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UNIT - I
COMPUTER APPLICATION IN BUSINESS

COMPUTER

A computer is an electronic device, operating under the control of instructions stored in its own memory, that can accept data, process the data according to specified rules, produce results, and store the results for future use. A computer is composed of hardware and software, and can exist in a variety of sizes and configurations.

COMPONENTS OF COMPUTER

A computer contains many electric, electronic, and mechanical components known as hardware. These components include input devices, output devices, a system unit, storage devices, and communications devices.

INPUT DEVICES

Input Devices used to provide data and instructions to the computer are called Input devices. Some important input devices are Key board, Mouse, Scanner, MICR, Web camera, Microphone etc.

1. Keyboard:

The Key board is used for typing text into the computer. It is also known as standard Input device. A computer keyboard is similar to that of a type writer with additional keys. The most commonly available computer keyboard has 104 keys.

2. Mouse:

It is a device that controls the movement of the cursor on a monitor. A mouse will have 2 buttons on its top. The left button is the most frequently used button. There will be a wheel between the left and right buttons. This wheel enables us to smoothly scroll through screens of information.

3. Scanner:

It is an input device that can read text or illustrations printed on paper and translate into digital form. The main advantage of these scanners is that the data need not be entered separately resulting in saving lot of time.

OUTPUT DEVICES

Any device that is capable of representing information on a computer is called an Output device. Output devices receive information from the CPU and present it to the user in the desired form. Some important Output devices are: Monitor, Printer

1. Monitor:

It is similar to TV screen- either a monochrome (black & white) or colour and it displays the output. It is also referred as Visual Display Unit. Several types of monitors are in use. Some of them are Colour Graphic Adapter, Enhanced Graphics Adaptor, Video Graphics Adapter and Super Video Graphics Adapter. The screen sizes differ from system to system.

2. Printers

There are many different types of printers. In large organizations laser printers are most commonly used due to the fact that they can print very fast and give a very high-quality output.



MEMORY OF THE COMPUTER (Central Processing Unit - CPU)

Memory or storage capacity is one of the important components of a computer. Any storage unit of a computer system is classified on the basis of the following criteria:

1. Access time: This is the time required to locate and retrieve stored data from the storage unit in response to program instructions.
2. Storage capacity: It is the amount of data that can be stored in the storage unit.
3. Cost per bit of storage

Units of memory:

The computer stores a character in the storage cells with binary (0,1) mechanism. Thus, the basic unit of memory is a bit (binary digit – 0 & 1). To store a character, a computer requires 8 bits or 1 byte. This is called the word length of the storage unit. Hence the storage capacity of the computer is measured in the number of words it can store and is expressed in terms of bytes.

The different units of measurement are

8 Bits	= 1 Byte
1024 Bytes	= 1 Kilo Byte (KB)
1024 KB	= 1 Mega Byte (MB)
1024 MB	= 1 Giga Byte (GB)

TYPES OF MEMORY:

A computer memory is of two types

1.PRIMARY MEMORY:

Primary memory is also called internal memory and is an important part of a computer. It is the main area in a computer where the data is stored. The stored data can be recalled instantly and correctly whenever desired. This memory can be quickly accessed by the CPU for reading or storing information. Primary memory is further classified into two types: Random Access Memory (RAM) and Read- Only Memory (ROM)

RAM:

RAM is also known as read/write memory as information can be read from and written onto it. RAM is a place in a computer that holds instructions for the computer, its programs and the data. The CPU can directly access the data from RAM almost immediately. However, the storage of data and instructions in RAM is temporary, till the time the computer is running. It disappears from RAM as soon as the power to the computer is switched off.

ROM:

It is called Read-only memory as information can only be read from and not written or changed onto ROM. ROM is the built-in memory of a computer. It stores some basic input – output instructions put by the manufacturer to operate the computer. The storage of data and instructions in ROM is permanent. It does not depend on the power supply.

2. SECONDARY MEMORY:

The primary memory which is faster (and hence expensive) is generally not sufficient for large storage of data. As a result, additional memory, secondary memory is used. It is also referred as backup storage as it is used to store large volume of data on a permanent basis which can be transferred to the primary memory whenever required for processing. Data are stored in secondary storage in the same binary codes as in the main (primary memory) storage.



Some of the devices of secondary storages are Floppy Disk, Hard Disk, CD-ROM, DVD and Flash drive.

CLASSIFICATION OF COMPUTERS

Computers are classified according to the storage capacity, speed and the purpose for which they are developed.

These can be classified into three types:

1. Analog Computes
2. Digital Computers
3. Hybrid Computers

1. Analog computers:

They operate by measuring|| instead of counting. The name (derived from greek word analog) denotes that the computer functions by establishing similarities between the two quantities. They are powerful tools for solving differential equations.

2. Digital Computers:

These computers operate by counting. All quantities are expressed as discrete digits or numbers. These are useful for evaluating arithmetic expressions and manipulations of data.

3. Hybrid Computers:

Computers which combine the features of analog and digital computers are known as Hybrid computers. A majority of the computers that are in use are digital. These computers were essentially developed for computations. Later, the developments in the computers led to the use of digital computers in variety of applications.

ADVANTAGES of computer

1. Multitasking

Multitasking is one of the major advantages of computer. Person can perform multiple task, multiple operation, calculate numerical problems within few seconds. Computer can perform trillion of instructions per second.

2. Speed

Now computer is not just a calculating device. Now a day's computer has very important role in human life. One of the main advantages of computer is its incredible speed, which helps human to complete their task in few seconds. All the operations can be performed very fast just because of its speed otherwise it takes a long time to perform the task.

3. Cost/ Stores huge amount of data

It is a low-cost solution. Person can save huge data within a low budget. Centralized database of storing information is the major advantage that can reduce cost.

4. Accuracy

One of the root advantages of computer is that can perform not only calculations but also with accuracy.

5. Data Security

Protecting digital data is known as data security. Computer provide security from destructive forces and from unwanted action from unauthorized users like cyber attack or access attack.

Destructive – mopTfukhd



DISADVANTAGE OF COMPUTER

1. Virus and hacking attacks

Virus is a worm and hacking are simply an unauthorized access over computer for some illicit purpose. Virus is being transferred from email attachment, viewing an infected website advertisement, through removable device like USB etc.

2. Online Cyber Crimes

Online cyber-crime means computer and network may have used in order to commit crime. Cybers talking and Identity theft are the points which comes under online cyber-crimes.

