusted third-party intermediary to matching special customer requirements to order capabilities.

3. Impact on Manufacturing : E-commerce is fast changing the manufacturing systems from mass production to demand-driver, customized just in time manufacturing. Using the web based ERP systems, orders for custom-made products that are taken from online customers can be directed to designers (using computer-aided design) and to the production floor within no time. All this helps to minimize the costly inventories and also reduce the production cycle time

to more than 50 per cent, especially in case where the production is done in a different country from where the designers and engineers are located.

4. Impact on Finance and Accounting : Electronic commerce requires special finance and accounting systems, especially payment systems. E-payments are using systems such as online credit/debit card payments, e-cash and e-cheques. E-cash is complicated and involves legal issues and agreements on international standards.

5. Impact on Education : E-commerce has had great impacts on the methods and techniques in training and education as well. Distance learning online is becoming very popular, providing opportunities that never existed before. The online distance learning systems can offer two-way video, interactive remote instruction systems, remote querying, application sharing, etc. For example, City University of Hong Kong is teaching an interactive MBA program on the internet.

Companies have reconciled that online distance learning may be a key to survival because changing environments, new technologies and continuously changing procedures make it necessary for the employees to be trained continuously.

Q. 8. What are the various benefits of e-commerce? Discuss.

Ans. Benefits of Electronic Commerce : Electronic commerce offers many potential benefits to organizations as well as individuals due to its global nature, low cost, interactive nature, variety of possibilities and resourcefulness and rapid growth of the supporting infrastructures, especially the web. These benefits have only started to materialize and will increase significantly as e-commerce expands, in order that business invest their resources to engage in e-commerce activities.

•Benefits of E-commerce to Businesses

1. Global Reach : E-commerce expands the market place to national and international markets. Internet and web-based e-commerce helps to reach a more geographically dispersed customer base and more business partners as compared to the traditional business methods.

2. Reduction in Paper Costs : E-commerce decreases the cost of creating, processing, distributing, storing and retrieving information through the use of EDI systems. This greatly cuts on the cost of paperwork in terms of the time taken and the manpower required.

Also e-payments have considerably reduced the cost overheads in financial transactions.

3. Reduction in Inventories : A reduction in inventory is desirable to enable reductions in storage, handling, insurance and administrative costs. Internet e-commerce can help firms to reduce inventories by electronically linking the suppliers and buyers.

The process starts from the customer orders and uses just-in-time manufacturing. Information on inventory levels and production rate is shared between the manufacturers and their suppliers. The delivery schedules are "fine tuned" for just-in-time manufacturing, rather than maintaining large inventories.

4. Customization of Products/Services : The web based interactive e-commerce enables the customization of products/services as per the customer needs. For example, an online travel agency may customize the for a customer who wishes to travel abroad or a computer manufacturer may be able to supply a customized PC to a user.

5. Reduced Production Cycle Time : The production cycle time is the time taken by a business to build a product. The internet based e-commerce enables the reduction of this cycle time by allowing the production teams to electronically share design specifications and refinement processes.

The reduction in the production cycle time helps to reduce the fixed overheads associated with each unit produced. This saving in the cost of production can be passed onto the customer or may be used to achieve higher profits.

6. Improved Customer Service : Customer service can be enhanced using the internet based e-commerce by helping the customer to access information before, during and after a sale. Customers may need to retrieve information on product specifications and pricing, on the status of an order or may need online help in installation or use of a product he has purchased.

7. Lower Sales and Marketing Costs : The internet allows business to reach many customers globally at lower costs. Thus, by shifting the sales and marketing functions to the electronic processes, the organizations can bring down greatly the marketing overheads. Any change in product specification in the case of paper-based advertisements may mean re-printing. However, in web based advertisement it may mean changes only in the website.

8. Lower Telecommunication Costs : Before the coming of internet, only few organizations were using the private networks and VANs for their EDI. The cost of installation and running these systems was very high and beneficial only to the larger firms that had enough business volumes to justify the cost. But now because of the low cost of connecting to the internet, small and medium businesses can easily afford business on the internet.

