

# **E – COMMERCE AND BANKING**

**SECOND YEAR B.A. Programme**

**Semester – 4**

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**B.A. SECOND YEAR**

**Semester – 4 : E – Commerce and Banking**

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## **FOREWORD**

Since its establishment in 1976, Acharya Nagarjuna University has been forging ahead in the path of progress and dynamism, offering a variety of courses and research contributions. I am extremely happy that by gaining a 'A' Grade from the NAAC in the year 2014, the Acharya Nagarjuna University is offering educational opportunities at the UG, PG levels apart from research degrees to students from over 285 affiliated colleges spread over the two districts of Guntur and Prakasam.

The University has also started the Centre for Distance Education with the aim to bring higher education within reach of all. The centre will be a great help to those who cannot join in colleges, those who cannot afford the exorbitant fees as regular students, and even housewives desirous of pursuing higher studies. With the goal of bringing education in the door step of all such people. Acharya Nagarjuna University has started offering B.A, and B, Com courses at the Degree level and M.A, M.Com., L.L.M., courses at the PG level from the academic year 2021-22 on the basis of Semester system.

To facilitate easier understanding by students studying through the distance mode, these self-instruction materials have been prepared by eminent and experienced teachers. The lessons have been drafted with great care and expertise in the stipulated time by these teachers. Constructive ideas and scholarly suggestions are welcome from students and teachers invited respectively. Such ideas will be incorporated for the greater efficacy of this distance mode of education. For clarification of doubts and feedback, weekly classes and contact classes will be arranged at the UG and PG levels respectively.

It is aim that students getting higher education through the Centre for Distance Education should improve their qualification, have better employment opportunities and in turn facilitate the country's progress. It is my fond desire that in the years to come, the Centre for Distance Education will go from strength to strength in the form of new courses and by catering to larger number of people. My congratulations to all the Directors, Coordinators, Editors and Lesson -writers of the Centre who have helped in these endeavours.

**Prof. P.Rajasekhar**  
**Vice –Chancellor,**  
**Acharya Nagarjuna University**

# 416BAN21 - **E-COMMERCE AND BANKING**

## **|V SEMESTER**

### **Syllabus**

#### **UNIT – I:**

Internet and Commerce: Business operations; E-commerce practices Vs. Traditional business practices; Concepts b2b, b2c, c2c, b2g, g2h, g2c; Benefits of e-commerce to organization, consumers, and society; Limitation of e-commerce; Management issues relating to e-commerce. Operations of E-commerce: Credit card transaction; Secure Hypertext Transfer Protocol (SMTP); Electronic payment systems; Secure electronic transaction (SET); SET's encryption; Process; Cybercash; Smart cards; Indian payment models.

#### **UNIT - II:**

Applications in B2C: Consumers' shopping procedure on the internet; impact on disintermediation and re-intermediation; Global market; Strategy of traditional department stores; Products in b2c model; Success factors of e-brokers; Broker-based services online; Online travel tourism services; Benefits and impact of e-commerce on travel industry; Real estate market; Online stock trading and its benefits; Online banking and its benefits; Online financial services and their future; E-auctions – benefits, implementation, and impact.

#### **UNIT – III:**

Applications in B2B: Applications of b2b; Key technologies for b2b; Architectural models of b2b; Characteristics of the supplier-oriented marketplace, buyer-oriented marketplace, and intermediary-oriented marketplace; Benefits of b2b on procurement reengineering; Just in Time delivery in b2b; Internet-based EDI from traditional EDI; Integrating EC with back-end information systems; Marketing issues in b2b.

#### **UNIT – IV:**

Applications in Governance: EDI in governance; E-government; E-governance – applications of the internet; Concept of government-to-business, business-to-government and citizen-to-government; E-governance models; Private sector interface in e-governance. Emerging Business Models: Retail model; Media model; advisory model, Made-to-order manufacturing model; Do-it-yourself model; Information service model; Emerging hybrid models; Emerging models in India.

#### **UNIT - V:**

E-Banking – Essential Factors of Core Banking – Features of Core Banking – Advantages of Core Banking – Meaning of E-Banking – Nature of E-Banking – E-Banking Transactions – Merits of E-Banking – Demerits of E-Banking. Essential of Bank Technology – Payment System

and Electronic Banking – Meaning of ATM – Merits and Demerits of ATM – Credit Card Meaning, Features of Credit Card – Merits and Demerits of Debit Card – Data Communication Network and EFT System – Role of Technology upgradation and its impact on Bank – Case Study.

### **Reference books**

1. E-Commerce – an Indian perspective, P T Joseph, Prentice Hall, 2/e, 2005.
2. E-Commerce Concepts, Models, Strategies, C S V Moorthy, Himalaya Publications.
3. E-Banking Management - Mahmood Shah Lancashire Business School, University of Central Lancashire, UK & Steve Clarke University of Hull, UK
4. Satyadevi, C., Financial Services Banking and Insurance, S.Chand
5. Suneja, H.R., Practical and Law of Banking, Himalya Publishing House
6. Maheswary and Paul – Banking Theory, Law and practice, Kalyani Publishers
7. S Natarajan, P Parameswaran – Indian Banking, S. Chand and Company Ltd.
8. Shekhar and Shekhar – Banking Theory and Practice, Vikas Publications
9. Radhaswamy and Vasudev – Banking Theory and Practice, Sultan Chand and Sons
10. Muraleedharan – Modern Banking: Theory and Practice, PHI

**MODEL QUESTION PAPER**

**(416BAN21)**

**B. A. Degree Examination**

**Second Year – Fourth Semester**

**Part – II : Banking**

**Paper – VI : E – COMMERCE AND BANKING**

**Section – A**

**Answer any FIVE of the following questions [5 × 4 = 20 MARKS]**

1. SMPT.
2. Global market.
3. B2B model.
4. E – Auctions.
5. What are the characteristics of supplier oriented market place?
6. EDI.
7. Explain the concept of government to business.
8. Explain the features of core banking.

**Section – B**

**Answer the following questions [5 × 10 = 50 MARKS]**

9. a) Write about the differences between E-commerce practices and Traditional business practices.

(Or)

- b) What are the Benefits of e – commerce to organisation, consumers and society?

10. a) Consumer's shopping procedure on the Internet.

(Or)

b) What are the products in B2C model?

11. a) What are the applications of B2B?

(Or)

b) Internet based EDI from traditional EDI.

12. a) Write about the models in E – governance.

(Or)

b) Emerging models in India.

13. a) What are the essential factors of Core banking?

(Or)

b) Role of Technology up gradation and its impact on Bank.

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# LESSON – 1

## E – COMMERCE AND BANKING

### Objectives :

After reading this lesson, one should be able to

- Understand meaning, essential characteristics Internet and E – commerce;
- Understand the concepts of classification of E – Commerce;
- To know about the business operations, Types And Advantages of E – Commerce
- To know about the managerial issues etc.

### Structure of the Lesson :

- 1.1 Internet and Commerce
- 1.2 Objective of E – commerce
- 1.3 Classification of E – commerce
- 1.4 Business Operations
- 1.5 Traditional Commerce Vs E – commerce
- 1.6 Types of E – commerce
- 1.7 Advantages and Disadvantages of E – commerce
- 1.8 Summary
- 1.9 Key Words
- 1.10 Self Assessment Questions
- 1.11 Suggested Books

## 1.1 INTERNET AND COMMERCE :

### Internet :

The internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP/IP) to serve billions of users worldwide. It is a network of networks that consists of millions of private, public academic, business, & government networks of local to global scope that are linked by a broad array of electronic & optical networking technologies. The internet carries a vast array of information resources & services, most notably the inter-linked hyper text documents of the World Wide Web (www) & the infrastructure to support electronic mail.

### Uses of Internet :

To collect information

Communication

Date transfer

### **E – COMMERCE / ELECTRONIC COMMERCE :**

The term electronic commerce (E – commerce) describes a variety of electronic platforms such as the sending of purchase orders to suppliers via electronic data interchange (EDI), the use of fax & e-mail to conduct transaction, the uses of ATMS & EFTOPS and smart cards to facilitate payment & obtain digital cash & THE USE OF INTERNET & online service.

#### **Meaning of Ecommerce :**

It means shopping on the internet called the World Wide Web.

#### **Components of E – Commerce :**

- Multimedia
- Network

### **1.2 OBJECTIVE OF E – COMMERCE :**

- To build web sites to developed brands.
- To improve customer service
- To provide servicing at affordable price.
- To reduce supply cost, improve quality & fastest delivery of ordered goods.
- To excise overall control on hardware & software costs.

### **1.3 CLASSIFICATION OF E – COMMERCE :**

It can be classified as :

- Business to business (B2B)
- Business to Consumer (B2C)
- Consumer to consumers (C2C)
- Consumer to Business (C2B)

#### **Business to Business(B2B) :**

This kind of E – commerce relates to a company buying or selling online.

#### **Business to Consumer(B2C) :**

This kind of E – commerce relates to selling goods & service directly to the consumers through Internet connection with rapid rise in computer literacy.

#### **Consumer to Consumer(C2C):**

This kind of E – commerce relate to individual consumer preparing their own web site & entering into online transactions with other consumers.

**Consumer to Business(C2B) :**

It is a kind of E – commerce relates to conduct business by individual consumers online. The most popular approach is auction trading.

**1.4 BUSINESS OPERATIONS?**

Business operations is a broad term that describes everything that happens within a company to keep it running and earning money. Business plans often include a section dedicated to operations so that company founders understand the systems, equipment, people, and processes need to make the organization function.

**Business Operations Elements :**

Business operations vary according to business type, industry, size, and so on. Operations for a brick – and – mortar store, for example, will look different from operations for an online retailer. The former will need point of sale terminals to process purchases, for example, while the latter will need E – commerce software that provides electronic shopping cart services.

Business operations for most businesses, though, take into account the following elements :

- Process
- Staffing
- Location
- Equipment or technology

Process is important because of its impact on productivity and efficiency. Processes done manually that can be done quicker with software or that duplicate work done by other departments can cost a business time and money.

Business operations processes should be documented department by department so that operations managers can study them to find areas for improvement, consolidation, or cost-savings. Documentation also helps companies train new employees.

**What does Business Operations Mean?**

Business operations refer to the activities and tasks that organizations use to produce goods and services. This includes planning, organizing, directing, coordinating and controlling the various aspects of production, such as procurement, manufacturing, distribution and marketing. In order to run an efficient and successful business, operations must be well planned, organized and managed.

**What are Business Operations Examples?****Accounting and finance :**

Accounting and finance activities such as budgeting, forecasting, and payroll processing.

**Human resources :**

Hiring, training, and managing employees.

**Manufacturing :**

Producing Goods Or Services.

**Marketing And Sales :**

Developing And Executing Marketing Strategies To Attract Customers and promote products or services.

**Supply Chain :**

Managing The Flow Of Materials And Goods From Suppliers To Customers.

**Information Technology :**

Developing, Maintaining, And Managing Technology Infrastructure and systems.

**Customer Service :**

Handling Customer Inquiries, Complaints, And Feedback.

**Regulatory Compliance :**

Ensuring Compliance With Local, State, And Federal Laws And regulations.

**What are 3 types of Business Operations?****Production :**

Creating Goods And Services For Customers.

**Administrative :**

Managing The Day-To-Day Operations Of A Business.

**Financial :**

Managing Money And Investments, Handling Accounting And Taxes.

**What Are The 4 Types Of Business Operations?****Production :**

Creating Goods Or Services.

**Financial :**

Managing The Money And Resources Of The Business.

**Marketing :**

Promoting And Selling Products Or Services.

### Human Resources :

Managing The People Who Work In The Business.

## 1.5 TRADITIONAL COMMERCE VS E – COMMERCE :

Overlooked are the days when business activities such as the exchange of goods and services for money, between 2 parties, had to take place in a traditional environment. The consumer going to the market, checking out a variety of goods, picking needed items, buying them and then paying the precise amount is what distinguishes traditional commerce. However, now with the advent of technological innovations, modern techniques of selling goods and services have arisen. For example, E – commerce , where people purchase and sell commodities via the Internet.

Both modes have their own merits and demerits, here, the students can learn the meaning of traditional commerce and E – commerce .

### Traditional Commerce :

Traditional commerce includes the exchange of goods and services between 2 people. As stated in the introduction, it is one of the traditional methods of purchasing goods and services. It is followed by everyone across the globe.

### E – Commerce :

E – commerce i.e., electronic commerce is similar to traditional commerce. It also includes the exchange of goods and services. The solitary difference is that it is handled online through an electronic network – the Internet. Now it has spread across to online social networks. With E – commerce, support, transactions and communication are done via the use of electronic communication. All trading activities including selling, ordering, buying, payments are executed over the internet.

This article is a ready reckoner for the students to learn the comparison between Traditional Commerce vs Ecommerce.

## TRADITIONAL COMMERCE VS E – COMMERCE :

CONCEPTS	TRADITIONAL COMMERCE	E – COMMERCE
<b>Meaning</b>	Traditional Commerce comprises to be a branch of trade, which concentrates on the exchange of goods and services.	E – commerce means executing the transactions or exchange of data, on the internet.
<b>Accessibility</b>	Limited	Any time
<b>Scope</b>	Restricted to a definite area	Across the globe
<b>Business Relationship</b>	Linear	End-to-end

<b>Marketing</b>	One way	One to one
<b>Payment</b>	Cash, Debit or Credit card, cheque, etc.,	Debit or Credit card, NEFT or Cash on Delivery (COD) etc.,
<b>Delivery of products</b>	Instantly	Takes some time

## 1.6 TYPES OF E – COMMERCE :

Depending on the goods, services, and organization of an ecommerce company, the business can opt to operate several different ways. Here are several of the popular business models.



### The Types of E – Commerce by the Parties involved :

Within this classification, six types are outlined in e – commerce :

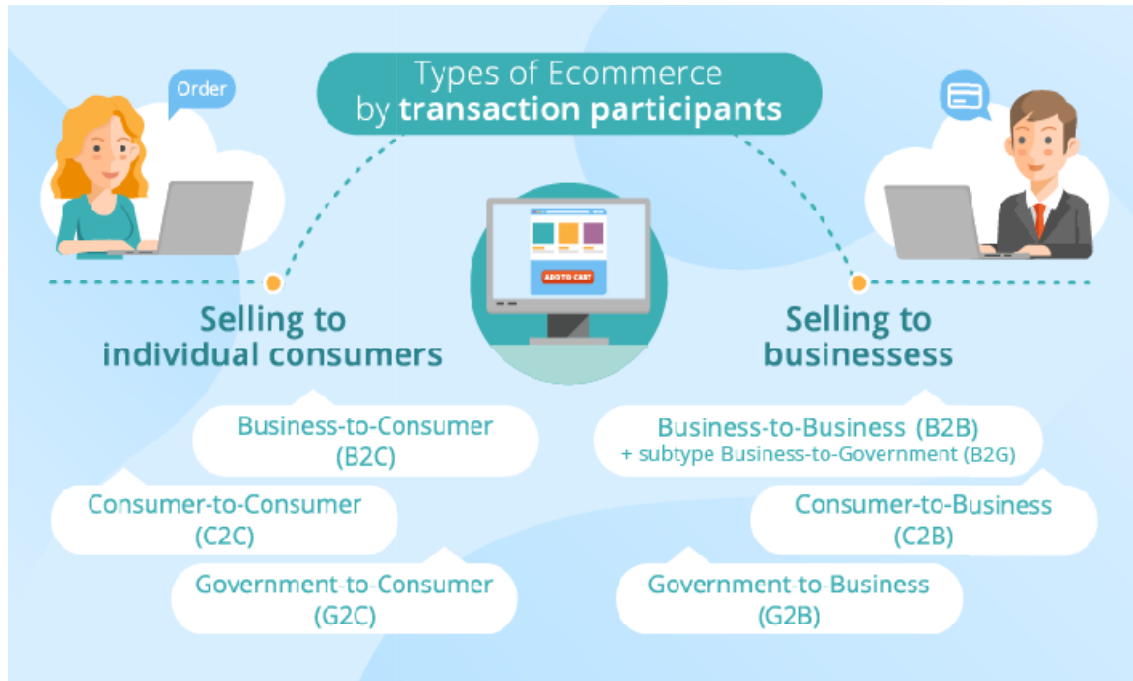
Business – to –Business (B2B) with its subtypes

- 1) Business – to – Government (B2G),
- 2) Business – to – Consumer (B2C),
- 3) Consumer – to – Business (C2B),
- 4) Consumer – to – Consumer (C2C),

5) Government – to – Business (G2B) and

6) Government – to – Consumer (G2C).

In general, identifying and then targeting the right audience is a matter of importance. A general look at the buyer side can only be the starting point, though it provides certain value as well.



### Selling to Consumers :

Companies, where buyers are individual consumers, feature a short sales cycle, price sensitivity and a high possibility of impulse purchases. Sellers win when they **bet big on consumers' emotions** :

- Personalize customer communication (launching targeted marketing campaigns).
- Bond with customers (telling the seller's story, engaging in social media, responding to customer feedback, extensively using soft selling marketing techniques like valuable content).
- Encourage customer loyalty (asking for customer opinion in surveys, incorporating loyalty programs).
- Provide smart assistance throughout a shopping journey (offering product recommendations based on a customer's browsing activity, a comprehensive customer profile with previous and abandoned orders, preferences and wish list, and proper customer support).

**Business – to – Consumer :**

The B2C type is the most widespread in ecommerce, thus the market in each product line is really competitive. Here, focusing on smaller, yet profit-generating, target audience is business-critical. This goes without saying that in our practice we frame B2C projects around the target audience.

**Consumer – to – Consumer :**

Within the C2C type, consumers sell assets or services to other consumers online. To place sales advertisements and connect to potential buyers, individuals use a third-party business (an ecommerce website or an online marketplace). Ebay and Amazon are two prominent C2C ecommerce providers.

**Government – to – Consumer :**

Online transactions can streamline communication between governmental organizations and citizens. Possible activities may include information sharing, paying fees (for education, rent, consulting services, etc.), renewing licenses and more.

**Selling to businesses :**

Having businesses as potential buyers comes with its pros and cons. On the bright side, sellers have a larger average order value and a high chance of wholesale purchases (the two are often interconnected). On the downside, a sales cycle is generally longer and several decision-makers may be involved. Thus, the focus should be on **establishing the trust – based long – term relationship with customers**. Given that the purchasing process is far less emotional but rather rational, sellers' most favored techniques include :

- Offering custom pricing (price quotes, loyalty perks, bonuses for wholesale orders).
- Giving flexibility in placing orders (valued customers may need or prefer placing orders by phone or email).
- Providing for placing quick repeat orders.
- Making account registration mandatory (but certainly quick and user – friendly) to keep in touch with customers further on.
- Recognizing the importance of after – sale support.

**Business – To – Business :**

At first sight, it seems that the name explicitly suggests that both participants in B2B ecommerce are businesses, for example a manufacturer or a wholesale supplier selling to a retailer. However, B2B ecommerce has one more face – multi-vendor marketplaces. Though end buyers are individual consumers, a marketplace owner sells digital space to business vendors, thus conducting B2B transactions.



### Consumer – To – Business :

In the C2B model, individuals – entrepreneurs or freelancers – offer goods or services to companies. For example :

- A web designer building a company’s website.
- A photographer picturing product catalogs.
- A caterer working on corporate events, conferences or business meetings.

As for individuals, they can (and should) employ diverse marketing channels to sell their services effectively: for example, they showcase portfolio and collect customer feedback on an ecommerce website and expand their online presence via job listings and social media.

### Government – To – Business :

G2B is online commercial interaction between governmental and private corporations. As a rule, a G2B model gives companies a convenient way to deal with payments and legal procedures, like document renewal, cutting down significantly on bureaucratic foot-dragging and paper work. A classic G2B example is a government website where businesses go to pay taxes.

### The types of E – Commerce by Goods

This classification is important as the product profile in ecommerce largely defines a seller’s business plan.



### Physical Goods :

Choosing to sell physical goods, online retailers compete with traditional brick-and-mortar businesses and their major competitive strength of a real-life purchasing experience where a possibility to view and try on goods leads to more informed purchasing decisions. Consequently, ecommerce businesses need to show how online shopping can be a worthy alternative – accurate images and detailed product descriptions help with the purchasing choice, prompt expert assistance and how-to guides cover the role of sales assistants, customer – friendly delivery and return terms add to customer risk – taking. Moreover, there are so many advanced technologies and approaches to power your ecommerce for superior customer experience. We took time to outline the possibilities within our custom ecommerce development offering.

### Digital Goods :

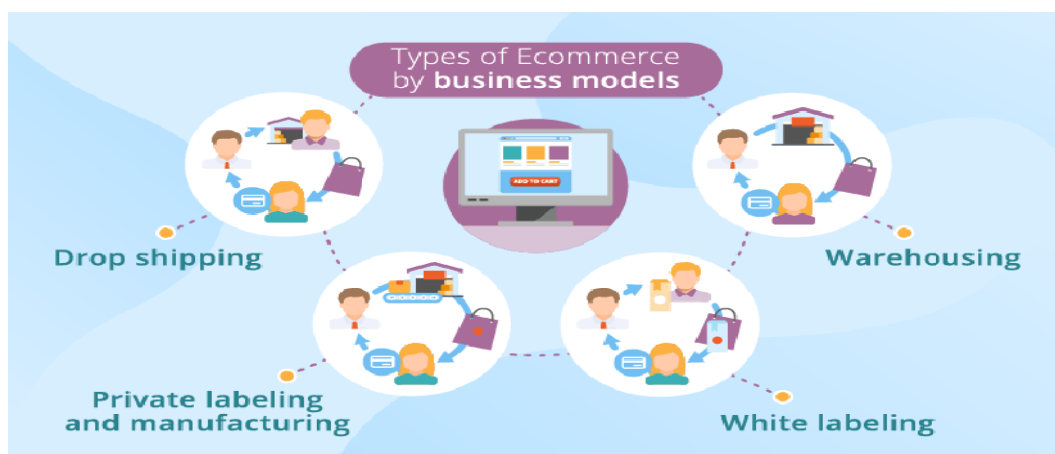
In a way, selling digital goods sounds tempting: there are low overheads due to the absence of inventory costs and delivery limits. However, sellers may face tough competition with free content or software and should stress the benefits of purchasing goods rather than getting them for free. For example, when launching an image-sharing resource, entrepreneurs can bet on the high quality of provided assets and the importance to reward contributors.

### Services :

From our ecommerce consulting practice, we can recall success tips that are likely to work with all kinds of services sold online and both business models – a single – vendor service business and a service marketplace. Let's say up sell opportunities are vast as customers may only have a rough idea of how to organize the service most effectively and expect a seller to build on it. And an online calculator will provide for price transparency. Also, ecommerce companies selling services definitely need to engage phone or email communication channels to settle the details and finalize the deal with a customer.

### The Types of E – Commerce by Business Models :

The way online retailers organize their **supply chain** is a constituent of their ecommerce business model. As summarized, there are 4 possible options.



**Drop Shipping :**

Retailers may partner with a wholesale supplier who stores the inventory and delivers ordered items directly to a customer upon the purchase. Thus, sellers save on inventory costs and don't keep goods in stock at all. This model seems to offer a fast buck as retailers need only to be present online and serve as an intermediary between customers and a drop shipper. In fact, there are downsides including the low margin, lack of control over the supply chain and high competition. Moreover, drop shipping makes brand image building impossible.

**Warehousing :**

Retailers may purchase goods from a manufacturer, manage their own warehouse and organize the delivery to customers. Undoubtedly, this requires more initial investment into product sourcing and inventory management. Full control over all business processes and flexibility in choosing the product assortment come as a bonus.

**Private Labeling And Manufacturing :**

Retailers may outsource manufacturing and sell goods under their brand name. On-demand manufacturing allows retailers to have their goods designed in line with their specifications or prototypes and avoid expenditures related to managing their own production.

**White Labeling :**

Retailers may purchase generic products manufactured for multiple companies and offer them under their brand name. Sellers save on the design and development of their product but still have their products communicating a brand message.

**1.7 ADVANTAGES AND DISADVANTAGES OF E – COMMERCE :****Advantages :**

E – commerce offers consumers the following advantages :

**➤ Convenience :**

E – commerce can occur 24 hours a day, seven days a week. Although e – commerce may take a lot of work, it is still possible to generate sales as you sleep or earn revenue while you are away from your store.

**➤ Increased Selection :**

Many stores offer a wider array of products online than they carry in their brick – and – mortar counterparts. And many stores that solely exist online may offer consumers exclusive inventory that is unavailable elsewhere.

**➤ Potentially Lower Start-up Cost :**

E – commerce companies may require a warehouse or manufacturing site, but they usually don't need a physical storefront. The cost to operate digitally is

often less expensive than needing to pay rent, insurance, building maintenance, and property taxes.

➤ **International Sales :**

As long as an E – commerce store can ship to the customer, an E – commerce company can sell to anyone in the world and isn't limited by physical geography.

➤ **Easier to Retarget Customers :**

As customers browse a digital storefront, it is easier to entice their attention towards placed advertisements, directed marketing campaigns, or pop – ups specifically aimed at a purpose.

**Disadvantages :**

There are certain drawbacks that come with E – commerce sites, too. The disadvantages include :

○ **Limited Customer Service :**

If you shop online for a computer, you cannot simply ask an employee to demonstrate a particular model's features in person. And although some websites let you chat online with a staff member, this is not a typical practice.

○ **Lack of Instant Gratification :**

When you buy an item online, you must wait for it to be shipped to your home or office. However, e-tailors like Amazon make the waiting game a little bit less painful by offering same-day delivery as a premium option for select products.

○ **Inability to Touch Products:**

Online images do not necessarily convey the whole story about an item, and so E – commerce purchases can be unsatisfying when the products received do not match consumer expectations.

○ **Case in point :**

An item of clothing may be made from shoddier fabric than its online image indicates.

○ **Reliance on Technology :**

If your website crashes, garners an overwhelming amount of traffic, or must be temporarily taken down for any reason, your business is effectively closed until the E – commerce storefront is back.

○ **Higher Competition :**

Although the low barrier to entry regarding low cost is an advantage, this means other competitors can easily enter the market. E – commerce companies

must have mindful marketing strategies and remain diligent on SEO optimization to ensure they maintain a digital presence.

**Pros :**

- ✦ Owners can generate revenue semi – passively
- ✦ Consumers can easily browse for specific products
- ✦ Greater earning potential as there are no limitations on physical location as long you can ship there
- ✦ Reduced costs assuming digital presence costs less than building, insurance, taxes, and repairs.
- ✦ Greater marketing control, including data extraction from customers, targeted ads, and pop-up placement

**Cons :**

- Limited customer service opportunities as there is little to no face-to-face opportunities
- Lacks instant gratification as customers must believe in a product before seeing it in person
- Products can't been seen or handled until delivered (can't try before they buy)
- Loss of revenue or income when websites go down
- High reliance on shipping constraints
- Higher competition due to lower barriers of entry and greater customer potential

## 1.8 SUMMARY :

The internet is a global system of interconnected computer networks that use the standard Internet protocol suite (TCP / IP) to serve billions of users worldwide. Traditional commerce includes the exchange of goods and services between 2 people. The term electronic commerce (e – commerce) describes a variety of electronic platforms such as the sending of purchase orders to suppliers via electronic data interchange (EDI), Business operations vary according to business type, industry, size, and so on. Within this classification, six types are outlined in ecommerce: Business – to – Business (B2B) with its subtype Business – to – Government (B2G), Business – to – Consumer (B2C), Consumer – to – Business (C2B), Consumer-to-Consumer (C2C), Government-to-Business (G2B) and Government-to-Consumer (G2C).

The way online retailers organize their **supply chain** is a constituent of their ecommerce business model. E – Commerce can occur 24 hours a day, seven days a week but Limited customer service opportunities as there is little to no face-to-face opportunities.

## 1.9 KEY WORDS :

### **Electronic commerce :**

E – Commerce (electronic commerce) is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet.

### **Electronic data interchange :**

The intercompany communication of business documents in a standard format.

### **Network :**

Allows its members to communicate with each other via electronic media, primarily using the Internet.

### **Operations :**

The culmination of the inner workings required to sell products online.

### **Staffing :**

The process of obtaining and hiring of manpower for the various business requirements.

### **Technology :**

The branch of knowledge dealing with engineering or applied sciences.

### **Freelance :**

Online workers who specialize and have specific skills in the e – Commerce world.

### **Internal Revenue Service :**

Is a federal agency responsible for collecting federal taxes and enforcing U.S. tax laws.

### **International Sales :**

The process of selling products or services online across geopolitical borders to customers in foreign countries.

### **Gratification :**

Putting off an early initial reward for a greater reward in the future.

## 1.10 SELF ASSESSMENT QUESTIONS :

1. Define meaning and definition of E – commerce.
2. What are the objectives of E – commerce?
3. Types / classification of E – commerce.
4. Write about the differences between traditional commerce and E – commerce.
5. Advantages and disadvantages of E – commerce.

**1.11 SUGGESTED BOOKS :**

1. E – Commerce – An Indian perspective, T Joseph, prentice hall, 2/e, 2005.
2. E – Commerce concepts, models, strategies, CSV Moorthy, Himalaya publications.
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**D. Swapna**

## LESSON – 2

# ADVANTAGES OF E – COMMERCE

### Objectives :

After reading this lesson, one should be able to

- know about the business operations, types and advantages of E – Commerce.
- know about the managerial issues ETC.....!

### Structure of the Lesson :

- 2.1 Advantages of E – Commerce to Organization
- 2.2 Advantages of E – Commerce for Consumers
- 2.3 Advantages to Society
- 2.4 Managerial Issues of E – Commerce
- 2.5 What are E – Commerce Operations
- 2.6 How to Operate an Ecommerce Business
- 2.7 Who are the factors in a Credit and Debit Card transactions
- 2.8 Summary
- 2.9 Key Words
- 2.10 Self Assessment Questions
- 2.11 Suggested Books

### 2.1ADVANTAGES OF E – COMMERCE TO ORGANIZATION :

The popularity of E – Commerce stores is continuously increasing, and there is no sign to stop. Almost every business wishes to have 24X7 available for their customers. And E – Commerce websites allow them to offer products and services round the clock to the customers. One of the significant benefits of launching an E – Commerce store is that it reduces your infrastructure cost, transit cost, and also saves your time.

Want to open an E – Commerce store and looking for more motivations? If yes, then you have come to the right place. In this blog, we will tell you the 5 advantages of E – Commerce to the organization.

#### The advantages are :

##### Reach and attract new customers:

We understand you have opened a new business, but facing difficulty in attracting new customers. Take the advantage of the technology and transform your physical store into an E – Commerce store. Here your business gets the attention that it deserves. There are



plenty of website development companies in Vadodara that can create responsive, mobile-friendly E – Commerce stores at cost-effective rates.

### **Running E – Commerce is cost-effective :**

If you open a physical store you have to invest in the infrastructure, energy bills, employees safety, transport, food, and so on. E – Commerce stores require only domain name, hosting, and the best website development company in Vadodara that can develop a user-friendly, and responsive website. Setting up an E – Commerce store is more affordable than running a physical store.

### **You can target audience across the globe :**

When you sell something on the internet means you are selling to the globe. You can increase your audience base with an E – Commerce site. Everyone can access your site from anywhere, any place and any platform. The flexibility you will get by the E – Commerce site can help you in gaining profit plus credibility.

### **Measure the metrics :**

Measuring visitors and customers metrics is not possible if you run a physical store. But, an E – Commerce store gives you every detail about the sales, like online visitors, average session time, bounce rates, cart abandonment rates, demographics of the audience. By analyzing these metrics you can improve your sales.

### **24X7, Customer Support Service :**

It is not possible to reply to customers' queries round the clock at the physical store. With the help of Live Chat software, you can resolve the customers' queries effortlessly. A happy customer is the greatest advertisement. By resolving the queries of the customers on time, you can generate leads and make them happy.

### **End Note :**

An important benefit of the E – Commerce site is cash flow. It will ultimately increase your profit and help you stay in the business forever. A secured payment gateway allows customers to pay straightforwardly.

So, if you have an idea, product, and business enthusiasm, and looking for the platform to showcase your business skills, then hire the best e – Commerce development company in Vadodara and get the clutter-free, highly responsive E – Commerce site.

## **2.2 ADVANTAGES OF E – COMMERCE FOR CONSUMERS :**

### **1. Lower prices :**

The lower costs of running an E – Commerce store versus a physical store translate to cost savings for the consumer. This is one of the biggest E – Commerce advantages. Online prices are typically lower than traditional store prices, and E – Commerce sites are able to offer more discounts and promotions that are easier to claim.

## **2. Convenient and safe :**

Shopping when you want from where you want is far preferable (and a whole lot safer) than heading out in this COVID reality we're now living in. Corona virus aside, there's also something to be said about shopping from your bedroom, without having to venture out, wait in lines, battle cold weather, and all the other challenges that go along with consumerism.

## **3. Wide product variety :**

In the global marketplace that is the internet, consumers can buy electronics from China, books from England, clothes from Paris, and good old US products all from the comfort of home. The width and depth of products sold online are unbeatable.

## **4. More informed decision-making :**

Information is literally at your fingertips when buying online, including :

- Reviews from real customers – this is probably the most effective
- Product descriptions
- Usage videos
- Product guides
- Social validation

Comparison shopping is another one of the top benefits of E – Commerce to consumers, who can easily compare products, brands, and websites with even side-by-side comparison possible. Many comparison shopping sites exist with the sole purpose of enabling consumers to compare products side-by-side based on price and discount metrics.

## **5. Saves time :**

In an age where time is a rare commodity, shopping online provides massive time savings to the consumer. Since 63% of consumers start their shopping journey online, it makes sense to be able to buy where you already are (Thinkwithgoogle, 2018).

No need to head out, shop in-store, wait in line, and then journey back home when you can access a greater product variety at a lower price from the comfort of home.

## **2.3 ADVANTAGES TO SOCIETY :**

- Customers need not travel to shop a product, thus less traffic on road and low air pollution.
- E – Commerce helps in reducing the cost of products, so less affluent people can also afford the products.
- E – Commerce has enabled rural areas to access services and products, which are otherwise not available to them.

- E – Commerce helps the government to deliver public services such as healthcare, education, social services at a reduced cost and in an improved manner.

### **Limitation of E – Commerce :**

There are various limitations of E – Commerce such as

- Increase in competition with emerging new technologies.
- A threat of an increase in cybercrimes.
- Negotiation is not possible on online platforms.
- Creates social differences as technical knowledge is a must for using E – Commerce.
- Cost of internet and equipment to access the e – platforms.