For example: one may get the access of the access to your shopping account like amazon account now that person will be able to know your personal details like debit card or credit card number which can be than misused.

3. Reduction in employment opportunity

The previous generation did not have access to of computer they faced a big problem when computer came in field. As we have seen in banking sector, senior bank employees faced this problem when computer came to the banking sector

HARDWARE

Hardware refers to the physical components of a computer. Computer Hardware is any part of the computer that we can touch. These are the primary electronic devices used to build up the computer. Examples of hardware in a computer are the Processor, Memory Devices, Monitor, Printer, Keyboard, Mouse, and the Central Processing Unit.

SOFTWARE

Software is collection of instruction, procedures, documentation that performs different tasks on a computer system. We can also say computer software is a programming code executed on a computer processor. The code can be machine level code or the code written for an operating system. Example . Ms word, Powerpoint.

DIFFERENCE BETWEEN HARDWARE AND SOFTWARE

Hardware	Software
Hardware is a physical parts computer that cause processing of data.	Software is a set of instruction that tells a computer exactly what to do.
It is manufactured.	It is developed and engineered.
Hardware cannot perform any task without software.	Software cannot be executed without hardware.
As Hardware are physical electronic devices, we can see and touch hardware.	We can see and also use the software but can't actually touch them.
It has four main categories: input device, output devices, storage, and internal components.	It is mainly divided into System software, Programming software and Application software.
Hardware is not affected by computer viruses.	Software is affected by computer viruses.
It cannot be transferred from one place to another electrically through network.	But it can be transferred.
If hardware is damaged, it is replaced with new one.	If software is damaged, its backup copy can be reinstalled.



**STUDY MATERIAL FOR B.COM
COMPUTER APPLICATION IN BUSINESS
SEMESTER - IV, ACADEMIC YEAR 2020 - 21**



Ex: Keyboard, Mouse, Monitor, Printer, CPU, Hard disk, RAM, ROM etc.

Ex: Ms Word, Excel, Power Point, Photoshop, MySQL etc.

Software:

Software is collection of instructions, Procedures, documentation that performs different tasks on a computer system. We can also say computer software is a programming code executed on a computer Processor. The code can be Machine – Level Code or the code written for an operating System.

Examples:

Ms word, Excel, Powerpoint, Google Chrome, Photoshop, etc.....

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UNIT - II
OVERVIEW OF E-COMMERCE AND E-BUSINESS

E-COMMERCE

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. Examples of E-Commerce Amazon, Flipkart, eBay, Olx, Quikr.

E-COMMERCE MODELS

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,

1. Business to Business (B2B)

Business to business E-Commerce is including all kind of electronic transactions of services or products that happened between two businesses or companies.

2. Business to Consumer (B2C)

Business to Consumer is the establishment of the electronic business relationship between the seller to final customers. This is probably the most common form of E-Commerce. This kind of E-Commerce type usually more dynamic and easier to do. Due to the development of the internet and website, B2C has developed greatly too, and now you can easily find various kind of online store on the internet. They sell all kind of products, such as books, electronics, clothes, to digital products like music, movies, or e-books. People like online shopping more than traditional one due to its simplicity and the price tends to be cheaper too (without including the shipping cost).

3. Consumer to Consumer (C2C)

This kind of E-Commerce includes all electronic transactions of products or services between the customer and another customer. Usually, this can happen with the third party helps, for example, eBay as a marketplace for online action.

4. Consumer to Business (C2B)

Consumer to business is a kind of business model where the final users or the customers create a product or service that a company uses to complete their business process or gain competitive advantage.

For example, sites where freelance designers offer their service for logo creation, and any company is free to use their service if they need it.

5. Business to Administration (B2A)

Business to Administration or B2A covers any kind of transactions that carry out between business and government with the internet as their medium. It includes a large variety of services, such as social security, fiscal, legal documents, employments, etc.

6. Consumer to Administration (C2A)



Consumer to Administration includes all kind of transactions that happen between the consumer with the government.

Examples: Education, Taxes, Social security, Health

BENEFITS OF E-COMMERCE:

Low costs

An important benefit of ecommerce is that starting a website is anytime less expensive than a physical outlet. You do not have to furnish your outlet, no need to pay rent and hire several employees to work in it. The cost of marketing and promotional strategies is also low. One of its main Benefits of Ecommerce is the absence of middleman that reduces the cost price to a greater degree. As a direct link is established between buyer and seller the portal is able to create an effective supply chain.

Flexibility and speed

An individual or a company can easily open an online store within a few days whereas a physical outlet needs space, commercial leasing procedure as well as ample construction and decoration time for its opening. It is possible to change displays and product offerings within minutes in an e-commerce site whereas you need proper planning and ample time and manpower to do so in physical stores.

Speeds up the buying process

Earlier a customer had to pre-plan his shopping trip even if he wanted to buy a specific thing. It would mean rearranging his schedule and going to the outlet to make the purchase. One of the main benefits of ecommerce is that it speeds up the buying process. A visit to the outlet which is very far from your home and will waste nearly two to three hours of your time is no longer necessary. Just sit back in the comfort of your home or even your office, search for the product and make a purchase.

Time savings

The online stores are open 24*7 hence you can use it as per your convenience. E-commerce helps the customer to buy a particular product easily without wasting his time by giving him access to a wide range of choices. You are also saving traveling time as the product is being delivered at the destination of your choice.

A comprehensive description of products

Customers are on the look-out for a comprehensive description of the products they want to buy and it is one of the major benefits of ecommerce. An e-commerce portal offers its customers a product catalogue that has data sheets featuring all the useful information about its products and services.

Easy availability through search engines

There is a huge difference between the physical and online stores if you are looking for benefits of ecommerce. The first thrives because of its branding and the second on the large traffic from search engines. With the advent of the internet, the consumer has become more street smart and advanced. He realizes the importance of online shopping and has been using search engines to find products and services at his convenience. A physical store is in most cases limited to a single area whereas the search engines allow the worldwide audience in its portal.



Technology at its best

An important benefit of ecommerce is that it is using technology for its own advantage. As the systems are computerized it becomes easy to maintain its working order without the tension of getting tired or becoming slow by the end of the day. Technology helps to make viable comparisons of the products and their rates and specifications which is not possible in physical outlets hence the use of technology makes online portals accurate, effective and efficient in their dealings with their customers.