9. New Found Business Partners : Internet based e-commerce enables businesses to find new business partners globally on the web, thus not restricting themselves to a specific choice of suppliers.

10. Faster Access to Information : The internet helps to expedite access to remote information, thus adding speed to transactions and processes.

Q. 9. What are the advantages of e-commerce?

Ans. Advantages of E-commerce : With the growth of internet, several companies are working on finding new, attractive and exciting ways for expanding their business activities. Today, there are very few companies that are successful and yet not using computers. It means there are few companies that do not use e-commerce. This gives us an indication, about how important e-commerce has become for the success of a company some of its advantages are discussed below :

1. Speed : E-commerce helps in speeding up the transactions. Internet allows the companies to exchange messages or complete transactions instantaneously, *i.e.*, in seconds. Even if the internet connection is slow, e-commerce can help transactions done much faster than traditional modes.

2. Cost Saving : E-commerce reduces the use of man power, marketing, phone, postage and printing costs and several other things. A business could be started even with few thousand rupees. It saves the cost of opening a physical store. These saving can be used for advertising of the product or the service.

3. No Limits : Internet does have any boundaries, *i.e.*, it is not limited to any particular country. This helps to develop the business all over the world. Distance becomes meaningless and any information could be communicated to anyone over the world.

4. Socialization : Internet allows people to meet, chat, exchange views and stay in touch at a very low cost. People are becoming socially very active. Anyone can expose his business on international scale. Meeting with new network locally and from other countries can be done anywhere and at anytime.

Q. 10. What are important benefits of e-commerce to consumers?

Ans. BENEFITS OF E-COMMERCE TO CONSUMERS

1. Increased Choice of Vendors and Products : Customers can have an increased choice of vendors or products because they are no longer geographically constrained to reach a vendor or a product. A large number of vendors/manufacturers are marketing and selling their products/services on the internet.

Virtual shops (e.g., Amazon.com) can offer the consumers a large number of products/services at a single site.

2. Convenience of Shopping at Home : Allows the consumers to shop when it is convenient for them and not strictly during store hours.

Also for handicapped or ill consumers, home shopping on the internet provides a lot of opportunity and convenience.

3. More Competitive Prices and Increased Price Comparison Capabilities : The large amount of information available on the internet is giving more and more power to the consumers. Consumers can make

(a) Product/service comparisons

(b) price comparisons

to enable them to get the best deal on a product/service.

This price and product comparison has increased the competition among the vendors. And to sell the vendors have quickly learnt that service and reliability are also important.

4. Greater Customization in the Delivery of Services : Internet electronic commerce also gives customers a chance to customize many of the products/services offered by the merchants.

e.g., The morning paper (www.boutell.com/morning) allows on line users to pre-specify their favourite websites. Each morning, a morning paper is delivered electronically to the user with updates that have occurred on their favourite websites. Customers buying computer over the internet have the opportunity at many sites to "configure" their own computer easily and compare prices of alternative configurations.

5. Access to Greater Amounts of Information on Demand : Consumers can have access to large amount of information online on products and services, their features and prices. This further translates into more choice to customers in shopping and greater price comparison opportunities.

6. Quick Delivery of Digitized Products/Services : E-commerce allows quick delivery in the case of digitized products such as music, software, etc.

7. Virtual Auctions : E-commerce has made it possible for customers to participate in virtual auctions for buying and selling.

Q. 11. What are the disadvantages of e-commerce?

Ans. We have already seen that e-commerce has its benefits both for the businesses as well as the customers. However, many traditional companies/organisations may have concerns for going online as they have successfully established processes and channels. Sometimes the organisations feel that going digital may do more harm than good and are reluctant to adopt the new technologies.

The following are the concerns that are holding many businesses from going online :

1. Cost and Justification : The cost of developing e-commerce inhouse can be very high and requires a lot of knowledge upgradation by the traditional organisations. There are many opportunities in internet based e-commerce, but where and how to do it is not a simple issue. Organisations must be able to quantify the benefits such as increased sales, improved customer service and improved advertisement. However, this is not easy to achieve until the system is actually established.