## **2.4 MANAGERIAL ISSUES OF E – COMMERCE :**

### **Issues in E – Commerce :**

E – Commerce, or electronic commerce, is the buying and selling of goods and services over the internet. While E – Commerce has become increasingly popular and convenient for consumers and businesses alike, it also comes with several issues and challenges that must be addressed to ensure its success. Here are some of the most common E – Commerce issues :

#### **Privacy violation –**

- Many times we heard that companies have sold the personal details of their customers. This is a very common issue nowadays even sometimes we allow sites to fully access our devices, and also when we fill personal details in our account section these details can be used for many purposes.
- E – Commerce also keeps track of our online activity or product preferences and product listing based on this information they recommend products to us and advertise on platforms which we use like Facebook, Instagram, and many more.
- Privacy invasion can also be done when there is low security in the E – Commerce site. Hackers can hack the servers of E – Commerce sites and gets personal information of users like credit card details, phone number, and passwords.

#### **Website spoofing :**

It is a technique to create the same lookalike website as other websites. When the user by mistake types any other word in place of the original word they land on a page that is the same as the original website. Or when a link is circulated among a group of persons of the fake website they basically contain malicious code or they lure customers to buy their product and give their personal details.

- **Online piracy :** It is unauthorized copyright of the original property. Many sites provide free copyright e-books, e-music, e-movies which are unethical. Sometimes original trademarks are used to sell fake products. It is basically the use of other's content without their permission or without any right to download and distribute it. It has become the most dangerous threat to content owners.
- **Email – spamming :** Email spamming is a very common way to defraud users. This technique is also known as phishing. In this, spammers sent emails to customers and lure them with products and exciting offers. They tempt users to purchase their products and give their personal details on their fake websites. Sometimes these emails are marked as spam mails but most often when we give personal details such as name, email, phone number then they can easily send their mails to defraud users. It is also known as junk mails.
- **Security :** Security is a significant issue in E – Commerce. Customers must trust the online store they are purchasing from and be confident that their personal and financial information is secure. Online businesses must ensure that their payment systems are secure and that they have strong measures in place to protect customer data.
- **Fraud :** E – Commerce is vulnerable to fraud. Fraudsters may use stolen credit card information to make purchases or create fake websites to deceive customers into sharing their personal and financial information. Online businesses must be vigilant in detecting and preventing fraud, such as implementing security measures like two-factor authentication.
- **Privacy :** Privacy concerns are another issue in E – Commerce. Customers may be hesitant to share their personal information, such as their name, address, and email, with online businesses. Companies must be transparent in their data collection and use policies and provide customers with clear options for opting out of data collection.
- **Shipping and delivery :** Shipping and delivery can be a major issue in E – Commerce. Customers expect timely and reliable delivery of their purchases, and online businesses must have efficient logistics systems in place to meet those expectations. Unexpected delays, lost shipments, or damaged goods can lead to dissatisfied customers.
- **Customer service :** E – Commerce companies must provide high-quality customer service to retain customers and build a positive reputation. Customers expect prompt responses to their inquiries and concerns and easy returns and exchanges if necessary. Online businesses must have efficient customer support systems in place to address customer issues.
- **Competition :** E – Commerce is a highly competitive industry, and online businesses must differentiate themselves from their competitors to succeed. They must offer unique products, excellent customer service, and attractive prices to stay ahead of the competition.

- **Regulatory compliance :** E – Commerce companies must comply with a range of regulations, such as data protection laws and tax regulations, depending on their location and the locations of their customers. Failure to comply with these regulations can result in legal and financial consequences.

## 2.5 WHAT ARE ECOMMERCE OPERATIONS ?

The elaborate and demanding process that ecommerce merchants execute on the backend results in a smooth online buying experience for the customer. Organizing activities involved in running an online business and facilitating the sale of products through electronic channels are what we define as ecommerce operations.

Ecommerce operations encompass the entire lifecycle of an ecommerce business, from product sourcing or creation to customer acquisition, order fulfillment, and customer support. In some organizations, an ecommerce operations manager is hired specifically to oversee these operations and, if need be, execute important tasks. Here are some of the important operations:

- Product management
- Website & UI
- Marketing and customer acquisition
- Ecommerce payment processing
- Inventory management
- Order fulfillment
- Customer support and relationship management
- Data analytics and insights

## 2.6 HOW TO OPERATE AN ECOMMERCE BUSINESS ?

Let's break down each of the points businesses must consider and implement to ensure efficient and thriving ecommerce operations. We will split it into three elementary stages.

### **First Stage : Pre – purchase Phase :**

The term is self – explanatory. The first stage of the purchase process is when the customers have not bought anything yet but are contemplating it. Before they discover your brand, you need to be equipped with a thing or two. We will succinctly cover three salient aspects of it.

#### **I) Product management :**

Product management is a challenging yet rewarding experience for new businesses. As a business operating out of the online space, ensure you manage the assortment of products you sell online by organizing their information, cataloging them, and carrying out

other related work around it. At this stage, work cannot be entirely automated. Consider the following points :

- **Sourcing** : Find the place from where your materials or products will be procured—farms or factories, retailers or wholesalers, locally or internationally. Then, figure out how to get them to your production unit(s), or warehouse(s).
- **Storage** : You may store products at home if you are just beginning your online business or it could be somewhere else (you can rent out storage facilities or warehouses at nominal prices). No matter where, make sure products are well organized and stored in an environment that won't affect the product in any way. For instance, excess heat or moisture in a room can affect edible items or leather goods.
- **Pricing** : Based on labor, places you have sourced materials or products from, storage and other factors, and the value of your products, determine a competitive price or a discounted or premium price based on what you are selling, its quality, and the demand for it. This is your pricing strategy for your business.
- **Labeling** : This is an important function, even more so for ecommerce businesses since the buyers likely can't touch or physically see the products; their first impression is based on what they see on your site, which is the product label and description. Mention the brand and product name, describe the product and its use in detail, list the ingredients or materials it is made of, and include the manufacturing date and place, batch and serial number as well as variants (color, size, or anything relevant). Include instructions or warnings, nutritional value (if applicable), and any other information that can inform the customer.
- **Cataloging** : Maintaining an up-to-date product catalog with accurate descriptions, images, and pricing is necessary. You may also create product variants (such as sizes or colors) and manage product attributes and specifications. Ecommerce product cataloging helps you track products, price accurately, and categorize them for easy navigation and search ability.

By effectively managing these aspects of product management, ecommerce businesses can ensure their product offerings align with customer expectations, drive sales, and maintain a competitive edge in the online marketplace.

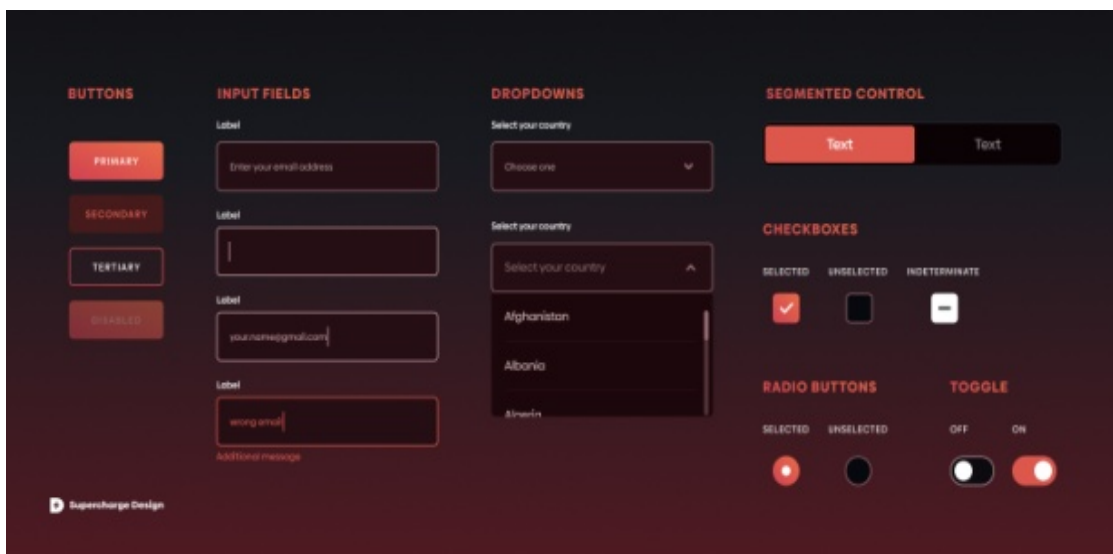
## II) Website and UI :

If you are in a mall or a shop with haphazardly laid-out escalators, confusing aisles, or simply a design that makes you feel lost, you'll definitely walk out. An online store with a bad website and UI is no different. An ecommerce website must provide a user or visitor with a simple, yet efficient, shopping experience. According to Forrester Research, a great UI may result in an improvement in the conversion rate on your website by up to 200%.

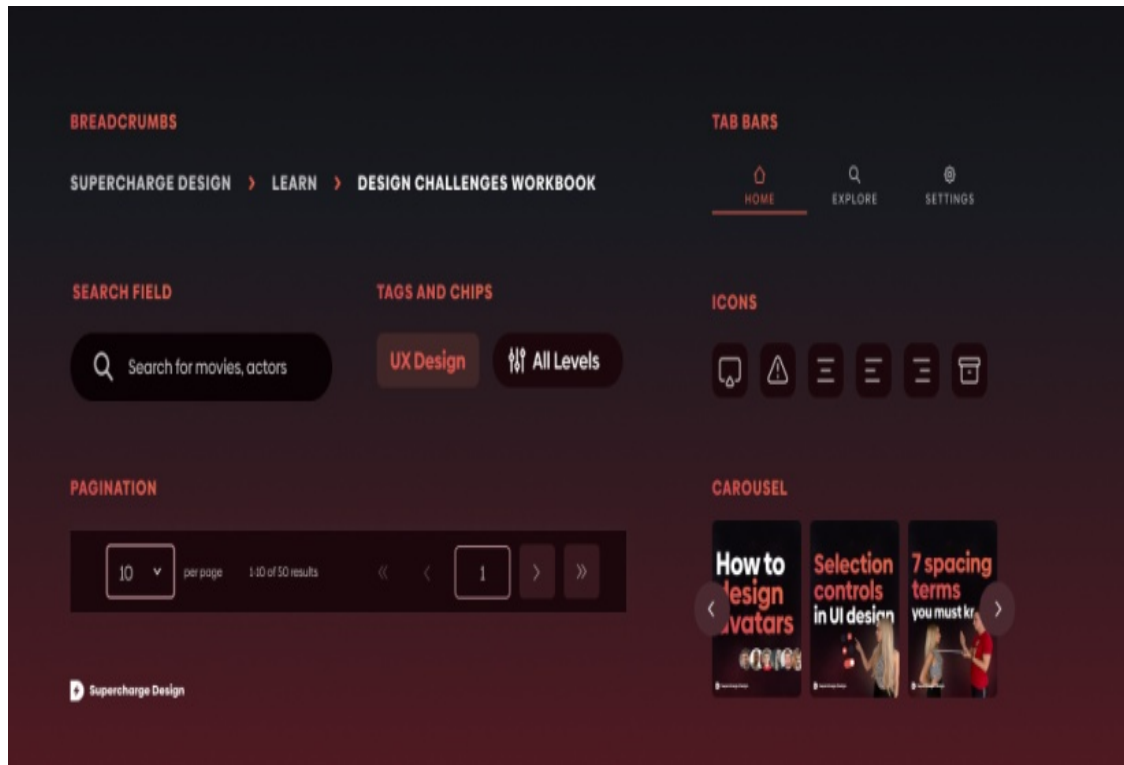


Incorporate these foundational design elements intelligently to help your users conveniently navigate through your online store, discover information easily, comfortably manage tasks like payment transactions, and overall give them a happy shopping experience. Here are points you must remember while designing your site.

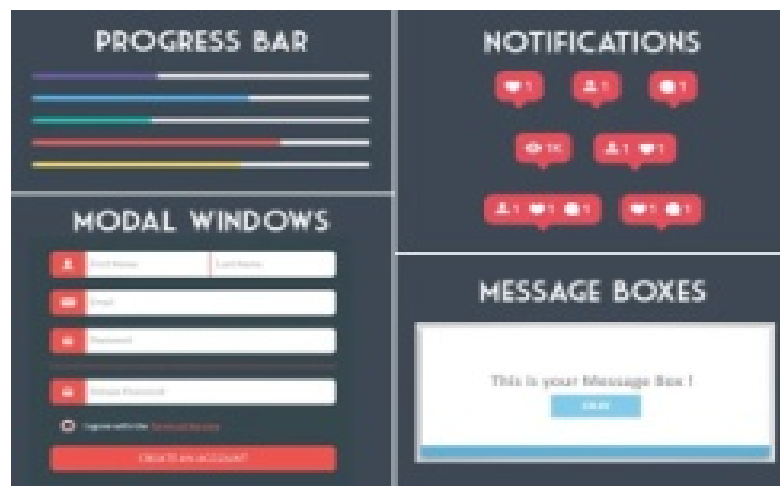
- Input controls** : Any design element of your online store that allows users to input information into your website will be classified as input controls. It includes checkboxes, drop-down menus, buttons, text fields, toggles or sliders, radio or option buttons (where users can select one option in a list of options), date and time selectors, and other similar elements.



- **Navigational elements** : These elements are used to guide users through your website in an interactive, heuristic manner. Examples of navigational elements include image carousels, search options, menu bars of all kinds (like a simple horizontal menu, hamburger/side menu, mega menu, or scroll-triggered menu), breadcrumbs, pagination (or page numbers on the screen), and more.



- **Informational elements** : As the name suggests, these elements help customers understand what they are about to do. Pop-ups, modal windows (which prompt the user to confirm an action like Add or Delete or Exit), progress bars, scroll bars, push notifications, and dialog boxes are a few examples.





- **Build a sound website :** Figure out how you can build a well-functioning website to increase conversion rates. Check if you have the resources to build it from scratch and maintain the security aspect of it. If you can't do that, look for builders or platforms that will let you easily build an ecommerce website, allowing you to incorporate all necessary elements and more. Do not forget to look into the security aspect of the site to ensure there are no critical vulnerability attacks.

### III) Marketing and Customer acquisition :

Seldom can anyone challenge the fact that marketing plays a crucial role in nudging a business toward success. Here are some brief pointers to guide you.

- **Executive summary :** Start with a summary including the company's vision, mission, values, target audience, and marketing goals. This will enable you to understand marketing goals better and take steps in the same direction. You can download our summary template to fill in your details.
- **Funnel marketing :** The information from the previous step will help you understand how to divide your attention, budget, and resources among the top, middle, and bottom funnel. You'll understand how to attract a user's attention, get them to become your customers, then repeatedly purchase from you finally becoming a brand loyalist. Learn about funnel marketing in depth to ensure business growth.



- **Marketing channels :** You can use various marketing channels such as search pay-per-click (PPC) advertising, blogs, podcasts, social media, and more to drive traffic and impress your customers. With Zoho Campaigns, you can automate email workflows to promote your Zoho Commerce store and go on to

build a criteria-based email journey, craft targeted content, automate purchase and abandoned cart follow-ups, and more. You can also take care of the SEO aspects of your online store on Zoho Commerce. Additionally, you can use affiliate marketing to drive traffic and conversion and use a tool like Zoho Thrive to manage affiliate marketing.

- **Analysis :** Once customers start pouring in, read heat maps and scroll maps to get an idea of what is catching their attention, and then tweak your approaches. For example, you might need to tweak the website UX/UI, CTAs, or the placement of images and text. A tool like PageSense will do that and additionally let you incorporate pop-ups and chatbots to gently nudge visitors into becoming your customers.

### **Second Stage : Purchase Phase :**

Now that you have prepared the basic aspects of your business, you're prepared to welcome and woo your customers in the second stage. This stage begins the moment a customer discovers you. From there on, you will have to make sure they have a positive shopping experience. The key operations serve as a vital foundation of any organization, providing essential support and stability. Let's discuss some of them.

#### **I) E – Commerce Payment Processing :**

What sets apart an ecommerce store from a mere website is the fact that it facilitates payment transactions. This step needs your careful attention; if not, it'll cost you.



Imagine not getting paid or your customer having their money deducted only for your website to say the payment has not been received and their order won't be processed. This will end up driving your customers away. It directly impacts the user experience. Keep the points below in mind.

- **Payment methods :** You can't afford to get the customer to the payment page only for them to be disappointed with their payment options and not make the

purchase at all. It is essential for ecommerce websites to offer a variety of payment methods to cater to customer preferences. Some of them are credit and debit cards, bank transfers, and digital wallets like Amazon Pay, Google Pay, and Apply Pay. Offline payments are important too, under which options like cash on delivery (COD) and checks fall.

- **Payment gateway :** This acts as a middleman between your ecommerce website and the financial institution. Once a customer enters their sensitive data, the payment gateway encrypts the data and takes it to the payment processor (which then validates the availability of funds and initiates the transfer of funds). Stripe, PayPal, Authorize.Net, PayTabs, and Mercado Pago are some examples of payment gateways. It is crucial for an ecommerce store to be integrated with trustworthy payment gateways.
- **Security measures :** Never forget to implement security measures such as Secure Sockets Layer (SSL) certificates, encryption, and compliance with Payment Card Industry Data Security Standard (PCI DSS) requirements. These measures protect sensitive data and build trust with customers.
- **Fraud prevention :** Your website must employ fraud prevention measures to mitigate risks associated with fraudulent transactions. This includes tools like address verification, card security code verification, and advanced fraud detection systems that analyze transaction patterns and flag suspicious activity.

Integrating a reliable payment gateway and implementing robust payment processing procedures not only facilitate secure transactions but also build customer trust and satisfaction.

**i) Inventory management :**



Keeping tabs on the stocks of your products is as important as storage itself. When inventory information is not organized, you can have angry or disappointed customers as poor inventory management might result in under stocked or out of stock goods. Similarly, this can cause overstocked goods, too. This can hurt your cash flow and is one of the foremost reasons why small businesses come to an abrupt end. Learn how to stock and sell efficiently with the help of the tips below.

- **Inventory management techniques :** There are various ways a company can choose to stock its goods. ABC analysis lets you categorize items based on their relative importance which could be high-value items that are a small percentage of total inventory (or vice-versa), or a situation where value and demand of the item is moderate. You can decide to move out the newest stock (last in, first out) or the oldest stock (first in, first out). There's also Just-In-Time Inventory (JIT) that lets you stock up in exact quantities according to the orders received. Safety stock is the opposite of this. Find out which method needs to be applied to your products.
- **Inventory forecasting :** Dig into historical sales data, market trends, and customer behavior to anticipate future demand and adjust inventory accordingly. You can prevent stockouts or excess inventory. Demand forecasting is essential for maintaining optimal inventory levels.
- **Inventory audit :** From time to time, check the inventory levels with the actual count of products that your company holds, and verify the same with the help of financial records. You can even hire an auditor to carry out the audit. This is necessary to ensure accurate reporting of stock levels. It can also detect fraudulent reporting.
- **Inventory management :** Automate inventory management. Use tools that seamlessly integrate with your ecommerce platform to track inventory in real time and synchronize inventory information across sales channels like websites, social media, and more. This ensures product availability, happy customers, and efficient inventory planning. Zoho Commerce stores can be integrated with Zoho Inventory to track product inventory across channels, set quantity restrictions, get low-stock alerts, track products based on serial or batch numbers, increase or decrease stock, get inventory insights, and more.

## ii) Order Fulfillment :

Even before a customer receives and uses a product, they might form an impression of your brand based on the order fulfillment. Timely order processing, fast shipping, and proper packaging contribute to a positive customer experience. That is why businesses need to have an impeccable process in place.



Here are the key aspects of order fulfillment and its relevance to ecommerce businesses :

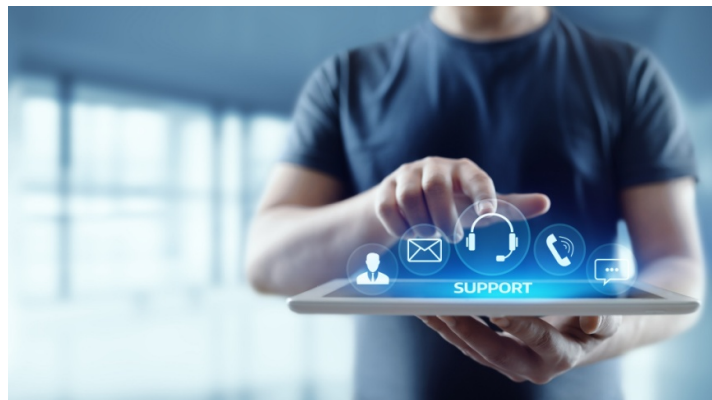
- **Order fulfillment types** : Decide on the type of order fulfillment you will use based on the scale of your business operations. Self-fulfillment lets you handle the entire fulfillment process without outsourcing it. From storing inventory, processing orders, picking and packing them, shipping to customer care, or even reverse logistics (managing product returns), the brand does it all. A 3PL (third-party logistics) allows you to buy and store inventory with them. You manage the inventory levels but let them pack and ship the products. With a dropshipper, brands do not have to control the inventory either. With this, you can directly be in touch with your manufacturer or supplier and ask them to pack and ship an order the moment you receive an order from your customer.
- **Ecommerce packaging** : Give your customers a good unboxing experience. Premium packaging or a simple one with quirky notes can portray the brand in a certain way. Use ribbons, boxes, sleeves, and pouches creatively. In an increasingly eco-conscious society, packaging material has gained a lot of prominence. You can opt for recycled or upcycled materials. Packaging should protect the products well before it reaches the customer and it must be fairly simple to open.
- **Shipping and logistics** : Shipping and logistics are critical components of ecommerce business success. Research carefully and choose fast and reliable shipping options to give your business a competitive edge. Select the right shipping carriers, negotiate favorable rates, and manage shipping options (such as expedited shipping or free shipping). Your ecommerce platform must integrate with shipping carriers to manage shipping smoothly and to enable real-time delivery updates to customers. Efficient logistics management ensures orders are delivered on time, tracked accurately, and handled securely.
- **Returns** : Order fulfillment also encompasses managing returns and exchanges. Establishing a clear and efficient returns process, providing seamless customer support, and implementing effective reverse logistics are essential for handling customer returns. By managing returns well, businesses can maintain customer

satisfaction, minimize the impact on profitability, and gain valuable insights for process improvement.

### **THIRD STAGE : POST – PURCHASE PHASE :**

A customer's journey does not end with a purchase. Businesses know that retaining a customer will earn them their rewards. Stellar customer support, open feedback channels, and user data (to tailor personalized shopping experiences) are key points you must remember for your ecommerce business. Let's dig into the details.

#### **i) Customer support and relationship management :**



E – Commerce businesses can build trust, enhance customer satisfaction, and foster long-term customer loyalty by simply focusing on customer support and relationship management. Building such strong customer relationships results in increased customer lifetime value, positive brand reputation, and a competitive edge in the ecommerce market. Consider the points below to establish a lasting relationship with your valued customers.

- **After – sales service support :** This can be order-related inquiries like shipping issues, package tracking, order status, returns or refunds, and any other order discrepancies. It can also be post-purchase queries around product usage, warranty or repair, uninstallation, or an upgrade. You will need to automate emails (with tools like Zoho Campaigns) and chats (with chatbots generated by tools like Zoho SalesIQ) to automatically address these enquiries as quickly as possible before it is passed to a customer support professional.
- **Help desk :** Customers may require assistance with payment processing, or product-related issues, among other things. Redressing your customer's complaints in the online era can be a little tricky, and that is why you need to automate them with help desk software. A tool like Zoho Desk can help you design a sequence of responses to be triggered based on specific conditions, to ensure consistent customer support. It also collects and presents tickets from all platforms like email, telephone, social media, live chat, or web forms, in a

unified interface. It converts social media comments or messages to tickets, too. Streamline your ticket management process to win over your online customers.

- **Feedback:** For new and established businesses alike, feedback is the only way to grow. Send out automated emails requesting customers leave you a review. Create different kinds of surveys to get a pulse of your audience. Once you integrate Zoho Survey with your Zoho Commerce store, you can create feedback surveys to measure customer satisfaction, abandoned cart surveys to gauge the reason for an incomplete purchase, quizzes to pique the interest of your audience, and more. With Zoho PageSense, you can also include questionnaires inviting your customers to give long or short answers, ratings, scores, and more.

## ii) Data analytics and insights :

Never forget to leverage analytics and reports to gather data on customer behavior, website performance, and sales trends so you can make informed decisions.



Monitoring key metrics, analyzing customer data, and using insights to optimize operations and marketing strategies are essential. Here are two points to give you a broad overview of important tools you can use.

- **Customer Relationship Management (CRM) :** CRM systems allow ecommerce businesses to consolidate and manage customer data in a central database. This includes contact information, purchase history, communication history, preferences, and interactions across different channels. It enables you to track customer interactions and engage with them across various touchpoints, which is crucial to an omnichannel ecommerce business.

By analyzing customer data and purchase history, you can send targeted and personalized marketing campaigns, recommendations, and promotions. Having a comprehensive view of customer data enables you to personalize interactions, understand customer needs, and provide a seamless shopping experience.

- **Ecommerce reports** : Dig into data to get your hands on important information (that is nothing short of gold for an online store). Traffic reports can indicate the devices customers use to browse your store, countries, and regions from where you get website traffic. Sales reports can provide stats on the overall performance of your store as well as product-wise or category-specific information on what is performing well or otherwise. Abandoned cart information or information on visitor interaction (through bounce rate, heat map, scroll map, attention map, and more) can help you discern drop-off patterns. With all this, you can segment customers, tailor marketing campaigns, give personalized product recommendations, optimize the website, manage inventory, and increase conversion rates.

### **In conclusion :**

We are confident you now understand why effective management of ecommerce operations is crucial for the success of online businesses. Everything plays a vital role in running a business, from sourcing your products to labeling and packaging them, receiving payments and shipping them, to engaging with customers after their purchase and analyzing customer and website data. When you manage these functions seamlessly, your business will thrive and grow.

## **2.7 WHO ARE THE ACTORS IN A CREDIT AND DEBIT CARD TRANSACTIONS?**

- **A cardholder** obtains a credit or debit card from an issuing bank, uses the account to pay for goods or services.
- **A merchant** is any type of business that accepts card payments in exchange for goods or services.
- **A merchant bank** establishes and maintains merchant accounts. Merchant banks allow merchants to accept deposits from credit and debit card payments.
- **Payment processors** are companies that process credit and debit card transactions. Payment processors connect merchants, merchant banks, card networks and others to make card payments possible.
- **Issuing banks** are the banks, credit unions and other financial institutions that issue debit and credit cards to cardholders through the card associations.
- **Card associations** include Visa, Mastercard, Discover and American Express. The card associations set interchange rates and qualification guidelines, and act as the arbiter between issuing banks and acquiring banks among other vital functions.

### **What does credit card processing :**

Credit card processing works in three distinct processes :

#### **I. Authorization**



**II. Settlement****III. Funding**

- The cardholder presents their card (swipe, tap, insert or other secure method i.e. contactless or by entering number for online credit card payment) to a merchant in exchange for goods or services. The request might originate from a credit card terminal or point of sale system in a brick-and-mortar store, an e – Commerce website gateway, through mobile or in-app payment acceptance.
- The merchant sends a request for payment authorization to their payment processor.
- The payment processor submits transactions to the appropriate card association, eventually reaching the issuing bank.
- Authorization requests are made to the issuing bank , including parameters like CVV, AVS validation and expiration date.
- The issuing bank approves or declines the transaction. Transactions can be declined for insufficient funds or available credit, if the cardholder’s account has been closed or expired, if a payment is past due or other factors.
- The issuing bank then sends the approval (or denial) status back along the line to the card association, merchant bank and finally to the merchant.

**Credit card settlement and funding process :**

This part is essentially how the merchant gets paid from the credit cards they accept.

- Merchants send batches of authorized transactions to their payment processor.
- The payment processor passes transaction details to the card associations that communicate the appropriate debits with the issuing banks in their network.
- The issuing bank charges the cardholder’s account for the amount of the transactions.
- The issuing bank then transfers appropriate funds for the transactions to the merchant bank, minus interchange fees.
- The merchant bank deposits funds into the merchant account.

The settlement and funding processes that used to take days are now almost always handled overnight, helping merchants get paid quickly.

**2.8 SUMMARY :**

The popularity of e – commerce stores is continuously increasing, and there is no sign to stop. Several ecommerce stores opened a new business, but facing difficulty in attracting new customers. Through Ecommerce we can global customers. It provides 24/7 customer service with the help of Live Chat software, you can resolve the customers’ queries

effortlessly. The lower costs of running an e-commerce store versus a physical store translate to cost savings for the consumer. A threat of an increase in cybercrimes is most drawback of the Ecommerce.

The elaborate and demanding process that ecommerce merchants execute on the backend results in a smooth online buying experience for the customer. An E – Commerce website gateway, through mobile or in – app payment acceptance. The merchant sends a request for payment authorization to their payment processor. Offline payments are important too, under which options like cash on delivery (COD) and checks fall.

## **2.9 KEY WORDS :**

### **Website UI :**

The user-facing design of a webpage or application.

### **Traditional Commerce :**

A branch of trade, which concentrates on the exchange of goods and services.

### **Data analytics and insights :**

The process of collecting and analyzing large amounts of information.

### **Labeling :**

A modern alternative to strictly physical labeling that provides web-based product information via electronic screens such as smart phones and computers.

### **Cataloging :**

Showcasing products or services and setting them up for online consumption using technology.

### **Input controls :**

Input controls are interactive elements of the Interfaces.

### **Navigational elements :**

Helps users move from page to page in order to create a seamless shopping experience.

### **Marketing channels :**

A marketing channel is the type of medium used to advertise your company.

### **Funnel marketing :**

A series of steps that potential customers move through when they interact with a business's website.

**E – Commerce payment processing :**

Payment gateways, payment processors, merchant accounts, security and fraud prevention measures, and regulatory compliance.

**Fraud prevention :**

Monitoring transactions and user behavior enables businesses to identify and respond to suspicious activities in real time.

**2.10 SELF ASSESSMENT QUESTIONS :**

1. Define meaning and definition of E – Commerce.
2. What are the objectives of E – Commerce.
3. Types/classification of E – Commerce0
4. Write about the differences between traditional commerce and E – Commerce.
5. Advantages and disadvantages of E – Commerce.
6. What are the stages to operate E – Commerce business?

**2.11 SUGGESTED BOOKS :**

1. E – Commerce – An Indian perspective T Joseph, Prentice Hall, 2/e, 2005.
2. E – Commerce concepts, models, strategies, C S V Moorthy, Himalaya Publications.

**D. Swapna**

## LESSON – 3

# E – COMMERCE PROTOCOL

### Objectives :

After reading this lesson, one should be able to

- understand meaning of S-HTTP
- understand the concepts and types of EPS
- to know about the SET Protocol and Functionalities
- to know about the working types of smart cards

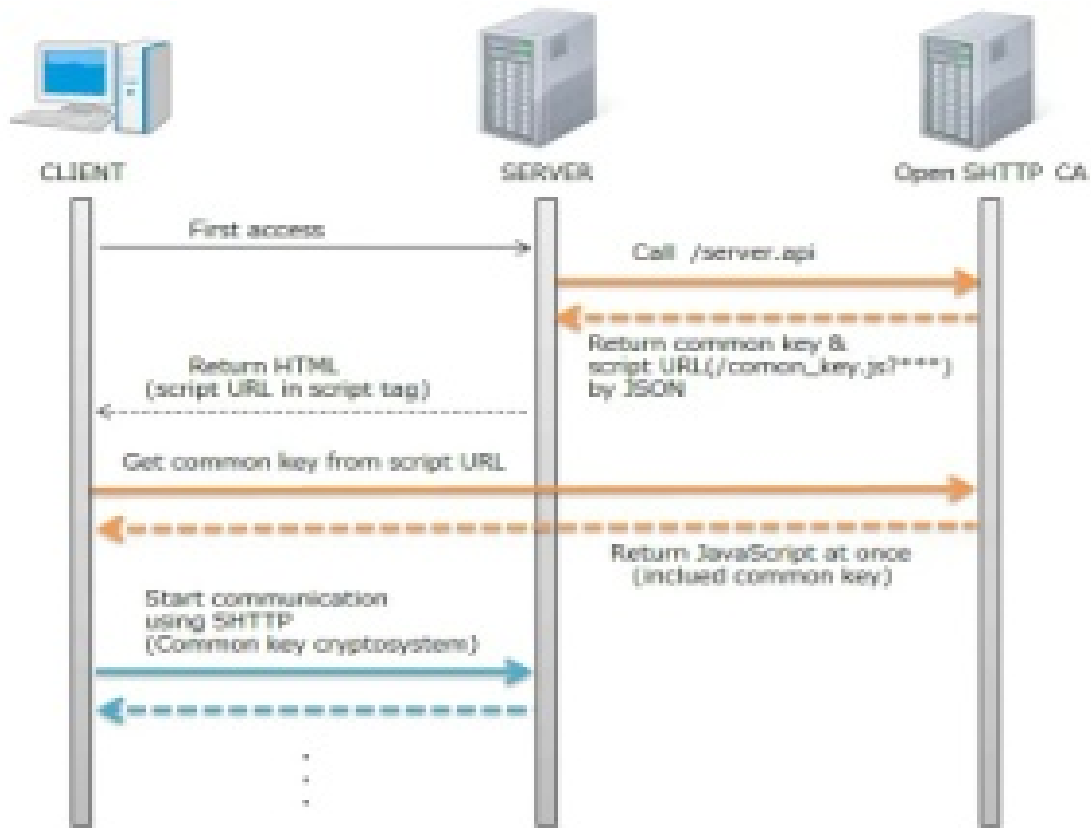
### Structure of the Lesson :

- 3.1 S – HTTP
- 3.2 Electronic Payment System
- 3.3 SET Functionalities
- 3.4 SET Architecture.
- 3.5 SET Business Requirements
- 3.6 Cyber Cash
- 3.7 Smart Cards
- 3.8 Summary
- 3.9 Key Words
- 3.10 Self Assessment Questions
- 3.11 Suggested Books

### 3.1 S – HTTP (SECURE HYPERTEXT TRANSFER PROTOCOL) ?

S – HTTP stands for Secure Hypertext Transfer Protocol, is an Internet protocol for encryption of Hypertext Transfer Protocol (HTTP) traffic. Secure Hypertext Transfer Protocol (S – HTTP ) is an application-level protocol that extends the HTTP protocol by adding encryption to Web pages. It also provides mechanisms for authentication and signatures of messages.