Reduce the cost

If you are looking for one of the benefits of ecommerce then it can easily save time and reduce its inventory cost when compared with physical stores. The online portal offers features and facilities that automate several responsibilities. It introduces a web-based system through which the website can automate and manage inventory by itself and thus reduce the operating cost.

Encourages impulse to buy

An online site has information on the buying habits of its customers. It knows that there are several products that the consumer is interested in buying but is unable to do so. One of the benefits of e-commerce portal is that it can keep its eyes on these potential targets and offer several schemes and discounts that prompt the customers to make an impulse buy.

The website makes its products more attractive with colour options and images so that the customer is tempted to make a purchase.

Availability of reviews

Online sites encourage reviews from its customers to know about customer satisfaction and what problems they are facing while using the products and services. One of the benefits of e-commerce is the availability of these reviews on its online sites so that potential customers can read about it and understand whether the product is suitable for their particular needs.

LIMITATIONS OF DISADVANTAGES OF E-COMMERCE

Though e-commerce offers many advantages to customers, business, society and nation, there are still some areas of concern that need to be addressed. The following are some of the limitations or disadvantages of e-commerce.

Security

The biggest drawback of e-commerce is the issue of security. People fear to provide personal and financial information, even though several improvements have been made in relation to data encryption. Certain websites do not have capabilities to conduct authentic transactions. Fear of providing credit card information and risk of identity limit the growth of e-commerce.

Lack of privacy

Many websites do not have high encryption for secure online transaction or to protect online identity. Some websites illegally collect statistics on consumers without their permission. Lack of privacy discourages people to use internet for conducting commercial transactions.

Tax issue



Sales tax is another bigger issue when the buyer and seller are situated in different locations. Computation of sales tax poses problems when the buyer and seller are in different states. Another factor is that physical stores will lose business if web purchases are free from tax.

Fear

People fear to operate in a paperless and faceless electronic world. Some of the business organizations do not have physical existence, People do not know with whom they are conducting commercial transactions. This aspect makes people to opt physical stores for purchases.

Product suitability

People have to rely on electronic images to purchase products. Sometimes, when the products are delivered, the product may not match with electronic images. Finally, it may not suit the needs of the buyers. The lack of 'touch and feel' prevent people from online shopping.

Cultural obstacles

E-commerce attracts customers from all over the world. Habits and culture of the people differ from nation to nation. They also pose linguistic problems. Thus, differences in culture create obstacles to both the business and the consumers.

High Labour cost

Highly talented and technically qualified workforce are required to develop and manage the websites of the organization. Since internet provides a lot of job opportunities, business organizations have to incur a lot of expenses to retain a talented pool of employees.

Legal issues

The cyber laws that govern the e-commerce transactions are not very clear and vary from country to country. These legal issues prevent people from entering into electronic contracts.

Technical limitations

Some protocol is not standardized around the world. Certain software used by vendor to show electronic images may not be a common one. It may not be possible to browse through a particular page due to lack of standardized software. Insufficient telecommunication bandwidth may also pose technical problems.

Huge technological cost

It is difficult to merge electronic business with traditional business. Technological infrastructure may be expensive and huge cost has to be incurred to keep pace with ever changing technology. It is necessary to allocate more funds for technological advancement to remain competitive in the electronic world.

E-BUSINESS

Electronic Business, shortly known as e-business, is the online presence of business. It can also be defined as the business which is done with the help of internet or electronic data interchange i.e. is known as E-business. E-commerce is one of the important components of e-business, but it is not an essential part.



E-business is not confined to buying and selling of goods only, but it includes other activities that also form part of business like providing services to the customers, communicating with employees, client or business partners can contact the company in case if they want to have a word with the company, or they have any issue regarding the services, etc. All the basic business operations are done using electronic media.

There are two types of e-business, which are:

- **Pure-Play:** The business which is having an electronic existence only. **Example:** Hotels.com
- **Brick and Click:** The business model, in which the business exists both in online i.e. electronic and offline i.e. physical mode.

DIFFERENCE BETWEEN E-COMMERCE AND E-BUSINESS

BASIS FOR COMPARISON	E-COMMERCE	E-BUSINESS
Meaning	Trading of merchandise, over the internet is known as E-commerce.	Running business using the internet is known as E-business.
What is it	Subset	Superset
Is it limited to monetary transactions	Yes	No
What they carry out	Commercial transactions	Business transactions
Approach	Extroverted	Ambivert
Requires	Website	Website, CRM, ERP, etc.
Which network is used	Internet	Internet, Intranet and Extranet.

ONLINE TRADING

In finance, an **electronic trading platform** also known as an **online trading platform**, is a computer software program that can be used to place orders for financial products over a network with a financial intermediary. Various financial products can be traded by the trading platform, over a communication network with a financial intermediary or directly between the participants or members of the trading platform. This includes products such as stocks, bonds, currencies, commodities, derivatives and others, with a financial intermediary, such as brokers, market makers, Investment banks or stock exchanges. Such platforms allow electronic trading to be carried out by users from any location and are in contrast to traditional floor trading using open outcry and telephone based trading. Sometimes the term trading platform is also used in reference to the trading software alone.

Electronic trading platforms typically stream live market prices on which users can trade and may provide additional trading tools, such as charting packages, news feeds and account management functions. Some platforms have been specifically designed to allow individuals to gain access to financial markets that could formerly only be accessed by specialist trading firms. They may also be designed to automatically trade specific strategies based on technical analysis or to do high-frequency trading. Electronic trading platforms are usually mobile-friendly and available for Windows, iOS and Android



COMPARISON BETWEEN TRADITIONAL COMMERCE AND ELECTRONIC COMMERCE

BASIS FOR COMPARISON	TRADITIONAL COMMERCE	E-COMMERCE
Meaning	Traditional commerce is a branch of business which focuses on the exchange of products and services, and includes all those activities which encourages exchange, in some way or the other.	e-Commerce means carrying out commercial transactions or exchange of information, electronically on the internet.
Processing of Transactions	Manual	Automatic
Accessibility	Limited Time	24×7×365
Physical inspection	Goods can be inspected physically before purchase.	Goods cannot be inspected physically before purchase.
Customer interaction	Face-to-face	Screen-to-face
Scope of business	Limited to particular area.	Worldwide reach
Information exchange	No uniform platform for exchange of information.	Provides a uniform platform for information exchange.
Resource focus	Supply side	Demand side
Business Relationship	Linear	End-to-end
Marketing	One-way marketing	One-to-one marketing
Payment	Cash, cheque, credit card, etc.	Credit card, fund transfer etc.
Delivery of goods	Instantly	Takes time



UNIT - III
CONSUMER ORIENTED E-COMMERCE APPLICATION

Consumer oriented e-commerce application

- Consumer oriented application
- Mercantile process model
 1. Mercantile model from the consumers perspective
 2. Mercantile model from the merchant's perspective

CONSUMER ORIENTED APPLICATION:

Consumer oriented application Categories: Personal finance management Home shopping Home entertainment Micro-transaction of information. Personal finance management: it includes the technology for paying bills, whether by computer or telephone, to manage the increasing complexity of household finances Home banking services are used. Home banking services are categorized as Basic, Intermediate and advanced. Basic Services: the basic service of home banking is ATM, banks introduced ATMs in 1970s to automate two functions: Deposits and Cash extraction. ATM network can be thought of as analogous to the internet with banks and their association being the routers and ATM machine being the heterogeneous computers on the network.