2. Channel Conflict : Internet e-commerce has resulted in disintermediation, i.e., a customer can directly buy from the manufacturer, without going through many intermediates. However, the traditional businesses fear to go online due to disintermediation because they do not wish to spoil their business relationships with their resellers.

3. Competition : Internet e-commerce has boosted up competition from a local competition to a world wide competition. Many businesses are reluctant to go online because of the competition they will have to face globally.

4. Copyright : Companies offering information and soft products on the internet are concerned about copyright issues. This is because once the information has been published on the internet, it becomes easy to copy it and use it for own business.

For this reason compact disc sales have gone down substantially because it is easy to copy the music files from the internet.

5. Customer Acceptance : Many companies are apprehensive that their customers may not accept their new channel because most of them may not have access to the internet. However, this may mean offering many new services/facilities which the organisations may not want to do or may not be in a position to.

6. Legal Issues : There is no legal framework for the internet and many companies are reluctant to invest as they are not sure what the consequences may be for them.

7. Loyalty : The internet is less personal, so the people are not bound to a certain vendor.

8. Pricing : The internet e-commerce makes it easy to compare the prices. This leads to a drops in prices and emphasis on add-on services, which most traditional businesses do not relish.

9. Security : Most companies are reluctant to go online they are very concerned about the security on the internet.

Just as businesses have concerns for going online, e-commerce has its limitations for customers too :

1. Security and Privacy : These issues are especially important in the B2C area. Customers feel that on the internet the privacy of their transactions may be interfered with. Vendor sites like to collect data on customers who visit their sites regularly and use it for customised advertisements.

Also security, especially in the case of electronic payments is a serious issue. Encryption techniques in e-payment systems have helped to increase the security of transactions. However, the e-commerce industry still faces a very long and difficult task of convincing customers that online transactions are infact very secure.

2. Lack of Trust : Many customers may not trust an unknown faceless sellers. Most customers like to see physically or touch the items they are going to purchase so that they know exactly what they are buying. Many customers also have not been able to build trust in paperless transaction and electronic payment systems.

3. Legal Issues : As discussed before, there is no legal framework on the internet and just like suppliers, customers are not sure how such issues will be resolved. The government regulations and standards are not refined for many circumstances.

4. Accessibility : Accessibility to the internet is still expensive for many potential customers.

However, despite these limitations rapid progress in e-commerce is taking place. As experience accumulates and technology improves, the ratio of e-commerce benefits to costs will increase, resulting in a greater rate of e-commerce adoption.

Q. 12. What are various e-business categories?

Ans. E-business Categories : Electronic business is a superset of business cases which have been digitized and work on the internet. E-commerce, as discussed earlier is a subset of e-business. There are other categories of e-business as well. The internet offers huge possibilities to integrate the categories and automate the interaction between the processes.

1. E-auctioning : Auctioning on the internet has become a new dimension.

The internet makes auctions more democratic allowing anyone with an internet connection to participate in the auction.

Also everyone able to go to an auction website with a click, no matter where the server is located physically.

The internet also speeds up the bidding process. In the real world it can take quite a while until a final bid has been made. On the internet most live bids are over in a few seconds.

The auction sites offer the possibility to present goods on a web page, which individuals may want to sell. The bidders place their price onto the web page and the auctioneer waits until a certain value has been reached or a time limit has been passed and then hands out the good(s) to the lucky one.

Some of the auction sites on the internet are

<http://www.ebay.com/>

<http://www.gxl.co.uk/>

<http://www.ricardo.de/>

2. E-banking : Electronic banking is one of the most successful online businesses which saves the individuals and the companies time and money.

On-line banking allows the customers the following services :

- (i) View the account details
- (ii) Transfer funds
- (iii) Review the account history
- (iv) Order cheques
- (v) Pay bills (through e-cheques).

The only transaction that can currently not be done is the withdrawal of cash.

Depending on the level of security desired, a number of security mechanisms are available such as,

(a) Enable Java to increase the level of security in your browser. The Java applets are used to increase the level of encryption to make sure that nobody can interrupt your banking transactions.