S – HTTP provides broad support for implementing different types of cryptographic algorithms and key management systems. Although S – HTTP systems can make use of digital certificates and public keys, messages can also be encrypted on a per-transaction basis using symmetric session keys. S – HTTP was proposed as a draft standard in 1996 and is still under development.



S – HTTP is also server software.

S – HTTP is not as widely implemented as Secure Sockets Layer (SSL), which is independent of protocol and works with HTTP, Simple Mail Transfer Protocol (SMTP), Network News Transfer Protocol (NNTP), and other Internet protocols.

S – HTTP is also the name given to World Wide Web (WWW) server software that implements the S – HTTP protocol. This software was developed by Enterprise Integrations Technologies (EIT), the National Center for Supercomputing Applications (NCSA), and RSA Security.

Secure HTTP (S – HTTP ) is a secure message-oriented communications protocol designed for use in conjunction with HTTP. S – HTTP is designed to coexist with HTTP's messaging model and to be easily integrated with HTTP applications.

Secure HTTP provides a variety of security mechanisms to HTTP clients and servers, providing the security service options appropriate to the wide range of potential end uses possible for the World-Wide Web (WWW). S – HTTP provides symmetric capabilities to both client and server (in that equal treatment is given to both requests and replies, as well as for the preferences of both parties) while preserving the transaction model and implementation characteristics of HTTP.

Several cryptographic message format standards may be incorporated into S – HTTP clients and servers. HTTPS (S – HTTP ) supports interoperation among a variety of implementations, and is compatible with HTTP. S – HTTP aware clients can communicate with S – HTTP oblivious servers and vice-versa, although such transactions obviously would not use S-HTTP security features.

S – HTTP does not require client-side public key certificates (or public keys), as it supports symmetric key-only operation modes. This is significant because it means that spontaneous private transactions can occur without requiring individual users to have an established public key. While S – HTTP is able to take advantage of ubiquitous certification infrastructures, its deployment does not require it.

S – HTTP supports end-to-end secure transactions. Clients may be "primed" to initiate a secure transaction (typically using information supplied in message headers); this may be used to support encryption of fill-out forms, for example. With S-HTTP, no sensitive data need ever be sent over the network in the clear.

S – HTTP provides full flexibility of cryptographic algorithms, modes and parameters. Option negotiation is used to allow clients and servers to agree on transaction modes cryptographic algorithms (RSA vs. DSA for signing, DES vs. RC2 for encrypting, etc.); and certificate selection.

S – HTTP attempts to avoid presuming a particular trust model, although its designers admit to a conscious effort to facilitate multiply-rooted hierarchical trust, and anticipate that principals may have many public key certificates. HTTPS differs from Digest-Authentication in that it provides support for public key cryptography and consequently digital signature capability, as well as providing confidentiality.

Another popular way of making secured web communication is HTTPS, which is the HTTP runs on top of TLS or SSL for secured transactions.

### **3.2 ELECTRONIC PAYMENT SYSTEM ?**

Electronic Payment System (e – Payment) is a type of payment conducted via electronic or online mediums. Online payment systems eliminate the need for cash or cheque payments. It is a unique payment method that allows you to conduct online transactions via digital wallets, bank cards and internet banking systems. The funds are directly debited from your bank account.

#### **Types of Electronic Payment System :**

The RBI has introduced various cost-effective payment solutions as an alternative to cash transactions. The commonly used types of electronic payment systems include:

#### **ECS Payments :**

For bulk and repetitive payments like salary credit, interest payment, dividend payments from companies, etc., the RBI introduced the Electronic Clearing Service (ECS)

credit scheme in the 1990s. This system enables payers to credit a specific amount directly into the payees account on a particular date. ECS enables recurring payments to banks, Mutual Fund companies, service providers, utility companies, etc. The bank collects payment from your account and passes it on to the relevant companies.

### **Electronic Fund Transfers: NEFT, RTGS, and IMPS :**

National Electronic Fund Transfer (NEFT), Real-Time Gross Settlement (RTGS), and Immediate Payment Services (IMPS) are three modes of electronic fund transfers. With NEFT, you can transfer any amount of money, while the minimum transaction limit for RTGS is INR 2 lakhs. These transactions are cleared in half-hour batches, whereas IMPS transactions have a daily limit of INR 5 lakhs and are instantly cleared.

### **Clearing Corporations :**

Clearing Corporations settle trades in money markets, foreign exchange markets and government securities. Banks and other financial institutions set Clearing Corporation of India Limited (CCIL) as an industry-wide clearing company across India.

### **Pre – Paid Payment Systems :**

These include the purchase of goods and services using bank cards. You can use internet and mobile banking facilities, third party or bank digital and mobile wallets, and credit and debit cards to make payments on domestic and international e-commerce websites.

### **Advantages of Electronic Payment System :**

Having explained what is e-payment system, here are its primary advantages.

#### **Lower costs :**

E – payments eliminate the costs associated with paper cheques, cash and postage. Payments conducted via electronic payment systems like credit card or debit card charges, processing fees, internet fees, etc., are lower.

#### **Highly accessible :**

You only need an internet-enabled device like a smartphone or computer to access the various type of types of electronic payment systems from any place, any time.

#### **Speedy transactions :**

You can buy the product within seconds, transfer money, pay your loan EMIs, get salary credits, and more with electronic payments.

#### **Final Note :**

E payments have undoubtedly revolutionised the banking sector. Today, you can book all types of services and buy almost anything without exchanging a single rupee in cash. All transactions are quick and secure, making e-payments the ideal money transaction method.

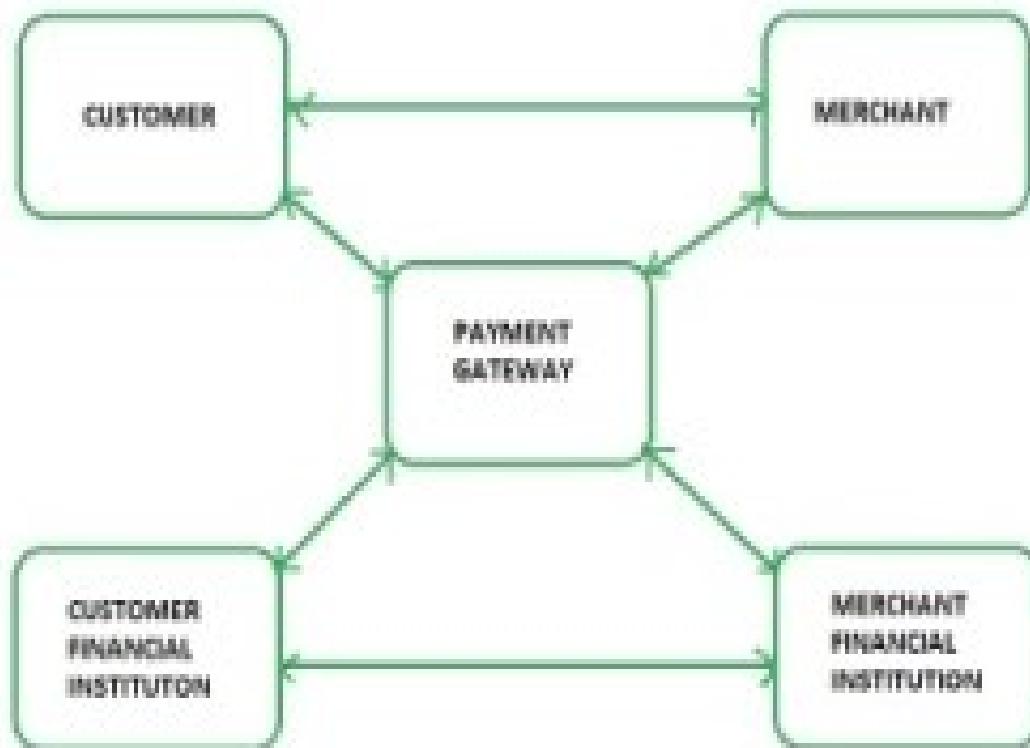
### **Secure Electronic Transaction (SET) Protocol :**

**Secure Electronic Transaction** or SET is a system that ensures the security and

integrity of electronic transactions done using credit cards in a scenario. SET is not some system that enables payment but it is a security protocol applied to those payments. It uses different encryption and hashing techniques to secure payments over the internet done through credit cards. The SET protocol was supported in development by major organizations like Visa, Mastercard, and Microsoft which provided its Secure Transaction Technology (STT), and Netscape which provided the technology of Secure Socket Layer (SSL).

SET protocol restricts the revealing of credit card details to merchants thus keeping hackers and thieves at bay. The SET protocol includes Certification Authorities for making use of standard Digital Certificates like X.509 Certificate.

Before discussing SET further, let's see a general scenario of electronic transactions, which includes client, payment gateway, client financial institution, merchant, and merchant financial institution.



### Requirements in SET:

The SET protocol has some requirements to meet, some of the important requirements are :

It has to provide mutual authentication i.e., customer (or cardholder) authentication by confirming if the customer is an intended user or not, and merchant authentication.

It has to keep the PI (Payment Information) and OI (Order Information) confidential by appropriate encryptions.



It has to be resistive against message modifications i.e., no changes should be allowed in the content being transmitted.

SET also needs to provide interoperability and make use of the best security mechanisms.

Participants in SET :

In the general scenario of online transactions, SET includes similar participants :

**Cardholder** – customer

**Issuer** – Customer financial institution

**Merchant**

**Acquirer** – Merchant financial

**Certificate Authority** – Authority that follows certain standards and issues certificates (like X.509V3) to all other participants.

### 3.3 SET FUNCTIONALITIES :

**Provide Authentication :**

**Merchant Authentication** – To prevent theft, SET allows customers to check previous relationships between merchants and financial institutions. Standard X.509V3 certificates are used for this verification.

**Customer / Cardholder Authentication** – SET checks if the use of a credit card is done by an authorized user or not using X.509V3 certificates.

**Provide Message Confidentiality:** Confidentiality refers to preventing unintended people from reading the message being transferred. SET implements confidentiality by using encryption techniques. Traditionally DES is used for encryption purposes.

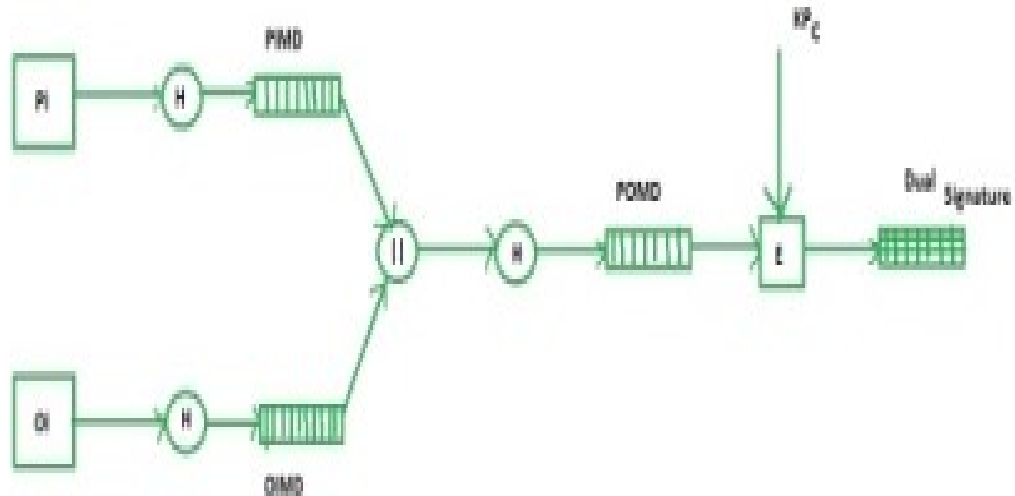
**Provide Message Integrity :** SET doesn't allow message modification with the help of signatures. Messages are protected against unauthorized modification using RSA digital signatures with SHA-1 and some using HMAC with SHA-1,

**Dual Signature :** The dual signature is a concept introduced with SET, which aims at connecting two information pieces meant for two different receivers :

**Order Information (OI) for merchant**

**Payment Information (PI) for bank**

You might think sending them separately is an easy and more secure way, but sending them in a connected form resolves any future dispute possible. Here is the generation of dual signature:



Where,

PI stands for payment information

OI stands for order information

PIMD stands for Payment Information Message Digest

OIMD stands for Order Information Message Digest

POMD stands for Payment Order Message Digest

H stands for Hashing

E stands for public key encryption

KPc is customer's private key

|| stands for append operation

Dual signature,  $DS = E(KPc, [H(H(PI)||H(OI))])$

### **Purchase Request Generation :**

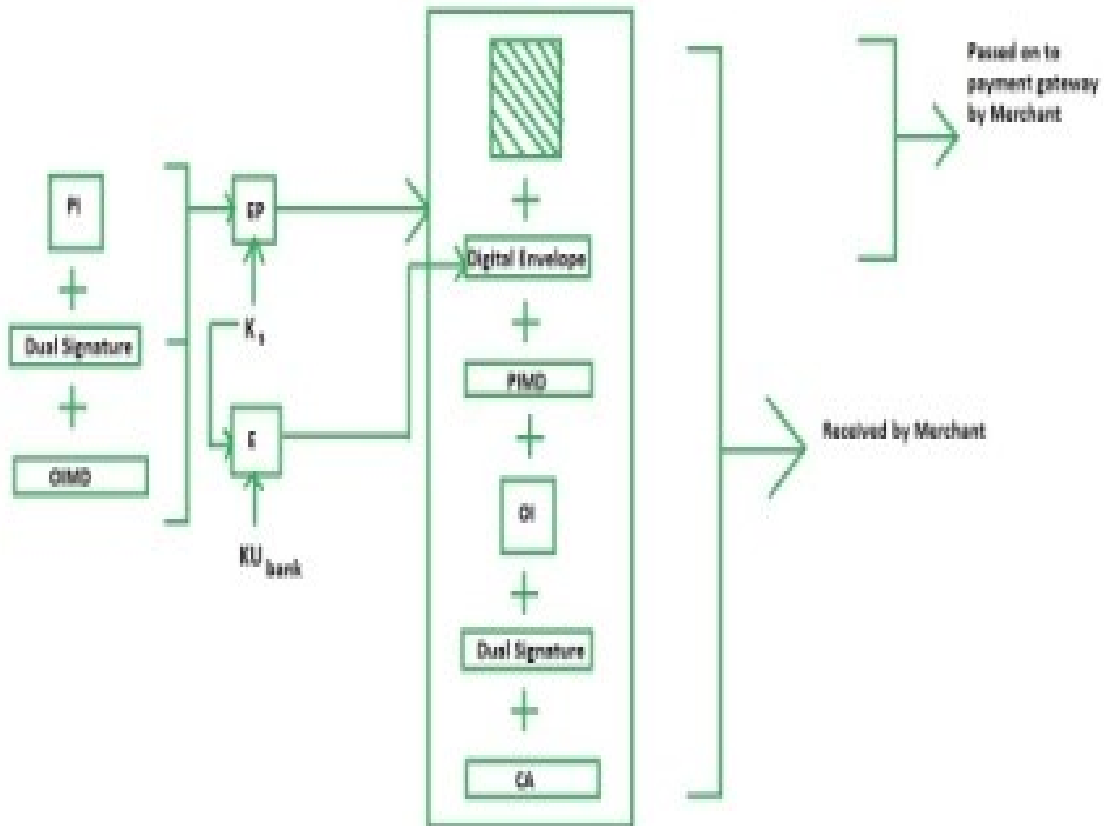
The process of purchase request generation requires three inputs :

Payment Information (PI)

Dual Signature

Order Information Message Digest (OIMD)

The purchase request is generated as follows :



Here,

PI, OIMD, OI all have the same meanings as before.

The new things are :

EP which is symmetric key encryption

Ks is a temporary symmetric key

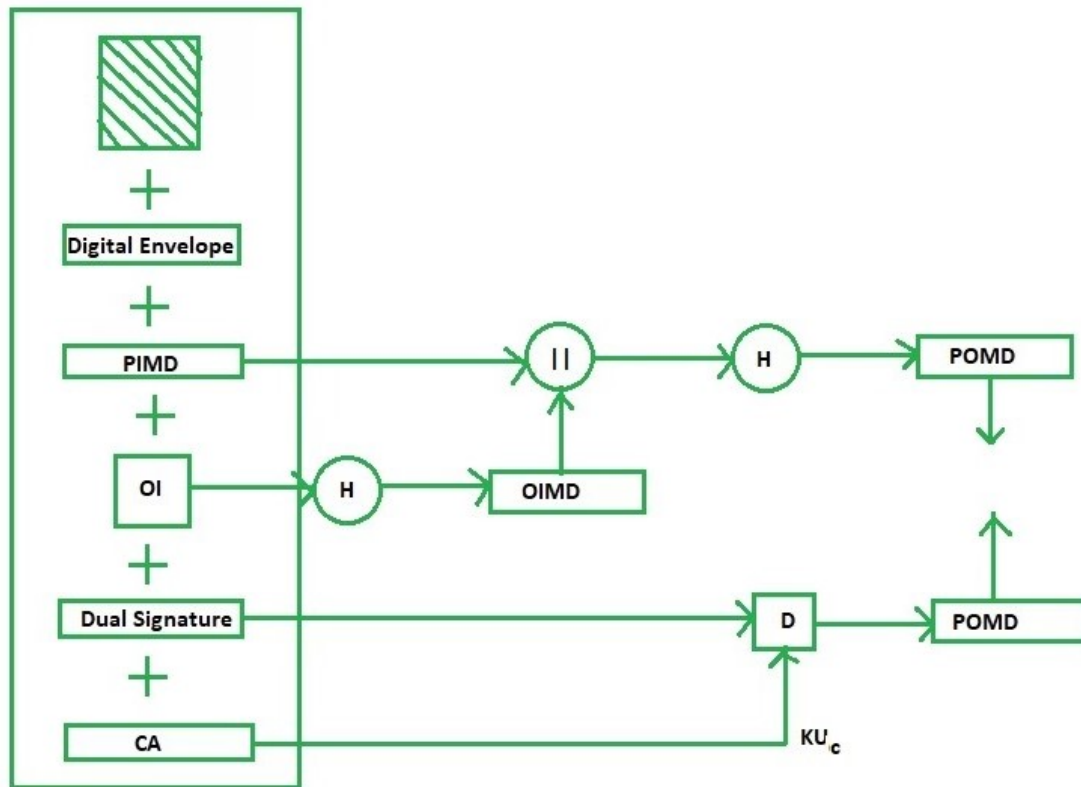
KUbank is public key of bank

CA is Cardholder or customer Certificate

Digital Envelope =  $E(KU_{bank}, K_s)$

#### **Purchase Request Validation on Merchant Side :**

The Merchant verifies by comparing POMD generated through PIMD hashing with POMD generated through decryption of Dual Signature as follows :



Since we used Customer's private key in encryption here we use KUC which is the public key of the customer or cardholder for decryption 'D'.

#### **Payment Authorization and Payment Capture :**

Payment authorization as the name suggests is the authorization of payment information by the merchant which ensures payment will be received by the merchant. Payment capture is the process by which a merchant receives payment which includes again generating some request blocks to gateway and payment gateway in turn issues payment to the merchant.

#### **The disadvantages of Secure Electronic Exchange :**

At the point when SET was first presented in 1996 by the SET consortium (Visa, Mastercard, Microsoft, Verisign, and so forth), being generally taken on inside the following couple of years was normal. Industry specialists additionally anticipated that it would immediately turn into the key empowering influence of worldwide internet business. Notwithstanding, this didn't exactly occur because of a few serious weaknesses in the convention.

The security properties of SET are better than SSL and the more current TLS, especially in their capacity to forestall web based business extortion. Be that as it may, the greatest downside of SET is its intricacy. SET requires the two clients and traders to introduce extraordinary programming – – card perusers and advanced wallets – – implying

that exchange members needed to finish more jobs to carry out SET. This intricacy likewise dialed back the speed of web based business exchanges. SSL and TLS don't have such issues.

The above associated with PKI and the instatement and enlistment processes additionally slowed down the far reaching reception of SET. Interoperability among SET items – – e.g., declaration interpretations and translations among entrusted outsiders with various endorsement strategies – – was likewise a huge issue with SET, which likewise was tested by unfortunate convenience and the weakness of PKI.

### 3.4 SET SECURITY ARCHITECTURE :

The SET protocol was designed to fill the gaps left by SSL and Transport Layer Security (TLS) in regard to securing sensitive consumer data. To do this, SET uses 56-bit session long keys, transmitted asymmetrically, as well as symmetric Data Encryption Standard (DES) encryption, and Public Key Infrastructure (PKI) for key management.



SET Digital Certificates

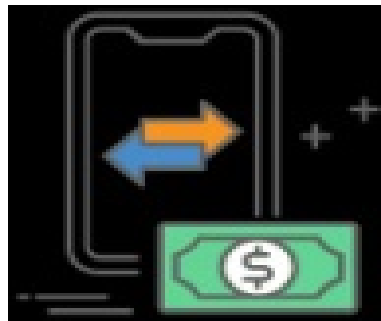
By manipulating transactional information, digital certificates authenticate the customer's and the merchant's identities to reduce the risk of fraud. Generally, the Certificate Authority (CA) assigns digital certificates to the card issuer or other associated financial institution, so both the acquirer and the issuer are involved in implementing digital certificates.



SET Dual Signatures

SET uses digital signatures to achieve card authentication. Each time a customer initiates a transaction electronically, an encrypted digital signature generates for the merchant, customer, and associated financial institutions.

The SET protocol encrypts a customer's payment and order information in separate public keys. The system encrypts a customer's payment information with the acquiring bank's public keys, while the customer's order information is encrypted with the merchant's.



SET Digital Wallet

When a password is entered that activates a customer's digital wallet, SET issues self – authentication, which takes place before the payment. After self-authentication, the customer's device—mobile phone, tablet, or computer—sends the purchase and payment details to the merchant. After the cardholder is authenticated and the merchant is notified, the issuer communicates payment authorization to the acquirer.

### **3.5 SET BUSINESS REQUIREMENTS :**

To process debit and credit cards over the internet and other networks, the SET protocol lists the following requirements businesses must provide:

#### **Privacy of Customer Payment and Order Information :**

Confidentiality reduces the risk of fraud by malicious third parties. SET uses encryption and highly secure algorithms to provide a layer of privacy.

#### **Integrity of All Customer Data:**

SET ensures digital signatures are not changed by merchants during transmission.

#### **Cardholder Authentication :**

This ensures the person using the card is the actual cardholder. SET links the cardholder to the account number to reduce credit card fraud and the cost of payment processing.

#### **Merchant Authentication :**

This measure confirms the merchant can accept and process credit card transactions via a bank or another financial institution.

#### **Security Best Practices :**

Finally, this ensures systems are well-tested and highly secure to protect all parties associated with the transaction.

**Secure Electronic Transaction Participants :**

The SET protocol takes into consideration many participants, including :

**Consumer or Cardholder :** The person authorized to use a specific debit or credit card.

**E – Commerce Merchant :** The operator of the e – Commerce business.

**Issuer :** The financial institution that issues the debit or credit card.

**Acquirer :** The financial institution that processes the payment and transfers the funds to the merchant account.

**Payment Gateway :** A sophisticated interface, a payment gateway connects secured electronic transactions to card payment networks.

**Certificate Authority :** An entrusted organization that provides public key digital certificates.

**Secure Electronic Transaction (Set) Protocol Features :**

To meet the requirements for secure electronic transactions, the SET protocol maintains several key features :

**Cardholder Confidentiality :**

Sensitive financial information is secured while it travels across the network. SET does not share cardholder account numbers with the merchant; it only provides them to the issuing bank.

**Data Integrity :**

SET mandates all order information, payment instructions, and cardholder data remain unaltered in transit.

**Account Verification :**

SET reassures the merchant by verifying the cardholder is the legitimate user of the card.

**Merchant Verification :**

SET permits the cardholder to verify that the merchant has a relationship(s) with the financial institution(s) accepting cards.

### **What Are the Benefits of SET Protocol ?**

In 2021, online retail sales totaled 4.9 trillion (in U.S. dollars) worldwide. That number is set to grow by over 50% within the next four years.[1] With this anticipated increase in online sales, keeping customers' account information safe is of the utmost importance. Fraud, data breaches, and hacked accounts have had far-reaching fiscal and reputational impacts on financial institutions and businesses. However, implementing the SET protocol can significantly help to alleviate these issues.

Originally launched as the standard for securing credit card transactions over networks, the SET protocol utilizes various encryption and algorithm systems to secure payments. With SET, users are issued a digital certificate when a transaction is made. It is then verified using a combination of digital signatures and certificates among all parties—merchant, cardholder, and associated financial parties—ensuring complete privacy and confidentiality.

### **Are There Any Drawbacks to the SET Protocol ?**

When SET was first introduced, it was expected to be primarily embraced by Mastercard and Visa, as their main facilitator in global e – Commerce. However, the SET protocol presented a list of shortcomings. Although SET's security properties and its ability to prevent e – Commerce fraud are superior to TLS and SSL, its complexity slows down the processing time of transactions. Specifically, the requirement that both customers and merchants must receive digital certificates results in more tasks needed to complete each transaction.

This specific drawback has delayed the broad acceptance of the SET protocol. Compatibility among SET products is also a major issue, which has only been amplified by the vulnerability of PKI and the poor usability of the protocol.

### **CLOSING REMARKS :**

To make a long, very technical story short: The SET protocol is an electronic security system aimed at protecting e – Commerce transactions. Due to the uptick in credit card fraud as of late, interest in this protocol has become increasingly prevalent. Although fraud seemingly poses the most risk to customers, it is also risky for merchants—resulting in the loss of time, money, brand reputation, and—perhaps most important—consumer trust. Since online shopping has become more popular, protecting your business from its potential associated risks is especially important. But not to worry—our advanced online payment gateway options can start protecting your business today!

### **3.6 CYBERCASH :**

Today, hardly anyone knows what to make of the term Cyber Cash. It is an online payment model from the 1990s. A central server took over the intermediary functions between bank, merchant and customer. However, the payment variant, in which the customer paid with virtual money, did not catch on. Due to a lack of acceptance, the service, which was initially seen as promising, was withdrawn from the market as early as 2001.



**How Cyber Cash works :**

The Cyber Cash payment model works by combining three components. First, there was the "Cyber Cash Gateway Server," which acted as an intermediary node between the banking systems on the one hand and customers and merchants on the other. The server was also the central certification authority. There was also the Cyber Wallet as the customer's virtual wallet, in which the customer's means of payment were managed, and Cyber Register, the merchant's online cash register. Here, the administration is controlled on the merchant's side. A purchase was triggered via the merchant's website, i.e. via their online store, the details from the store were transferred to the Cyber Cash Wallet software and processed there. The transaction was confirmed by the customer's credit card. The merchant, in turn, confirmed the sale with the server, which checked all the details and then triggered a payment authorization. At the same time, the banking system was informed and the transaction was settled. There were three payment options in total: Cyber Coin micro payment system, direct debit and credit card payment.

**Requirements for Cyber Cash transactions :**

In order for a payment to be triggered by Cyber Cash, various groups had to work together. These were, on the one hand, Cyber Cash with the corresponding licensing rights and the mandate to control the gateway between bank, payer and payee. Banks and credit institutions had to offer the Cyber Cash payment system themselves. Finally, the online merchants had to conclude corresponding license agreements with the financial institutions so that the payment system could be made available to customers. Customers, in turn, first had to install the corresponding software on their home computers before they could use Cyber Cash. In retrospect, this is also blamed for the failure of the system. Many customers found this too time-consuming, and there were also technical problems with the installation.

**The development of Cyber Cash :**

Cyber Cash was developed in America, in the US state of Virginia. The American company Cyber Cash Inc. developed the system, and Cyber Cash was founded in Frankfurt by the American parent company, Commerz bank, Dresdner Bank and Sparkasse Koln, among others. The system was used in Germany from 1997 and finally discontinued in 2001.

**3.7 TYPES OF SMART CARD :**

**Smart Card** is a physical electronic authorization device used to control data accessing and data manipulation. It is basically plastic embedded with an integrated circuit. On the smart card, either a memory chip or a microprocessor is fabricated to store the data and connect with the system.

**Smart Card working process :****Step – 1 :**

Smart card is inserted into the card reader which reads the information from the smart card.

**Step – 2 :**

After the card reader reads information from the card it passes the information to the payment system or authentication system.

**Step – 3 :**

Thereafter the payment system or authentication system authenticated the user that whether the provided data matches with the database.

**Step – 4 :**

In the last step, the payment system or the authentication system does the required task.

**Types Of Smart Cards :****Contact Smart Card :**

This type of smart card is embedded with electrical contacts which are used to connect to the card reader where the card is inserted. The electrical contacts are deployed on a conductive gold-plated coating on the card surface.

**Contactless Smart Card :**

This type of smart card establishes a connection with the card reader without any physical contact. It consists of an antenna by means of which it is used to communicate using a radio frequency band with the antenna on the reader. It receives power from the reader via an electromagnetic signal.

**Dual – interface cards :**

This type of smart card is equipped with both contactless and contact interfaces. This type of card enables secure access to the smart card's chip with either the contactless or contact smart card interfaces.

**Memory – based smart card :**

This type of smart card is embedded with memory circuits. It stores read and writes data to a particular location. It is a straight memory card that is only used to store data or a protected memory card with restricted access to the memory and which can be used to write data. It can also be rechargeable or a disposable card which contains memory units that can be used only once.

**Microprocessor – based smart card :**

This type of smart card consists of a microprocessor embedded in the chip in addition to the memory blocks. It also consists of specific sections of files related to a particular function. It allows for data processing and manipulations and can be used for multi – functioning.

**Hybrid smart card:**

Hybrid smart card embedded with both memory and microprocessor. Two different

chips are used for different applications connected to a single smart card based on the different functionality as the proximity chip is used for physical access to prohibited areas while the contact smart card chip is used for sign-in authentication.

**Benefits of Smart Card :**

- Smart cards improve the convenience and security of any transaction.
- They provide tamper-proof storage of user and account identity. Tamper – proof storage here means that if the card is being accessed by some unauthorized user then it is easily detected.
- Smart card systems have proven to be more reliable than other machine-readable cards, like magnetic strips and barcodes.
- Smart cards also provide vital components of system security for the exchange of data throughout virtually any type of network.
- The costs to manage password resets for an organization or enterprise are very high, thus making smart cards a cost-effective solution in these environments.

**Applications of Smart Card :**

Smart Card is widely used in the following fields :

- Telecommunications
- E-commerce
- Banking applications
- Government applications
- Information Technology.
- Transportation.
- Educational Institutes.
- Computer and Network Security.

**Advantages of Smart Card :**

The following are the advantages of smart card. They are

- It provides high security and privacy.
- Reliability.
- Time saving.
- It is easy to use.
- Most of the application provides 24/7 support. So, it is always available.
- Provides more flexibility.
- Smart cards are small and light-weighted.

- Memory capacity is higher in many smart cards like memory cards.
- Prevents user from fraud surroundings.

### **Disadvantages of Smart Card :**

The following are the disadvantages of smart card. They are

- If smart card is lost or data is theft, it will lead to serious issues.
- Some applications provide lack of support to the user.
- Some enterprises provide charges to the user for using the smart cards.
- Some smart cards are dependent on electricity. If there is no electricity then we will not be able to use the smart cards.
- Some smart cards are bit costlier like credit cards etc.

### **WHAT IS ECOMMERCE PAYMENT SYSTEM ?**

Ecommerce businesses use electronic payment methods to receive money in exchange for their products or services. These online payment systems have completely revolutionized the online business process and made it easy for both the businesses and customers.

An online payment system works by connecting a digital storefront to the payment processing network of your choice using a payment gateway. This processing network further works with your bank to clear your funds.

An easy – to – use payment gateway cuts out the need to enter card details or personal information again and again. Instead, they function with the help of third-party processing to smoothen the checkout process.

### **A List of Ecommerce Payment Systems :**

#### **1. Credit Card :**

As we all know, credit cards are the base of modern ecommerce payment systems. Consumers use credit cards to fund other payment options like digital wallets. This is one of the most trusted payment systems because payment processors like Visa, American Express, Mastercard, etc., have been around for quite a while and are trusted by businesses.

#### **2. Debit Card :**

Just like a credit card, a debit card is also a small plastic card with a unique number. It is important to have a bank account before getting a debit card. The primary difference between a debit card and a credit card is that in a debit card, the amount gets deducted from the bank account, which is supposed to have enough balance. This, however, is not the case with a credit card.

#### **3. E – Wallet :**

The E-Wallet can be simply understood as a prepaid account that allows customers to store numerous debit cards, credit cards, etc., in a secure environment that eliminates the need to enter the information every time the customer wants to make a payment. The use of E – Wallets is rising with each passing day.

#### **4. Smart Card :**

Smart cards are somewhat similar to debit and credit cards in terms of appearance. However, it has a microprocessor chip embedded in it. It contains the capacity to store money and a person's personal as well as work – related information. Smart cards provide faster processing at lower rates.

#### **5. Net banking :**

Customers can easily make purchases by directly paying through their bank accounts. This ecommerce payment system does not require a customer to have a debit card for payment purposes, but they still require registering with their bank for a net banking facility. For making a purchase, the customer simply needs to enter their net banking id and pin, and they are good to go.

### **3.8 SUMMARY :**

S – HTTP provides broad support for implementing different types of cryptographic algorithms and key management systems. Several cryptographic message format standards may be incorporated into S – HTTP clients and servers. Online payment systems eliminate the need for cash or cheque payments. It is a unique payment method that allows you to conduct online transactions via digital wallets, bank cards and internet banking systems.

SET protocol restricts the revealing of credit card details to merchants thus keeping hackers and thieves at bay. An entrusted organization that provides public key digital certificates. In this lesson we are learnt about the electronic fund transfers such as NEFT, RTGS, and IMPS. Cyber cash is also one of the online payment model. It works by combining three components. It includes Smart card, is a physical electronic authorization device used to control data accessing and data manipulation. E-commerce businesses use electronic payment methods to receive money in exchange for their products or services. EPS has different ways such as credit cards, debit cards, e-wallet, smart card and net banking etc.

### **3.9 KEY WORDS :**

#### **Integrity :**

Integrity refers to how accurate a company's customer data is.

#### **Card holder :**

Someone who has been given permission to use a card which allows them to do something.

#### **Acquirer :**

Acquirer is a financial institution that acts as an intermediary between merchants

and card payment networks such as Visa and Mastercard.

**Electronic Clearing Service :**

ECS is a method of transferring funds electronically and is generally used for bulk transfers.

**Encrypted :**

Encryption is a form of data security in which information is converted to cipher text.

**Cyber cash :**

A separate system which can be used by any user, any merchant, and any bank.