Intermediate Service:

The problem associated with home banking is expensive service, it requires a PC ,a modem and special software, these problems are solved by intermediate service using QDPMM(Quick and Dirty personal money management) which allows you to pay the bills and reconcile your checking accounts, reconcile your credit card accounts, move money between investment accounts.

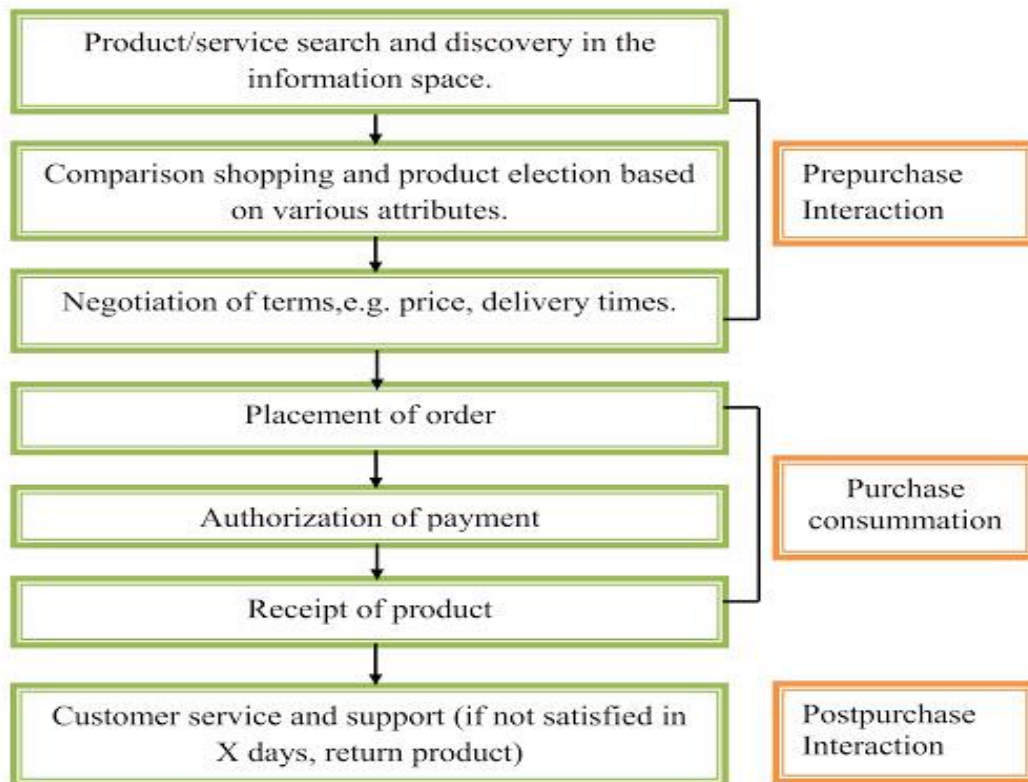
Advanced service:

Range of services that may will be offerd by banks in future, these services range from online service to real time financial information from anywhere in world .Some of these services are already being offered and others are planned for future, although these are simple but they require extraordinary integration of computer system at branch, Central office and partners level Third party service (airline, traveller check) Bill payment interbank clearing house Real time financial information Investment vehicles (Stock,MF) Online shopping services Bank server Transaction request Consumer at home.



Mercantile process model:

Mercantile model from the consumer's perspective



It defines interaction models between consumers and merchants for on-line commerce. This is necessary because to buy and sell goods, a buyer, and other parties must interact in ways that represent some standard business process. The business process model from a consumer's perspective consists of seven activities that can be grouped into three phases:

1. Pre-purchase determination
2. Purchase Consummation
3. Post purchase interaction

Mercantile process model Product/service search and discovery in the information space Comparison shopping and Products selection based on various attributes Negotiation of terms, Ex: Price, delivery time Placement of order Authorization of payment Receipt of product Customer service and support (if not satisfied in X days, return product) Fig: Mercantile models from the consumer's perspective. Pre-purchase determination Purchase consummation Post purchase interaction

Pre-purchase preparation phase:

It includes search and discovery for a set of products in the larger information space capable of meeting customer requirements and product selection from the smaller set of products based on attribute comparison.

Purchase consummation phase:

It includes mercantile protocols that specify the flow of information and documents associated with purchasing and negotiation with merchants for suitable terms, such as price, availability and delivery dates, and e-payment mechanisms that integrate payment into the purchasing process.



Post purchase interaction phase:

