CHAPTER - III

NEW REVOLUTION IN TRADE, COMMERCE AND E-COMMERCE

3.1 E-commerce
3.2 Process of e-commerce
3.3 E-banking
3.4 Electronic data interchange
3.5 Electronic fund transfer
3.6 E-cash
3.1 **E-COMMERCE**

In the 21st century the business world is marked by drastic changes. The changes faced by continuous Innovation in computer and telecommunicating technologies.¹

The Information communicating Technology has emerged as the major charge in business and in society. The Revolution has take place in electronic commerce. In Today’s business Global Networking & other Broadband Technologies are being used as competitive weapons because of Technologies prices of Hardware are decreasing so the world of Network Infrastructure began speedy Transformation to new technological advancement protocol ,local area Network ,Routers and User Friendly ,Software found Market place that motivated individual initiative to experiment to Networking.

E-Commerce is Modern Business Methodology which addresses the needs of not only organization but also merchants and consumers to cut costs while Improving the Quality of Goods & Services it also increases the speed of service delivery.

E-Commerce is that wave of Technology which effect every face of ones lifestyle, Home as well as everyone’s work place in E-Commerce business Tradition Takes place in any parties electronically Rather than the physical exchange of documents, Direct Meeting among officials.

Through New Ways of Transferring and Processing Information. The Commerce is Take Place with the help of E-Commerce in E-Commerce Information is Transferred Electronically on-line from Computer to Computer in an automated way. Strong
Market forces created by electronic Commerce and escalating Competition. Companies are discovering old salutations do not work with new problems, because of E-Commerce the business partners have changed so there are risks and payoffs and behaviors of Consumers have changed. The Emphasized is given on the generation and exploitation of new business opportunities in electronic commerce and generals business value and does more with less.

In simple words electronic commerce means, From a business process perspective, electronic commerce is the application to technology towards the automation of business action and workflows.

From an on-online perspective, electronic commerce provides the capability of buying & selling products and information on the internet and other on-line services.

From a service process perspective, electronic commerce is a tool that addresses the desire of firms consumers and management try to cut service costs while improving the quality of goods and increasing the speed of delivery.

Form a communication perspective electronic commerce is the delivery of information, products, services or payments via W.A.P. or Internet computer Networks or by other means.

3.2 Process of E-Commerce:

I Buying on lattice – E-Commerce or Electronic Commerce has brought a parading shift in the world of Trading Predictions of Virtual shopping malls and one should not need to step out of one’s house to
buy or sell any think . E-Commerce has change the way of shopping it help to learn Interact and communicate your business.

The Growth and use of Internet has been one of the biggest events of the century. It’s range is from minutest market to the global level. Every big and small corporations are presented on the net , there product and range of services are accessible to the global market, with the help of Internet, you can order a book , Food and even by Flight Ticket to the destination of your choice in the world from the respective website.

In India E-Commerce is still in its infancy any good business design can be translated in to a virtual gold mine with the help of internet. conducting business on internet is a great way to disseminate information and work further more it also cuts down the channel of intermediaries between the producer and the consumer.  

Developing countries spend lot of cash on the tremendous opportunities opened by the globalization and these opportunities are distributed even between countries & people.

Buying items on Net is easy this chapter Introduces you to the kinds of listings on net and takes you through the basic process of buying or bidding on Net.

There are four kinds of program on Net through which the process of buying can take place the main listings are Auction, quick buy, classifieds & maxbid.
A) Auction:

An auction is a public sale in which the seller specifies the minimum price of an Item multiple buyers ‘bid’ for the Item and the highest bidder wins the auction this way the seller gets the best price for the Item and the buyer gets a good deal too.

Post ordering process:

Once you have placed your bid you will be informed of the same by email. If you win the auction. You will again receive an email with the button. Click on this button to select the payment method and specify the delivery details. Depending on the payment method you have selected contact the seller and arrange for the delivery if you are outbid by another user, you will receive an email informing you of the same if you wish you may bid higher on the same item again.

B) Quick Buy:

Quick! Buy is an easy and fast way of buying on Net. In Quick! Buy the seller sells an Item at a fixed price all buyers buy the Item at the same price. As a buyer you can buy the Item immediately. No waiting! Instant buying at a fixed price.