**Microprocessor :**

An integrated circuit that contains all the functions of a central processing unit of a computer.

**Reliability :**

The probability that a product, system, or service will perform its intended function adequately for a specified period of time, or will operate in a defined environment without failure.

**3.10 SELF ASSESSMENT QUESTIONS :**

1. Write about Secure Hypertext Transfer Protocol?
2. What are the types of Electronic payment System?
3. What are the Advantages of EPS?
4. Write about SET Protocol?
5. What are the Functions of SET?
6. Define Cyber Cash?
7. Write about Smart Card?
8. What are the Advantages and disadvantages of smart cards?

**3.11 SUGGESTED BOOKS :**

1. E – Commerce Concepts, Models, Strategies, CSV Moorthy, Himalaya Publications.
2. E – Banking Management – Mahmood Shan Lancashire Business School, University Of Central Lancashire, UK & Steve Clarke University Of Hull, UK.

**D. Swapna**

## LESSON – 4

# Applications in B2C & Online Shopping

### Objectives :

After reading this lesson, one should be able to

- understand meaning, and applications in B2C ;
- understand the concepts and types of B2C model as ;
- know about the online shopping , Department store
- know about the types of B2C companies etc.

### Structure of the Lesson :

- 4.1 Applications in B2C
- 4.2 Benefits of B2C Mobile Applications
- 4.3 Types of B2C Models
- 4.4 Online Shopping
- 4.5 Disintermediation and Reintermediation
- 4.6 Summary
- 4.7 Key words
- 4.8 Self Assessment Questions
- 4.9 Suggested books

### 4.1 APPLICATIONS IN B2C :

What is Business to Consumer (B2C)?

In this era of virtual tussle for sales, it is absolutely necessary that the basic needs and expectations of consumers are met with due sincerity. Every business caters ultimately to someone and that someone can be another business or directly the end user. Businesses that cater to end – users are called the business to consumer (B2C) Solutions. And in this age, when digital education has become a major part of every individual’s life, awareness about the internet issues and sensitivity to them have witnessed a rise.

What is a B2C E – Commerce Solution?

Implementing **B2C E - Commerce Solution** not only allows you to sell your products or services directly to customers without the presence of any middleman, but also increases visibility of your business strategy, discovers and responds quickly to any client needs, and strengthens customer relationships.

A Business e – Commerce solution helps businesses create a presence on the internet while reducing their operating costs and gaining consumer confidence with quality sites that make shopping experience easy and fun. E-customers want a secure transaction, clear product information, competitive prices, quick processing, and an easily understandable and easily usable ‘exchange and return’ policy.

### **Essentials Of B2C Application Development :**

There are many applications which are necessary for every website, irrespective of its nature, stature and literature. They could be listed down as under, and every website owner should take care that these applications are essentially embedded into the process of a B2C Application Development.

- Membership, mail, search and cataloguing plus notification services
- Content Management System services
- Content Syndication
- Uploading the latest updates
- Website Designing and development of templates
- Workflow building
- Logging, editing, locking, archival and version analysis
- Maintenance of FAQ, message boards, bulletin board services, or expert sections
- Provision with interfaces suits
- XML messaging

With all these applications in place, it is ascertained that the website will provide its users with exactly what they want. And when you duly take care of this part, website visitors are sure to return to your site and subsequently make purchases also.

Everybody loves a website that is informative, creative and easily usable and navigable. No one likes to wait for long for the website to load fully. So it is better to make your website attractive and comfortable by executing the most applicable B2C applications on your website.

## **4.2 BENEFITS OF B2C MOBILE APPLICATIONS :**

With a wide audience reach across regions, the development teams designing this type of app focus are constantly aiming for improving the user experience for a glitch-free performance.

Here’s a look at the three benefits that stand out :

### **1. Consumers spend most of their Phone Time using Apps :**



Global research has shown that we spend 70% of our screen time on smart phones with approximately 90% of that time on apps. Therefore it is worth putting efforts in this direction.

## **2. Accurate Analytics to Customer Data :**

- Personalize user experience by tracking the user activity and tailor the app content that matches search recommendations.
- Identify & suggest preferences even propose deals that are in line with user interests.
- Gauging what customers like best you can even devise strategies for new products, features, or services that they expect from the business.
- By leveraging contextual information — like time or location — you can even target ads or highlight deals that are likely to be relevant for a certain type of user.

## **3. Leveraging Mobility to Enhance Customer Experience :**

- Efficient and streamlined navigation goes a long way to optimize mobile UI for enhancing customer experience.
- A mobile app that's easier to navigate than its web counterpart helps improve the brand's reputation.

## **4. Streamlined Customer Loyalty Programs :**

- By keeping a track of rewards, purchases and award points, it becomes seamless for both business and end-customers to benefit from the program.
- The instant access to reward points summary, available deals & other information directly from their phone would save the hassle of managing the physical customer loyalty program. Further, with this, the companies can focus on features and customer experience.

## **4.3 TYPES OF PREVALENT B2C MODELS :**

In our experience, there are five distinct models that B2C companies typically put to practice while moving their products in the digital realm.

### **1. Direct Sellers :**

- Selling a product directly to consumers.
- Includes small online businesses as well as large retailers like Microsoft and Apple to sell exclusive in-house products.

### **2. Online Marketplace :**

- Act as intermediaries as they don't own most of the products that are sold on their site.

- Put sellers directly in contact with buyers and usually make a profit by taking a cut of the transaction.
- E – Bay, Amazon are examples of such online intermediaries.

### 3. Advertising Based B2C :

- Focuses on targeted advertising with usage criteria on internet searches, content viewed, and demographics to strategically place advertisements.
- Company purchases advertising space on a platform that receives large volumes of traffic, such as YouTube and more.

### 4. Community – Based B2C :

- Leverages online, like – minded communities on media platforms and beyond to showcase shared interest or physical location. Social media platforms, such as Facebook groups and more

### 5. Fee – Based B2C :

- Instant payment – based company’s content access.
- Netflix, Hulu and more are prime examples of this approach.

## 4.4 ONLINE SHOPPING :

shoppingJinni



### Introduction :

Online shopping or e-shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Alternative names are e-web-store, e-shop, e-store, Internet shop, web-shop, web-store, online store.

**Online shopping** is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser or a mobile app. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the

same product's availability and pricing at different e-retailers. As of 2020, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smart phones.

An online shop evokes the physical analogy of buying products or services at a regular "brick – and – mortar" retailer or shopping center; the process is called business – to – consumer (B2C) online shopping. When an online store is set up to enable businesses to buy from another businesses, the process is called business-to-business (B2B) online shopping. A typical online store enables the customer to browse the firm's range of products and services, view photos or images of the products, along with information about the product specifications, features and prices.

Online stores usually enable shoppers to use "search" features to find specific models, brands or items. Online customers must have access to the Internet and a valid method of payment in order to complete a transaction, such as a credit card, an Interac – enabled debit card, or a service such as PayPal. For physical products (e.g., paperback books or clothes), the e – tailer ships the products to the customer; for digital products, such as digital audio files of songs or software, the e – tailer usually sends the file to the customer over the Internet. The largest of these online retailing corporations are Alibaba, Amazon.com, and eBay.

#### **Terminology :**

Alternative names for the activity are "e-tailing", a shortened form of "electronic retail" or "e-shopping", a shortened form of "electronic shopping". An online store may also be called an e-web-store, e-shop, e-store, Internet shop, web-shop, web-store, online store, online storefront and virtual store. Mobile commerce (or m-commerce) describes purchasing from an online retailer's mobile device-optimized website or software application ("app"). These websites or apps are designed to enable customers to browse through a companies' products and services on tablet computers and smart phones.

#### **History of online shopping :**

One of the earliest forms of trade conducted online was IBM's online transaction processing (OLTP) developed in the 1960s, which allowed the processing of financial transactions in real-time.<sup>[2]</sup> The computerized ticket reservation system developed for American Airlines called Semi-Automatic Business Research Environment (SABRE) was one of its applications. There, computer terminals located in different travel agencies were linked to a large IBM mainframe computer, which processed transactions simultaneously and coordinated them so that all travel agents had access to the same information at the same time.<sup>[2]</sup> At some point between 1971 and 1972, students at Stanford and MIT used the internet precursor ARPANET to make a deal to exchange marijuana, but the interaction doesn't qualify as e-commerce because no money was transferred online.<sup>[3]</sup>

The emergence of online shopping as it is known today developed with the emergence of the Internet.<sup>[4]</sup> Initially, this platform only functioned as an advertising tool for companies, providing information about their products. It quickly moved on from this simple utility to

actual online shopping transaction due to the development of interactive Web pages and secure transmissions.<sup>[5]</sup> Specifically, the growth of the Internet as a secure shopping channel has developed since 1994, with the first sales of Sting's album *Ten Summoner's Tales*.<sup>[6]</sup> Wine, chocolates, and flowers soon followed and were among the pioneering retail categories which fueled the growth of online shopping. Researchers found that having products that are appropriate for e-commerce was a key indicator of Internet success.<sup>[7]</sup> Many of these products did well as they are generic products which shoppers did not need to touch and feel in order to buy. But also importantly, in the early days, there were few shoppers online and they were from a narrow segment: affluent, male, 30+. Online shopping has come a long way since those early days and – in the UK – accounts for significant percentage (depending on product category as percentages can vary).

### **Growth in Online Shoppers :**

As the revenues from online sales continued to grow significantly researchers identified different types of online shoppers, Rohm & Swaminathan<sup>[8]</sup> identified four categories and named them "*convenience shoppers, variety seekers, balanced buyers, and store-oriented shoppers*". They focused on shopping motivations and found that the variety of products available and the perceived convenience of the buying online experience were significant motivating factors. This was different for offline shoppers, who were more motivated by time saving and recreational motives.

English entrepreneur Michael Aldrich was a pioneer of online shopping in 1979. His system connected a modified domestic TV to a real-time transaction processing computer via a domestic telephone line. He believed that videotex, the modified domestic TV technology with a simple menu-driven human-computer interface, was a 'new, universally applicable, participative communication medium — the first since the invention of the telephone.' This enabled 'closed' corporate information systems to be opened to 'outside' correspondents not just for transaction processing but also for e-messaging and information retrieval and dissemination, later known as e-business.<sup>[9]</sup> His definition of the new mass communications medium as 'participative' [interactive, many-to-many] was fundamentally different from the traditional definitions of mass communication and mass media and a precursor to the social networking on the Internet 25 years later. In March 1980 he launched Redifon's Office Revolution, which allowed consumers, customers, agents, distributors, suppliers and service companies to be connected online to the corporate systems and allow business transactions to be completed electronically in real-time.<sup>[10]</sup> During the 1980s<sup>[11]</sup> he designed, manufactured, sold, installed, maintained and supported many online shopping systems, using videotex technology.<sup>[12]</sup> These systems which also provided voice response and handprint processing pre-date the Internet and the World Wide Web, the IBM PC, and Microsoft MS-DOS, and were installed mainly in the UK by large corporations.

The first World Wide Web server and browser, created by Tim Berners-Lee in 1989, opened for commercial use in 1991.<sup>[14]</sup> Thereafter, subsequent technological innovations emerged in 1994: online banking, the opening of an online pizza shop by Pizza Hut,<sup>[14]</sup> Netscape's SSL v2 encryption standard for secure data transfer, and Intershop's first

online shopping system. The first secure retail transaction over the Web was either by NetMarket or Internet Shopping Network in 1994.<sup>[15]</sup> Immediately after, Amazon.com launched its online shopping site in 1995 and eBay was also introduced in 1995.<sup>[14]</sup> Alibaba's sites Taobao and Tmall were launched in 2003 and 2008, respectively. Retailers are increasingly selling goods and services prior to availability through "pretail" for testing, building, and managing demand.

### **Five easy steps to start shopping online :**



There are many good reasons to shop online. Not only does online shopping allow you the convenience of shopping for what you need, when you need it, in the comfort of your own home, but you can also compare prices, find discounts or check reviews instantaneously. And what you buy can be delivered right to your doorstep.

However, it can be overwhelming! How do you know which websites are legitimate? What about saving down your card details? Is it really that safe? And is it worth creating an online shopping account to complete your purchase – or will it result in millions of spam emails clogging up your inbox?

To help you safely navigate the endless aisles of online shopping, we've put together a handy guide on how to start shopping online.

#### **Step – 1 :**

##### **Finding The Right Website And Product**

Knowing where to start can be the hardest part. The easiest way is to simply type the shop or the product you are looking for into your search bar. You should then get the best – matched results which you can click through to.

Alternatively, many search engines also have a handy 'shopping' feature that directly link to online stores selling the product you want. Not only can you compare prices within the search, you can also sometimes see how they rate for customer service.

#### **Step – 2 :**

##### **Adding A Product To Your Basket**

So, you've done the hard work and found the item you're looking for. From here you

can select your quantity, colour or size, then add to your basket. Sometimes, purchasing multiple items or investing in a subscription can reduce your shipping costs. It's worth investigating if you will need these items regularly.

### **Step – 3 :**

#### **Completing Your Purchase At Checkout**

Once you have added the item to your basket, you can proceed to 'checkout'. Depending on the site you may need to set up an account using your email address. This is useful for regular purchases, such as groceries, as you can store your card and address details for a faster checkout next time you buy online. At this point, the site will guide you through the payment steps.

### **Step – 4 :**

#### **Pay It Safe**

When paying at an online shop's checkout for the first time, you'll need to enter in your card number, card expiry date as well as the CCV (card verification value), which is usually located on the back of your card and often consists of three digits. You may also have to enter your mailing address or just the post code, which is an additional way that your bank can verify it is you making the purchase.

As an additional security measure, you may have to take an extra step at checkout when paying with your card. This is called two-factor authentication and means your bank requires an additional piece of information to identify the right cardholder is making a purchase. There's no need to download anything, install software or register and you'll be guided through this process.

Paying online should feel safe and secure. Most sites accept payment with debit and credit cards, like your Visa. Visa and your banks work hard to keep your payments safe and use multiple layers of security to prevent fraud, protect your data and help you get your money back if someone uses your card without your permission.

### **Step – 5 :**

#### **Taking Delivery**

Some shops let you book a delivery slot, while others will send you an email or a text when your order has been dispatched. It's hard for delivery companies to ensure your delivery at a certain time, but many now provide a window of time or the ability to track where your order is – which means you can plan your day accordingly. Where you can choose a time, always try to pick a time slot when someone is home to receive the parcel.

#### **Payments :**

Online shoppers commonly use a credit card or a PayPal account in order to make payments. However, some systems enable users to create accounts and pay by alternative means, such as :

- Billing to mobile phones and landlines

- Bitcoin or other crypto currencies
- Cash on delivery (C.O.D.)
- Cheque / Check
- Debit card
- Direct debit in some countries
- Electronic money of various types
- Gift cards
- Invoice, especially popular in some markets/countries, such as Switzerland
- Postal money order
- Wire transfer / delivery on payment

Some online shops will not accept international credit cards. Some require both the purchaser's billing and shipping address to be in the same country as the online shop's base of operation. Other online shops allow customers from any country to send gifts anywhere. The financial part of a transaction may be processed in real time (e.g. letting the consumer know their credit card was declined before they log off), or may be done later as part of the fulfillment process.

### **Advantages Of Online Shopping :**

#### **Convenience :**

Online stores are usually available 24 hours a day, and many consumers in Western countries have Internet access both at work and at home. Other establishments such as Internet cafes, community centers and schools provide internet access as well. In contrast, visiting a conventional retail store requires travel or commuting and costs such as gas, parking, or bus tickets, and must usually take place during business hours. Delivery was always a problem which affected the convenience of online shopping. Additionally, the online shopping industry has not only involved the concept of providing convenience for customers but also improved perceptions of social inclusion.<sup>[54]</sup> However to overcome this many retailers including online retailers in Taiwan brought in a store pick up service. This now meant that customers could purchase goods online and pick them up at a nearby convenience store, making online shopping more advantageous to customers.<sup>[55]</sup> In the event of a problem with the item (e.g., the product was not what the consumer ordered or the product was not satisfactory), consumers are concerned with the ease of returning an item in exchange for the correct product or a refund. Consumers may need to contact the retailer, visit the post office and pay return shipping, and then wait for a replacement or refund. Some online companies have more generous return policies to compensate for the traditional advantage of physical stores. For example, the online shoe retailer Zappos.com includes labels for free return shipping, and does not charge a restocking fee, even for returns which are not the result of merchant error. (Note: In the United Kingdom, online shops are prohibited from charging a restocking fee if the consumer cancels their order in accordance

with the Consumer Protection (Distance Selling) Act 2000).<sup>[56]</sup> A 2018 survey in the United States found 26% of online shoppers said they never return items, and another 65% said they rarely do so.<sup>[57]</sup> Merchants may benefit from online shopping due to low sales inventory pressure, low operating costs, and the scale of operation is not limited by the site.

**Delivery :**

Especially in cases of large or heavy products, delivery can be not only more convenient but also not require having or using a car. Not using or depending on personal vehicles, which can have substantial impact on the environment, to travel to local stores can make online shopping more sustainable than buying in local stores if such are used otherwise<sup>[58]</sup> (especially if items are bundled<sup>[58]</sup> and delivery vehicles are electric and use optimized routes). Moreover, the pace of urbanization, local delivery systems, and internet connectivity which facilitate the delivery process are the major determinants of e – commerce adoption.

**Information and Reviews :**

Online shopping is usually more informational than shopping at physical stores travelled to and usually has higher comparability and customizability.

Online stores must describe products for sale with text, photos, and multimedia files, and sometimes have features such as question and answers or filters, whereas in a physical retail store, the actual product and the manufacturer's packaging will be available for direct inspection (which might involve a test drive, fitting, or other experimentation). Some online stores provide or link to supplemental product information, such as instructions, safety procedures, demonstrations, or manufacturer specifications. Some provide background information, advice, or how-to guides designed to help consumers decide which product to buy. Some stores even allow customers to comment or rate their items. There are also dedicated review sites that host user reviews for different products. Reviews and even some blogs give customers the option of shopping for cheaper purchases from all over the world without having to depend on local retailers. In a conventional retail store, clerks are generally available to answer questions. Some online stores have real-time chat features, but most rely on e-mails or phone calls to handle customer questions. Even if an online store is open 24 hours a day, seven days a week, the customer service team may only be available during regular business hours. It also implies that geographical factors, rather than socioeconomic issues, must be addressed in order to improve online shopping acceptance.[2]

**Price and Selection :**

One advantage of shopping online is being able to quickly seek out deals for items or services provided by many different vendors (though some local search engines do exist to help consumers locate products for sale in nearby stores). Search engines, online price comparison services and discovery shopping engines can be used to look up sellers of a particular product or service. Shipping costs (if applicable) reduce the price advantage of online merchandise, though depending on the jurisdiction, a lack of sales tax may compensate for this. Shipping a small number of items, especially from another country, is much more



expensive than making the larger shipments bricks-and-mortar retailers order. Some retailers (especially those selling small, high-value items like electronics) offer free shipping on sufficiently large orders. Another major advantage for retailers is the ability to rapidly switch suppliers and vendors without disrupting users' shopping experience.

### **Disadvantages of Online Shopping :**

#### **Fraud And Security Concerns :**

Given the lack of ability to inspect merchandise before purchase, consumers are at higher risk of fraud than face – to – face transactions. When ordering merchandise online, the item may not work properly, it may have defects, or it might not be the same item pictured in the online photo. Merchants also risk fraudulent purchases if customers are using stolen credit cards or fraudulent repudiation of the online purchase. However, merchants face less risk from physical theft by using a warehouse instead of a retail storefront. Secure Sockets Layer (SSL) encryption has generally solved the problem of credit card numbers being intercepted in transit between the consumer and the merchant. However, one must still trust the merchant (and employees) not to use the credit card information subsequently for their own purchases, and not to pass the information to others. Also, hackers might break into a merchant's web site and steal names, addresses and credit card numbers, although the Payment Card Industry Data Security Standard is intended to minimize the impact of such breaches. Identity theft is still a concern for consumers. A number of high-profile break-ins in the 2000s has prompted some U.S. states to require disclosure to consumers when this happens. Computer security has thus become a major concern for merchants and e-commerce service providers, who deploy countermeasures such as firewalls and anti-virus software to protect their networks. Phishing is another danger, where consumers are fooled into thinking they are dealing with a reputable retailer, when they have actually been manipulated into feeding private information to a system operated by a malicious party. Denial of service attacks are a minor risk for merchants, as are server and network outages.

Quality seals can be placed on the Shop web page if it has undergone an independent assessment and meets all requirements of the company issuing the seal. The purpose of these seals is to increase the confidence of online shoppers. However, the existence of many different seals, or seals unfamiliar to consumers, may foil this effort to a certain extent.

A number of resources offer advice on how consumers can protect themselves when using online retailer services. These include :

- Sticking with well – known stores, or attempting to find independent consumer reviews of their experiences; also ensuring that there is comprehensive contact information on the website before using the service, and noting if the retailer has enrolled in industry oversight programs such as a trust mark or a trust seal.
- Before buying from a new company, evaluating the website by considering issues such as: the professionalism and user-friendliness of the site; whether or not the company lists a telephone number and/or street address along with e-contact information; whether a fair and reasonable refund and return policy is

clearly stated; and whether there are hidden price inflators, such as excessive shipping and handling charges.

- Ensuring that the retailer has an acceptable privacy policy posted. For example, note if the retailer does not explicitly state that it will not share private information with others without consent.
- Ensuring that the vendor address is protected with SSL (see above) when entering credit card information. If it does the address on the credit card information entry screen will start with "HTTPS".
- Using strong passwords which do not contain personal information such as the user's name or birth date. Another option is a "pass phrase," which might be something along the lines: "I shop 4 good a buy!!" These are difficult to hack, since they do not consist of words found in a dictionary, and provides a variety of upper, lower, and special characters. These passwords can be site specific and may be easy to remember.

Although the benefits of online shopping are considerable, when the process goes poorly it can create a thorny situation. A few problems that shoppers potentially face include identity theft, faulty products, and the accumulation of spyware. If users are required to put in their credit card information and billing/shipping address and the website is not secure, customer information can be accessible to anyone who knows how to obtain it. Most large online corporations are inventing new ways to make fraud more difficult. However, criminals are constantly responding to these developments with new ways to manipulate the system. Even though online retailers are making efforts to protect consumer information, it is a constant fight to maintain the lead. It is advisable to be aware of the most current technology and scams to protect consumer identity and finances. Product delivery is also a main concern of online shopping. Most companies offer shipping insurance in case the product is lost or damaged. Some shipping companies will offer refunds or compensation for the damage, but this is up to their discretion.

#### **Lack of Full Cost Disclosure :**

The lack of full cost disclosure may also be problematic. While it may be easy to compare the base price of an item online, it may not be easy to see the total cost up front. Additional fees such as shipping are often not visible until the final step in the checkout process. The problem is especially evident with cross-border purchases, where the cost indicated at the final checkout screen may not include additional fees that must be paid upon delivery such as duties and brokerage. Some services such as the Canadian-based Wishabi attempts to include estimates of these additional cost,<sup>[60]</sup> but nevertheless, the lack of general full cost disclosure remains a concern.

#### **Privacy :**

Privacy of personal information is a significant issue for some consumers. Many consumers wish to avoid spam and telemarketing which could result from supplying contact information to an online merchant. In response, many merchants promise to not use consumer

information for these purposes, Many websites keep track of consumer shopping habits in order to suggest items and other websites to view. Brick-and-mortar stores also collect consumer information. Some ask for a shopper's address and phone number at checkout, though consumers may refuse to provide it. Many larger stores use the address information encoded on consumers' credit cards (often without their knowledge) to add them to a catalog mailing list. This information is obviously not accessible to the merchant when paying in cash or through a bank (money transfer, in which case there is also proof of payment).

**Best Theme in Online Retail :**

- Online retail fastest growing channel on revenue basis
- Profits for startup ventures have been difficult to achieve
- Disintermediation has not occurred
- Established merchants need to create integrated shopping experience to succeed online
- Growth of online specialty merchants
- Extraordinary growth of social, local, and mobile e – commerce.

**Best Tips for Safe – Purchase Online :**

- Shop from a secure pc
- Shop smart using only sites you know and trust
- Shop with your credit card.
- Consider alternative payment methods
- Avoid spam
- Use Antivirus into your system.
- Keep passwords private
- Never give out Social Security Number
- Read privacy and security policy
- Look for http://

**Popular Online Shopping Website :**

- Walmart
- Target
- Etsy
- Dell.com
- Best Buy
- JC Penny

- QVC
- EBAY
- Shopping [jinni.com](http://jinni.com)

### Price Comparison :

Using price comparison sites can help you find good deals and get your item at the lowest price possible without having to go from store to store to find out.

The Top Price comparison sites are :

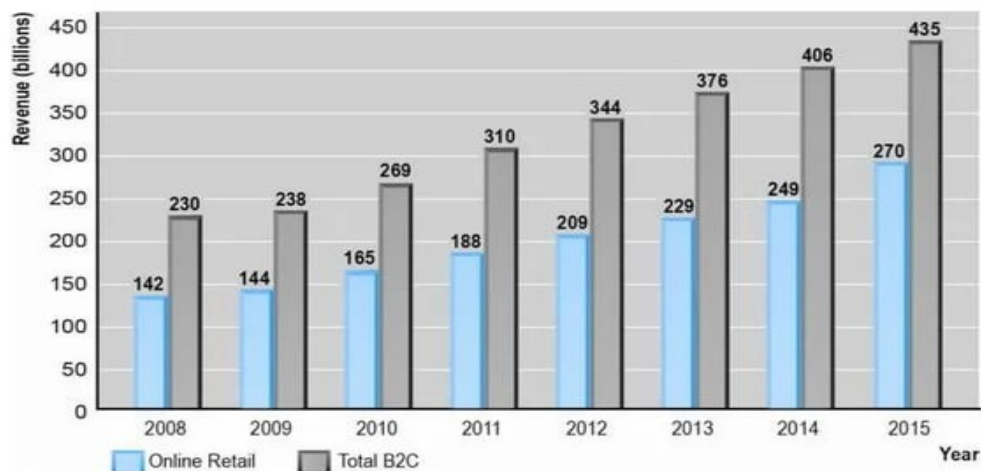
- Yahoo Shopping
- Pricegrabber.com
- Shoppingjinni.com
- Walmart
- Amazon

### India's position in Online purchase :

In India 2,93,979,420 internet users and 10 million online shoppers has growth 14% of India population 1,271,702,542 with 1,22% population change penetration (%of population with Internet) i.e. 10.19% and country share of world population 17.50% and Internet User 8.33% and India has 3 rank in global in using Internet.



## ONLINE RETAILS AND B2C E-COMMERCE PROGRESS CHART



### Some Indian Market Trends :

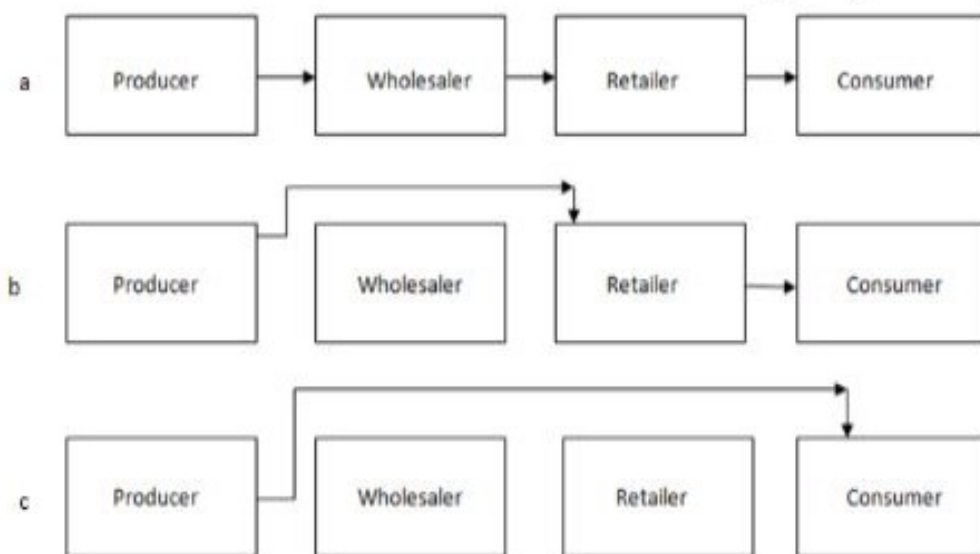
- Always connected : 51%

- Blazing growth : (49% rural : 33% urban : 60% mobile)
- Entertainment driven : 73% of those in rural India access the Internet for entertainment purposes
- E-retail poised to grow by 70% in 2015: to US\$6 bn. Total market size at present around \$13 bn +.
- First L – Root instance in India : 700qps
- Usage of TLDs in India

#### 4.5 DISINTERMEDIATION AND REINTERMEDIATION :

Disintermediation of a consumer distribution channel showing

- a) the original situation
- b) disintermediation omitting the wholesaler and
- c) disintermediation omitting both wholesaler and retailer.



##### 1. Introduction :

- i. Channel structure defines the way a manufacturer or selling organization delivers products and services to its customers.
- ii. The distribution channel will consist of one or more intermediaries such as wholesalers and retailers.

##### 2. Disintermediation :

- i. The relationship between a company and its channel partners is shown in the above figure. This relationship can be dramatically altered by the opportunities afforded by the internet. This occurs because the Internet offers a means of

bypassing some of the channel partners. This process is known as “disintermediation” or “cutting of the middleman”.

- ii. The above diagram is a graphical form for a simplified retail channel.
- iii. Fig a shows the former position where a company marketed and sold its products by pushing them through sales channel.
- iv. Fig b and c shows two different types of disintermediation in which the wholesaler (b) or the wholesaler and retailer (c) are bypassed, allowing the producer to sell and promote direct to the consumer.
- v. The benefits of disintermediation to the producer are clear-it is able to remove the sales and infrastructure cost of selling through the channel.
- vi. Example: Notable examples of disintermediation include Dell and Apple, which sell many of their systems direct to the consumer—thus bypassing traditional retail chains, having succeeded in creating brands well recognized by customers, profitable and with continuous growth.

### 3. Reintermediation :

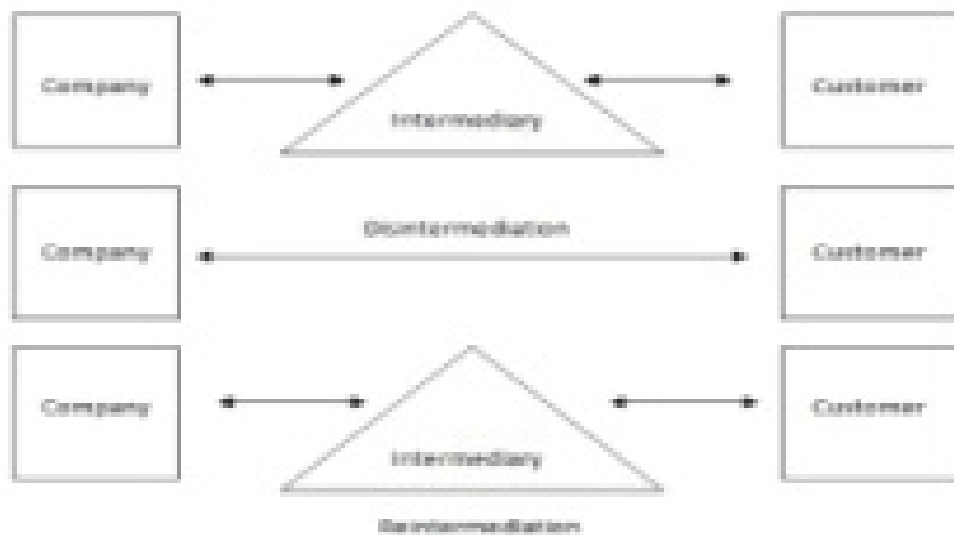


Figure 2.1: a) the original situation b) disintermediation c) reintermediation

- i. Reintermediation can be defined as the reintroduction of an intermediary between end users (consumers) and a producer. This term applies especially to instances in which disintermediation has occurred first.
- ii. At the start of the Internet revolution, electronic commerce was seen as a tool of disintermediation for cutting operating costs. The concept was that by allowing consumers to purchase products directly from producers via the Internet, the product delivery chain would be drastically shortened, thereby

"disintermediating" the standard supply model middlemen. However, what largely happened was that new intermediaries appeared in the digital landscape (e.g., Amazon.com and eBay)

- iii. Reintermediation occurred due to many new problems associated with the e – commerce disintermediation concept, largely centered on the issues associated with the direct – to – consumers model.
- iv. The high cost of shipping many small orders, massive customer service issues, and confronting the wrath of disintermediated retailers and supply channel partners all presented real obstacles.
- v. Huge resources are required to accommodate presales and post sales issues of individual consumers. Before disintermediation, supply chain middlemen acted as salespeople for the producers. Without them, the producer itself would have to handle procuring those customers. Selling online has its own associated costs: developing quality websites, maintaining product information, and marketing expenses all add up. Finally, limiting a product's availability to Internet channels forces the producer to compete with the rest of the Internet for customers' attention, a space that is becoming increasingly crowded over time.

#### **Implications :**

1. Disintermediation and reintermediation have a significant impact on business organizations such as travel agencies, which exist primarily as intermediaries between suppliers of travel services.
2. E.g. The role of travel agencies is to provide customers with not physical products but with information. Due to the huge widespread of the internet, many airlines and other travel companies have started to sell directly to passengers.
3. As a result of this, airlines no longer need to pay commission to travel agencies for tickets which have been booked through them. This has disintermediated several travel agencies and they have now resorted to charging fees for their services and broadening the scope of services.
4. Travel agencies must understand these changes and adapt their business way of thinking to the needs of tomorrow's travelers. Airlines provide customers with the service of booking and planning their travel through their websites, however, they are not as informative and global as intermediaries.
5. Therefore they do not offer consumers the convenience for a complete travel package that can be booked online. Re intermediation of services in the travel industry have been made possible by the expansion of business – to – business information exchange via the internet and enabling value added networks to deliver convenience and efficient service to the end user. Thus,
6. Agencies have a higher degree of independence than airlines would prefer, leading

them to serve the interests of customers, or their own interests, rather than the interests of those whose products they are distributing

7. Agencies and retailers have increasing power as the information control point in the distribution channel.

#### **4.6 SUMMARY :**

Businesses that cater to end-users are called the business to consumer (B2C) Solutions. In B2C E-commerce solution not only allows you to sell your products or services directly to customers without the presence of any middleman, but also increase visibility of your business strategy. E – Bay, Amazon are examples of such online intermediaries. The development teams designing this type of app focus are constantly aiming for improving the user experience for a glitch – free performance.