(b) Smart card technology to allow secure access.

(c) In addition to the ID and login, a list of Transaction Numbers (TAN) can be obtained. There are one time passwords that can be used for a single transaction.

3. E-directories : E-directories on the internet provide the functionality of finding the telephone numbers of people.

The database located at a single place may be accessed by anyone having an internet connection.

4. E-engineering : Just a few years ago, engineers working on a draft needed to be all in the same office to work effectively. If a design needed to be sent out to another location, large prints were made which were sent via postal service to the other location. There the design was refined, checked or processed. All these processes required a lot of manual work, making them slow and error-prone.

However, the internet has changed the speed of design. The location of the engineers does not play a role anymore. Everyone with an internet connection is able to take part in the development.

Through the internet it has also become possible to develop continuous engineering by letting the engineers participate from all over the world. Thus, open source development can be done efficiently in this way. Anybody is able to take part and can denote a piece of code.

5. E-franchising : E-franchising on the internet works in a similar fashion as the traditional franchising.

This is accomplished by moving digital products and brands on the internet.

E-franchising differs from the traditional franchising in that a third party website may not be marketing your products exclusively, but alongwith other products. This is achieved through the concept of virtual shops.

e.g., <http://www.quelle.de>

6. E-gambling : E-gambling business is carried out generally in the states where gambling is legal and very low taxes need to be paid. Most gambling sites have moved to South America where no laws on gambling have been implemented.

e.g., <http://www.123gambling.com/>

<http://www.casinoplace.com/>

Though the gambling sites may be restricted to countries where gambling is legal, they are able to attract gamblers from all over the world with a mouse click. They attract thousands of gamblers everyday.

7. E-learning : In this age of technological growth, life long learning has become essential. Many professions like teaching, medical, software, etc. require that a person learns about the latest developments as technology is changing fast. However, it is not possible to join institutes and learn every time. This is where e-learning plays an important role.

8. E-mailing : E-mail combines the strengths of both phone calls and letters. The advantage of a phone call is its immediacy and the letter has the advantage that everything is in the written form.

The internet enables instant communication in written form, either by e-mail or online chat.

E-mails can contain text, attached files containing images, video, sound, etc.

9. E-marketing : Traditional marketing was focussing on target groups and creating a positive image for that particular group.

Communication through advertising was one way only. The marketing team could not get immediate results on the customer reaction.

Things are much more customer centric. The demands of the customer directly affect the product design, marketing strategies and the product pricing.

The information flowing back from the customer in real time needs to be passed on to the appropriate department within the company to react in real-time to the fast changing demands of the customer.

10. E-operational resources management : Besides the goods that are needed for production, companies need to buy operational resources. The areas for operational resources include :

(i) Capital equipment such as computer equipment.

(ii) Maintenance, repair and operating supplies such as office supplies.

(iii) Travel and entertainment such as travel services.

11. E-supply : Numerous independent companies and customers form a supply chain. Manufacturers, senders, receivers and retailers all work together to co-ordinate the order generation and order implementation through a supply chain management.

Through the use of open standards such as XML and Java, supply chain partners are able to share and exchange information more easily and with lower costs involved.

12. E-trading : Before the internet, buying and selling stocks was restricted to people with access to financial networks in order to buy and sell stocks at the right moment.

Q. 26. Explain the online purchasing process.

Ans. **The Online Purchasing Process :** In an attempt to predict, improve or influence the consumer buying decisions (what the consumer buys, when the consumer buys, whether or not the consumer buys a particular product, etc.) it becomes necessary for the marketers to understand the purchasing process and the various steps involved. A general purchase process