Post ordering process:

Once you have placed your order you will receive your order and seller details via e-mail depending on the payment method you have chosen. Contact the seller if required and arrange for the delivery.
C) Classifieds:

A classified on Net is just like the classifieds or ads that we see in newspapers and magazines at Net you can read the classified, get an indicative price and respond to the same online.

Post ordering process:

Once you have responded to the classified, you will get the seller’s contact details on the Next page an email is also sent to the sellers with your response to the classified and your contact details. Get in touch with seller to complete the sale.

D) MaxBid:

MaxBid listing are unique listings on next where in the buyer gets to win an item at less than 90% of the retail price for that item: In maxBid bidders bid at various prices below the maxBid amount specified when the item closes the highest unique bidder wins the item.

Post ordering process:

Once you have placed your bid you will be informed of the same by email if you win the maxbid item. You will again receive an email with the button. Click on this button to make the payment. If you don’t win the maxBid item or if the item closes unsuccessfully you will be informed of the same by email.

To buy item or products on lattice or internet one has to go through following four steps.

There are four steps to buying your item on net.
**Step -1 Register on Lattice**

Registration on net or Lattice is free you need to be a registered user to be able to buy bid and sell on web However to browse you are not required to register yourself. You will find the Register link at these top of the site to register on net you need to fill in the Registration form fill in your Account details, Personal details and optional details once you have filled in these read & agree to the term & conditions and click on accept terms and submit if the entries you. Mentioned are found correct then you are registered you are done.

**Step -2 Locate an article**

To find an item on net you can either search for it or Browse the site to search for an item you can use the keyboard search box which is located at the top of the sites. Simply enter what you are looking for and click on the Go Button. You can also use the advanced search link next to the search block this advanced search page will help you to find any item on the site or even find a net seller.

You can browse for your item in the relevant category. The category list is located on the left side of the net homepage. When you click on the category. You will be led to the category page, which will have further sub-categories that will help you find your item.

**Step -3 Read the Article page**

Once you have found the item that you wish to buy. Click on the Image to reach the item page. You need to read the item page thoroughly before you decide to buy or bid for the Item.
A) Read the Item, Seller and other transaction details:

The item details such as item title, seller indicative market, price, Item price and the Item Description have to be read very carefully one has to go through other transaction details such as products condition, quantity available, ends at, items id, current Bid (for Auctions), Quantity etc. also view the sellers ID and ratings carefully. Always check the sellers ratings.

You can get an idea of the sellers history on net by ratings. You can find the ratings mentioned in brackets next to the sellers net ID. The negative ratings are indicated a '-' sign and the positive ratings are indicated with a '+' sign, the neutral ratings are mentioned in the center. The more positive ratings a seller has, the more reliable he is click on the sellers net ID to view his profile and ratings in detail.

B) Know the warranties, Guarantees offered:

Good sellers on net usually offer certain types of warranties and Guarantees like replacement warranty, Dealers warranty, manufacturers warranty and money back Guarantee. The person who wishes to buy must note the warranties and Guaranties offered and the remarks the seller may have left on them.

C) Know the payment method & Delivery Changes:

Remember to check for Delivery charges and the payment methods the seller is offering.

Some sellers charge extra for the Delivery of the item and for certain payment methods. The Delivery charges should be read carefully since you will pay this amount in addition to the item price
Read the delivery charge for 1st quantity each additional quantity and the COD extra cost Also read the payment methods that the seller is offering.

**Step – 4 Confirm and submit your order**

Once you click on ‘Bid’ Now you will be lead to the Bid details page go through the bid details carefully, before submitting your bid. Check your Bid amount, delivery charges total Bid amounts, your contact details and yours delivery charge calculation if you wish to make any changes click on Edit Bid. Else click on ‘submit Bid’.

**II Selling on Lattice**

It means selling data directly from a website or offering application for download after they are purchased. It is the utilization of the internet as an alternative sales channel and the entry transaction can take place a little human intervention on the merchant side thus the coverage of E-commerce is tremendously flexible.

Selling on net/ lattice is as simple as Buying. Lattice offer you three modes of selling your Items once you have decided on the mode of selling you need to follow a simple 3 step process to list your item for sale on net/ lattice.

Three modes of selling on net/ lattice, post sale process.