Online shopping or e – shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet using a web browser.

#### **4.7 KEY WORDS :**

**End users :**

A person who will use a good or service.

**Cataloging :**

Showcasing products or services and setting them up for online consumption using technology.

**Syndication :**

Content that is published on multiple sites beyond the source, which broadens its reach and visibility.

**XML messaging :**

We are able to make use of a flexible data formatting language for our messages.

**Web browser :**

A web browser takes you anywhere on the internet.

**Brick and mortar :**

A retail location where business owners showcase their products using a physical storefront.

**E – tailing :**

Electronic retailing is the sale of goods and services through the internet.



**Card Verification value :**

Card Verification Value is a number that is printed on the back (Visa and MasterCard) of your credit or debit card.

**Disintermediation :**

Disintermediation is the process of cutting out one or more middlemen from a transaction, supply chain, or decision-making process.

**Reintermediation :**

Reintermediation occurs when there are concerns about the direction of financial markets and investment returns.

**4.8 SELF ASSESSMENT QUESTIONS :**

1. What are the application in B2C?
2. Benefits of B2C mobile Application?
3. What are the different types of B2C models.
4. Write about online shopping?
5. What are the implications of disintermediation and reintermediation?

**4.9 SUGGESTED BOOKS :**

1. Satyadevi, C., Financial Services Banking and insurance, S.Chand.
2. Suneja, H.R., Practical and Law of Banking, Himalaya Publishing House.

**D. Swapna**

## LESSON – 5

# GLOBAL MARKETS & B2C MODELS TYPES

### Objectives :

After reading this lesson, one should be able to

- to know about the Department store
- to know about the types of B2C companies etc.

### Structure of the Lesson :

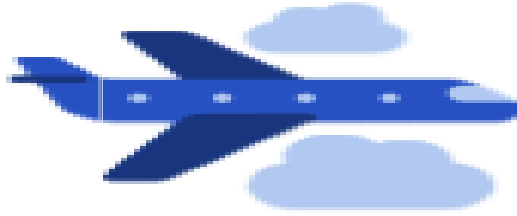
- 5.1 Global Markets
- 5.2 Department Store
- 5.3 Model Types of B2c Companies
- 5.4 Benefits of Business – To – Consumer (B2c)
- 5.5 Challenges of B2c
- 5.6 Critical Success Factors
- 5.7 Summary
- 5.8 Keywords
- 5.9 Self Assessment Questions
- 5.10 Suggested Books

### 5.1 GLOBAL MARKETS :

**International markets** involve the movement of goods and services across international borders, and the entire world is treated as a single marketplace. With the advancement of communication, transportation, storage, and packaging technologies, a wide array of goods and services can be sent across from one country to another.

International marketing is about getting to know a potential international audience that your brand is interested in reaching, understanding the value of international marketing, and investing consistently in global marketing and advertising. With a bit of marketing management and attention to your distinct audience, international marketing won't feel too different from the work your business does domestically.

International marketing can help bring your business to the global stage, revealing opportunities to reach customers that your brand has not engaged yet. In this overview, you'll find the tools and tips for beginners, including information on international marketing research and product marketing, international marketplace segmentation, and why international marketing is more important than ever in today's business world.



### **What is international marketing ?**

International marketing is the marketing of products or services outside of your brand's domestic audience. Think of it as a type of international trade. By expanding into foreign territories, brands are able to increase their brand awareness, develop a global audience, and of course, grow their business.

The complexity of international marketing comes in the details. While domestic marketing takes place in the same country, international marketing is anything that happens outside that nation's boundaries, with a focus on the nuance of speaking to that international audience and trying to understand the culture, language (where applicable), and customs that may not be familiar to your brand.

When expanding to international markets, brands must understand the right ways to reach audiences in those regions with their messaging. That may come in the form of a language barrier, or even something as nuanced as a cultural norm that may not be applicable to your domestic audience. The important part of international marketing is intention and research. Doing international marketing research up front and developing international marketing strategies specific to the new audiences your brand is engaging with will make all the difference when it comes to whether your foray into international marketing is successful.

An important part of that process involves international marketplace segmentation—or the identifying of aspects that will help inform your marketing campaign. The geographic, economic, and cultural factors of any given audience will help to guide your brand positioning, as well as your marketing management and communication strategies. When developing a strategy, an important question to ask is where your product or service fits within that given audience's needs. Think of that cliché about “selling sawdust to a lumber mill.” There is no need for sawdust there because the lumber mill already has all the sawdust it could want. That's the mindset that should be taken when considering international business: what do they need and how do they need it marketed to them? Marketing segmentation will also help identify the messaging and communication style. Idioms, references, or even simple translations (like that sawdust one, actually) can lose meaning in translation, or worse, change meaning entirely and alienate audiences who do not share your native culture.

### **Why is international marketing important ?**

International marketing is important because it opens your business to larger, international audiences.

On a brand level, international marketing is an opportunity for wider exposure, product awareness, and increased sales. Opportunities abroad are countless and tap into a wider audience than a business has access to if it conducted business domestically and nowhere else. But a larger aspect of international marketing is the implications it has for globalization and free trade.

### **What are the benefits of international marketing ?**

The benefits of international marketing are two-pronged. Not only does international marketing support the economic diversification of your business, but it helps your business reach a global audience, extending the audience reach to areas previously untapped.

#### **1. Globalization and audience reach :**

If there are customers across the globe that could benefit from access to your product or service, why limit that to one place? International marketing and reaching international audiences are ways of reaching your intended audience that may not be on your domestic radar.

#### **2. Economic diversification :**

While the best performing global economies may seem obvious, they're anything but. For instance, though the United States was performing well on Dow and Nasdaq throughout 2017, one of the world's largest economies only ranked fifth in global performance. Even if your home country is having an economic boom, there are customers across the globe that are excited to engage with brands not currently available to them. Prioritizing international marketing is a way to constantly monitor the markets, from South America to the Middle East, that may be most advantageous for you as you become an international brand.

## **5.2 DEPARTMENT STORE :**

A department store is a retail establishment offering a wide range of consumer goods in different areas of the store, each area ("department") specializing in a product category. In modern major cities, the department store made a dramatic appearance in the middle of the 19th century, and permanently reshaped shopping habits, and the definition of service and luxury.

Today, departments often include the following: clothing, cosmetics, do it yourself, furniture, gardening, hardware, home appliances, houseware, paint, sporting goods, toiletries, and toys. Additionally, other lines of products such as food, books, jewellery, electronics, stationery, photographic equipment, baby products, and products for pets are sometimes included. Customers generally check out near the front of the store in discount department stores, while high-end traditional department stores include sales counters within each department. Some stores are one of many within a larger retail chain, while others are independent retailers.

Since the 1980s, they have come under heavy pressure from discounters, and have come under even heavier pressure from e-commerce sites since the 2000s.

**Types :**

Department stores can be classified in several ways :

**Mainline department store** or simply, the traditional department store, offering mid- to high-end goods, most or at least some of the time at the full retail price. Examples are Macy's, Bloomingdale's, J.C. Penney, Montgomery Ward, Sears and Belk.[2]

- Junior department store, a term used principally in the second part of the 20th century for a smaller version of a mainline department store. These were usually either independent stores, or chains that specialized in cosmetics and wearing apparel and accessories, with few home goods.

**Discount department store**, a large discount store selling apparel and home furnishings at a discount, either selling overstock from mainline department stores, or merchandise especially made for the discount department store market.

Some sources may refer to the following types of stores as department stores, even they are not generally considered as such:

- Hypermarkets (discount superstores with full grocery offerings, such as Target, Walmart and Carrefour
- Variety stores, also known in the U.S. as five and dimes.

**5.3 MODEL TYPES OF B2C COMPANIES :****Direct Sellers :**

Direct sellers are companies that sell directly to the end consumer without any intermediaries. These companies often have a sales force that works on commission and sells products door-to-door or through home parties. Examples of direct sellers include Avon, Mary Kay, and Tupperware.

**Online Intermediaries :**

Online intermediaries are companies that facilitate transactions between buyers and sellers on their platform. These companies make money by charging a commission or a transaction fee. Examples of online intermediaries include Amazon, eBay, and Airbnb.

**Advertising – based :**

Advertising – based companies generate revenue by selling advertising space on their platform. These companies often offer their services for free to consumers and make money by displaying ads. Examples of advertising-based companies include Facebook, Google, and Instagram.

**Community – based :**

Community-based companies create a platform where consumers can connect with each other and share information. These companies often make money by charging a

membership fee or offering premium services. Examples of community – based companies include LinkedIn, Yelp, and Reddit.

#### **Fee – based :**

Fee – based companies charge consumers a fee for their services. These companies often offer a specialized service or product that consumers are willing to pay for. Examples of fee-based companies include Netflix, Spotify, and Dropbox.

In conclusion, there are several model types of B2C companies, each with its own unique way of generating revenue. Direct sellers sell directly to consumers, online intermediaries facilitate transactions, advertising-based companies sell advertising space, community-based companies create a platform for consumers to connect, and fee-based companies charge consumers a fee for their services.

#### **B2C Companies Examples :**

Business – to – Consumer (B2C) companies are those that sell products or services directly to individual consumers. These companies operate in a wide range of industries, from retail to healthcare to entertainment. Here are some examples of successful B2C companies :

Company	Industry	Product/Service
Amazon	Retail	Online marketplace for products and services
Netflix	Entertainment Streaming	service for TV shows and movies
uber	Transportation	Ride – sharing platform
Zocdoc	Healthcare	Online platform for booking doctor appointments.

Amazon is one of the largest B2C companies in the world, offering a wide range of products and services through its online marketplace. Netflix has revolutionized the entertainment industry by providing a convenient and affordable way for consumers to access TV shows and movies. Uber has disrupted the transportation industry by offering an alternative to traditional taxi services. Zocdoc has made it easier for consumers to book doctor appointments, saving time and reducing frustration.

Other successful B2C companies include Apple, Nike, Coca – Cola, and Procter & Gamble (P&G). These companies have built strong brands and loyal customer bases by providing high-quality products and services that meet the needs and desires of consumers.

### **5.4 BENEFITS OF BUSINESS-TO-CONSUMER (B2C) :**

#### **Increased Sales :**

One of the biggest benefits of B2C is the potential for increased sales. By selling directly to consumers, businesses can tap into a large and diverse market. This can lead to higher sales volumes and increased revenue. Additionally, B2C businesses can use targeted marketing strategies to reach specific customer segments, which can further boost sales.

**Direct Customer Interaction :**

Another advantage of B2C is the opportunity for direct customer interaction. By selling directly to consumers, businesses can build relationships with their customers and gain valuable feedback. This can help businesses improve their products and services and better meet customer needs. Direct customer interaction can also lead to increased brand loyalty, as customers feel a stronger connection to businesses that take the time to engage with them.

**Brand Loyalty :**

Brand loyalty is a key benefit of B2C. By selling directly to consumers, businesses can build strong brand identities and cultivate loyal customer bases. This can lead to repeat business and positive word-of-mouth marketing. Additionally, B2C businesses can use social media and other digital marketing channels to engage with customers and build brand awareness.

Overall, B2C offers many benefits for businesses looking to reach and engage with consumers. By tapping into a large and diverse market, building strong customer relationships, and cultivating brand loyalty, B2C businesses can achieve long-term success and growth.

**5.5 CHALLENGES OF B2C :****Intense Competition :**

One of the biggest challenges in B2C marketing is intense competition. With so many companies vying for the attention of consumers, it can be difficult to stand out from the crowd. This is especially true in industries that are already saturated with competitors. Companies must work hard to differentiate themselves from their competitors and provide a unique value proposition to their customers.

**High Marketing Costs :**

B2C marketing can be expensive, especially when it comes to advertising and promotion. Companies must invest significant resources into creating and distributing marketing materials, such as television and radio ads, billboards, and print advertisements. In addition, digital marketing channels such as social media and search engine advertising can also be costly. As a result, companies must carefully manage their marketing budgets to ensure that they are getting the best return on investment.

**Customer Acquisition and Retention :**

Acquiring and retaining customers is another major challenge in B2C marketing. Consumers have many options when it comes to purchasing products and services, and companies must work hard to attract and retain their business. This involves creating compelling marketing messages that resonate with consumers, as well as providing excellent customer service and support. Companies must also work to build brand loyalty among their customers, which can help to ensure long-term success.

In conclusion, B2C marketing presents a number of challenges for companies. These include intense competition, high marketing costs, and the need to acquire and retain customers. However, with careful planning and execution, companies can overcome these challenges and succeed in the B2C marketplace.

### **Effective B2C Strategies :**

Business – to – Consumer (B2C) marketing is all about selling products and services directly to individual consumers. Here are some effective B2C strategies :

#### **Personalization :**

Personalization is the process of tailoring marketing messages and experiences to individual consumers based on their preferences, behaviors, and purchase history. By personalizing your marketing efforts, you can increase customer engagement, loyalty, and sales. Some ways to personalize your B2C marketing include:

- Using customer data to create targeted marketing messages;
- Offering personalized product recommendations based on purchase history;
- Creating personalized landing pages and email campaigns.

#### **Multichannel Marketing :**

Multichannel marketing is the practice of reaching consumers through multiple channels, such as email, social media, mobile apps, and in-store experiences. By using a variety of channels, you can increase brand awareness, customer engagement, and sales. Some tips for effective multichannel marketing include :

- Creating a consistent brand message across all channels;
- Using data to understand which channels your customers prefer;
- Tracking and analyzing customer behavior across all channels.

#### **Social Media Marketing :**

Social media marketing is a powerful tool for B2C companies to connect with consumers, build brand awareness, and drive sales. Some best practices for social media marketing include:

- Choosing the right social media platforms for your target audience;
- Creating engaging and shareable content;
- Using social media influencers to promote your products or services.

By implementing these effective B2C strategies, you can drive customer engagement, loyalty, and sales for your business.

#### **Conclusion :**

In conclusion, Business-to-Consumer (B2C) is a crucial aspect of any business that seeks to reach out to its customers. The B2C model is focused on providing products and



services directly to the end consumers. It has become increasingly popular in recent years due to the rise of e – commerce and online shopping.

One of the key advantages of the B2C model is that it allows businesses to build strong relationships with their customers. By providing personalized experiences and engaging with customers on a regular basis, businesses can develop a loyal customer base that will continue to support them in the long run.

Another advantage of the B2C model is that it allows businesses to gather valuable data and insights about their customers. By analyzing customer behavior and preferences, businesses can tailor their products and services to better meet the needs of their target audience.

Overall, the B2C model is a powerful tool for businesses that are looking to grow and expand their customer base. By focusing on the needs and preferences of their customers, businesses can build strong relationships and create a loyal following that will help them succeed in the long run.

## **5.6 CRITICAL SUCCESS FACTORS :**

The key success factors that online retailer must consider seriously in order to compete in the digital economy. The critical success factors are :

- 1) Start with speed
- 2) Integrate the Web into the core of what the company does
- 3) Focus on how the company adds value for its customers
- 4) Make it easy for customers to do business with you
- 5) Focus on improving customer's experience across channels of interaction
- 6) Convert a "click-stream" into purchases.

### **Start with speed :**

To succeed, a company must start with speed as an explicit goal, which is as important as the other central goals that define a company's activities. In the emerging economy, the importance of speed takes on a broader meaning than simply being first to the marketplace. Early entry into the market increases the likelihood of capturing a premium price and establishing a strong market share. Speed must integrate into all aspects of a company: its decision-making process, its training, its attitude toward risk and failure, as well as its management style.

In an era where there is a constant initiative to enhance, to improve, to stay one step ahead, companies that have mastered the ability to act quickly will have a distinct advantage. They will learn more because they will find ways to experiment more. In addition, they will find low-cost ways to quickly enter markets, assess their relative competitive strength, and in some cases be smart enough to exit quickly.

**The integration of the Web into the core of what the company does :**

Online businesses are beyond putting up billboards on cyberspace and hoping customers will somehow get to your site. In an effort to determine how to build your business online, you need to rethink your business model and Internet strategy. You should consider the following questions as you plan to take your business to Internet :

1. How the Internet can be used to market and sell your existing products or services?
2. How can I use the Web and the Internet to build interactive relationships between prospects, customers, resellers, employees and suppliers?
3. How to facilitate the Internet capabilities with your company's core expertise that may lead to the creation of a new business?
4. By establishing an Internet channel, would costs reduce and service level increase?
5. How can I use the info I have about individual customers to make it easier for them to do business with me?
6. What is your business model (cost elimination, sales revenue, information trading, subscription or advertising model)?

**Focus on how the company adds value for its customers :**

Online merchants must have speed, best price, rapid delivery and customization to thrive on this fast – pace economy. Business will constantly be moving to develop service that adds value in the face of new developments and increase customer base. Performing the transactions online, at a lower cost, isn't nearly enough. One must add tremendous value, inventing new features and services that smooth out the process and lead to a new surge in buying and selling. In other words, market leaders must find new ways to delight their customers.

As more and more companies are going online, companies have to do more than just offering more selections or competing on price. Companies have no competitive advantage if they just compete solely on price and product selection because competitors can easily imitate.

**Focus on creating the best experience for customer segment you are serving :**

It is important to know which customer segment you are serving so that you build a better site (more comprehensiveness). You can't stand for something if you chase after everything. Eventually, you need to turn profitable. Different customers bring in different revenue streams. Therefore, it is important that you identify your most profitable customers and create the best experience when serving them. As Schwartz 9 puts it, "Price is not the primary factor for success in e-business. Successful companies are those who keep forcing shifts in the market and actively defining the evolution of the marketplace." "We have found

that pricing is only one-third of our customers' decision – making process; the other two-thirds represent service and support." Michael Dell said.

### **Make it easy for customers to do business with you :**

Form alliances and partnership to provide one – stop shopping. The Internet makes it possible for companies to create new, formerly impossible solutions that help to build their existing business. With Internet it is relatively easy to create alliance with other businesses in such a way that both you and your customer benefit. The key is to make it virtually effortless for the customer to buy all of the products or service at the same time. Why force customer to interact with someone else in an area related to your product?

### **Focus on improving customer's experience across channels of interaction :**

To compete in the fast-changing environment created by the Internet, success depends on the product and service you are providing to your customers as well as on how you make it available to your customers. This means companies need to have their systems and information well integrated throughout the company to provide and build strong customer relationship and leverage knowledge.

Today, bricks-and-mortar is not the only channel available for customers. There are many access alternatives -- Web, direct dialup, PDA, phone, email, fax and kiosks. With all these service channels proliferating, customers are demanding multi – channel service integration. In other words, customers need to be able to call in or log into any area of a company, immediately be recognized, and have their requests or purchases processed smoothly.

## **5.7 SUMMARY :**

International marketing is the marketing of products or services outside of your brand's domestic audience. When expanding to international markets, brands must understand the right ways to reach audiences in those regions with their messaging. International marketing is important because it opens your business to larger, international audiences. A department store is a retail establishment offering a wide range of consumer goods in different areas of the store, each area ("department") specializing in a product category.

There are several model types of B2C companies, each with its own unique way of generating revenue. Direct sellers sell directly to consumers, online intermediaries facilitate transactions, advertising-based companies sell advertising space, community-based companies create a platform for consumers to connect, and fee – based companies charge consumers a fee for their services. The B2C model is focused on providing products and services directly to the end consumers. By focusing on the needs and preferences of their customers, businesses can build strong relationships and create a loyal following that will help them succeed in the long run.

## **5.8 KEY WORDS :**

### **Loyalty :**

A sense of duty or of devoted attachment to something or someone.

**Brick and mortar :**

A retail location where business owners showcase their products using a physical storefront.

**Diversification :**

The act or process of diversifying; state of being diversified.

**Communication :**

Means of sending or receiving information, such as phone lines or computers.

**Segmentation :**

The division of something into smaller parts

**Complexity :**

A factor involved in a complicated process or situation.

**Community :**

A group of people living in the same place or having a particular characteristic in common.

**Streamlined :**

Designed or arranged in a way that makes movement easier through air or water

(Or)

To put in order to make simpler or more efficient.

**5.9 SELF ASSESSMENT QUESTIONS :**

1. Define global market and write about its benefits.
2. What are the different types of department stores?

**5.10 SUGGESTED BOOKS :**

1. Satyadevi, C., Financial services banking and insurance, S.Chand
2. Suneja, H.R., Practical and law of banking, Himalaya publishing house

**V. Sakunthala**

## LESSON – 6

# ONLINE SERVICE

### Objectives :

After reading this lesson, one should be able to

- Understand broker based services ;
- understand the travel agency ;
- to know about the real estate and insurance policy services etc.

### Structure of the Lesson :

- 6.1 Broker Based Services
- 6.2 Travel Agency Services
- 6.3 Real Estate Market
- 6.4 Future Of Real Estate Market In India In 2023
- 6.5 Advantages & Benefits Of Online Share Trading
- 6.6 Net Banking
- 6.7 Different Types Of Online Financial Transactions
- 6.8 E – Auction
- 6.9 Common Challenges Within Manual Supplier Auctions
- 6.10 Summary
- 6.11 Key Words
- 6.12 Self Assessment Questions
- 6.13 Suggested Books

### 6.1 BROKER – BASED SERVICE :

Brokers are the medium between Buyers and Sellers in simple terms.

Stock broker is a professional individual who executes buy and sell orders for stocks and other securities through a stock market, or over the counter, for a fee or commission. Stockbrokers are usually associated with a brokerage firm and handle transactions for retail and institutional customers.

A stock broker acts an agent to investor and is merely performing a service for the investor. This means that the broker will buy for the buyer and sell for the seller, each time making sure that the best price is obtained for the client.

**These are the services provided by the stock brokers –**

- A pathway to the stock markets
- A written confirmation in the form of a document about the transactions made in a day
- Stock brokers take care of the transfer of funds from trading to bank account of an investor.
- Provide various options to trade, if it's a consulting firm.

**They provide the following services to trade in –**

1. Equity Delivery,
2. Equity Intraday,
3. Stock Futures
4. ,Stock options,
5. Currency Futures,
6. Currency options,
7. Commodity futures,
8. Debt instruments traded on exchanges,
9. Investments in Mutual funds.

There are two types of brokers you can opt for –

**Full time brokers :** Full-time service brokers are traditional brokers offering trading (stocks, commodities and currency), research and advisory, investment banking, sales and asset management under one roof. They also allow investing in Forex, Mutual Funds, IPOs, FDs, Bonds and Insurance. In some cases full-service brokers also have in-house banking and demat account services.

**Discount brokers :** Discount brokers offer low brokerage, high speed and the state-of-the-art execution platform for trading in stocks, commodities and currency derivatives. They offer 'no – frills' brokerage service for 'do – it – yourself' traders who understand the market well. They are also known as online brokers who offer savings of 80-90% on brokerage.

## **6.2 ONLINE TRAVEL AGENCY ?**

An online travel agency (OTA) is a Virtual platform that allows users to research and book travel products and services, including hotels, flights, cars, tours, cruises, activities and more, directly with travel suppliers.

**Need of Online travel agency :**

In the internet age, planning and booking trips are much simpler due to Online Travel Agency. These platforms have modernized the way we travel.

Online travel agencies have become an essential tool for travel planning now a day. It provides a one-stop solution for travelers. It is easy for customer to browse, compare, and book everything like flights, hotels, and more in one platform.

**In this blog, we will explore the major features that make these platforms so popular and convenient :**

**Extensive search and matching capabilities :** One of the most significant advantages of online travel agency is the ability to search and compare numerous travel options effortlessly. Users can enter their desired destination, travel dates, and preferences to get a comprehensive list of available flights, hotels, and activities.

**Easy to use Interface :** User experience is a top priority for online travel agencies. The platforms are designed to be user-friendly. With easy to use interfaces online travel agency make it easy for travelers to navigate and find what they need. From simple search bars to interactive maps, these agencies seek to enhance the overall user experience and make travel planning a breeze.

**Wide Range of Travel Options :** Online travel agencies offer a vast array of travel options, catering to different budgets and travel styles. From luxury resorts to budget-friendly hostels, from business-class flights to economy seats, and from guided tours to solo adventures – travelers have access to an extensive range of choices at their fingertips

**Customer Feedback :** By listening to their customers and taking their feedback seriously, online travel agencies provide genuine reviews and ratings for hotels, airlines, and activities to the customers. These authentic reviews allow travelers to evaluate the quality of services and experiences, aiding them in making more confident choices.

**Modification and Personalization :** OTAs understand that every traveler is unique, and they seek to offer personalized travel experiences. Whether it's the ability to select specific room preferences, or even selected travel packages tailored to individual interests, online travel agencies aim to cater to different customer needs.

**Secure Payment and Booking :** Security is paramount when it comes to online transactions. Reputable OTAs ensure that their platforms use secure payment gateways and SSL encryption to protect users' personal and financial information. This feature gives travelers peace of mind while booking their dream vacations online.

**Loyalty Programs and Rewards :** Many online travel agencies have loyalty programs that reward frequent travelers with exclusive benefits, discounts, and points for future bookings. These programs encourage customer loyalty and can lead to considerable savings for avid travelers.

**24/7 Customer Support :** Travel plans can sometimes hit unexpected bumps, and having access to reliable customer support can be a lifesaver. Most online travel agencies provide 24/7 customer support, whether through live chat, email, or phone, ensuring that travelers can get assistance whenever they need it.

**Conclusion :**

Online travel agencies have changed the way we explore the world by providing a variety of features from their wide range of travel options to extensive search and comparison tools to personalized experiences and secure payments, these platforms have undoubtedly made our journeys more enjoyable and hassle-free. As technology continues to evolve, online travel agencies have simplified travel planning and booking.

**E – Commerce has Benefited the Travel Industry :**

With the increasing demand for e-commerce, more businesses are now looking for better ideas and opportunities to enhance their market value. No doubt the electronic commerce industry is now part of almost every business. The new era of e-commerce web design is moving towards the digitalization of many industries and the travel industry is also implementing its business solutions through it.

The time has gone when innovations took centuries for implementation, now there is always an instant solution to almost every problem within a business. When it comes to IT and communication, there are plenty of options for advertising, in fact, even a single person can run a full-fledged company with just a limited amount of resources. This is what technology has done, you don't need to hire a whole bunch of people to help you achieve your goal anymore, you just require the right set of tools to monitor your organisation and business strategies.

In the past few years, a tremendous change has come about within the travel and tourism industry and e-commerce has completely changed the concept of how people choose the way they travel around too. As everything is technologically driven now, online and electronic solutions have made life more convenient and comfortable for everyone, as well as more competitive for businesses. Travel companies can now reach your global audience sitting anywhere in the world and easily tally their pricing with competitors to enable them to offer their own customers the best possible options.

E – Commerce has played a vital role in enhancing the travel industry. Service providers and consumers, both are now enjoying the feasibility of it.

**The Impact of E – commerce on the Industry :**

E – commerce has changed the whole concept of travel and tourism. Both consumers and the industry are taking advantage of e-commerce and expanding their businesses for good. With this huge phase of expansion, let us take a look at how it has been beneficial for the travel and tourism industry.

**1. Online Booking :**

Customers are no longer required to visit offices and travel agents. The whole booking system is online with a feasible payment system. Every system works individually but the integration of this set-up is helping to build and increase business.



## **2. Managing Recessions :**

The e – commerce industry has amazingly affected recessions. A recession is a period of loss that lasts for almost six months. E-commerce technology has introduced a quick recovery from recession through its ideal solutions to the problems that arise.

## **3. Automation and Networking :**

GPS is one of the greatest technologies that help you in the industry of travel and tourism. If you look up any of the transportation services, e-commerce is the one thing that is helping you to connect and offer the best services to the consumers.

## **4. Additional Global Market :**

E – commerce technology gives you better know-how about the additional market. The travel industry is not limited to a country or a city but it is globally targeting its customers. People can now book their trips to exotic destinations from anywhere, such as their office or even the comfort of their own homes. E-commerce allows you to connect to additional markets around the world and provide the most feasible services to your clients, even if they are located overseas.

## **5. Ease of Accessibility :**

The planning and the strategy processes of a business are now as easy as reaching out to the market. The travel agents can now get to know more about the competitors and plan their business accordingly. Apart from the bulk of information, it provides the ease of accessibility to the customers and competitor behaviour. It makes it all easy for people to connect and grow together.

Furthermore, E-commerce technology provides you with many ways to enhance your business with ease. Just one click and the work is done, payment, booking, monitoring customer behaviour, business plans and marketing strategies are now at the fingertips of every businessman or woman.

The industry of travel and tourism is now dependent on E-commerce, it provides practical ideas to implement and plan anything from cheap solo travel excursions to hefty family holiday packages. You can book last-minute deals too. The best aspect is the global availability as well as the accurate information on hotels and the places to visit which are usually backed up by trustworthy customer reviews.

## **6.3 REAL ESTATE MARKET:**

Real estate is a property that consists of land and improvements, such as buildings, fixtures, roads, structures, and utility systems. It generally includes undeveloped property and vacant land and housing for individuals and families, such as single-family homes, apartments, condominiums, townhouses, and other types of living arrangements. It also involves commercial properties, such as shopping malls, individual stores, office buildings, parking lots, medical centers, and hotels, and industrial buildings that are used for manufacturing, mechanical production, research and development (R&D), construction,

transportation, logistics, and warehousing. In India, investments in the real estate sector are increasing rapidly as they offer a high return on investment (ROI) and tax benefits.



### Indian Real Estate Market Trends :

In India, the real estate industry is one of the highest employment generators after the agriculture sector. This can be attributed to the escalating demand for residential properties due to rapid urbanization and inflating disposable incomes of individuals. Moreover, the increasing need for contemporary office spaces and the emerging trend of urban and semi-urban lodging are acting as other significant growth-inducing factors. Furthermore, the expanding e-commerce sector in the country is catalyzing the demand for warehousing facilities, which is providing a positive thrust to the market. Besides this, with the growing use of telecommunication services and the implementation of 5G and data localization norms, there is a rise in the need for data storage facilities. This, in turn, is positively influencing the demand for resilient data center infrastructure and consequently bolstering the market growth. Apart from this, various initiatives undertaken by the Government of India, such as investments in smart city projects and tax exemption for interest on housing loans, are anticipated to create lucrative business opportunities for industry investors in the country.

### Key Market Segmentation :

IMARC Group provides an analysis of the key trends in each sub-segment of the India real estate market report, along with forecasts at the country and regional level from 2023-2028. Our report has categorized the market based on property, business and mode.

**Breakup by Property :**

- Residential
- Commercial
- Industrial
- Land

**Breakup by Business :**

- Sales
- Rental

**Breakup by Mode :**

- Online
- Offline

**Breakup by Region :**

- North India
- West and Central India
- South India
- East India

**6.4 FUTURE OF REAL ESTATE MARKET IN INDIA IN 2023 :**

The residential real estate market in India had astounding progress in 2022, setting new sales records of 68% YoY, further demonstrating the industry's prominence as one of India's fastest-growing industries. After two years affected by COVID, Tier 2 and Tier 3 cities have arisen as fresh major real estate trends in 2022, and the real estate market has set unprecedented benchmarks which continued its growth momentum from 2021 amid the global slowdown.

**Real Estate Market in 2022 :**

Hari Movva, Senior Vice President, SILA said despite the faltering economy we are currently experiencing, the real estate sector lived up to its best in 2022 - According to an industry report, the top 7 prime residential markets in India recorded the highest sales during the first half of the financial year 2022-23 as compared to the last 10 years. The growing awareness of home ownership and the government's favourable affordable housing schemes has led to significant growth in the affordable housing segment. With people realising the long-term potential of owning a house, v/s renting led to sustainable growth in the segment. An increase in earning potential, a need for a better standard of living and the growing base of aspirational consumers and their lifestyle changes have led to substantial growth in the sector. With suited economic growth, the premium housing segment will also witness higher

demand in the years to come. Reforms in stamp duty, the introduction of affordable rental housing complexes and government-aided schemes will boost this asset class while providing relief to the many who do not have access to it.

### **Real estate market in India in 2023 :**

Robin Chhabra – Founder and CEO of Dextrus Workspace said “Y2023 should be an exciting year; though we anticipate further downward trends in the global economy, this, however, should be an opportunity for the Indian economy to become world leaders. The real estate sector is going to continue on its journey of long term growth as we see a continuous rise in GDP per capita, larger disposable incomes, growing urbanization and most of all a larger focus of the world on us as the next big economy.”

## **6.5 ADVANTAGES & BENEFITS OF ONLINE SHARE TRADING ?**

### **What are the advantages & benefits of online share trading ?**

Online stock trading allows you to buy and sell various securities such as stocks, futures, options, bonds, commodities, and currencies. All you need to start trading on an online trading platform is a PC, laptop or a mobile phone with internet connectivity. You can virtually invest in stocks from any location, including your office or home.

This guide will share the multiple advantages and benefits of online trading to help you make online investments easily. Let's dive in.

### **Here are some of the major advantages of online stock trading :**

- **Real – Time Trading** One of the biggest advantages of online stock trading is the ability to place trades in real time. Instead of contacting your broker for stock quotes, you can easily check the stock's current price on the online trading platform. You can check stock prices, place the order and execute the trade within a few seconds.
- **Cost – Effective Online trading** is quite inexpensive as you pay less in brokerage and other charges, which is not the case with traditional investing. You can also opt for a broker like m.Stock, which offers zero brokerage plans, which will cut your brokerage costs to zero for life.
- **Instant Access To Market Data** Online trading platforms such as m.Stock provide access to technical charts and investing tools that offer comprehensive research insights and statistics to traders. This helps traders make well-informed investment decisions to maximise their returns. Moreover, it also saves time and substantially reduces the risk.
- **Flexibility Traders can access** their accounts from their mobile phones, laptops, and other devices. This allows them to keep tracking their investments from any location at any time. And in case your device is not working, you can easily shift to another medium without much hassle, unlike offline trading.
- **Prompt Customer Support** With years of experience and extensive training, customer support executives at online trading platforms provide individual assistance

and technical support. In addition, traders can opt for email and text alerts to get notified when their buy and sell price targets are hit.

- **Round – The – Clock Access** Online trading allows instantaneous access to your funds and stocks anytime. It further enables you to track and evaluate stock performance efficiently, ensuring you make decisions without wasting any time.
- **Transparency Online trading** platforms give clear information about all the fees and other charges associated with the trading account. These include brokerage fees, taxes, and other administrative costs. Thus, traders can accurately calculate the brokerage charges involved in the transactions.
- **Receive Real – Time Notifications** As a trader, you can get real-time notifications about their stocks from the online trading platform. Moreover, you can follow live updates of stock prices, their performance, and market analysis. Online platforms like m.Stock also allow you to customise your notifications and updates about the stocks in your watch lists.