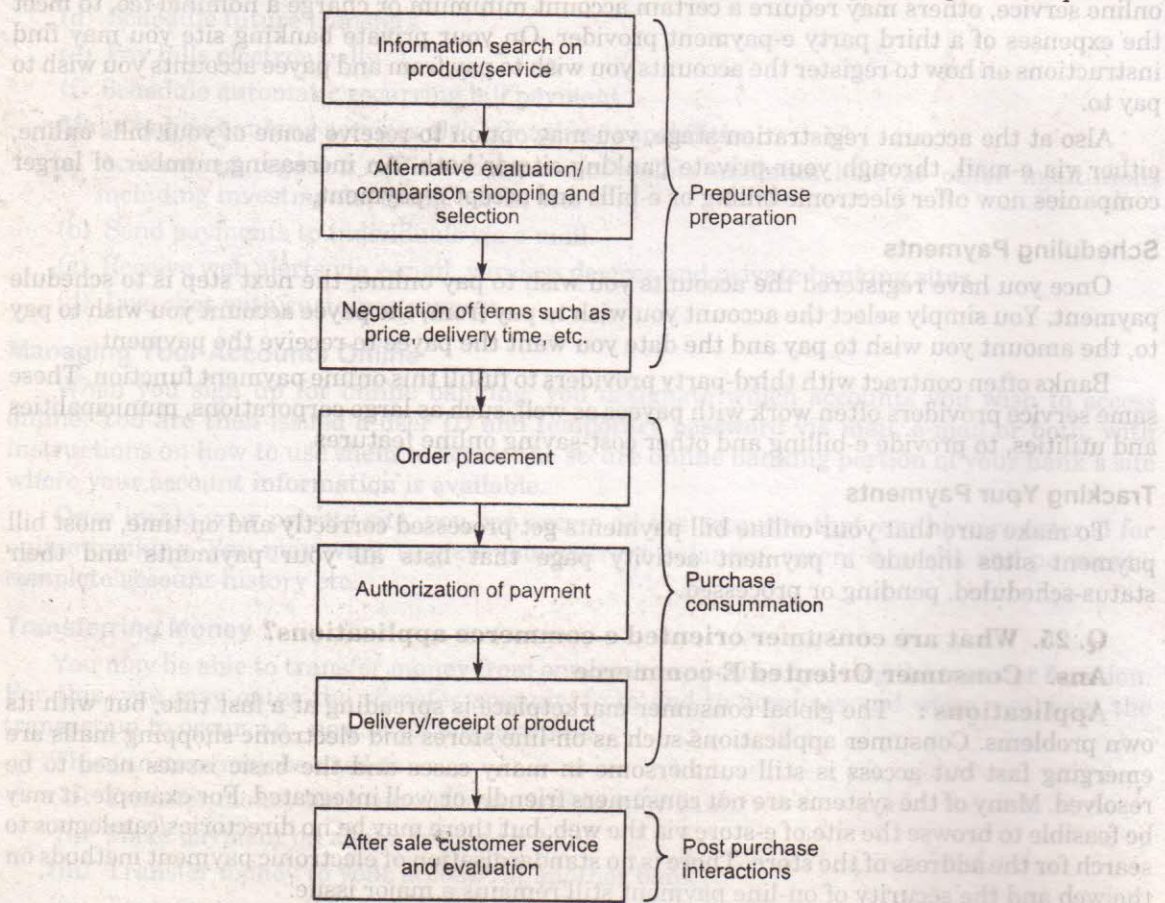


Fig. (a) Consumer activities in an online purchase process.

model has been proposed to help the companies design strategies for on-line marketing, advertising and selling. This process model consists of almost all of the online activities that a consumer may perform during a purchase. However in practice, some of these activities may be performed off-line in some cases where digitization is not feasible.

The purchase process model consists of seven activities that can be grouped into three phases : prepurchase phase, purchase consummation and post purchase interaction.

The application of this model to particular cases would help companies and marketers to understand :

1. Why consumers shop online?
2. What are their expectations?
3. What kind of products/services are popular for on-line buying?
4. What is the frequency of shopping?
5. How do they respond to product promotions?

In this every consumer have its own way of purchasing and its criteria. Let us now consider each of the consumer purchasing phases in detail.

Prepurchase Preparation

The prepurchase preparation phase includes the search for the product(s) in question in a larger information space based on some customer criteria and attributes. The search based on attribute comparison brings out a smaller set of products. This selection is based on the prices, discounts, delivery terms, etc.