Choose from the three modes of selling on net/ Lattice.

**A) Auction :**

An Auction is a public sale in which you as a seller ‘auction’ your Item multiple buyers ‘bid’ for your item at the end of the
education, the item is sold to the highest bidder this way you get the best price for your product!

Listing an Item for Auction to list your Item for selling. Click on the ‘sell’ button at the top of the site. Then click on the ‘Auctions’ button to reach the Auctions sell form follow the steps mentioned bellow to fill up this form and list your Item for Auctions.

B) Quick ! Buy

In quick! Buy you sell an Item at a fixed price. One or more buyers can buy that item immediately at that price unlike auctions in quick! Buy the item is sold immediately thereby avoiding the wait associated with auctions.

To list your item for selling click on the ‘sell’ button at the top of the site. Then click on the quick! Buy button to reach the quick! Buy sell form follow the steps mentioned below to fill up this form and list your item for quick! Buy.

C) Classifieds :

Classifieds is similar to offline classifieds in newspapers, magazines etc. where the seller advertises his product and receives responses form prospective buyers for the same. As a seller you can interact with your buyers and get the best deal. Classified is advisable for item that need high involvement from the buyers and sellers such as cars and houses.

Listing an Item for classified :

To list your item for selling. Click on the ‘sell’ button at the top of the site. Then click on the ‘classified’ button to reach the classified
sell form follow the steps mentioned below to fill up this form and list your item for classified.

The following form is applicable to all the three modes of selling.

1) **Enter the Item details:**

* **Item Title:**

Enter the title that you would like to give your item in the text box provided. Give a title that describes your item best. Try to include specifications such as brand name, model number, etc. The idea is to make your title most self-explanatory and distinctive. Do not use web language (HTML) here.

Example: Blue Hero Honda, CBZ, June 2002, perfect condition.

* **Item description:**

Describe your item in the text box provided. This is the most important and critical part of listing your item since buyers read it before responding to your listing. Include the special features of the item, the brand name, model number, and additional specifications you may enhance the description by using web language (HTML).

**Item Image:**

The item image is important since it gives the buyer a good idea of the item you are selling. Always include an Image that depicts your item correctly.

**To upload the Image –**

1. Click on the upload image button.
2. Click on the ‘Browse’ button to find the image on your computer.
3. Select the Image.
4. Click on the upload button to send the Image to Net / Lattice.

**If the Image of your Item is on the Internet –**

1. Just move your mouse to the Image.
2. Right click your mouse.
3. Copy the ‘Address’ of the Image from the top up that appears.
4. Paste it in the next box provided on net / lattice.

Please Note that your Item image should be less than 50 KB in size and either in JPG or GIF format.

**Item Condition:**

Select the condition of your Item, vis New or second hand from the drop down.
**Primary category:**

Items that are sold on Net are slotted into different categories. The primary category is the main category where your item will be displayed. Select one from the drop-down.

Ex. If you are selling a bike, you may choose bikes and 2 wheelers. Hero Honda.

**Traders Reference –**

This optional feature is essentially an easily identifiable number that you may want to give your item.

Ex. If you are selling different models of phones, you may specify the model number here.

**Additional Information prompts -**

Use this feature to collect additional information from the buyers and provide them the same.

Ex. If you are selling T-shirts, you may want the buyers to select their size, choice of color, etc.

Additional Information prompts are re-usable. Once you have created a additional information prompt, you may use the same every time you sell an item.

**To create an Additional Information prompt -**

1. Click on create and Edit Additional Information prompts.
2. Click on create a new Additional Information prompt.
3. Specify the prompt details and save the additional Information prompt.
To select from existing Additional Information Prompts -

1. Click on select prompts.
2. Click on the names of existing additional Information prompts.
3. Preview selection.
4. Click on ‘Close with Selection’.

2) Set the duration, quantity and price start and End Time -

This is the date and time when the listing of your item will begin and end on the site respectively select the date, month and time from the respective drop downs.

Currency:

This is the currency in which you expect the payment all Amounts that you mention hence forth will be in this currency choose one from the drop down.

Indicative Price:

This Amount gives the buyer an Idea of the price of your item you need hot sell the item at this price enter the amount in the next box.