As we have seen above, online trading is less stressful, more time – efficient, more convenient, and cheaper than traditional investment methods. An online trading platform such as m.Stock is ideal for beginners and advanced traders alike.

## 6.6 NET BANKING :

Net banking is an easy, fast, and secure way to access all your banking services online. Many banks have embraced digitalization and now offer online banking, which allows you to complete all your banking transactions from the comfort of your own home. With online banking, there's no need to visit the bank in person, saving you time and effort. Net banking offers a wide range of features and benefits, including the ability to manage your accounts, pay bills, transfer money, and more, all from your computer or mobile device.

In this article, we'll provide a comprehensive overview of net banking, including its features, benefits, and services.

### **What is Net Banking ?**

Net banking, also known as internet banking, is a service offered by banks that allows customers to access various banking services and perform financial transactions online. With net banking, customers can complete a range of banking tasks, including money transfers, creating fixed deposits and recurring deposits, and tracking transactions, without the need to visit a physical bank branch.

Any individual with an active bank account can use net banking, provided they have registered for the service. Once registered, they can use the online banking services offered by their bank.

### **What are the Features of Net Banking ?**

The following are some of the features of net banking that make this electronic system so

popular :

- Net banking allows convenient access to a variety of banking services
- Customers can easily check account balances and transaction history
- Online bill payments and fund transfers are simple and efficient
- Net banking provides a secure environment for conducting banking transactions
- Customers have a unique login ID and password for their account
- Net banking enables customers to apply for loans or insurance online
- Customers can manage their debit/credit cards and update addresses through internet banking
- It is easy to block a card or update primary and secondary addresses through net banking.

### **What are the Advantages of Net Banking ?**

The following are the benefits of net banking that make it an obvious choice for obtaining banking services online :

- Net banking is available 24/7
- It allows for easy fund transfers
- It offers convenience for conducting banking transactions
- Customers can easily track their transaction history with just a few clicks
- Net banking is secure and requires a password for access
- Non-financial activities such as ordering a cheque book, checking account balance, and obtaining a passbook can be easily done through net banking.

### **What are the Limitations of Net Banking ?**

The limitations of net banking are –

- Net banking may be challenging for those who are new to using it
- An internet connection is necessary to use the online banking services
- It is important to regularly change passwords to ensure the security of the bank account and protect it from hackers (e.g. password changes may be required every two months)

## **6.7 DIFFERENT TYPES OF ONLINE FINANCIAL TRANSACTIONS ARE :**

### **National Electronic Fund Transfer (NEFT) :**

National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporates

can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme. Individuals, firms or corporates maintaining accounts with a bank branch can transfer funds using NEFT. Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT. However, such cash remittances will be restricted to a maximum of Rs.50,000/- per transaction. NEFT, thus, facilitates originators or remitters to initiate funds transfer transactions even without having a bank account. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

### **Real Time Gross Settlement (RTGS) :**

RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time; 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable. The RTGS system is primarily meant for large value transactions. The minimum amount to be remitted through RTGS is 2 lakh. There is no upper ceiling for RTGS transactions. The RTGS service for customer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end. However, the timings that the banks follow may vary depending on the customer timings of the bank branches.

### **Electronic Clearing System (ECS) :**

ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premia, card payments and loan repayments, etc., which would obviate the need for issuing and handling paper instruments and thereby facilitate improved customer service by banks / companies / corporations / government departments, etc., collecting / receiving the payments.

### **Immediate Payment Service (IMPS) :**

IMPS offers an instant, 24X7, interbank electronic fund transfer service through mobile phones. IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM which is not only safe but also economical both in financial and non-financial perspectives.

### **Objectives of IMPS :**

- To enable bank customers to use mobile instruments as a channel for accessing their banks accounts and remit funds.
- Making payment simpler just with the mobile number of the beneficiary.
- To sub-serve the goal of Reserve Bank of India (RBI) in electrification of retail payments.

- To facilitate mobile payment systems already introduced in India with the Reserve Bank of India Mobile Payment Guidelines 2008 to be inter-operable across banks and mobile operators in a safe and secured manner.
- To build the foundation for a full range of mobile based Banking services.

## 6.8 WHAT IS AN E-AUCTION ?



An e – Auction is a transaction between sellers (the auctioneers) and bidders (suppliers in the business – to – business scenarios) in an electronic marketplace.

It can occur business-to-business, business-to-consumer, or consumer-to-consumer, and allows suppliers to bid online against each other for contracts against a published specification.

This kind of environment encourages competition, resulting in goods and services being offered at their current market value.

### **The Benefits of e – Auctions for buyers :**

An e – auction provides procurement professionals with competitive prices for their products, pitching the suppliers directly against each other to see who can offer the lowest prices. It also streamlines the procurement process and saves time since each supplier cannot submit a full proposal.

### **Cost savings :**

Time savings translate directly into cost savings. According to Sanmarket, there was a savings of 6.88% on average across all categories by companies that used eAuction tools in the last quarter of 2022.

### **More efficient :**

There is no need to review full proposals from suppliers and evaluate each write-up.

### **Transparency :**

The open nature of bids shows the fair market value of goods and what competitors are willing to pay for materials.



**Access to more suppliers :**

Online auctions provide access to a nationwide or worldwide pool of potential vendors.

This can help negate supply chain problems experienced by using local suppliers.

**Process standardization :**

Buyers benefit by having standard methods to procure materials, leading to more predictable spending cycles.

**The Benefits Of E – auctions For Suppliers :**

E – auctions are open, allowing smaller businesses to compete and suppliers to compete in new sectors. A winning bid can lead to more business, as most buyers will look to source their ‘non – core’ products from their existing supplier.

**Reduced transaction costs :**

Suppliers can list items for bid with a low fee per auction and realize a higher profit margin.

**Access to new markets :**

Vendors can reach potential buyers they may not have been able to with traditional auctions.

**Leveled playing field :**

Smaller purchasers can work with suppliers they may not have been able to do business with and gain a competitive edge.

**Transparency :**

All buyers are informed and have the same opportunities to bid on items, satisfying regulatory compliance requirements regarding impartiality and fairness.

**6.9 COMMON CHALLENGES WITHIN MANUAL SUPPLIER AUCTIONS :****Time – consuming :**

Manual auctions take a lot of preparation time and energy to organize materials, arrange for an auction venue, and create disruption in a team’s workflow.

It can be time – consuming for buyers, who may travel to a supplier to bid on their items.

Moving the auction to an online platform reduces the manual labor needed for suppliers to offer their items for sale and is more convenient for buyers to review items that may meet their needs.

**Limited participation :**

Supplier auctions will have limited participation because of the time and cost involved in the bidding process.

Limited participation generally means that overall bids will be lower since there is less competition, and buyers will factor their expenses into what they are willing to bid on lots.

e – Auctions reach a wider audience and will bring a wider range of participants, including smaller businesses that might not otherwise be able to compete with their larger counterparts.

#### **Lack of transparency :**

Manual auctions, while attempting to provide a level environment for all participants, need to meet the goal of transparency better

There are many opportunities to provide insider information to individual bidders or create unfair bidding situations.

On the other hand, e – Auctions deliver auctions on an online platform where all communications are open and available to all participants.

#### **Increased costs :**

Manual auctions will increase costs across the board. Businesses must factor in preparation, management, and labor costs that will eat away at a manual auction's profits.

Some businesses may turn to a third – party auction house to oversee auctions. However, this comes at a price, as a large percentage of money brought in may go to covering the auction company's services.

### **6.10 SUMMARY :**

Brokers are the medium between Buyers and Sellers in simple terms. Stockbrokers are usually associated with a brokerage firm and handle transactions for retail and institutional customers. online travel agency (OTA) is a Virtual platform that allows users to research and book travel products and services, including hotels, flights, cars, tours, cruises, activities and more, directly with travel suppliers.

E – Commerce has changed the whole concept of travel and tourism. Both consumers and the industry are taking advantage of e – commerce and expanding their businesses for good. In India, the real estate industry is one of the highest employment generators after the agriculture sector. As we have seen above, online trading is less stressful, more time-efficient, more convenient, and cheaper than traditional investment methods. An online trading platform such as m.Stock is ideal for beginners and advanced traders alike.

### **6.11 KEY WORDS :**

#### **Equity :**

The name given to the value of a company's brand.

**Equity intraday :**

The purchasing and selling of stocks on the same day.

**Execution :**

Products are being collected.

**Interface :**

A device or program enabling a user to communicate with a computer.

**Modification :**

Any substantial change made to the attributes (size, shape, colour, style, price, etc.) of a product.

**Personalisation :**

The process of using data to target and retarget leads with a brand message that speaks directly to specific customers' interests, demographics, and buying behavior.

**Accessibility :**

The ease with which the organization's products, services, and facilities can be used by the company's employees and customers.

**Flexibility traders :**

Flexibility trading means swapping energy, capacity and system services products in a local market.

**Transparency :**

The practice of sharing information amongst people on important matters internally and externally.

**6.12 SELF ASSESSMENT QUESTIONS :**

1. What are broker based services?
2. Define Travel agency and write about its features?
3. What are the benefits of travel agency.
4. Briefly write about Real estate market.
5. Advantages of online share trading.
6. What are the major advantages of online stock trading.
7. Define Net banking and write about its features.
8. What are the advantages and limitations of Net banking?
9. What are the different types of financial transactions?
10. Write about E-Auctions.

**6.13 SUGGESTED BOOKS :**

1. Maheswary and Paul-Banking theory, law and practice, Kalyani publishers.
2. Muraleedharan-modern banking:theory and practice PHI.

**V. Sakunthala**

## LESSON – 7

# B2B APPLICATIONS & JIT

### Objectives :

After reading this lesson, one should be able to

- understand meaning and applications in B2B ;
- understand the key technologies in B2B models ;
- to know about the Architectural Models of B2B
- to know about the E – Procurement, JIT, etc.

### Structure of the Lesson :

- 7.1 Applications in B2B
- 7.2 Key technologies for B2B
- 7.3 Architectural models of B2B
- 7.4 E – Procurement
- 7.5 JIT
- 7.6 Summary
- 7.7 Key Words
- 7.8 Self Assessment Questions
- 7.9 Suggested Books

### 7.1 APPLICATIONS IN B2B :

#### Business to Business Applications :

B2B applications are used by companies that sell or market their goods and services to other companies and not to the consuming public directly. Some companies harnessing B – 2 – B applications would include companies providing e – Commerce solutions, companies looking to sell products and services on company website and so on.

#### The most Common B2B Applications are :

##### Buy – side B2B applications :

Soft impact Buy – side B2B applications features pre – negotiated pricing to avoid unnecessary price haggling and a workflow for the procurement approval process thus giving you complete control over your business procurements.

##### Sell – side B2B applications :

These applications can be integrated on your personal B2B site or connect to a wider market through these sell-side B2B applications. Soft impact sell – side B2B application provides your business with multiple options.

**E – marketplace B2B applications :**

B2B applications meant for an e-marketplace enable both service providers and buyers of different businesses to connect to each other and carry out their business transactions on the intermediary online marketplace. Soft impact e – auction B2B applications connect one seller with many bidders whereas our reverse auction B2b applications connect a single buyer with multiple vendors.

**7.2 KEY TECHNOLOGIES FOR B2B E – COMMERCE?**

As new – gen buyers enter managerial and purchasing roles, they expect the conveniences of B2C shopping to translate seamlessly to ecommerce shopping experiences. By providing customized sales portals and self-service functions, your brand can increase mean order values by increasing mean order values. Several key technologies for B2B e – commerce were created.

Magento B2B e – commerce solutions enable businesses to customize catalogs and prices, make negotiated purchases and implement request – for – quote functionality, as well as automate sales processes via one-click integrations and APIs.

Business AUTHOR : DZHINGAROV – MAY 20, 2023 Share Twitter Facebook.

**Key technologies for B2B e – commerce :**

What Are the Key Technologies for B2B E-Commerce?

As new – gen buyers enter managerial and purchasing roles, they expect the conveniences of B2C shopping to translate seamlessly to ecommerce shopping experiences. By providing customized sales portals and self-service functions, your brand can increase mean order values by increasing mean order values. Several key technologies for B2B e – commerce were created.

Magento B2B e – commerce solutions enable businesses to customize catalogs and prices, make negotiated purchases and implement request – for – quote functionality, as well as automate sales processes via one-click integrations and APIs.

**1. Customer Relationship Management :**

B2B e – commerce is a fast-emerging market. Many businesses that were once tied to traditional processes such as faxes or phone calls are transitioning their sales online in order to create new revenue opportunities, streamline ordering processes and offer customers more convenient experiences. Unfortunately, though, making the switch can present unique challenges; for instance, B2B sales often involve large orders that require longer sales cycles and have specific payment or shipping requirements.

Luckily, the top B2B e – commerce platforms provide tools to manage complex transactions seamlessly for their customers, including a central order dashboard that displays real-time inventory and price information as well as user-friendly search navigation to

quickly locate what buyers need quickly and easily. Furthermore, providing information security functions will give buyers peace of mind that their privacy will be maintained.

An effective b2b e – commerce platform should also feature customized quoting software that enables businesses to quickly generate personalized quotes for specific orders, making the ordering process simpler for both buyers and distributors alike. In addition, such platforms should offer a clear order dashboard that allows businesses to track fulfillment statuses in real time while updating ERP systems immediately.

The COVID-19 pandemic has created an urgency for business-to-business (B2B) retailers, especially B2B retailers selling to businesses, to expand their online presence and meet rising customer expectations. While selling online can be challenging for some companies, its rewards make the effort well worthwhile – whether you’re manufacturing, wholesaler or distributor; SaaS provider; SaaS business, etc, customers expect you to provide an e – commerce solution and will turn elsewhere if it’s unavailable – thus it is imperative that businesses choose the appropriate technology suitable for them in order to stay competitively.

## **2. Analytics :**

Establishing customer loyalty and long – term success are integral parts of running any successful business – to – business (B2B) organization. B2B e – Commerce platforms allow manufacturers and distributors to provide their customers with an effortless shopping experience that makes placing bulk orders effortless; at the same time they reduce operating costs through automation and streamline processes.

At the core of every successful B2B e – commerce strategy lies data analytics. By gathering all necessary data in one centralized location, businesses can connect all their sources and uncover vitally important hidden insights. Analyzing this data may include reports, dashboards, charts or graphs – having the appropriate analytics platform in place will assist businesses in making better decisions while offering customers exceptional experiences.

E – commerce has greatly assisted B2B businesses by cutting the time and costs associated with managing inventory, processing orders, shipping them out on time, building customer connections by providing product details like pricing and availability, as well as creating greater transparency with buyers – ultimately improving buying experiences while driving economic expansion.

## **3. Mobile :**

B2B electronic commerce, or business – to – business electronic commerce, refers to the sale of products and services between businesses using technology. B2B e – commerce allows wholesalers, manufacturers, distributors, and others to streamline their sales processes while expanding into different markets more quickly.

Amazon and eBay are two companies with successful business – to – business e – commerce platforms, providing retail goods and services as well as offering business solutions like computing power, database storage, and content delivery to companies like GE, Hess Expedia, and Philips. Caterpillar also provides construction equipment as well as industrial engines, diesel and natural gas turbines, and financial services that cater specifically to business customers.

#### **4. Artificial Intelligence :**

Artificial intelligence often conjures images from sci-fi movies like Steven Spielberg’s A.I, Ex Machina or 1982’s Blade Runner cult classic. While today’s AI may not seem quite so futuristic, it remains an integral component of e – commerce that can help retailers improve customer experiences, increase conversion rates, streamline operations, collect data more efficiently, and make smarter decisions through learning technologies.

AI’s most well – known application in e – commerce is personalization. AI technology can identify specific buyers and their interests to provide tailored content, products, promotions, checkout experiences, and marketing messaging that is highly pertinent to them – ultimately creating a superior user experience as well as increasing average order value (AOV) and loyalty.

#### **5. Big Data :**

B2B companies produce an abundance of data every time a customer opens an email, clicks a link, tags the brand in social media posts, or makes an online purchase – these technologies collect and process this data for use by e – commerce teams; big data analytics transforms this raw information into actionable intelligence that allows decision-makers to make confident choices with greater ease.

B2b buyers increasingly crave tailored experiences when they shop, according to research conducted. Studies have shown that consumers spend 48% more when given customized experiences; that is why many b2b e – commerce companies use personalization tools to boost conversions and build loyalty among their customer base; these solutions may include predictive analytics, trigger emails or automatic optimization – as well as AI-based personalization solutions.

Big data has revolutionized e – commerce by enabling retailers to offer customized products, promotions, checkout experiences, and marketing messaging for customers. Furthermore, this data can help companies keep an eye on competitors, identify business opportunities and streamline sales processes.

Finding an appropriate technology solution that can manage the size and scope of your e – commerce data while meeting your goals can be challenging, so it’s essential that security requirements are taken into account to ensure data protection, as well as compliance processes, are in place.

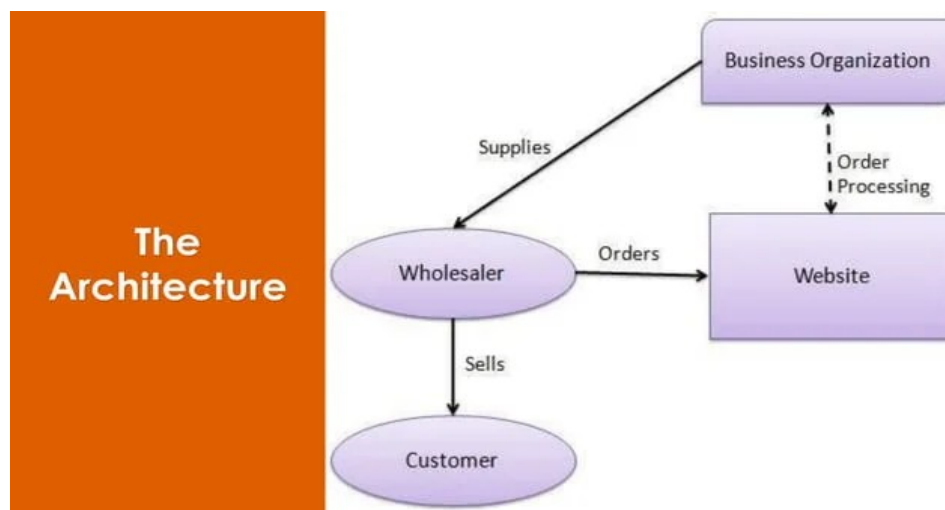


### 7.3 ARCHITECTURE FOR B2B MODELS IN ECOMMERCE :



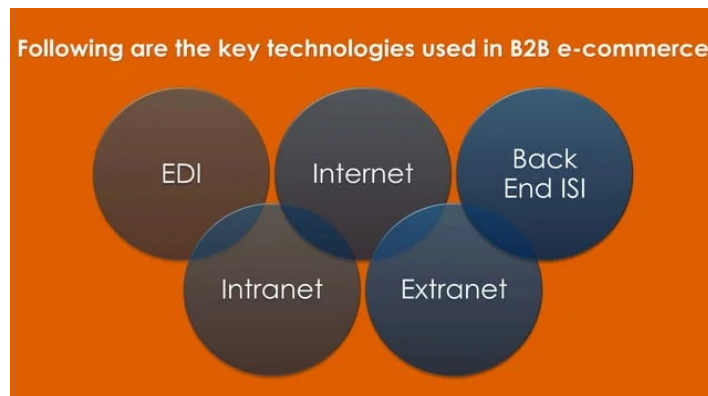
#### Ecommerce in B2B

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



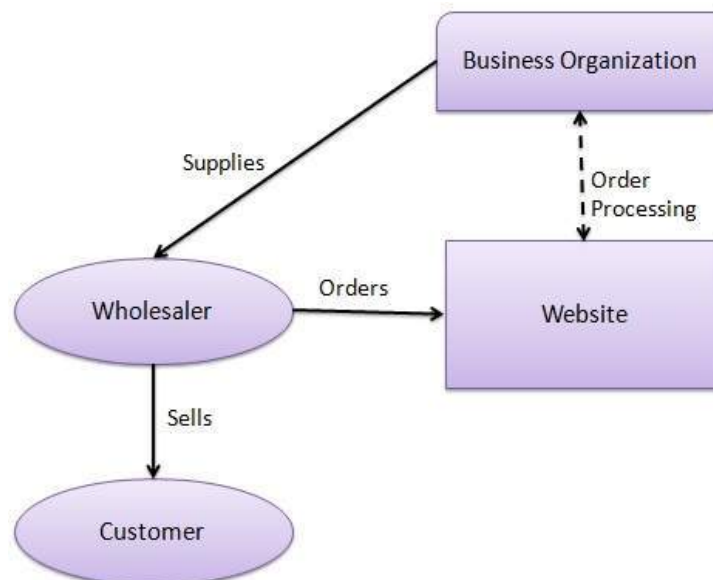
B2B implies that seller as well as buyer is business entity. B2B covers large number of applications which enables business to form relationships with their distributors, resellers, suppliers etc. Following are the leading items in B2B e – Commerce.

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



- **Electronic Data Interchange EDI** : EDI is an inter organizational exchange of business documents in a structured and machine process – able format.
- **Internet** : Internet represents world wide web or network of networks connecting computers across the world.
- **Intranet** : Intranet represents a dedicated network of computers within a single organization
- **Extranet** : Extranet represents a network where outside business partners, supplier or customers can have limited access to a portion of enterprise intranet/network.
- **Back – End Information System Integration** : Back End information systems are database management systems used to manage the business data.

#### Architectural Models of B2B :



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

**Following are the Architectural Models in B2B E-commerce :**

- **Supplier Oriented marketplace :** In this type of model, a common marketplace provided by supplier is used by both individual customers as well as business users. A supplier offers an e-stores for sales promotion
- **Buyer Oriented marketplace :** In this type of model, buyer has his/her own market place or e – market. He invites suppliers to bid on product's catalog. A Buyer company opens a bidding site
- **Intermediary Oriented marketplace :** In this type of model, an intermediary company runs a market place where business buyers and sellers can transact with each other.

**What is a business-to-business (B2B) model ?**

In the B2B model, businesses transact with each other in a marketplace or a platform which creates a business – to – business interaction.

Take Alibaba as an example. It is an e – commerce company that allows businesses to buy products in bulk from manufacturers and suppliers on their platform.

Meanwhile, their sister company, AliExpress, is a B2C version of Alibaba. The items on the platform can be purchased individually by their customers.

**What are the types of B2B marketplaces?**

The three main types of B2B marketplaces are :

- (1) Supplier – oriented market place
- (2) Buyer – oriented marketplace; and,
- (3) Intermediary – oriented marketplace.

Let's talk about each one in more detail.

**Supplier – oriented Marketplace :**

In supplier – oriented marketplaces, there are a few suppliers and many buyers. This type is also called e – Distribution or supplier directory.

This online marketplace is dictated by a number of suppliers who put out the prices of their products based on the needs of the buyers.

Cisco's marketplace called Cisco Connection Online is an example of a supplier-oriented marketplace. Suppliers are present on the platform and allow a great number of buyers to browse through their products.

This model does not only allow the suppliers to gain income, but it also increases their reach in the market.

**Buyer – oriented Marketplace :**

The buyer – oriented marketplace is also referred to as e – Procurement. In this type, the market is driven by suppliers while there are few buyers.

This model can be easily understood by thinking of it as a bidding platform. An example would be GE’s electronic bidding site which is known as GE TPN Post.

Buyers will pay a nominal fee and post their project requirements on the website. Suppliers on the platform who will meet the requirement will make bids for the project. The buyer will then screen the bids and pick the supplier that best suits their requirements and budget.

**Intermediary – oriented Marketplace :**

In intermediary – oriented marketplaces, the owner acts as a third – party system allowing buyers and sellers to transact on their platform.

This marketplace enables the suppliers or vendors to present their products on the platform while the buyers or the clients find the products or services that they need.

Mangtas is an example of an intermediary-oriented marketplace.

Businesses, both buyers and sellers, sign up on the platform as clients or vendors. The platform enables the clients to browse through the list of vetted vendors and their outsourcing services, acting as a middleman for the clients and vendors to come up with a beneficial partnership.

**The best model for your B2B Business****Do you have a business idea that seems to fall under these categories?**

To figure out which model would work best for your B2B business, you would need to start identifying what your role would be between your buyers and the suppliers.

You can create your platform to :

- (1) be an avenue for suppliers to showcase their services (a supplier – oriented marketplace);
- (2) help buyers find solutions (a buyer – oriented marketplace); or,
- (3) be the bridge for both buyers and sellers (an intermediary – oriented marketplace).

Once you find out which role you want to play, it should be easy for you to know which model would work best for your B2B business.

**7.4 WHAT IS E-PROCUREMENT ?**

E – procurement is a business – to – business (B2B) mechanism in which business

transactions such as the acquisition and selling of products and services are carried out over the Internet. The ‘e’ in e-procurement is electronic. If you're new to procurement and are not sure where to start with procurement. Here's a free e – book to help you with procurement automation.

### **What Are the Benefits of E – Procurement ?**

If a company wants to succeed in today’s business climate, it needs to keep its costs low. It includes reducing the costs of its materials and services by procuring from low – cost sources. Modern systems of e – procurement can significantly facilitate purchase order management.

### **What Benefits does E – procurement bring ?**

#### **1. Increasing Transparency of Operations :**

**Under the new automated E – Procurement system**, staff can view any contract at any time, check all terms and conditions, and ensure all performance is up to standard. Also, with no means of changing data, it helps prevent anyone from misusing the system.

**Supplier ratings** are another transparency – enhancing tool. Having cooperated with one of the suppliers, buyers can rate them. In this way, the system creates the ratings of suppliers' reliability, visible when choosing a company. The higher the rating, the greater the chance of finding a worthy partner.

The e – procurement software may also include lists of violations. They allow you to find out what violations the selected company committed quickly.

#### **2. Reducing Human Error :**

Every business purchase has the potential to result in costly mistakes. Manual input is vulnerable to human error, and these errors can negatively affect the productivity of a business. By implementing automated e-procurement systems, you can minimize such risks and focus on other day – to – day business tasks. E – procurement helps avoid mistakes in budgeting, communication between buyer and seller, data transfers between platforms, and accountability.

For example, using the history of purchases, the software will select the best suppliers of the necessary goods, and in addition, it will save you from errors in conducting accounting. In this way, the implementation of e-procurement simplifies the procedure for all participants, increases the level of control, and reduces possible human mistakes in qualifying and selecting the required supplier.

#### **3. Reducing Costs :**

The new e – procurement strategy makes it possible to cut your buying departments’ expenses and staffing levels by as much as 50%. This will allow you to reinvest the savings into other areas – like new product development – and avoid the need for layoffs. The company will need a minimum of qualified employees to manage the software.

Being able to see all price options from all suppliers simultaneously, procurement managers can procure goods at a lower cost. An additional benefit of a modern e-procurement system is that it provides a visual analytics Dashboard to review your expenses, allowing you to control budget flow and alerting you if a request is over budget.

#### **4. Automating Tedious Tasks :**

It is no longer necessary to prepare new documents from scratch for each supplier since the e-procurement software files all reports, assignments, draft contracts, and other documentation automatically and in electronic form. This will free up time for the team to spend on more strategically significant functions and tasks.

Besides leveraging e-procurement, companies can create templates for contracts. You just need to choose the type of contract you want, indicate its subject and the sum of money. As a result, managers can avoid additional paperwork and reduce the number of human errors. By correctly filling out the templates and organizing them, employees can quickly open the necessary ones without checking the contracts every time.

#### **5. Less Dependence on Current Suppliers :**

There are unpleasant situations when the supplier fails to complete the order within the deadline, delivers goods of inadequate quality or in the wrong quantity. Thanks to e-procurement, companies can choose another supplier at any time. It is enough to choose from the list – there are many offers on the market from companies trying to build their reputation.

#### **6. Giving a Competitive Edge :**

The use of e-procurement expands access to advanced technologies and products, new suppliers, alternative offers, and innovations in the market. Companies already taking advantage of e-procurement can manage risks faster and more efficiently and respond to new market challenges. Remember, e-procurement is far from being widely adopted, so being one of the first will give you the first-mover advantage.

#### **7. Eliminating Transaction Disputes :**

Utilizing the e-procurement software, companies can minimize the chances of transaction disputes. The factors that make it possible are as follows :

- Flexibility at every step of the procurement process;
- Control of data, actions, and deadlines at all stages of the process;
- Workload distribution and delegation of responsibilities;
- Full compliance with internal regulations and laws;
- Fewer mistakes in documentation.

#### **8. Higher Operational Efficiency :**

Taking into account all the benefits mentioned, embedding automation in

procurement improves the overall operational efficiency. The procurement team can choose the delivery dates and control the quality of goods. This results in more favorable dates for production start, higher quality of the procured goods, and an increase in the company's productivity.

## **7.5 JUST IN TIME DELIVERY ?**

### **Definition :**

Just in time delivery is a process used to efficiently manage the supply chain of goods and services. It focuses on minimizing costs, reducing lead times, and improving customer service by delivering the right products at the right time. This article will explore what just in time delivery is, how it works, and why it's important. We'll also discuss the benefits of using this system and some of its challenges so you can decide if it's right for your business.

### **JIT delivery :**

JIT delivery is a type of inventory management system where goods are only produced or delivered when they are needed, in order to avoid the costs associated with holding excess inventory. This system requires close coordination between suppliers and customers, as well as careful planning to ensure that the necessary materials and components are available when needed. JIT delivery can help to reduce lead times and improve quality, as well as reducing inventory costs.

### **The benefits of JIT delivery :**

There are many benefits that can be gained from using Just In Time Delivery methods. Perhaps the most obvious benefit is that it can help to reduce inventory levels and the associated costs that come with holding large amounts of stock. JIT delivery can also help to improve communication and collaboration between suppliers and customers, as well as reducing lead times and ultimately improving customer satisfaction levels.

In addition, JIT delivery systems can often be more flexible than traditional methods, meaning that they can be adapted more easily to meet changing customer demands. This can result in reduced waste and improved efficiency throughout the supply chain.

### **The Challenges of JIT delivery :**

JIT delivery can be a challenge for businesses, as it requires a high degree of coordination and communication between the supplier and the customer. There is also a need for flexibility on both sides, as JIT delivery can be disrupted by unexpected events.

### **How to implement JIT delivery in your business :**

JIT delivery is an inventory management system that companies use to receive goods only as they are needed, in the exact quantity required. JIT delivery reduces waste and storage costs while ensuring that production never comes to a standstill due to lack of materials.

To implement JIT delivery in your business, you will need to work with your suppliers to establish order schedules and lead times. You will also need to invest in efficient storage and inventory management systems.

**Conclusion :**

Just In Time delivery is an efficient and convenient way to get products delivered quickly, saving both time and money. This type of supply chain system cuts down on unnecessary storage costs, reduces the inventory backlogs, eliminates waste and optimizes resources for maximum output. Just In Time delivery also provides a competitive advantage in the market as it offers reduced turnaround time for shipments which leads to increased customer satisfaction. With all these benefits, it's no wonder why more companies are embracing this innovative approach.

**7.6 SUMMARY :**

B2B applications are used by companies that sell or market their goods and services to other companies and not to the consuming public directly. B2B implies that seller as well as buyer is business entity. B2B covers large number of applications which enables business to form relationships with their distributors, resellers, suppliers etc. E – procurement is a business-to-business (B2B) mechanism in which business transactions such as the acquisition and selling of products and services are carried out over the Internet. It includes reducing the costs of its materials and services by procuring from low-cost sources.

Just in time delivery is a process used to efficiently manage the supply chain of goods and services. It focuses on minimizing costs, reducing lead times, and improving customer service by delivering the right products at the right time. JIT delivery is a type of inventory management system where goods are only produced or delivered when they are needed, in order to avoid the costs associated with holding excess inventory. Just In Time delivery also provides a competitive advantage in the market as it offers reduced turnaround time for shipments which leads to increased customer satisfaction.

**7.7 KEY WORDS :****Jit :**

Just – in – time, or JIT, is an inventory management method in which goods are received from suppliers only as they are needed.

**Tedious :**

Boring and rather frustrating.

**Error :**

A measure of the estimated difference between the observed or calculated value of a quantity and its true value.

**Procurement :**

Procurement includes sourcing, obtaining and paying for goods and services.



**Bidding :**

A bid placed in a pay-per-click auction to help secure ad placement at the top of search results.

**Extranet :**

A private network similar to an intranet, but typically open to external parties, such as business partners, suppliers, key customers, etc.

**Petrochemicals :**

Chemical products obtained from petroleum by refining.

**Intranet :**

Intranet is a private network contained within an enterprise that is used to securely share company information and computing resources among employees.

**Artificial Intelligence :**

Enabling businesses to analyze and understand customer behavior patterns, enhance the shopping experience, and streamline various processes.

**Disputes :**

A public facing digital space in which parties can convene to resolve their dispute or case.

**7.8 SELF ASSESSMENT QUESTIONS :**

1. What are the applications in B2B?
2. Write about the key technologies for B2B.
3. Describe the Architectural models of B2B.
4. Write about e – procurement.
5. Define JIT and write about its benefits.

**7.9 SUGGESTED BOOKS :**

1. Shekhar and Shekhar – Banking Theory and Practice, Vikas publications.
2. S. Natarajan, P. Parameswaran – Indian Banking, S. Chand and Company Ltd.

**V. Sakunthala**

## **LESSON – 8**

# **ELECTRONIC DATA INTERCHANGE**

### **Objectives :**

After reading this lesson, one should be able to

- understand meaning of Electronic Data Interchange (EDI);
- understand the traditional to internet – based EDI;
- to know about the e – commerce integration
- to know about the marketing challenges etc.

### **Structure of the Lesson :**

- 8.1 Electronic Data Interchange (EDI)?
- 8.2 From Traditional to Internet – Based EDI
- 8.3 What is e – commerce integration
  - 8.3.1 Advantages of e – commerce integration
  - 8.3.2 Types of e – commerce integration s
- 8.4 B2b Marketing Challenges
- 8.5 Summary
- 8.6 Key Words
- 8.7 Self Assessment Questions
- 8.8 Suggested Books

## **8.1 ELECTRONIC DATA INTERCHANGE (EDI) ?**

Electronic Data Interchange (EDI) is the electronic interchange of business information using a standardized format; a process which allows one company to send information to another company electronically rather than with paper. Business entities conducting business electronically are called trading partners.

Many business documents can be exchanged using EDI, but the two most common are purchase orders and invoices. At a minimum, EDI replaces the mail preparation and handling associated with traditional business communication. However, the real power of EDI is that it standardizes the information communicated in business documents, which makes possible a "paperless" exchange.