The Consumer Information Search Process

The prepurchase preparation or the search for the right product often involves some prepurchase deliberation on part of the customer. The extent of prepurchase deliberation may vary depending on the customer (impulsive, patient or analytical), the product and the purchase situation.

It is during this prepurchase deliberation period that customers look for information on variables that are important in the purchase decision. For this they need to focus on questions as,

- (a) How much time are buyers spending on their purchasing decisions with respect to various products?
- (b) What are the factors that affect the customer decision time?
- (c) What is the right shopping environment that keeps customers happy and wanting to return?
- (d) What are the processes/trends that consumers mostly rely on for information search?
- (e) Whether the consumer shopping-with a utilitarian or a hedonic aim.

The Product Selection and Negotiation Process

After information search next phase is product selection. Here the intermediaries called information brokers play a vital role. Information brokers are needed for three reasons : comparison shopping, reduced search costs and integration.

Comparison shopping agents provide a comparative analysis of the product from various sources/vendors in terms of price, delivery terms and product attributes, thus helping the customers in selecting the best buy. Some comparison agents may focus on product attributes based on customer choices/criteria while for others the lower price may be sole aim. For example, an intermediary may integrate the functions of providing information on products to customers, negotiating the terms with the manufacturer, accepting the orders and payments and also the delivery of the product.

Purchase Consummation

Once the products to be purchased have been identified, a transaction is carried out between the buyer and the seller. The transaction consists of an exchange of information between the buyer and the seller for the negotiation of terms, confirmation of order, payment and delivery of product/services.

Depending upon the degree of digitization of the delivery and payment, the transactions under different situations may be different. Online transaction is shown below :

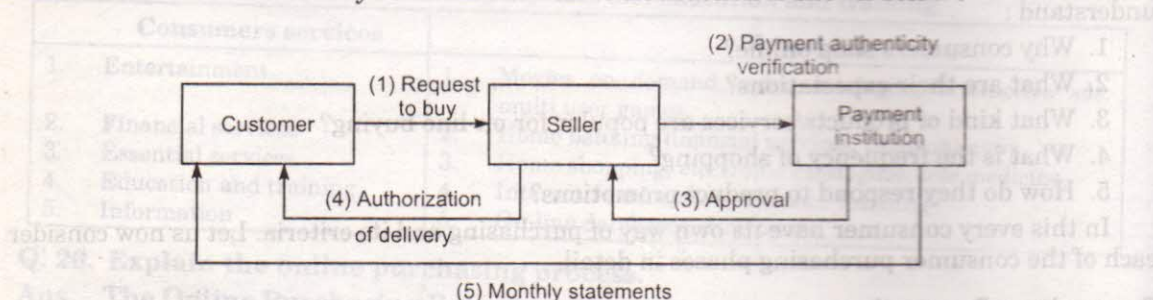


Fig. (b) An online transaction.

The basic flow of transactions are given below :

1. The buyer contacts the seller with a request to buy. This may be through the website of the vendor, e-mail or telephone.
2. Vendor quotes the price, if customer requests.
3. Buyer and seller may enter into negotiations on the price and other terms.
4. Once the terms have been decided, the buyer authorizes payment to the vendor. This may be through encrypted credit card number, or online smart card payment, or electronic cash.
5. The vendor contacts the appropriate payment institution for the verification of the payment authorization.
6. The payment institution approves the payment and gives the vendor a green signal to carry out the delivery.
7. The vendor informs the buyer the details of delivery in case of physical delivery or delivers the product electronically for the digital products.
8. Buyer sends vendor receipt of information or product. In turn the vendor tells the payment institution to complete the transaction.
9. The payment institution bills the buyer periodically.

Based on the above model, the companies or marketers design strategies for the best online services to the customers/buyers.

Q. 27. Discuss consumer oriented e-commerce services.

Ans. **CONSUMER ORIENTED E-COMMERCE SERVICES**

Let us examine some of these services in detail.