3) Set the payment & shipping options Delivery Term:

You may charge the buyers for delivering the Item to them Delivery terms. Information the buyer of the terms of this shipping cost you will be provided with a few options. Just click on the ones of your choice. Ex. Included at sellers cost, Buyers pays, No shipping costs.
Payment methods -

A payment method is the method by which you receive the payment from the buyers. Again you will be provided with a few options. Just click on the ones of your choice. Ex. Cash, cheque, credit card.

4) Choose the special Listing:

(For certain sellers only) Net offers special Listing to certain sellers to help them increasing the visibility of their item on net / Lattice! A Listing fee is charged for certain special Listing options.

There are two types of special listing options.

Priority Listing

Highlighted Listing

Click here to know more about special listings.

Click here if you too want to use special listings to sell your Items.

5) Choose the Relist Settings:

Automatic Relisting – This optional setting automatically relists your item so that you need not manually relist it yourself. You have the following choices relisting your Item.

1. Relist what is not sold the next day. It will be relisted the next day with the quantity that has not been sold.

2. Relist what is not sold Immediately – It will be relisted Immediately with the quantity that has not been sold.
3. Relist the original quantity the next day it will be relisted with the original quantity as a new listing on the next day even if some or all of the quantity has been sold.

4. Relist the original quantity Immediately your listing is relisted with the original quantity as a new listing Immediately even if some or all of the quantity has been sold.

Note: In 1 and 2 the number of item that have been won in the old auction will reduce the quantity of the new auction if there are no more items remaining to be won the item will not be relisted.

Automatically Relist Count:

Set the Number of items you would like the item to be relisted.

Once you have entered all of above details you will need to confirm the details of the listing on the next page once you have finished listing your item. You will be given options to preview or edit your listing on the next page.

Bulk upload:

Bulk upload helps you put multiple items up for sale. It is a great tool for sellers who wish to list many items at one go. It is the easiest, smartest and most cost – efficient way of uploading items in bulk. You can upload items in bulk with the help of a CSV sheet. Which is basically an excel spreadsheet template. Net / Lattice charges only Rs. 199 extra for the Bulk upload facility this is a small Amount considering the Internet and telephone charges that you would incur if you upload your items one by one using the sell form.
Following are the three steps you need to fulfill to sell your products on the net.

3 Step to selling -

Step 1 - Register on Lattice

You need to be a registered net / lattice user to be able to sell your items on the site. Registration on net is fast and easy. Click on the Register button at the top of the site to register yourself.

Step 2 - Create a listing

To sell you item on net. You need to list the same on net / lattice. While listing your item you need to give all the details of your item. Choose payment methods shipping charges etc. click on the sell button at the top of the site to list your item.

Step – 3 Verify yourself

Net is committed to providing all its users with a safe and secure trading environment the user verification process is a step towards achieving the same.

To be able to sell your item on net. You need to be a verified net user. In this one – time verification process we try to Ascertain the genuineness and the credibility of the seller.

You will be asked to verify yourself once you have finished listed your item you need to supply us with your personal and contact details. We get in touch with you for your verification.
3.3 E – Banking –

Electronic Banking to a customer in simple words can be termed as “any where Banking - any time Banking.”. Anywhere Banking - no matter where the customer is in the world online banking is just a website away Balance enquiry, request for services, issuing instruction etc. From anywhere in the world is possible. Anytime banking - managing funds in real time and most importantly 24*7 availability.

Electronic Banking may be defined as “delivery of Banks Services to a customer at his office or home by using electronic technology can be termed as electronic banking”.

Intense competition has forced banks to rethink to way they operated their business. They have to reinvent and improve their products and services to make them more beneficial and cost effective Technology in the form of electronic banking has made it possible to find alternate banking practices at lower costs.

Many people are using e-banking products and services. only because of larger section of the Banks must be able to offer these customers product and services that allow them to do their Banking by electronic means if they fail to do this they will simply not survive.

**Automated Teller Machine (ATM)**

The First ATM being introduced in the mid 1970’s. The ATM was one of the earliest electronic banking products, with Tillie-the Teller,. The ATM provided customers with the ability to withdraw or deposit funds, check account balances, Transfer funds and check etc.
Telephone Banking:

Telephone banking is the upcoming and most popular product. It is only a relatively new electronic banking product. Customers can perform a number of transactions from the convenience of their own home or office in fact from anywhere they have access to a phone. Customers can check balances and statement information, transfer funds from one account to another, pay certain bills and order statements or chequebooks.