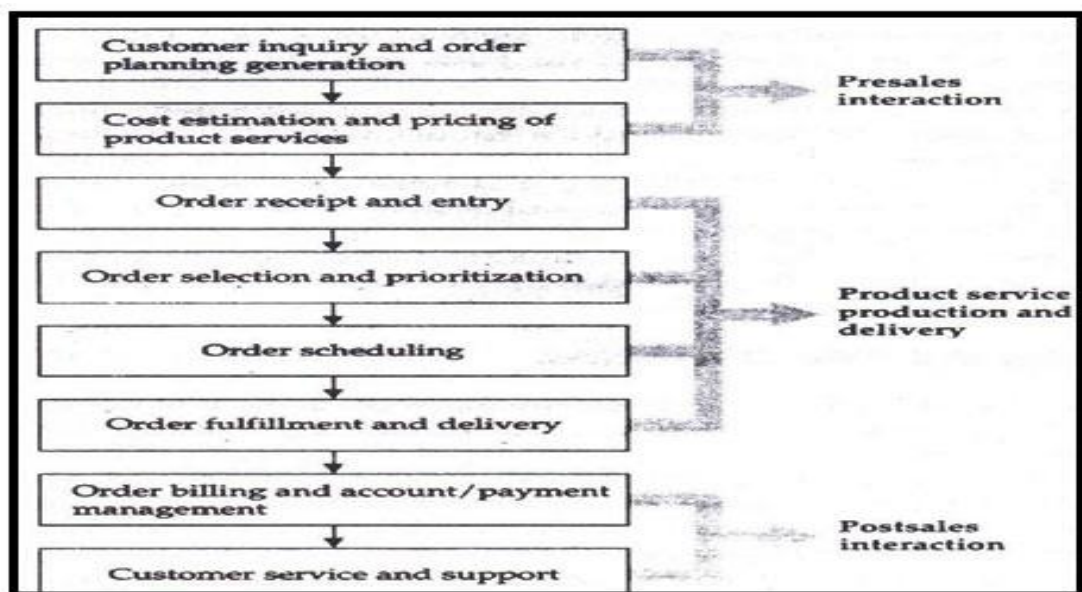
It includes customer services and support to address customer complaints, products return and product defects. Customer with need Merchant Payment institution.

- 1 Buy request
- 2 Remittance request
- 3 approval
- 4 delivery
- 5 Monthly statement

Mercantile model from the merchant's perspective

Customer inquiry and order planning generation Cost estimation and pricing of product services Order receipt and entry Order selection and prioritization Order scheduling Order fulfilment and delivery Order billing and account /payment management. Customer service and support Presales Product service production and delivery Post sales interaction Fig. Order management cycle in e-commerce.

Mercantile model from the merchant's perspective the order to delivery cycle from the merchants perceptive has been managed with an eye toward standardization and cost. To achieve this model, it is necessary to examine OMC (order management cycle) with following steps: Order planning and order generation Cost estimation and pricing. Order receipt and entry. Order selection and posterization Order scheduling. Order fulfilment delivery. Order billing and account /payment management. Post sales services.



Order planning & order Generation

- Order planning leads to order generation
- Orders are generated in a no. of ways in the e-commerce environment.
- The sales force broadcasts ads (direct marketing), sends personalized e-mail to customers (cold calls), or creates a WWW page

Cost Estimation & pricing

- Pricing is the bridge between customer needs & company capabilities.
- Pricing at the individual order level depends on understanding the value to the customer that is generated by each order, evaluating the cost of filling each order;



& instituting a system that enables the company to price each order based on its value & cost

Order Receipt & Entry

- After an acceptable price Quote, the customer enters the order receipt & entry phase of OMC.
- This was under the purview of departments variously titled customer service, order entry, the inside sales desk, or customer liaison.

Order Selection & Prioritization

- Customer service representatives are also often responsible for choosing which orders to accept and which to decline.
- Not, all customers orders are created equal; some are better for the business.

Order Scheduling

- In this phase the prioritized orders get slotted into an actual production or operational sequence.
- This task is difficult because the different functional departments- sales, marketing, customer service, operations, or production- may have conflicting goals, compensation systems, & organizational imperatives.
- Production people seek to minimize equipment changeovers, while marketing & customer service reps argue for special service for special customers.

Order Fulfillment & Delivery

- In this actual provision of the product or service is made.
- It involves multiple functions and locations.

Order Billing & Account/Payment Management

- After the order has been fulfilled & delivered, billing is given by finance staff.
- The billing function is designed to serve the needs and interests of the company, not the customer.

Post-sales Service

- This phase plays an increasingly important role in all elements of a company's profit equation: customer, price, & cost.
- It can include such elements as physical installation of a product, repair & maintenance, customer training, equipment upgrading & disposal.
- The newest technologies are direct deposit of payroll, on-line bill payment and telephone transfers

E-PAYMENT

An e-payment system is a way of making transactions or paying for goods and services through an electronic medium, without the use of checks or cash. It's also called an electronic payment system or online payment system.

The electronic payment system has grown increasingly over the last decades due to the growing spread of internet-based banking and shopping. As the world advances more with technology development, we can see the rise of electronic payment systems and payment processing devices. As these increases, improve, and provide ever more secure online payment transactions the percentage of check and cash transactions will decrease.

ADVANTAGES OF USING ELECTRONIC PAYMENT SYSTEM

Time savings



During Electronic payment system you do not have to spend and waste a lot of time standing in lines of banks and post office and then your transaction would take hours or days to be done. Using e-payment system you can make funds transaction in few minutes with waste of no time.

Expenses control

Manage expenses with e-payment system Using electronic payment system would allow you to have your electronic wallet where all the expenses and transactions history is recorded on your account. So, it is easy to control and manage your expenses with e-payment system rather than paying by cash while you have no control unless you keep a writing record of your daily expenses which is of course difficult.

Reduced risk of money lost

Electronic wallets are virtual it cannot be left somewhere or even robbed by someone. You just need to make sure you have a secure e-payment account and then you do not have to be worry to forget your virtual wallet somewhere or you be the victim of robbery. E-payment eliminates the security risks that come with handling cash money.

Low Transaction Costs

Electronic payment system, you will face no additional charges for making a cash payment. It can cost you money to get to store to purchase something and also checks postage can be costly too. Generally, there are small fees or sometime no fees for swiping your card and make a payment through your e-payment account online. This can save a lot of money spent on transaction fees for both regular users and business owners.

High Speed and increased Convenience

Traditional payment methods like cash and cheque cannot be used at any time on day or night while using electronic payment system you can pay for goods and services online at any time anywhere in the world as you wish so. Customers do not have to spend time to get to the store or service provider and also, they do not have to stand in online to make payment. Users do not have to wait for cheque to access the fund they need to purchase anything. All the fund transfers can be performed at anytime, anywhere with high speed and in a few minutes without waste of time since all you need to have is access to the Internet.

Customer service

Since electronic payment services try to reach widest possible users, they try to provide strong user interface. Using these services, you always are able to ask a question about your account or issues you face from the support team. Customer support usually works 24 hour 7 days a week and you will get answer to your questions as soon as possible. Businesses which use electronic payment would also offer users refund in special cases so you do not have to worry if you pay for something wrong.

Low spend on paper and postage

One of the advantages of electronic payment system is that it lowers costs for papers and lowers the cut of trees. The more payments are processed electronically, the less money and trees are spent on paper and postage.