The traditional invoice illustrates what this can mean. Most companies create invoices using a computer system, print a paper copy of the invoice and mail it to the customer. Upon receipt, the customer frequently marks up the invoice and enters it into its own computer system. The entire process is nothing more than the transfer of information from the seller's

computer to the customer's computer. EDI makes it possible to minimize or even eliminate the manual steps involved in this transfer.

## **8.2 FROM TRADITIONAL TO INTERNET – BASED EDI :**

### **Traditional EDI :**

EDI is a communication standard that enables electronic transfer of routine documents, such as purchasing orders, between business partners. It formats these documents according to agreed-upon standards. An EDI implementation is a process in which two or more organizations determine how to work together more effectively through the use of EDI.

EDI often serves as a catalyst and a stimulus to improve the business processes that flow between organizations. It reduces cost, delays, and errors inherent in a manual delivery system of documents. EDI has the following special characteristics that differentiates it from e – mail messages:

### **Business Transactions Messages :**

EDI is used primarily to electronically transfer repetitive business transactions. These include purchase orders, invoices, approvals of credit, shipping notices, confirmations, and so on.

### **Data Formatting Standards :**

As EDI messages are repetitive, it is sensible to use some formatting (coding) standards. Standards can shorten the length of the messages and eliminate data entry errors, since data entry occurs only once. In the United States and Canada, data are formatted according to the ANSI X.12 standard. An international standard developed by the United Nations is called EDIFACT.

### **EDI Translators :**

An EDI translator converts the data into standard format. EDI has been around for almost 30 years in the non-Internet environment. It is a system that standardizes the process of trading and tracking routine business documents. EDI translates these documents into a globally understood business language and transmits them between trading partners using secure telecommunication links (Exhibit 5A.1). To distinguish it from Internet – based EDI, we call EDI on the non – Internet platform as traditional EDI.

### **Applications of Traditional EDI :**

Traditional EDI has changed the landscape of business, triggering new definitions of entire industries. It is used extensively by large corporations; sometimes in a global network such as the one operated by General Electric Information System (which has over 100,000 corporate users). Well – known retailers, such as Home.

### **Internet EDI Definition :**

Communication of EDI messages via the Internet. Internet EDI is most often considered in contrast to doing EDI via a VAN (Value Added Network). In this situation,

Internet EDI is simply a communications pathway, where EDI data is passed between trading partners using Internet protocols.

Internet EDI is done via a variety of protocols, such as file transfer protocol (FTP), secure file transfer protocol with SFTP (SSH File Transfer Protocol) or FTPS (FTP over SSL), and AS2 (applicability statement 2)

Internet EDI also makes it easier for companies to conduct business electronically with smaller partners that don't have sophisticated IT infrastructures. Although traditional EDI requires each trading partner to install complex, proprietary software, Internet-based EDI lets companies conduct EDI through a Web browser or by installing basic client software.

Another advantage of Internet EDI is it lets a company migrate some of its partners to the Web while maintaining other proprietary connections in situations that demand it.

#### **Differences Between Traditional EDI And Internet Based EDI :**



With the introduction of latest technology, there is a need to better understand the systems and methods that are available for the fast and efficient transfer and storage of data between individuals, businesses and companies. In the beginning traditional EDI was only being used for the transfer of information. However, with the passage of time, internet EDI became an integral part of communication between different businesses and companies.

According to experts, following are the major differences between a traditional EDI and an internet EDI.

As far as the communication protocols are concerned, a traditional EDI requires a proprietary communication protocol, while internet EDI requires a standardized protocol TCP/IP. Traditional EDI provides rigidity to the business as it is limited to only the coverage area of VAN providers. Internet EDI, on the other hand, help to improve the agility of any business. Moreover, they are highly flexible and easily accessible, with a wide area network that is independent of any VAN providers.

A traditional EDI requires a high deployment and operation cost as well as high configuration expenses. Internet EDI has the additional benefit of lower deployment and operation costs as well as low configuration expenses.

Traditional EDI improves operational efficiency by providing access to data only in batched mode. This provides higher transactional security. While the internet EDI improves the inter – organizational co – operative relationship by providing timely access to the data. This results in lower transaction security.

### **8.3 WHAT IS E-COMMERCE INTEGRATION?**

E-Commerce software integrations connect e-Commerce platforms to other business systems. Those usually deal with finance, inventory, orders, shipping, or accounting. E – Commerce integrations can also perform such back-office functions as customer service, sales, and marketing.

In essence, integration is a simple way for e – Commerce brands to save time and money. The trading data is kept consistent and up to date; what’s more, it doesn’t need to be checked, maintained, and moved between systems manually. As a result, employees become a lot more productive, and the customer experience is less likely to suffer due to human error.

#### **8.3.1 Advantages Of E – Commerce Integration :**

- integrations allow businesses to effortlessly maintain all sorts of data (product, customer, order, shipping) with no manual control;
- integrations keep prices and inventory information consistent and updated across all systems;
- e-Commerce brands can provide better customer experience across multiple sales channels and devices;
- instant access to order status, product, pricing, and stock availability information vastly improve customer service;
- integrations allow expanding the company’s business models – that is, to sell their products either directly to customers or trade through marketplaces without disturbing the original channels;
- integrations increase workplace productivity and employee engagement by automating a variety of tedious time – consuming task;
- integrations help adapt to market changes and expand the business (both by means of adding geographical locations and new business models).

With benefits like these, it should be no surprise that so many e – Commerce brands are seeking to gain more powerful integrations. For now, that’s where the future of e – Commerce lies: a broader scale, more automated processes, more engaged employees, and – last but not least – more satisfied customers.

### 8.3.2 Types Of E – Commerce Integrations :

Integration technologies are notably flexible, meaning they're able to perform a huge variety of functions. Naturally, different kinds of integrations fall into different categories. Therefore, every business looking to adopt integrations should carefully consider which type to prioritize.

And now that we've clearly defined what e – Commerce integration is, let's have a closer look at what flavors it comes in.

#### **Real – Time Integration (API) :**

Application Programming Interfaces (or APIs) are the most common way to connect two systems in real time. It automatically transfers data between the e – Commerce platform and the integrated app. Real – time e –Commerce API integrations also have two types :

- **One – way integration.** A one – way integration sends data from one system to another. For example, a real-time one-way integration sends customer orders from your e-Commerce platform to the ERP as soon as they're made. The ERP relaying inventory changes to your e-Commerce platform is also an example of one-way API integration.
- **Two – way integration.** Two-way integration is a bit more complex, as it allows two systems to communicate. To use the example with e – Commerce and ERP again, the inventory changes in the ERP will reflect in e – Commerce, and vice versa.

#### **Scheduled Integration (SFTP or API) :**

A lot of merchants go for real-time sync by default, but it's not always necessary. At least, not when it comes to product description changes, as well as invoicing and fulfillment updates – those can run just fine during low-traffic hours.

Say, you want to import CSV files via an SFTP server or run a scheduled API sync. Here, an SFTP transfer would be more secure, especially if you work with several suppliers: not all of them sync their catalogs the same way at the same time. Though, whichever method of transfer you choose, make sure to check customization options to specify transfer parameters and workflows.

Also, remember that scheduled synchronization is a no – go for inventory and order data – these heavily rely on real-time updates.

#### **Manual Integration (CSV File Upload) :**

This is the most affordable option. The manual method allows one to manually direct files without any extra setup, integration, or development costs. Mind you, this approach requires a flexible e – Commerce import and export engine.

If an e – Commerce company has simple data sets and a slow – moving inventory, the manual integration method works very well. However, as product catalogs and sales volumes

grow, this approach becomes less and less efficient. In addition, neither data accuracy nor security is guaranteed during transfer.

### **Common E – Commerce Integrations :**

There are other e – Commerce integration types that we have to discuss. As we've mentioned before, the most popular kinds of integrations in e – Commerce are :

- ERP – enterprise resource planning;
- PIM – product information management;
- CRM – customer relationship management;
- e-Commerce shipping integration;
- punch out integration;
- other systems.

Let's look at each of these in – depth.

### **E – Commerce ERP Integrations :**

e – Commerce ERP integrations deal with accounting, inventory, customer, and order data. Its general benefits include (given the integration is two – way) :

- automatic data entry that eliminates the risk of omissions and human error;
- real-time inventory and pricing updates;
- promotions personalized on a customer – to – customer basis;
- ordering and fulfillment are made extra transparent, boosting customer experience and trust;
- automatic handling of increased demands and selling channels.

Basically, a quality e – Commerce ERP system improves data flow between multiple systems, automates back – office operations, and greatly improves customer satisfaction.

### **E – Commerce Shipping Integration :**

This one probably doesn't need much introduction. Integrating an e-Commerce system with a shipping solution brings about a number of substantial benefits for both the seller and the customer :

- shipping solutions provide information on the current shipping rates;
- shipping solutions give up-to-date information on the order status;
- customers get multiple shipping options;
- the e – Commerce company can coordinate shipping from multiple warehouses;
- shipping integrations help manage packaging and label printing.

That's not to mention the fact that integrating with popular delivery services can give an e – Commerce brand more visibility.

## **8.4 B2B MARKETING CHALLENGES :**

B2B marketing can sometimes be outdated and un – engaging. Here we will look at the most common problems faced by B2B marketing and how you can work with your team to get rid of these problems and move towards a result-oriented future.

### **B2b Marketing Challenges faced by Businesses :**

#### **1. Your Brand is not Digital First :**

The internet is not going anywhere. While B2B trends are usually behind the curve of B2C marketing tactics, the digital space is disrupting this. Businesses who keep using traditional sales methods wonder why their B2B is getting acquired by big brands and businesses.

It's easy to spot if the digital platform of a brand is not up to the date because you'll find :

- An outdated site. Adding improvements to the site can help the business get better conversion rates, help the users stay longer on the page, rank better in the search engine, load the website faster, and reduce bounce rates.
- The content of the page has not been updated. However, with the help of evergreen content, you can improve the brand's online presence.
- Unnoticeable technical issues in the backend of the website ruin the factor of visibility in search engines.
- The company's website has little to no social media presence. It contains only posts about the company or takes several months to message someone back, and ignores comments.
- A website that takes too long to load and when you thought it would lead to the page and information you are looking for, it doesn't.

To avoid these issues, you need to ensure that your B2B brand is digital; you can seek help from our strategic plan tool for online presence and work on better ROI.

#### **2. Technology Integration :**

Technology can either be a blessing or a curse for clients. There are times when businesses can see and acknowledge what technology can do, but they can't seem to integrate the same into their company.

If SEO, SMM, social media, website, and online media are not connected, then how can the businesses expect communication to be integrated?

In most B2B businesses, these aspects are usually not linked! Instead, the B2C



business makes it look easy by targeting you on each social media channel you visit until you go and buy their product!

To work on this aspect as a B2B business, you can rely on Company Expert's consulting tools to get better results.



### 3. Alignment Of Sales And Marketing :

Why is it important to have the alignment of sales and marketing? Because this alignment can lead to sales growth! Not only will you be able to drive more sales, but also you will be able to unlock several new opportunities and ultimately win new businesses.

Sales aim to help generate revenue for a company, and marketing helps move the potential customer into the sales funnel.

With the help of a designed process, you will be able to align the strategies between the sales and the marketing teams so that they can work towards one goal. You can make use of the following strategies to stay ahead in this :

- Have a set of shared goals.
- Opt for a demand generation model.
- Filter the lead scoring and qualification.
- Ensure that you develop full – funnel content.

These are a few strategies that you can opt to align your sales and marketing team. For professional help, you can rely on our B2B sales playbook.

### 4. Getting To The Right People At The Right Time :

In B2B marketing, the business must reach and engage with all stakeholders in the buying process and throughout each step of the purchasing.

The average B2B purchase involves 3 to 5 decision – makers, which means that you will have to create content that speaks to both, i.e., influencers and decision – makers.

One of the best ways to help your marketing team is by asking your sales team to contribute to your content efforts. For help with this, you can rely on our sales playbook and learn how you can make use of the best tactics to get to the right people at the right time.

### **5. Globalization of Marketing and Content :**

Another major challenge for B2B is the factor of globalization. B2B marketers understand this concept in theory; serving diverse markets in the world for a brand can be a daunting task.

To market the products and services globally, one needs to understand and cater to the market's needs from a local level. What happens and resonates in one market might not be received the same by the other.

As a B2B business, you need to understand that global marketing is not as simple as translating the copies into the appropriate language. As a business, you will want to ensure that you understand the needs and challenges of your customer and have a solution for them to help them make their life better!

To stay ahead of these B2B marketing challenges, you can rely on Company Expert to help with your B2B marketing needs.

### **8.5 SUMMARY :**

Electronic Data Interchange (EDI) is the electronic interchange of business information using a standardized format. Many business documents can be exchanged using EDI, but the two most common are purchase orders and invoices. E – Commerce integrations can also perform such back-office functions as customer service, sales, and marketing. Integration is a simple way for e – Commerce brands to save time and money. The trading data is kept consistent and up to date.

B2B marketing can sometimes be outdated and un – engaging. Here we will look at the most common problems faced by B2B marketing and how you can work with your team to get rid of these problems and move towards a result – oriented future. To avoid these issues, you need to ensure that your B2B brand is digital; you can seek help from our strategic plan tool for online presence and work on better ROI.

### **8.6 KEY WORDS :**

#### **Globalization :**

The growth of the international trade of goods and services, but also the political and social linkages that accompany growing economic integration.

#### **Integration :**

The collection, exchange, and organization of data between your business's e – commerce applications and your back – office systems.

**Alignment :**

Arrangement in a straight line or in correct relative positions.

**ERP :**

Enterprise resource planning – which is a type of business management software. ERP finance modules offer many of the same features as accounting software, such as tools for accounts receivable and payable, general ledger, expense management, reporting and analysis, and more.

**CRM :**

Customer relationship management (CRM) refers to the principles, practices, and guidelines that an organization follows when interacting with its customers.

**Flexible :**

Brands being able to meet customers wherever they may be, across any device or touch point.

**EDI :**

Is a technology used to electronically exchange business documents (such as purchase orders, invoices, and shipping notices) and electronic media between two or more trading partners.

**Daunting task :**

Something that you are not looking forward to doing.

**8.7 SELF ASSESSMENT QUESTIONS :**

1. What are the differences between traditional EDI and Internet ?
2. Write E – commerce integration and its Advantages.
3. Types of e – commerce integrations.
4. B2B Marketing challenges faced by business.

**8.8 SUGGESTED BOOKS :**

1. S. Natarajan, P. Parameswaran – Indian Banking, S. Chand and company ltd.
2. Shekhar and Shekhar - Banking Theory and Practice, Vikas publications.

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## LESSON – 9

# E – GOVERNANCE

### Objectives :

After reading this lesson, one should be able to

- understand the applications, models, successes, limitations of E – Governance.
- understand the internet applications, advantages;
- to know about the types of E – Governance and their objectives etc.
- to know about the concept of B2B , B2G and B2C etc.
- understand the E – governance models.

### Structure of the Lesson :

- 9.1 E – GOVERNANCE
  - 9.1.1 Interactions in E – Governance
  - 9.1.2 Advantages of E – Governance
  - 9.1.3 Benefits of E – Governance
  - 9.1.4 E – Governance Initiatives
  - 9.1.5 The National E – Governance Plan (NeGP)
  - 9.1.6 The limitations of e – governance take in
  - 9.1.7 National Conference on E – Governance
- 9.2 Applications of the Internet
- 9.3 Advantages of the Internet
- 9.4 Types of interactions in E – Governance
- 9.5 Concept of B2B
- 9.6 Concept of B2G
- 9.7 Concept of government to citizen
- 9.8 Summary
- 9.9 Key Words
- 9.10 Self Assessment Questions
- 9.11 Suggested Books

### 9.1 E – GOVERNANCE :

#### Definition :

Electronic governance or e – governance implies government functioning with the application of ICT (Information and Communications Technology). Hence e-Governance is

basically a move towards SMART governance implying: simple, moral, accountable, responsive and transparent governance.

### **What is SMART Governance?**

- **Simple** — implies simplification of rules and regulations of the government and avoiding complex processes with the application of ICTs and therefore, providing a user-friendly government.
- **Moral** — meaning the emergence of a new system in the administrative and political machinery with technology interventions to improve the efficiency of various government agencies.
- **Accountable** — develop effective information management systems and other performance measurement mechanisms to ensure the accountability of public service functionaries.
- **Responsive** — Speed up processes by streamlining them, hence making the system more responsive.
- **Transparent** — providing information in the public domain like websites or various portals hence making functions and processes of the government transparent.

#### **9.1.1 Interactions in E - Governance :**

There are 4 kinds of interactions in e – governance, namely :

##### **1. G2C (Government to Citizens) :**

Interaction between the government and the citizens.

- This enables citizens to benefit from the efficient delivery of a large range of public services.
- Expands the accessibility and availability of government services and also improves the quality of services
- The primary aim is to make the government citizen – friendly.

##### **2. G2B (Government to Business) :**

- It enables the business community to interact with the government by using e – governance tools.
- The objective is to cut red – tapism which will save time and reduce operational costs. This will also create a more transparent business environment when dealing with the government.
- The G2B initiatives help in services such as licensing, procurement, permits and revenue collection.

### **3. G2G (Government to Government) :**

- Enables seamless interaction between various government entities.
- This kind of interaction can be between various departments and agencies within government or between two governments like the union and state governments or between state governments.
- The primary aim is to increase efficiency, performance and output.
- Read about government to government initiatives in the linked article.

### **4. G2E (Government to Employees) :**

- This kind of interaction is between the government and its employees.
- ICT tools help in making these interactions fast and efficient and thus increases the satisfaction levels of employees.

#### **9.1.2 Advantages of E – Governance :**

- Improves delivery and efficiency of government services
- Improved government interactions with business and industry
- Citizen empowerment through access to information
- More efficient government management
- Less corruption in the administration
- Increased transparency in administration
- Greater convenience to citizens and businesses
- Cost reductions and revenue growth
- Increased legitimacy of government
- Flattens organisational structure (less hierarchic)
- Reduces paperwork and red – tapism in the administrative process which results in better planning and coordination between different levels of government
- Improved relations between the public authorities and civil society
- Re – structuring of administrative processes.

#### **9.1.3 Benefits of E – Governance :**

The benefits of e – Governance are :

- ❖ Easy Access : You can access government services and information online anytime and anywhere.
- ❖ Saves Time and Money : Doing things online saves time and reduces the need for paperwork, so it's faster and cheaper.

- ❖ **Makes Things Faster** : Online systems automate processes, so you get services quicker and without unnecessary delays.
- ❖ **Helps You Understand** : It makes understanding what the government is doing easier by giving you access to information and policies.
- ❖ **Makes Services Better** : Online systems help the government provide services that are accurate, fast, and of good quality.
- ❖ **Reduces Bad Things** : It helps decrease corruption and ensures the government is accountable for its actions.
- ❖ **Boosts the Economy** : Making things easier for businesses encourages them to invest and helps the economy grow.
- ❖ **Good for the Environment** : Using online services means less paper and less pollution from travel.
- ❖ **Helps Make Smart Decisions** : e – Governance gives the government important information to make better decisions for everyone.

#### **9.1.4 E – Governance Initiatives :**

Steps taken to promote e-governance in India are as follows :

- A National Task Force on Information Technology and Software Development was set – up in 1998.
- The Ministry of Information Technology was created at the Centre in 1999.
- A 12 – point agenda was listed for e – Governance for implementation in all the central ministries and departments.
- The Information Technology Act (2000) was enacted. This Act was amended in 2008.
- The first ‘National Conference of States’ IT Ministers was organised in the year 2000, for arriving at a Common Action Plan to promote IT in India.
- Government set – up NISG (National Institute for Smart Government).
- The state governments launched e-Governance projects like e – Seva (Andhra Pradesh), Bhoomi (Karnataka), and so on.
- The National e – Governance Plan (NeGP) was launched. It consists of 31 Mission Mode Projects (MMPs) and 8 support components.
- The National Policy on Information Technology (NPIT) was adopted in 2012.

#### **9.1.5 The National E – Governance Plan (NeGP) :**

- ★ The National e – Governance Plan (NeGP), provides a holistic view of e – Governance initiatives across the country.

- ★ Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages is evolving, and large – scale digitization of records is taking place to enable easy, reliable access to the internet.
- ★ The Government has proposed to implement “e – Kranti: National e – Governance Plan (NeGP) 2.0” under the Digital India programme.

### **E – Kranti – Electronic Delivery of Services :**

- ✓ e – Kranti is an essential pillar of the Digital India initiative.
- ✓ Considering the critical need for e – Governance, mobile governance and good governance in the country, the approach and key components of e – Kranti have been approved by the government.
- ✓ The e – Kranti framework addresses the electronic delivery of services through a portfolio of mission mode projects that cut across several government departments.

### **Objectives of E – Kranti :**

The main aims of the initiative are to :

- Redefine NeGP with transformational and outcome-oriented e-Governance initiatives
- Enhance the portfolio of citizen-centric services
- Ensure optimum usage of core Information & Communication Technology (ICT)
- Promote rapid replication and integration of e-Governance applications
- Leverage emerging technologies
- Make use of more agile implementation models.

Depending on the particular conditions and governance requirements, five important **models of e – governance** viz. –

- 1) The Broadcasting Model of dissemination of useful governance information to have informed citizenry;
- 2) The Critical Flow Model of routing information of critical value to the targeted audience;
- 3) The Comparative Analysis Model of assimilation of best practices in the field of governance for developing countries to empower their people;



- 4) The E-Advocacy / Mobilisation and Lobbying Model of adding the opinions of virtual communities so that the global civil society can have an impact on global decision – making processes; and
- 5) The Interactive-Service Model of individuals' direct participation in governance processes to bring in greater objectivity and transparency in decision – making processes.

The success of e – governance resides in the National e – Governance Plan (NeGP), comprising of 31 Mission Mode Projects and 8 components, unveiling a holistic view of e – governance initiatives across the country. For promoting e – governance in a holistic manner, State Data Centres (SDCs), State Wide Area Networks (S.W.A.N), Common Services Centres (CSCs) and middleware gateways i.e. National e-Governance Service Delivery Gateway (NSDG), State e – Governance Service Delivery Gateway (SSDG), and Mobile e – Governance Service Delivery Gateway (MSDG) are being developed and strengthened to establish core and support infrastructure.

#### **9.1.6 The Limitations of E – Governance Take In :**

- 1) Universal public Internet access and dynamic IT applications – oriented literacy is a far – fetched theory.
- 2) Reliability of the digitally published information when rules, regulations, and requirements get changed on daily basis remains questionable.
- 3) The absence of interpersonal communication with and by the governmental agencies can leave many stakeholders unattended and disappointed.
- 4) It has no concrete solution to deal with a complex relationship between personal privacy and big data which could have implications for both higher surveillance and monitoring and the breach of the right to privacy.
- 5) Complex issues are difficult to address and resolve through e – governance.
- 6) Before Internet literacy, Internet infrastructure to interconnect computers and users on the Internet is an essential requirement. This infrastructure includes physical hardware, transmission media, and software; without this, e-governance is a remote service.
- 7) A personal internet infrastructure is needed to avoid giving personal data to a third party.
- 8) Implementing, maintaining, and optimizing e – governance incurs regular costs, perhaps, this necessitates an e – governance budget.
- 9) Its inaccessibility to the underprivileged is a serious concern.

- 10) A prerequisite for e – governance is the full integration of e – services across administrative boundaries, which has more political implications.
- 11) The lack of ICT skills is one of the major challenges to e-governance service delivery.

The potential which e – governance has makes public administration responsive and effective, and can truly involve citizens in the process of governance by broadening their scope of interacting with policymakers throughout the policy cycle for the social and economic growth of the nation.

#### **9.1.7 National Conference On E – Governance :**

- The Department of Administrative Reforms and Public Grievances (DARPG) along with the Department of Information Technology, in association with one of the state governments, has been organising the National Conference on e – Governance every year.
- This Conference provides a platform to the senior officers of the Government including IT Secretaries of state governments to discuss, exchange views and experiences relating to various e-governance initiatives.
- Every year, the Department of Administrative Reforms and Public Grievances recognizes and promotes excellence in e-Governance by awarding government organizations / institutions which have implemented e – Governance initiatives in an exemplary manner.

#### **Important Facts of the 23<sup>rd</sup> National Conference on E – Governance :**

The theme of the 2020 National e – Governance Conference was ‘India 2020 : Digital Transformation.’

There were six sub – themes of this conference :

- Digital Platforms and Digital Economy
- Improving Service Delivery
- Building Digital Trust- Transparency, Security and Privacy
- Digital Payments and Fintech
- National e-Governance Service Delivery Assessment (NeSDA) and Digital Service Standards (DSS)
- Skilling and Capacity Building.

The conference adopted the 10-fold Mumbai Declaration on e-governance and during the conference, Blockchain Sandbox and Draft Sandbox Policy for Maharashtra was launched. Maharashtra became the first state of India to have a dedicated Fintech policy.

The list of awarded projects with NAeG 2020 are given below :

1. Ayushman Bharat Pradhan Mantri Jan Arogya Yojana won Gold Award under the category ‘Excellence in Government Process Re-engineering for Digital Transformation.’
2. Antyodaya Saral Haryana won Gold Award under the category, ‘Excellence in providing Citizen-Centric Delivery.’
3. In the category, ‘Excellence in District level initiative in e-Governance’:
  - District Adhoc Wireless Surveillance Communication System using Drone Technology from the North Eastern+Hilly States won the Gold Award.
  - SAKOON of Jammu Kashmir won the Gold Award among all the UTs.
  - WeDeserve – Right assistance to the Right Person at the Right Time of Kerala won the Gold Award among all the states.

Satellite – Based Agriculture Information System : An Efficient Application of ICT won the Gold Award in the category, ‘Outstanding research on Citizen – Centric Services by Academic / Research Institutions.’

Providing farm-scale data from multi – satellite of Karnataka won the Gold Award under the category, ‘ Innovative Use of ICT in e – Governance solutions by Startups.’

T – Chits from Telangana won the Gold Award under the category, ‘Excellence in Adopting Emerging Technologies.’

## 9.2 APPLICATIONS OF THE INTERNET :



**1. Smart Home :**

Smart Home has become the evolutionary ladder in residential and developing as common as smart phones. It is a special feature of Google and now deployed in many areas to make life convenient and user – friendly. The smart home is designed to save time, money and energy.

**2. Electronic Devices :**

Electronic devices like wearables are installed with different sensors and software, which gather data and information of the user where data is processed to give required info about the user. The devices mainly used to monitor fitness, entertainment, and health. They mostly work on ultra-low power and available in small sizes.

**3. Automated Digital Technology**

The automated digital technology has concentrated on the optimization of vehicles and their internal functions. the automated car is designed with special features that give a comfort zone to passengers with onboard sensors and internet establishment. Popular companies like Tesla, Apple, BMW, Google is yet to aboard their revolution in the automobile industry by installing excellent features.

**4. Industrial Internet :**

The industrial internet is investing in industrial engineering with Artificial intelligence and data analytics to build brilliant machines. The important moto is to build smart machines that are accurate and compatible with a human. It holds vast potential with good quality and reliability. The applications are deployed for tracing the goods to be delivered, real-time data regarding retails and supplies that increase the efficiency of the business’s supply chain and productivity.

**5. Smart City :**

A smart city is another major implementation of the internet, which is employed for smart surveillance, water distribution, automatic transportation, environment monitoring. People are prone to pollution, improper supplies and shortage of sources, and the installation of traffic sensors solves irregular traffic flow, and the app is developed to report the municipal systems. Citizens can able to diagnose simple malfunctions in meter and can report to the electricity system via electricity board applications or websites, and they can also find available slots for vehicle parking easily in sensor systems.

**6. Smart phones :**

Smart phones are also used for retailers and customers to stay connected for their business transactions, even out of the store. They have using Beacon technology to help business people to provide smart service to the client. They can track the products and enhance the store dashboard and deliver premium order before the scheduled date, even in congested traffic areas.

## 7. Smart Grids :

The idea applied in smart grids is to gather data in an automated way to analyze the attribute of electricity. Consumers to improve the efficiency and economics of usage. Smart grids can easily detect the power outage and shortage quickly and fix them shortly.

## 8. Major Application :

Another major application of the internet is in healthcare as it is smart medical systems installed to diagnose and cure the disease at an earlier stage. Many **machine learning** algorithms are used in image processing and classification to detect the foetus's abnormalities before birth. The main aim applied in the medical field is to provide a healthier life for all by wearing connected devices. The gathered medical data of patients made the treatment easier, and a monitoring device is installed to track the sugar and blood pressure.

## 9.3 ADVANTAGES OF THE INTERNET :

- The internet is a suitable environment to work with people all over the world through instant communication that can provide products and services easier and faster.
- An internet connection made the employees work from the option to create a virtual office at home.
- The internet connection connects your laptop or pc to internet aided devices to **access cloud computing** and cloud storage.
- The internet can build a supercomputer to perform and manage complex task.

## Conclusion :

As discussed, the internet provides enormous application in all fields to reduce the complexity and on-time delivery with high quality of customer relationship management. Social media is on – trend to spread the news faster, which gets the people closer to solve the issue irrespective of time and place.

## Objectives of E – Governance :

The objectives of e – governance can be listed down as given below :

- To support and simplify governance for government, citizens, and businesses.
- To make government administration more transparent and accountable while addressing the society's needs and expectations through efficient public services and effective interaction between the people, businesses, and government.
- To reduce corruption in the government.
- To ensure speedy administration of services and information.
- To reduce difficulties for business, provide immediate information and enable digital communication by e-business.

While e – governance provides the advantages of convenience, efficiency and transparency, it also has **problems associated with it**. They are as follows :

- Lack of computer literacy: India is still a developing country and a vast majority of the citizens lack computer literacy which hinders the effectiveness of e – governance.
- Lack of accessibility to the internet or even computers in some parts of the country is a disadvantage to e – governance.
- e – Governance results in a loss of human interaction. As the system becomes more mechanised, lesser interaction takes place among people.
- It gives rise to the risk of personal data theft and leakage.
- e – Governance leads to a lax administration. The service provider can easily provide excuses for not providing the service on technical grounds such as “server is down” or “internet is not working”, etc.

#### **9.4 E – GOVERNANCE IN THE INDIAN CONTEXT :**

e – Governance in India is a recently developed concept. The launch of National Satellite-Based Computer Network (NICENET) in 1987 and subsequent launch of the District Information System of the National Informatics Centre (DISNIC) programme to computerise all district offices in the country for which free hardware and software was offered to the State Governments provided the requisite impetus for e-governance.

e – Governance thereafter developed with the growth of technology. Today, there are a large number of e – Governance initiatives, both at the Union and State levels. In 2006, the National e – Governance Plan (NeGP) was formulated by the Department of Electronics and Information Technology and Department of Administrative Reforms and Public Grievances that aims at making all government services accessible to the common man, ensure efficiency, transparency and reliability of such services at affordable costs to realise the basic needs of the common man.

The NeGP has enabled many e – governance initiatives like :

**Digital India** was launched in 2015 to empower the country digitally. Its main components are :

- a. Developing a secure and stable digital infrastructure.
- b. Delivering government services digitally.
- c. Achieving universal digital literacy.

**Aadhaar** is a unique identification number issued by UIDAI that serves as proof of identity and address on the basis of biometric data. It is being used to provide many benefits to the members of the society. One can e-sign documents using Aadhar.

**myGov.in** is a national citizen engagement platform where people can share ideas and be involved with matters of policy and governance.

**UMANG** is a Unified Mobile Application which provides access to central and state government services including Aadhar, Digital Locker, PAN, Employee Provident Fund services, etc.

**Digital Locker** helps citizens digitally store important documents like mark sheets, PAN, Aadhar, and degree certificates. This reduces the need for physical documents and facilitates easy sharing of documents.

**PayGov** facilitates online payments to all public and private banks.

**Mobile Seva** aims at providing government services through mobile phones and tablets. The m-App store has over 200 live applications which can be used to access various government services.

**Computerisation of Land Records** ensures that landowners get digital and updated copies of documents relating to their property.

#### **E – Governance Initiatives Include :**

- **E – Seva (Andhra Pradesh)** facilitates payment of utility bills, issuance of certificates, licenses and permits.
- **Khajane Project (Karnataka)** digitalized the treasury system of the state.
- **FRIENDS (Kerala)** is a single-window facility to pay taxes and other financial dues to the State government.
- **Lokvani Project (Uttar Pradesh)** is a single-window solution relating to the handling of grievances, land record maintenance and providing a mixture of essential services.

#### **E – Governance Portal of India :**

The Indian e – governance portal is <https://nceg.gov.in>. On this portal, one can get comprehensive information regarding the National Conference on e – Governance and reports on earlier conferences.

Additionally, the portal provides links to the following important pages :

- Digital India.
- National Portal of India : It is developed to provide access to information and services being provided by the government.
- PM India Website : provides information relating to the Prime Minister’s Office.
- United Nations e – governance website.

## 9.5 CONCEPT OF GOVERNMENT – TO – BUSINESS (G2B) :

Relationships of a business with government agencies have a significant impact on the success of any company (and the economy, in general). This is primarily determined by how professionally the work with state bodies of various levels is organized and how well the processes are built by the government bodies.

Today, various levels of government have expanded their online presence due to the pandemic. Under the influence of external critical circumstances, they had no other choice than to update their internal processes for their subsequent **automation** to remain ahead of the curve.

Now we can see e-government taking shape in many countries, and providing electronic services (aka e-services) to businesses has become the new normal. However, there remains significant variation in the extent to which local governments deliver such assistance and information to companies.

Let's take a look at what e – **government** is at its best and what an effective **Government – to – Business (G2B)** model implies, designed to support and develop businesses from the government's side.

## 9.6 CONCEPT OF BUSINESS TO GOVERNMENT (B2G) :

Business to government (B2G) is the sale and marketing of goods and services to federal, state, or local agencies. In modern lingo, there are three basic business models: business to consumer (B2C), business to business (B2B), and business to government (B2G).

B2G is not an insignificant chunk of business. The federal government alone spent anywhere between \$18.2 billion and \$42.6 billion per day in 2020-2021.1 Notably, a portion of its business is supposed to be spent on small business suppliers.

- B2G, or business to government, is the provision of goods and services to government agencies at the federal, state, and local levels.
- Most contracts are granted in response to a request for proposal (RFP) from an agency.
- Businesses bid for contracts by submitting responses to RFPs.