Internet Banking

The Internet is a name of the magnificent system that we see through the computers. The amazing thing about internet is that internet quickly exploded into our daily life. The internet was created to carry government and military information in case of an atomic blast. Internet banking, both as a medium of delivery of banking services and as a strategic tool for business development has gained wide acceptance. Internationally and is fast catching up in India with more and more banks entering the fray. India can be said to be on the threshold of a major banking revolution with net banking having already been divulge. According to a survey taken recently 11 banks in India are providing Internet banking services at different levels. 22 banks propose to offer Internet banking in the near future while the remaining 13 banks have no Immediate plans to offer such facilities.

Cost of Banking service through the Internet from a fraction of costs through conventional methods rough estimates assume teller cost at Rs 1 per transaction. ATM transaction cost 45 paise. Phone banking at 35 paise, debit cards at 20 paise and Internet banking at 10
paise per transaction. The cost conscious banks in the country have therefore actively considered use of the Internet as a channel for providing services fully computerized banks with better management of their customer-base are in a stronger position to focus their products through this channel.

**Products and Services Offered**

Banks in India are at different stages of the web-enabled banking cycle. Initially a bank which is not having a web-site allows its customers to communicate with it through an e-mail address, communication is limited to a small number of branches and offices which have access to this e-mail account.

With gradual adoption of information Technology the bank puts up a website that provides general information on deposits products application forms for downloading and e-mail option for enquiries and feedback. A few Banks provide the customer to enquire into there demat Account (securities & shares) Holding details, transaction details and status of instructions given by them. Some of the Banks permit customers to interact with them and transact electronically with them such services include request for opening of accounts requisition for chequebooks. Stop payments of cheques; viewing and printing statements of accounts, instructions for opening of letter of credit and bank guarantees etc. These services are being initiated by banks like ICICI Bank Ltd, HDFC Bank Ltd, UTI Bank Ltd, City Bank, Global, Trust Bank Ltd, Bank of Punjab Ltd offers the facility of receipt review and payments of bills online. The infinity service of ICICI Bank Ltd and HDFC Bank Ltd also allow online real time e-shopping
credit card transaction in the country was carried out on the Easy3.shoppe.com shopping mall enabled by HDFC Bank Ltd on a VISA card.

Banks providing Internet Banking Services have been entering into agreements with their customers setting out the terms and conditions of the services. The terms and conditions include information on the access through user ID and Secret password, minimum balance and charges, authority to the bank for carrying out transactions performed through the services liability of the user and the bank, disclosure of personal information for statistical analysis and credit-scoring etc.

Users of Internet Banking Services are required to fill up the application forms on-line and send copy of the same by mail or fax to the Bank. The customer enters into a contractual agreement with the bank for using the internet banking services in this way the Bank providing the service is holding personal data in the application forms. The contact details are often one sided, with the bank having the absolute discretion to amend or supplement any of the terms at any time for these reasons domestic customers for whom other access points such as ATM’s telebanking, personal contact etc. The Internet is the public domain where by geographical boundaries are eradicated.

3.3.1 Banking System in Online Commerce

The following figure deficts on overview of the main four elements of online commerce and their relationship to the Banking Network.
1. The consumer and the associated browser to Interact with the consumer.

2. The merchant system residing on an online web server with a connection to web browser over the Internet.

3. An online shopping mall that may help direct consumers to merchant server.

4. The background–banking Network to support online payments from consumer to the merchant.

A consumer Interact with the online commerce system through a web browser. The consumer first accesses a shopping mall and then uses the hyperlinks from the mall to access the merchants home page.

A shopping mall is where most consumers first visit for a shopping binge. The connection between the shopping mall and a merchants storefront are showing there will be several shopping malls and it may pay to enlist with one or more well-known shopping malls. A merchant should be listed with several on-line shopping malls.

A merchant system consists of the Home page and related software to manage business.
Chart no 3.1

**Banking System In Online Commerce**

1. Select Store
2. Link to merchant server

The Banking Network consist of several components. First there is a bank that process the online financial transactions for the given merchant. This bank maintains the Account for the merchant, Authorizes and processes the payments. The merchant Bank also maintains a link with the consumers bank for verifying the transactions. The link between the merchant and its bank is often real time so as to allow online Authorization of consumer payments. The consumers bank typically has an offline link to the consumer, such a via postal mail or e-mail.