Increased Sales

Electronic payment has become a successful alternative for traditional payment and it is increasingly becoming the preferred payment option for customer when they want to purchase goods or services. The number of people who carry cash and use it for shopping has decreased all over the world. So, using e-payment system enables businesses and brands to make sales to the customers who has moved to electronic payments while they are taking over those customers that are still using traditional methods.

Last minute deals

Last minute deals are considerable in using of electronic payment system. It happens when business owners throw cost-saving deals to encourage more customers. With electronic payment service on the site, a customer can grab a deal even at the last minute and this would cause sale increasing.

Ease of adding electronic payment service

You don't need any special knowledge or experience to add payments to your website if you own a brand or business. Even a non-technical person may implement it in minutes and start providing customers online payments and enjoy the advantages and increased sale.

Influences of electronic payment on costumers

An online payment method may influence customers to purchase items or services on the website. Since the transaction is quick and easy, and it can be done via credit cards, buyers are going to grab the deal in most cases. So, an electronic payment system can be very useful.

Credit card payment

Online payment services customers can use credit cards to make payments, even though they don't have money in their bank account. You can also break down the payment into several payments if your product or service is expensive. By this you will get the chance to increase your sale.

Instant Payment

If you use electronic payment system for selling items or services, they are able to make the payment in few minutes and on the other hand you will receive it as fast.

Save money

Electronic payment system work to significantly improve businesses and optimize workflow while it can save your business a lot of money by reducing expenses spent on time, work and papers. It also would prevent fraud and improve data accuracy so that you would be able to make efficient financial decisions.

Limitation of E- Payment

Security:

One of the main limitations of ecommerce is security. In most cases, people are hesitant to provide their personal and financial details in spite of advanced data encryption security systems in place. Moreover, there are some websites that do not have the capability and features installed to authenticate transactions. As such, there are instances of fraudulent activities. The fear of providing financial information like credit card details hinders the growth of ecommerce.



Lack of Privacy:

To some extent, the privacy of a customer is compromised in ecommerce. You need to provide your personal details, such as address, telephone number, and so on to the seller. There are still lots of sites that do not have the advanced technology to protect sensitive information. Moreover, there are also sites that illegally collect consumer statistics without permission. This is one reason why people get sceptical while using ecommerce.

Tax Issue:

In case of different geographical locations, sales tax becomes an issue. Many a time seller have faced problems in the computation of sales tax. Moreover, physical stores have a risk of losing business if online transactions are exempted from taxation.

Fear:

In spite of popularity, there still resides an element of doubt in the mind of people when it comes to online shopping. This is because the customer cannot physically examine the product and is not sure about the features and attributes. This is why a lot of people prefer shopping from physical stores.

Product Suitability:

As already mentioned, it is not possible for people to physically examine the product in ecommerce. In many cases, the original product may not match with the picture or specifications in the ecommerce site. This absence of 'touch and feel' creates a discouraging effect.

Cultural Obstacles:

As the process of ecommerce encompasses customers across the globe, the habits, traditions, and culture differ. There may also be linguistic problems and all these may lead to issues between the seller and buyer.

High Labour Cost:

In order to get the whole ecommerce and delivery process right, a specialized workforce is required. To get all these in the right shape, companies have to shed a good amount of money and employ a talented pool of people.

Legal Issues:

A lot of legal compliances and cyber laws that need to be taken care of in an ecommerce business. These regulations may vary from country to country. All these reasons deter businesses from going electronic.

Technical Limitations:

E-commerce requires advanced technology platforms for better performance. Some limitations, such as lack of proper domain, network and software issues and so on can affect the seamless performance of an ecommerce site.

Huge Technological Cost:

Last but not the least; a lot of money needs to be invested to be built up the technical infrastructure needed to run an ecommerce business. Moreover, they need to be upgraded based to keep abreast with the changing technology.



MODES OF E-PAYMENT

When you purchase goods and services online, you pay for them using an electronic medium. This mode of payment, without using cash or cheque, is called an e-commerce payment system and is also known as online or electronic payment systems. The growing use of internet-based banking and shopping has seen the growth of various e-commerce payment systems and technology has been developed to increase, improve and provide secure e-payment transactions. Paperless e-commerce payments have revolutionised the payment processing by reducing paper work, transaction costs, and personnel cost. The systems are user-friendly and consume less time than manual processing and help businesses extend their market reach.

Credit Card

The most popular form of payment for e-commerce transactions is through credit cards. It is simple to use; the customer has to just enter their credit card number and date of expiry in the appropriate area on the seller's web page. To improve the security system, increased security measures, such as the use of a card verification number (CVN), have been introduced to on-line credit card payments

Debit Card

Debit cards are the second largest e-commerce payment medium in India. Customers who want to spend online within their financial limits prefer to pay with their Debit cards. With the debit card, the customer can only pay for purchased goods with the money that is already there in his/her bank account as opposed to the credit card where the amounts that the buyer spends are billed to him/her and payments are made at the end of the billing period.

Smart Card

It is a plastic card embedded with a microprocessor that has the customer's personal information stored in it and can be loaded with funds to make online transactions and instant payment of bills. The money that is loaded in the smart card reduces as per the usage by the customer and has to be reloaded from his/her bank account.

E-Wallet

E-Wallet is a prepaid account that allows the customer to store multiple credit cards, debit card and bank account numbers in a secure environment. This eliminates the need to key in account information every time while making payments. Once the customer has registered and created E-Wallet profile, he/she can make payments faster.

Net banking

This is another popular way of making e-commerce payments. It is a simple way of paying for online purchases directly from the customer's bank. It uses a similar method to the debit card of paying money that is already there in the customer's bank. Net banking does not require the user to have a card for payment purposes but the user needs to register with his/her bank for the net banking facility. While completing the purchase the customer just needs to put in their net banking id and pin.

Mobile Payment

One of the latest ways of that making online payments are through mobile phones. Instead of using a credit card or cash, all that the customer has to do is send a payment request to his/her service provider via text message the customer's mobile account or credit card is



charged for the purchase. To set up the mobile payment system, the customer just has to download a software from his/her service provider's website and then link the credit card or mobile billing information to the software.

Amazon Pay

Another convenient, secure and quick way to pay for online purchases is through Amazon Pay. Use your information which is already stored in your Amazon account credentials to log in and pay at leading merchant websites and apps. Your payment information is safely stored with Amazon and accessible on thousands of websites and apps where you love to shop.