3.3.2 An Electronic Cheque System: 10

Electronic Cheque pertains to the use of Networking Services to issue and process payments that emulate real – world chequing. The payer Issues a digital cheque to the payee and the payee deposits it in the bank to redeem the money. Each transaction is carried over the Internet for electronic chequing electronic versions of cheques are Issued, Received and processed.

A complete electronic cheque transaction may consist of several basic steps these steps are executed in three distinct and optionally separate phases, the merchant sends the electronic cheque to its bank for redemption or consumers bank to cash the electronic cheque. The concept of electronic chequing or e-cheques can described in the following figure
Chart No. 3.2

Electronic Cheque System

1. Access and Browse
2. Select Goods, Pay electronic Cheque
4. Close Transaction

5. Forward cheque to the banks
3. Validate Cheque
6. Forward Cheque
7. Forward Cheque

8. Account Update

Consumer Bank

Clearing House

Merchant Bank

Merchant System

Merchant System
1. The consumer accesses the merchant server and the merchant server presents its goods to the consumer.

2. The consumer selects the goods and purchases them by sending an electronic cheque to the merchant.

3. The merchant may validate the electronic cheque with its bank for the payment Authorization.

4. Assuming the cheque is validated the merchant closes the transaction with the consumer.

5. The merchant electronically forwards the cheque to its bank this action takes place at the discretion of the merchant.

6. The merchant’s bank forwards the electronic cheque to the clearing house for cashing.

7. The clearing house works with the consumer’s bank clears the cheque and transfers money to the merchant’s bank which updates merchants account.

8. At a later time, the consumer’s bank updates the consumer’s account with the withdrawal information.

Electronic cheques save time in processing with electronic cheque the merchant Instantly can forward cheque to the bank and get them immediately credited to their account.
3.3.3 An Electronic credit system

One of the Important schemes in E-commerce is using credit cards. In electronic credit. Conventional credit cards may be used along with a PIN. The pin is a secret code that the consumer may enter while using the credit card online.

An e-credit card transaction processes the following steps, which can be divided into three phases. The first phase completes the purchase of goods by the consumer. The second phase completes the transfer of money from the consumer account to the merchant. Third phase informs the consumer about the charges and deductions to his or her account.

Phase – I Purchase of goods

The consumer accesses a merchants home page and receives a display of the merchant goods.

The consumer selects the desired goods and offers a credit card payment to the merchant.

The merchant server access its bank for credit Authorization of the consumers credit card number and the Amount of purchase. The merchants bank completes the Authorization and informs the merchant whether to proceed with the purchase.

The merchant informs the consumer whether the transaction has been completed.
Chart no 3.3
Electronic credit system

Card Issuer

1. Access home page

2. Select goods make credit card payment

3. Request and obtain credit Authorization

4. Close Transaction

5. Provide Credit and Receipts

6. Forward Receipts and obtain Payments

7. Account Update to Consumer

Merchant Bank

Consumer Browser
Phase II : Settlement

The merchant server to collect the payments on various credit card purchases executives this phase separately.

The merchant server accesses the merchants bank and provides a collection of receipts of various electronic credit purchases.

The merchants bank accesses the card issuer and obtains the money for the purchases.

Phase III Consumer update of credit card Bill

In this phase the card issuer updates the card holder (consumer) about the Amount of credit transferred to other parties as a result of the purchases. The consumer may receive the account updates once a month through postal mail.

Smart Cards –

Smart Cards are credit – card size card that can be carried in a wallet these cards have a processor and memory on the card in this way digital cash or private keys can be stored on the cards and can be carried around the consumer. There are four types of micro-circuit cards that can be used as smart cards.

Memory cards –

Memory cards contain space for data storage. These cards can be used to store passwords or PIN. Many telephone cards use these memory cards.
Shared – Key Cards –

Shared – key cards can store a (Private) key such as those used in public key cryptosystem.

Signature – Carrying Cards –

Signature – Carrying cards contain a set of regenerated random numbers. These numbers can be used to generate electronic cash.