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UNIT - IV

ELECTRONIC DATA INTERCHANGE

EDI Definition

EDI stands for Electronic Data Interchange. EDI is an exchange of data or business documents between two or more businesses using a standardized electronic format, without human intervention. It is mostly used by large businesses to carry out their business process over a secured network with accuracy and in less time.

- 1) Purchase order (PO)
- 2) Sales order (SO)
- 3) Invoice
- 4) Advance Ship Notice (ASN)
- 5) Functional Acknowledgement

Each company has their own format of sending these documents. Suppose we have two companies A and B. Company A sends its purchase order (PO) to company B. As the format of the document is different for the Company B, it will manually read the data from PO sent by Company A and create a Sales order (SO) from it in order to carry out further processes. EDI provides the data exchange formats and reduces the manual intervention in the process.

Benefits of EDI

1) Expedite transmission

Information is transmitted from one organization to another organization efficiently and swiftly.

2) Automated Data entry

Data is entered automatically by EDI software. For instance, when purchase order (PO) from one company is received by another company. Sales order (SO) is automatically generated at other company's system with the help of EDI software.

3) Receipt verification

Receipt verification can easily be done with help of EDI software. No human intervention is involved so there are minimal chances of error or delay.

4) Data Validation

Data validation is automatically done.

5) Availability of free software

Free software's are available depending upon the EDI format chosen. For example- In TRADACOMS EDI format, Price Information file and order files are available for free.

6) Low cost

Lower administrative, resource and maintenance cost.

7) Faster processing

With the help of EDI, business processes can be executed at a much faster rate as compared to the traditional method sending information.

8) Building long-term relationships



EDI helps in building long term relationships with trading partners and hence helps in business growth.

9) Reduction in error

EDI has discarded manual data entry and paperwork. So there are minimal chances of error.

DRAWBACKS OF EDI

Expensive

Setup and maintenance of some of the formats of EDI is expensive.

Initial setup is time consuming

Initial cost to setup EDI is time consuming.

EDI standard changes

The business process depends on EDI standard format. If any of the standard format changes then the business process has to be changed accordingly.

System electronic protection

An EDI enabled system needs electronic protection from viruses, hacking, malware and other frauds.

Staff training cost

Staff needs training in order to run EDI enabled software. Investment has to be done in training.

Proper backup

Proper backup should be maintained as the whole data depends on EDI. In case of any crash of EDI system, proper backup has to be maintained and extra cost is required for it.

Limit your trading partners

Some organization stops doing business which don't use EDI. For instance, Wal-Mart prefers to do business only with those organization which uses EDI

PARTIALLY INTEGRATED EDI SYSTEM

In a Partially Integrated EDI System, the process begins the same as in a non-EDI system. A purchase requisition is completed by the requesting department and submitted to the purchasing department. A purchasing agent reviews the purchase requisition. Again, if other similar requests have been received, then the requisitions may be combined to take advantage of quantity discounts. The purchasing agent then manually reviews the available vendors for price and inventory availability. Once a vendor is selected, the partially integrated EDI system differs from the non-EDI system.

The purchasing agent does not manually complete a purchase order, but logs onto a computer system that displays a computerized purchase order form. The agent keys in the appropriate data and submits it. Because the purchasing agent does not manually fill out a form and then submit it to data processing, the chance for a clerical error in data entry is reduced. Once the electronic purchase order is submitted, the data is transferred to a VAN and then channelled from there to the appropriate vendor's mailbox.



The vendor retrieves its order form the VAN and a sales order is automatically generated. Because another data entry setup is removed, the chance for a data entry error to occur at this point is eliminated since no additional data entry is required to convert the purchase order to a sales order. A credit checking procedure is most likely conducted by the EDI system at this point. The electronic system notifies the warehouse personnel to ship the goods from the warehouse.

FULLY INTEGRATED EDI SYSTEMS:

Fully Integrated Systems EDI systems encompass electronic data sharing throughout all aspects of the purchasing and payments cycle. The processing of the actual payment and remittance advice is called Financial EDI. Fully integrated EDI including financial EDI provides firms with the greatest cost. The fully integrated EDI system allows the purchasers computer system to electronically check inventory levels and production schedules to determine whether the requested item in stock or when it scheduled to be produced.

IMPORTANCE OF EDI

EDI service arrangement provides the different features, which further becomes the benefits of EDI.

1. Business Opportunities:

EDI service greatly increases the business opportunities, not only with the government, but also with many private sector trading partners through wider diffusion of procurement information.

2. Quality:

To improve the quality in the EDI service arrangement by keeping the better record arrangement, removing the errors in the data and reducing the processing time are the major factors. Also, less reliance on human interpretation of data and the minimized unproductive time can improve the quality.

3. Reduced Inventory:

Reduces need for inventory frees capital. EDI makes its faster and more accurate filling of orders, helps reduce inventory and assists you in "Just-In-Time" inventory arrangement.

4. Lower Mailing Cost:

EDI service arrangements lower the mailing costs. There is reduction in the mail room sorting/distribution time, elimination of lost documents, reduction of postage and other mailing costs.

5. Reduce Order Time:

EDI is much fast in processing the order and the EDI service arrangement make it faster to make the term EDI more efficient. This is high customer satisfaction with faster response to orders with less paper to handle. Using the EDI service arrangement can do also faster billing. Also, orders are faster, so deliveries of goods are faster and enhance the performance of the EDI service arrangement.

6. Better Information:



To make the decision good, of accurate information is needed, which can be only be provided by the EDI service arrangement. As the dramatic growth of electronic commerce on the Internet, the concept of using the Internet for EDI has become the hottest idea of the industry.

EDI VS EMAIL

Email:

1. E-mail is an acronym of electronic mail
2. E-mail system is basically used for sending message electronically to individuals or group of individuals in an inter and intra office environment. It requires network to connect them.
3. One of the advantages of E-mail is that it gives users ability to review, respond message quickly.
4. No processing of the message received.

EDI

1. EDI is an acronym of Electronic Data interchange
2. EDI is the inter-organisational exchange of business documentation in structured, machine process able form.
3. EDI provides communication between trading partners that agree to exchange EDI transactions.
4. EDI eliminates the paper documents associated with common business transactions.
5. EDI message can be immediately processed by receiving computer without any human intervention or interpretation or re-keying.