3.4 Electronic Data Interchange

Electronic Data Interchange (EDI) is an automated system of business to business data exchange. Two primary areas of EDI are data Interchange (For order Invoice) and electronic funds transfer (EFT). Used among banks which high volume in Relatively small number of data items and along term relationship. An open EDI is a more flexible EDI which can carry more diverse types of data (Including graphics) and is cost effective for short – term interactions. More EDI – like services are offered more widely which finally brought ‘Paperless business’ that was promised two decades age by the EDI pioneers.

EDI may be most easily understood as the replacement of paper – based purchase orders with electronic equivalents EDI is the exchange of documents in standardized electronic form between organizations in Automated manners directly from a computer application in one organization to an application in another. EDI Refers exchange of business Information including purchase order and Invoices between computers used by the co-operating companies.
3.5 **Electronic Funds Transfer:**

Another E-banking product is electronic fund transfer. It has facilities transfers of funds from any branch of a bank to any other branch of any bank in short span of time. EFT has Facilities the quick movement of deposit money from one bank account of one customer to the bank account of another customer. In this system the sender and the Receiver can be located in different cities and may even bank with different bank drafts, mail transfers, telegraphic transfers or money order in the present age of Integrated technology consisting of computers according to the communication Facility distance need no longer be a constraint in providing customer service as an important tool of customer service. it addresses the needs of Individual customers to transfer money from one place to another within a day or two.

3.6 **E – Cash**

Starting out in August 1994 its founders set for cyber cash the goal of working with financial Institutions and merchants to provide an accessible and acceptable payment system for the Internet. Cyber cash offers a secure conduct to deliver payments between customers, Merchants and banks. Cyber cash has been described as the Federal express of the Internet payment business since it offers safe efficient and In expensive delivery of payments across the Internet – practically Instantaneously.

Later come a term digicash or E-cash starting in October 1994 digicash made available for testing purposes a digital currency client called e-cash a trademark (as is Digicash)
Electronic cash of digicash provides the means to transfer money between parties over a network such as the Internet there is an electronic card – issuing bank that generates electronic cash such an Institution is called on e-mint. E-mint signs the e-cash as the Issuer. It uses a digital signature algorithm. The e-mint Issues the electronic cash based on the funds provided to it by the customers. The e-mint may typically issue electronic. Money in dominations of one cent to & 100, although other dominations are possible. The e-cash is also generated in other currencies.

**Electronic Cash System**:¹³

The following figure depicts the elements for an electronic cash system on-line shopping malls are not Included here. The e-cash transactions take place in three distinct and Independent phases.

**Phase I Obtaining Electronic Cash**

The consumer requests his or her bank to transfer money to the e-mint to obtain e-cash.

The consumer bank transfers money from consumers account to e-mint.

The e-mint sends electronic cash to the consumer the consumer saves the e-cash on a hard drive or a smart card.

**Phase II Purchasing with electronic cash**:

This phase is executed whenever the consumer desires to make purchase with e-cash it can take place at any time after the consumer has obtained e-cash from e-mint.
The consumer selects the goods and transfers the e-cash to the merchant. The merchant provides the goods to the consumer.

**Phase III Redeeming Cash by the merchant**

The phase occurs whenever the merchant is ready to redeem the e-cash. The merchant should be capable of converting this e-cash to money for the merchants bank account.

The merchant transfers the e-cash to the e-mint. Alternatively the merchant may send the e-cash to its bank and the bank in turn redeems the money from the e-mint.

The e-mint transfers money to the merchants bank for crediting the merchants account.

The above diagram shows the swap of e-cash between a customer and a merchant. However a similar format is used to transfer money between two Individuals or Institutions such as banks, companies, universities etc.
Chart - 3.4
Electronic Cash System

1. Request to obtain electronic cash

2. Transfer Money

3. Send Electronic Cash

4. Send electronic Cash

5. Deliver Cash

6. Redeem Electronic Cash

7. Credit Merchant Account

Electronic Mint

Consumer Bank

Consumer Browser

Merchant Bank
The e-cash is digitally signed by the private key of the e-mint. The receiver uses the e-mint's public key to decrypt the electronic cash. The x 509 certificate has to be attached with the e-cash to obtain the public key of the e-mint by the receiver.
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