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UNIT - V

E- MARKETING TECHNIQUES

E-MARKETING

Internet has emerged as the biggest market place in the last few years. Prospective buyers generally browse through the internet when in need of something or when they want to know more details of something. The volume of internet transaction is increasing every day. The shopping patterns of the people have changed due to internet invasions. Internet is a new dynamic vehicle to influence buyers. It enables extensive coverage, as it has the potential to reach global market at a rapid rate. The tremendous success of Microsoft, google, yahoo and amazon provided confidence to business organisations and marketers to adopt e-marketing along with their conventional methods to attract and retain customers.

Advantage of E-Marketing

- Internet provides 24 hours and 7 days “24/7” service to its users. So, you can build and make customers relationships worldwide, and your customer can shop or order product at any time.
- The cost of spreading your message on internet is zero. Many social media sites like Facebook, LinkedIn and Google plus allow you freely advertise and promote your business.
- You can easy and instantly update your registered customers or subscribers through email.
- Visitors or potential customers of your website can get up to the minute information on each visit.
- If you are having a sale, your customers can start shopping at the discounted prices literally as soon as they open their email.
- If a company has an information sensitive business, like a law firm, newspaper or online magazine, that company can also deliver its products directly to customers without having to use a courier

Disadvantages of E-Marketing

- If you want a strong online advertising campaign you have to spend money. The cost of web site design, software, hardware, maintenance of your business site, online distribution costs and invested time, all must be factored into the cost of providing your service or product online.
- Almost over 60% of households now a day shop online. While that numbers are continuously growing, your company needs to reach maximum people.
- Some people prefer the live interaction when they buy any product. And if your company has a small business with one location, this may also deter customers from buying who lives on long distances.
- Your company should have updated information on your site. This requires research and skills and thus timing of updates is also critical.
- Is your company web site secure? There are many incorrect stereotypes about the security of the internet. As a result, many visitors of your business web site will not want to use their credit card to make a purchase. So there is a fear in the minds of your visitors of having their credit card stolen.

Product



Product refers to the products and services offered by a business. Product decisions include function, packaging, appearance, warranty, quality, etc. Customers need to understand the features, advantages, and benefits that can be enjoyed by buying the goods or services. When thinking about a product, consider the key features, benefits, and the needs and wants of customers.

Price

Price refers to the pricing strategy for products and services and how it will affect customers. Pricing decisions do not include just the selling price, but also discounts, payment arrangements, credit terms, or any other price-matching services offered. When determining a pricing strategy, it is important to consider the business's position in the current marketplace. For example, if the business is advertised as a high-quality provider of mechanical equipment, the product pricing should reflect that.

Promotion

Promotion refers to the activities that make the business more known to consumers. It includes items such as sponsorships, advertising, and public relations activities. Since promotion costs can be substantial, it is essential to conduct a break-even analysis when making promotion decisions. It is important to understand the value of a customer and whether it is worth conducting promotions to acquire them.

Place

Place refers to where the product/service of the business is seen, made, sold, or distributed. In essence, place decisions are associated with distribution channels and ways of getting the product to target key customers. It is important to consider how accessible the product or service is and ensure that customers can easily find you. The product or service must be available to customers at the right time, at the right place, and in the right quantity. For example, a business may want to provide their products over an e-commerce site, at a retail store, or through a third-party distributor.

People

People refer to the staff, sales people, and those who work for the business. The decision of the people are usually centered around customer service – how do you want your employees to be perceived by customers.

E-ADVERTISING

American marketing association defines advertising as “any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor”. Advertising on the internet is called online advertising or e-advertising. Customer buying goods through online have rapidly increased due to the penetration of internet. Due to convenience and cost savings, consumer prefer to buy goods through internet. So, at this stage, it is essential for companies to attract and retain customers through internet or web.

ADVERTISING TECHNIQUES

Advertising Banners

Advertising banners are the most common form of Internet advertising. They rent advertising space in websites and are usually visible on the upper or lower section of a page. Most banners are click-through, linking to the web page of the advertiser. While planning, attention must be paid to file size, as it affects the time necessary for an advertisement to load



on the user's computer. The size of image files should be between 7KB and 10KB. The smaller the size of a file, the faster it loads. Advertising banner designers pay a lot of attention to image sizes, as slow loading can make viewers impatient and change their web location before the banner has fully loaded.

Sponsorships

Sponsorship Companies that support a website financially or cooperate with the company that has it can be advertised directly or indirectly. Sponsorships can form an effective means of communication with the target group. The advertised message is channelled along with the main content of the website and gives the impression that the website approves of the advertised products. Such promotion, for example, can be achieved by preferential treatment of the sponsor in the market directories of large search engines. Similar practice is followed also in other media, where certain products are indirectly shown, as in the shopping columns of magazines.

Splash screens

A splash screen is a starting web page used to attract attention for a short time, before directing to the website's home page, or used to inform users of the type of advertising or other software that is required in order to view the page. The great advantage of splash screens compared with other advertising methods is that one can create modernistic multimedia effects or provide plenty of information on a single visit.

Renting space

Search engines often provide advertising space in their home page. The duration of advertising space use depends on the agreement made between the host of a website and the renter. As opposed to advertising banners that appear at various times, advertising space for rent will always be available. In this way, the competition is reduced. The disadvantage of renting space is that the size of the advertisement is often small and limited, resulting in many viewers losing their willingness, plus the fact that costs can be very high.

Coupons

A growing trend among retailers is to offer printable coupons on websites. You can put these on your website, or place them on other sites where you think your customers might visit. Some marketers of online coupons offer consumers many different coupons at one site. You can sign up to have your coupons included for a fee or at no cost. With the no-cost method, the person advertising your coupon sells the coupon to the consumer, keeping the money from the sale of your coupons. This gets customers into your place of business at no cost, other than the coupon value.

AdWords

Google offers advertisers a lead-generation system through its AdWords program. You choose key words people use during Internet searches and pay for your ad to appear on pages associated with those words. For example, if you sell bread, your Google ad will appear on pages with relevant content, such as those with the words, "sandwich," "bread" or "whole wheat."

Websites

A website is an online advertisement that allows you to deliver a complete message or messages to current and potential customers. Even if you provide a variety of information on



your site, you are still presenting an image and providing information to the public. Videos you can embed video into the pages of websites to demonstrate a product or service using pictures and sound. In addition to placing video on your website, you can create short 10- or 15-second ads that appear at the beginning of other websites' videos.

Social Media

Getting consumers to spread the word about your product or service helps to give your business credibility. Consumers are more likely to trust a product their friends have used than one they've only seen advertised. Many businesses use Facebook, Myspace, Twitter and other social media sites to advertise their companies.

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