## 9.7 GOVERNMENT TO CITIZEN :

The goal of government – to – citizen (G2C) e-governance is to offer a variety of ICT services to citizens in an efficient and economical manner and to strengthen the relationship between government and citizens using technology.

There are several methods of G2C e-governance. Two – way communication allows citizens to instant message directly with public administrators, and cast remote electronic votes (electronic voting) and instant opinion voting. These are examples of e – Participation.



Other examples included the payment of taxes and services that can be completed online or over the phone. Mundane services such as name or address changes, applying for services or grants, or transferring existing services are more convenient and no longer have to be completed face to face.

G2C e – governance is unbalanced across the globe as not everyone has Internet access and computing skills, but the United States, European Union, and Asia are ranked the top three in development.

The Federal Government of the United States has a broad framework of G2C technology to enhance citizen access to Government information and services. benefits.gov is an official US government website that informs citizens of benefits they are eligible for and provides information on how to apply for assistance. US State Governments also engage in G2C interaction through the Department of Transportation, Department of Public Safety, United States Department of Health and Human Services, United States Department of Education, and others.<sup>[4]</sup> As with e-governance on the global level, G2C services vary from state to state. The Digital States Survey ranks states on social measures, digital democracy, e-commerce, taxation, and revenue. The 2012 report shows Michigan and Utah in the lead and Florida and Idaho with the lowest scores.<sup>[4]</sup> Municipal governments in the United States also use government-to-customer technology to complete transactions and inform the public. Much like states, cities are awarded for innovative technology. Government Technology's "Best of the Web 2012" named Louisville, KY, Arvada, CO, Raleigh, NC, Riverside, CA, and Austin, TX the top five G2C city portals.<sup>[5]</sup>

European countries were ranked second among all geographic regions. The Single Point of Access for Citizens of Europe supports travel within Europe and Europe is a 1999 initiative supporting an online government. Main focuses are to provide public information, allow customers to have access to basic public services, simplify online procedures, and promote electronic signatures.<sup>[4]</sup> Estonia is the first and the only country<sup>[6]</sup> in the world with e-residency which enables anyone in the world outside Estonia to access Estonian online services. One caveat of the Estonia e-residency program is that it does not give e-residents physical rights to the country. This means that unless the e-resident buys land they do not get to participate in the democratic processes. The benefit to e-residents is the opportunity to develop business in the digital European Union market. Neighboring Lithuania launched a similar e-Residency program.

Asia is ranked third in comparison, and there are diverse G2C programs between countries. Singapore's eCitizen Portal is an organized single access point to government information and services. South Korea's Home Tax Service (HTS) provides citizens with 24/7 online services such as tax declaration. Taiwan has top ranking G2C technology including an online motor vehicle services system, which provides 21 applications and payment services to citizens.<sup>[4]</sup> India's e-governance programs have found success in regional areas. This is likely due to the ability to meet the language and literacy differences among their constituents.

Government – to – Citizen is the communication link between a government and

private individuals or residents. Such G2C communication most often refers to that which takes place through Information and Communication Technologies (ICTs), but can also include direct mail and media campaigns. G2C can take place at the federal, state, and local levels. G2C stands in contrast to G2B, or Government – to – Business networks.

## 9.8 SUMMARY :

E – Governance is basically a move towards SMART governance implying: simple, moral, accountable, responsive and transparent governance. There are 4 kinds of interactions in e-governance likely G2C, G2B, G2G and G2E. The conference adopted the 10-fold Mumbai Declaration on e – governance and during the conference Blockchain, Sandbox and Draft Sandbox Policy for Maharashtra was launched. Maharashtra became the first state of India to have a dedicated Fintech policy.

In e – commerce there are different kinds of applications in the internet such as smart phone, electronic devices, Automated Digital Technology, Industrial Internet, and smart City and so on etc. As discussed, the internet provides enormous application in all fields to reduce the complexity and on-time delivery with high quality of customer relationship management. Social media is on – trend to spread the news faster, which gets the people closer to solve the issue irrespective of time and place.

## 9.9 KEY WORDS :

### **Transparent :**

The availability and accessibility of information about the prices of goods and services.

### **Complex :**

A whole made up of many complicated or related parts.

### **Streamlining :**

Simplifying it to make it more efficient or profitable.

### **Accessibility :**

Easily used or accessed by people with disabilities.

### **Red – tapism :**

Strict adherence to official formalities.

### **Corruption :**

Dishonest or illegal behavior especially by powerful people.

### **Pollution :**

The contamination of the physical and biological constituents in the earth's atmosphere.

**Holistic view :**

To provide support that looks at the whole person, not just their mental health needs.

**Portfolio :**

A collection of drawings, documents, etc. that represent a person's, especially an artist's, work

**Exemplary :**

When something is the best it can be or reaches the highest point.

**9.9 SELF ASSESSMENT QUESTIONS :**

1. What are the applications and limitations of E – Governance?
2. What are the applications of the internet?
3. Advantages of the internet.
4. Types and objectives of e – governance.
5. Write about B2B, B2G and G2C.

**9.10 SUGGESTED BOOKS :**

1. Radhaswamy and Vasudev – Banking theory and practice, Sultanchand and Sons.
2. Shekhar and Shekhar – Banking theory and practice, Vikas Publications.

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## LESSON – 10

# E – GOVERNANCE MODELS

### **Objectives :**

After reading this lesson, one should be able to understand the E – Governance models.

### **Structure of the Lesson :**

- 10.1 E – Governance models
  - 10.1.1 Broadcasting Model
  - 10.1.2 Comparative Analysis Model
  - 10.1.3 Critical Flow Model
  - 10.1.4 E – Advocacy Model
  - 10.1.5 Interactive Service Model
- 10.2 Summary
- 10.3 Key words
- 10.4 Self Assessment Questions
- 10.5 Suggested books

### **10.1 E – GOVERNANCE MODELS :**

The few generic models which have emerged and are being practiced have been identified as :

- Broadcasting Model
- Comparative Analysis Model
- Critical Flow Model
- E – Advocacy Model
- Interactive Service Model

### **Differences :**

Each of these models exhibit several variations depending on the

- Local situation.
- Governance activities being carried out by them.

### **Similarities :**

All these models share following common characteristics

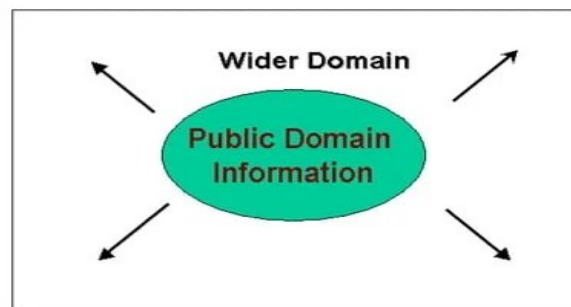
- Enabling equal access to information to anyone who is a linked to the digital network, and
- De – concentration of information across the entire digital network.
- The information does not reside at any one particular level (or node) in Digital Governance Models but gets distributed across all the nodes.
- This opens up greater possibility of its exploitative use at all levels.
- This distribution of information may happen through.
- Direct access to an ICT node.
- Public access.
- Convergent modes.

### 10.1.1 Broadcasting Model :

- Based on mass dissemination of governance- related information which is already available in the public domain into the wider public domain using ICTs.
- This raises awareness among the citizens about ongoing governance processes and government services that are available to them and how they can benefit from them.
- The application of this model using appropriate technologies, could reduce the "information failure situations".

## **Broadcasting / Wider Disseminating Model**

**Public Domain**      **→**      **Wider Public Domain**



### Applications :

- Putting governmental laws and legislations online Making available the names, contact addresses, emails, mobile numbers of local/regional/ national government officials online.
- Make available information such as governmental plans, budgets, expenditures, and performance reports online.

- Putting key judicial decisions which are of value to general citizens and create a precedence for future actions online. viz. key environmental decisions, state vs. citizen decisions etc.

#### Merits :

- It enhances 'access' and 'flow' of information to all segments of the society.
- Government can use this model to provide greater governance services to their constituencies, and to enhance the participation of citizens in governance processes.

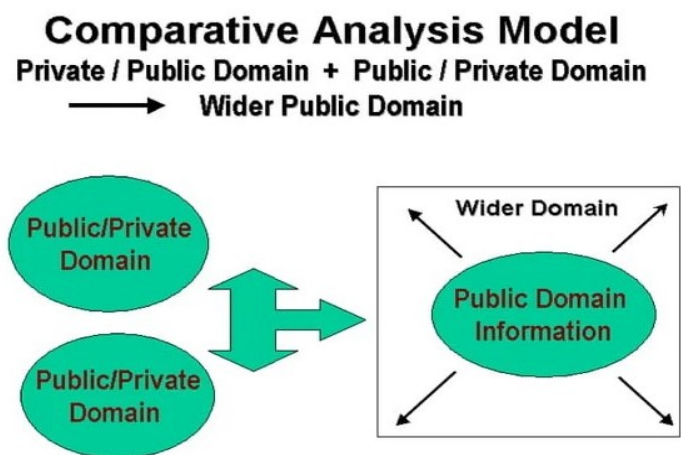
#### Demerits :

The model can lose its effectiveness

- In situation of optimal ignorance
- In societies, where the free flow of information is not possible.

#### 10.1.2 Comparative Analysis Model :

- This model empowers people by comparing cases of bad governance with those of good governance and identifying specific aspects of bad governance, the reasons and people behind them, and how the situation can be improved.
- The comparison could be made over a time scale to get a snapshot of the past and the present situation or could be used to compare the effectiveness of an intervention by comparing two similar situations.
- The strength of this model lies in the infinite capacity of digital networks to store varied information and retrieve and transmit it instantly across all geographical and hierarchical barriers.



#### Applications :

This model could be applied in the following possible ways :

- To learn from past policies and actions and derive learning lessons for future policy – making.
- To evaluate the effectiveness of the current policies and identify key learning in terms of strengths and flaws in the policies.
- To effectively establish conditions of precedence, especially in the case of Judicial or legal decision – making (example for resolving patent – related disputes, public goods ownership rights), and use it to influence / advocate future decision – making.
- To enable informed decision – making at all levels by enhancing the background knowledge and also providing a rationale for action.
- To evaluate the performance and track – record of a particular decision – maker / decision – making body.

**Merits :**

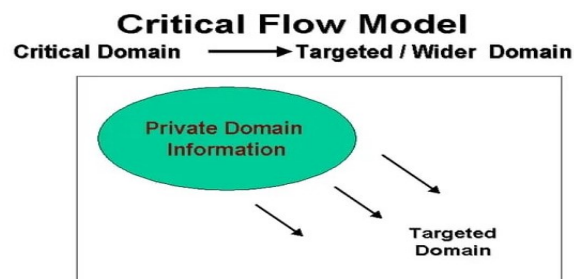
- Based on the existing sets of information.
- Watch – guard organizations and monitor-groups can use this model to continuously track the governance past record and performance and compare with different information sets.

**Demerits :**

- Requires the ability to analyze and bring out strong arguments.
- Ineffective in absence of a strong civil society interest and public memory which is essential to force decision- makers to improve existing governance practices.

**10.1.3 Critical Flow Model :**

- The model is based on broadcasting information of 'critical' value (which by its very nature will not be disclosed by those involved with bad governance practices) to targeted audience using ICTs and other tools.
- Targeted audience may include media, affected parties, opposition parties, judicial bench, independent investigators or the general public.
- Those who would divulge such information could include upright officials and workers, whistleblowers, affected parties and those who were themselves involved in bad governance practices but have now changed their minds or may wish to trade such information for lenient punishments.



**The use of this model requires a foresight of :**

Understanding the "critical and use value" of a particular information set

- How or from where this information could be obtained.
- How could the information be used strategically.
- Who are the best target group for such information – the users for whom the availability of this information will make a huge difference.

The strength of this model is that the concept of 'distance' and 'time' becomes redundant when information is hosted on a digital network. Once available on the digital network, the information could be used advantageously- by instantly transferring the critical information to its user group located anywhere or by making it freely available in the wider public domain.

**Applications :**

This model could be applied in the following possible ways :

- Making available corruption related data about a particular Ministry / Division / Officials online to its electoral constituency or to the concerned regulatory body.
- Making available Research studies, Enquiry reports, Impact studies commissioned by the Government or Independent commissions to the affected parties.
- Making Human Rights Violations cases violations freely available to Judiciary, NGOs and concerned citizens.
- Making available information that is usually suppressed, for instance, Environmental Information on radioactivity spills, effluents discharge, information on green ratings of the company to concerned community.

**Merits :**

- This model is more directed and evolved.
- Different organizations can use it differently depending on the aspect of governance they situation they want to address.

The model corrects information failure, raising awareness about the bad governance practices, and acts as a hindrance to bad governance practices.

Also, the model exerts indirect pressure on the concerned governance institution / policy-making body to move away from optimal ignorance attitude to reform, and take into cognizance the interest and opinion of the masses in decision – making processes.

**Demerits :**

- The model may not work in cases where the governance mechanism does not allow public debates and opinions, and censures all information of critical nature.



**Examples :****Global : Wikileaks [www.wikileaks.org](http://www.wikileaks.org)**

WikiLeaks is a not – for – profit media organization. It brings important news and information to the public. It publishes secret information, news leaks and classified media from anonymous sources to keep the public informed on cases of corruption, whistle blowing, and crimes.

**Global : Transparency International -Daily Corruption News**

<http://www.transparency.org/feed/dcn>

A service is being run by Transparency International called the "The Daily Corruption News" which reports on corruption from around the world.

**India : Central Vigilance Committee <http://cvc.nic.in>**

The website provides free-access information to citizens about government officials who have been indicted on judicial charges relating to corruption and have been advised penalty. People can also file complaints against any public servant who fall within the jurisdiction of the Commission.

**India : Project VIGEYE <http://www.vigeye.com/>**

Vigeye (Vigilance Eye) is a citizen-centric initiative, wherein citizens join hands with the Central Vigilance Commission in fighting corruption in India. Project Vigeye is the platform through which vigilance information flows freely through common public, the government agencies and the vigilance commission.

**10.1.4 E – Advocacy Model :**

Also known as Mobilization and Lobbying Model.

- It is based on setting-up a planned, directed flow of information to build strong virtual allies to complement actions in the real world. Virtual communities are formed which share similar values and concerns, and these communities in turn link up with or support real-life groups / activities for concerted action.
- It builds the momentum of real – world processes by adding the opinions and concerns expressed by virtual communities.
- The strength of this model is in its diversity of the virtual community, and the ideas, expertise and resources accumulated through this virtual form of networking.
- The model is able to mobilize and leverage human resources and information beyond geographical, institutional and bureaucratic barriers, and use it for concerted action.

**Applications :**

This model could be applied in the following possible ways :

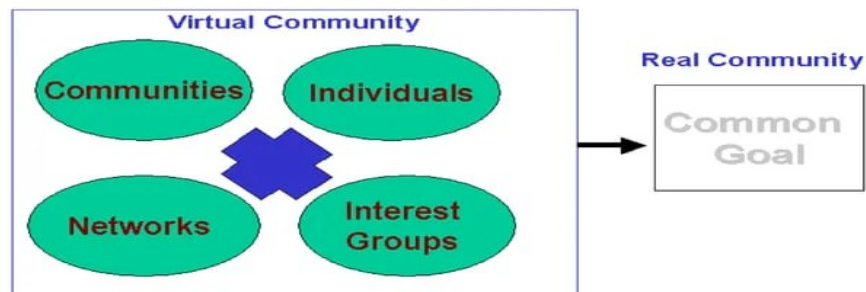
Fostering public debates on issue of larger concerns, namely on the themes of upcoming conferences, treaties etc.

Formation of pressure groups on key issues to force decision- makers to take their concerns into cognizance.

Making available opinions of a suppressed groups who are not involved in the decision-making process into wider public domain.

Catalyzing wider participation in decision-making processes. Building up global expertise on a particular theme in absence of localized information to aid decision-making.

### **Mobilisation and Lobbying Model** **Networking Networks for Concerted Action**



•The strength of this model is in its diversity of the virtual community, and the ideas, expertise and resources accumulated through this virtual form of networking.

#### **Merits :**

- The model enhances the scope of participation of individuals and communities in debates which affect them and help them build a global alliance.
- A community may no longer find itself isolated but may find an ally for mobilizing effective action through this model.
- It also creates an effective deterrent for governments and decision-making bodies who are responsive to people's opinion to provide better governance.
- The model could also be used favorably by the government in a positive manner to encourage public debates on issues where the opinion and expertise of civil society is of great importance and therefore could become a tool to enhance democratic practices and improve governance practices (especially in Developing Countries).

#### **Examples :**

**Global : Drop The Debt Campaign <http://www.jubileusa.org/>**

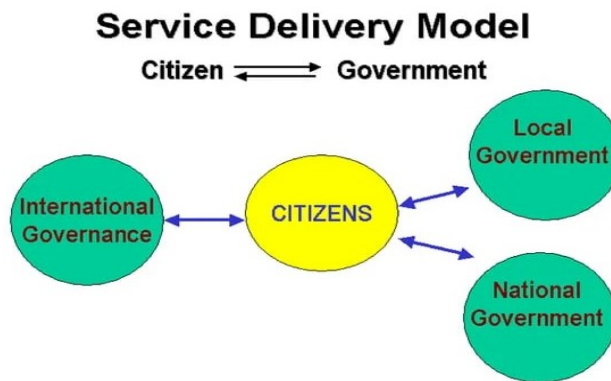
The campaign spreads awareness of their activities through emails and mobilizes support of concerned individuals, and encourages them to directly express their concern to key decision-makers (by making available their email and other contact addresses).

**India : PRS Legislative Research <http://www.prsindia.org/billtrack/>**

Tracks parliamentary bills which have been introduced and are coming up for discussions. It analyses the bills, prepares summaries of reports of standing committees, puts forward its position, and engages in processes which allow them to voice their opinions.

### 10.1.5 Interactive Service Models :

- It is a consolidation of the other digital governance models and opens up possibilities for one-to-one and self-serviced participation of individuals in governance processes.
- the participation is direct and not through representatives.
- It can bring greater objectivity and transparency in decision- making processes, and give a greater feeling of involvement and empowerment, provided that individuals are willing to engage in the governance processes.
- Under this model, the various services offered by the government become directly available to its citizens by opening up an interactive Government to Consumer to Government (G2C2G) channel in various aspects of governance.



### Applications :

This model could be applied in the following possible ways :

- To establish an interactive communication channels with key policy-makers and members of planning commissions.
- To conduct electronic ballots for the election of government officials and other office bearers.
- To conduct public debates / opinion polls on issues of wider.
- Concern before formulation of policies and legislative frameworks.

- Filing of grievances, feedback and reports by citizens with the concerned governmental body.
- Establishing decentralised forms of governance.
- Performing governance functions online such as revenue collection, filing of taxes, governmental procurement, payment transfer etc.

**Demerits :**

- The model firmly relies on the interactive applications of ICT and therefore is a technology and cost intensive model.
- It would also require elemental familiarity of ICT among the citizens to fully benefit from this model.

**Example :****India : Gyandoot : <http://www.gyandoot.net/gyandoot/intranet.html>**

Gyandoot is an intranet in Dhar district connecting rural cyber cafes catering to the everyday needs of the masses. The site has following services to offer in addition to the hope that it has generated by networking, the first district in the state of Madhya Pradesh in India.

- Commodity / Agricultural Marketing Information System.
- Copies of land maps.
- On-Line Registration of Applications.
- Grievance Redressal.

**10.2 SUMMARY :**

As we discussed, E – Governance has different models used in different criteria. Each of these models exhibits several variations depending on the Local situation and Governance activities being carried out by them.

All these models share following common characteristics. They are enabling equal access to information to anyone who is a linked to the digital network, and De-concentration of information across the entire digital network. The information does not reside at any one particular level (or node) in Digital Governance Models but gets distributed across all the nodes. This opens up greater possibility of its exploitative use at all levels. This distribution of information may happen through -direct access to an ICT node -public access and – convergent modes.

**10.3 KEY WORDS:****Virtual community :**

A social network of individuals who connect through specific social media, potentially crossing geographical and political boundaries in order to pursue mutual interests or goals.

**Cognizance :**

To take notice of and consider something, especially when judging.

**Bureaucratic barriers :**

The result of rigid bureaucratic structures that require a person to fit the structure rather than vice versa.

**Concerted action :**

Done by several people or groups working together.

**Electronic signatures :**

Data in electronic form which is attached to or logically associated with other data in electronic form and which is used by the signatory to sign.

**Automation :**

The technique of making an apparatus, a process, or a system operate automatically.

**e – seva :**

It enables litigants to obtain information with respect to case status and to obtain copies of judgments and orders.

**Khajane project :**

A comprehensive online treasury computerization project of the Government of Karnataka.

**Lokvani project :**

Lokvani is a public – private partnership project at Sitapur District in Uttar Pradesh.

**10.4 SELF ASSESSMENT QUESTIONS :**

1. E – Governance models.
2. Broadcasting Model.
3. Comparative Analysis Model.
4. Critical Flow Model.
5. E – Advocacy Model.
6. Interactive Service Model.

**10.5 SUGGESTED BOOKS :**

1. Radhaswamy and Vasudev – Banking theory and practice, Sultanchand and Sons.
2. Shekhar and Shekhar – Banking Theory and Practice, Vikas Publications.

**A.S. Kalyani**

**LESSON – 11**  
**ROLE OF PRIVATE SECTOR IN  
E – GOVERNANCE**

**Objectives :**

After reading this lesson, one should be able to

- understand the role of private sector in governance;
- understand the limitations of private sector ;
- to know about the business models.

**Structure of the Lesson :**

- 11.1 Introduction
- 11.2 Limitations of private sector
- 11.3 Role of private sector in governance
- 11.4 Business models
  - 11.4.1 Retail model
  - 11.4.2 Manufacturing or making
  - 11.4.3 Drop shipping
  - 11.4.4 Digital products
  - 11.4.5 Direct to consumer
  - 11.4.6 Do It Yourself Model
  - 11.4.7 Information Service model
  - 11.4.8 Hybrid work model
- 11.5 Summary
- 11.6 Key words
- 11.7 Self Assessment Questions
- 11.8 Suggested books

**11.1 INTRODUCTION (ROLE OF PRIVATE SECTOR IN GOVERNANCE) :**

Despite the important role played by the public sector in India, the contribution of private sector to overall growth was always higher than public sector because of its significantly higher share in GDP. The importance of private sector can be assessed in terms of its share in domestic saving and gross domestic capital formation. The gross domestic savings and gross domestic capital formation of private sector accounts for around 25 percent and 18 percent respectively of total GDP at market price. The plan wise statistics depicts that

private sector dominates the savings and capital formation in the economy. Under the new economic policy the private sector has become more preponderant than public sector.

### **Profile of Private Sector in India :**

#### **Considerable Growth :**

Over the years in the past since independence, the private sector has grown rapidly. There has been an impressive accretion in the number of persons employed, value of output produced and the extent of national income generated. The share of private sector is dominant in agriculture, forestry, fishery and small-scale industries. Though the share of private sector in the heavy industries is not significant but in the recent years an uptrend is witnessed. Further the private sector has grown faster as a result of the FDI liberalization measures, industrial delicensing and external demand boost from devaluation.

#### **Diversified Structure :**

The private sector in India has a diversified product profile i.e. private sector encompasses a large variety of industries scattered all over the country.

#### **Reasonably Profitable :**

The private sector has shown profitability greater than its public counterparts. Further the sale, production and investment growth in the private sector exceeds that of public sector.

### **11.2 SHORTCOMINGS AND LIMITATIONS OF PRIVATE SECTOR :**

Private sector though has depicted a spectacular growth profile but it suffers from the limitations discussed as follows :

#### **1) Unhealthy Working :**

Barring few exceptions, private sector in India often indulge in unfair business practices of generation of black-economy and corrupt business dealings like evasion of tax, charging higher prices for goods, creating artificial scarcity of Goods etc. A series of capital market scams by big corporate and cooperative banks has brought into sharp focus the need for improvement of regulation of private sector.

#### **2) Lack Of Social Orientation :**

Private sector is motivated towards short-term gain and often fails to maximize production of essential goods. Private sector has been extremely cautious to venture into innovative products and processes.

#### **3) Slow Progress In R&D :**

The private sector has been hesitant to invest in the research and development of technology. Huge public investments are made in the universities and research institutes by the government. The commercial behavior guide the investment and funding of research projects.

#### **4) Monopoly And Concentration Of Power :**

The restrictive production policies and charging of higher price have resulted in monopoly gains to the private sector. The policy of mergers, acquisition has been used to prevent competition in the industry. The increased foreign investment that targets the small domestic industry to enter the domestic market has further aggravated the problems of concentration of economic wealth in the hands of few.

#### **5) Industrial Unrest :**

The labor unrest is quite alarming in the private sector especially amongst small scale and medium – sized enterprises. The wages in these enterprises are quite low and there exists adverse working condition. The industrial disputes are quite high as compared to the public sector. This often results into strikes, lockouts, gheraos etc. The harmful consequences are obvious: work stoppage leading to the non-utilization of capital equipment, idle labor, resulting in the wastage of economic resources.

#### **6) Sickness :**

The large number of total unit in the private sector is either sick or prone to become sick. The sickness is the result of many problems such as bad management, old production methods, outdated technology, inadequate capital and labor unrest.

### **11.3 ROLE OF THE PRIVATE SECTOR IN GOVERNANCE :**

The private sector is a key stakeholder in both urban and economic development, being a major contributor to national income and the principal job creator and employer. The private sector provides around 90% of employment in the country (including formal and informal jobs), delivers critical goods and services and contributes to tax revenues and the efficient flow of capital. Further, it will undertake the majority of future development in urban areas. It is increasingly being encouraged to help leverage the opportunities, and mitigate the challenges, of rapid urbanisation. Private sector actors are perceived as playing a role in urban governance: they influence whether urban areas develop in inclusive and sustainable ways, and they affect poverty reduction and drivers of fragility and conflict such as unemployment, exclusion and instability. Interactive planning and decision-making processes are needed to support private sector participation in urban governance, and to co-ordinate this participation with municipalities. comments that municipalities can strengthen urban governance in co-operation with the private sector by fostering partnerships and local economic development (LED) strategies that combine local skills, resources and ideas to stimulate the local economy, enabling it to respond innovatively to national and global economic changes. For example, effective LED strategies detail how the municipality will :

- develop and maintain infrastructure and services;
- promote and expand existing businesses;
- address inefficiencies in the local economy;
- promote human capital development, to help vulnerable groups especially to participate in the labour market;



- encourage community development by promoting community business and co – operatives, local exchange systems and informal credit etc.;
- promote small, micro and medium enterprises (SMME) through supply-side measures (training, provision of space and facilities for commercial activity etc.) and demand-side measures (reforms to procurement policy to ensure access for SMMEs to contracts);
- attract investment in the city.

An explicit LED strategy links long-term economic growth issues with short-term concerns about joblessness, inequality and the role of the private sector in a sustainable development strategy. In fostering partnerships, municipalities need to build relations with local and foreign private sector interests by involving associations and companies in city-wide strategic planning processes. This can build commitment to a broader vision for the city that goes beyond short-term interests. This might involve a formalised partnership with organised business (e.g. PPPs) based on the municipality's strategic vision. Other innovative collaborations include private sector provision of managerial and technical training and support to help municipalities improve the strategic management of urban areas.

In India, the informal sector is the main provider of goods and services to the poor. City-wide development initiatives need to assist businesses with potential to mature by eliminating punitive regulations that discourage the informal sector. But programmes need to balance two objectives: maximising the potential of informal enterprises to create jobs and alleviate poverty, while ensuring that necessary social protections and regulations are in place. A comprehensive strategy to respond to informal enterprises should include :

- supportive policies on finance and credit that involve the formal banking sector, government and NGOs;
- support for local exchange trading and barter systems where these can equitably be sustained;
- supply – side measures such as the creation of incubators where informal entrepreneurs can grow businesses with some measure of protection, alongside the development of markets;
- consideration of home-based enterprises in planning and infrastructure development initiatives;
- reform of procurement policies to promote links between established and emerging businesses.

As noted, a common approach to engaging with the formal private sector is through PPPs. They can be defined as contracts between a private enterprise and government, providing a public asset or service in which the private enterprise bears the risk and management responsibility and remuneration is linked to performance. Involving the private sector in the design, construction and maintenance of infrastructure and the provision of

services has been highlighted as an area where PPPs can be particularly influential. The rationale for PPPs is that they provide a mechanism for governments to procure and implement public infrastructure including services, using the resources and expertise of the private sector (**World Bank, ADB & IDB, 2014**).

Building more and better infrastructure is an important goal for many economies with limited public revenues (**UNDESA, 2013a**). The quality of urban infrastructure determines the growth-enhancing benefits of urban concentration. Countries with good urban infrastructure can accommodate rapid population increases in urban areas and sustain high economic growth. The quality of a city's infrastructure (housing, electricity, roads, airports, public transport, water, sanitation, waste management, telecommunications, hospitals, schools, etc.) also influences social inclusion, economic opportunity and quality of life (**UNU, 2013**).

The **OECD (2007)** notes the scale of the challenge: global infrastructure investment is forecast to cost \$71 trillion by 2030 (about 3.5% of forecasted global GDP). Much of this investment is required in emerging economies like India. PPPs have been identified as one possible solution (**WEF, 2014**).

Partnering with the private sector could: extend services into poorer or informal communities, provide safer work places, promote adoption of non – discriminatory employment policies, help the poor access credit, and boost investment in low – cost housing. Examples such as the slum networking project in Ahmedabad highlight that partnerships among urban stakeholders need to be based on a thorough understanding of community needs and pursued in tandem with other initiatives. In that context, the private sector actively sought out partnerships with residents of informal settlements, NGOs and municipal government. Such collaborative ventures involve information, education and community campaigns to ensure that residents of informal settlements were involved and had some ownership of programmes. They also sought to provide assistance to the poorest families through the provision of micro-finance. The requirements for successful partnerships include a buoyant private sector alongside a capable and authoritative local government motivated by a common economic interest. Policymakers need a clear vision of PPP objectives and a sound understanding of the local context to appreciate advantages and limitations. A thorough analysis of the long-term development objectives and risk allocation is essential. However, in many regions the legal frameworks dealing with tendering, contracts and oversight are weak or unimplemented, and this lack of clarity discourages domestic and foreign business investment. At the same time, PPPs have proved complex to implement, involving pre-feasibility studies and requiring high technical expertise and negotiation capacities (**UN-Habitat, 2016**). National and local governments often lack the information and expertise necessary to negotiate on an equal footing with companies that have extensive experience in public service delivery.

**To enable the private sector to engage in urban planning, public policy and development objectives, the public sector needs to (UN, 2008) :**

- Consider incentives that encourage private sector participation. World Bank research (2005) suggests legal and regulatory reform is necessary to support more sustainable economic growth and enhance the private sector's impact.
- Consider arrangements beyond PPPs to meet its financial needs (e.g. fiscal decentralisation, issuing municipal bonds, etc.) and non-financial obligations (improving service provision through better management of operating systems, reducing distribution and transmission costs, reducing water and electricity theft by informal network providers, combating corruption, promoting e-governance, etc.)
- Implement specific policy instruments and interventions that complement, coordinate and collaborate with the private sector rather than compete against it.

Whilst the emergence of the private sector as a key player in delivering large-scale land development and infrastructure has been beneficial to many financially challenged cities, when poorly managed, PPPs and privatisation can lead to a weakening of public regulation, and contribute to urban fragmentation and increasing inequality – particularly in access to land and services (UNESCAP & UN-Habitat, 2015). We caution that privatisation has often failed to improve services for the majority of urban dwellers and been accompanied by price increases that have led to disillusionment. Where privatisation has led to improvements, it has usually been at the expense of universal coverage, with low-income areas excluded.

#### **11.4 EMERGING BUSINESS MODELS :**

##### **Business Model ?**

A business model is a company's core framework for operating profitably and providing value for customers. Features of an effective business model explain the customer value proposition and pricing strategy. The model identifies the products and services a company offers, its target market, and future expenses.

##### **11.4.1 Retail Model :**

Physical retail is when you sell your products in-person directly to consumers in a B2C business model. This could be in a traditional brick-and-mortar store or through temporary retail activations like pop-up shops, markets, and events.

Some retail may also function as a B2B business model. Wholesale transactions qualify as such, as well as selling any products to businesses. If you sell office furniture, for example, your retail store is likely both B2C and B2B.

##### **Pros of Retail :**

- **Make strong customer connections :** You get the chance to interact with customers face – to – face, offering unique opportunities to create and nurture relationships.

- **Boost sales :** Online-only merchants have to reach customers digitally. Physical retail gives you the chance to reach in-store shoppers while also driving online sales to your website. Plus, people get deeper engagement with your products in-store versus looking at pictures online.
- **No shipping hassles :** When you sell in person, you don't have to worry about fulfilling orders and all that comes with it—the costs, admin time, and potential for costly returns.

#### **Cons of Retail :**

- **High overhead.** Opening a physical retail store has tons of upfront costs, not to mention ongoing operating expenses.
- **Inflexibility.** While an online store offers you the option to make tweaks and adjustments with just a few clicks, such overhauls to your physical retail space require more effort.
- **More things to manage.** Running an online business is busy enough without the added stress of managing a physical storefront. When you have a retail shop, you'll need to stay on top of more things than if you were online – only.

#### **A Retail Success Story :**

Blendily is a thriving nature-based skin care brand with an online store. Founder and chief botanic alchemist Ivy Chuang started the brand from humble beginnings in 2012, shortly after the birth of her daughter. Two years later, she sold her first products at a pop-up shop out of a garden shed. And 2018 marked the first physical Blendily shop.

Now, the brand has expanded online and with two physical shops, one in Seattle and one in Portland. Customers can purchase products online or visit the shops to test them in-person. Visitors can also attend various events and workshops to learn more about the products and the plant – based lifestyle Ivy loves to share.

#### **11.4.2 Manufacturing Or Making :**

Manufacturing your product is good for those people with a unique idea or a variation of a currently existing idea for a B2C or B2B business model. It's also suitable for those who've already validated the market for their product. You can look at manufacturing through two lenses :

- **Private label.** A private label product is created by a manufacturer and sold under the business's name. The business controls everything, including what goes in the product, how it's packaged, and what the labels look like. Private label manufacturing is best for brands that want to create unique products.
- **White label.** A white label product is created by one manufacturer and sold to various retailers under their own brand names. They're generic products that you can sell to wider customer segments.

Manufacturing can also include makers—entrepreneurs who sell handmade products. This is when you really take production into your own hands. It allows for precise control over quality and your brand but comes at the cost of limitations, time, and scalability.

This option is for the do-it-yourselfer—someone who has their own unique ideas, can physically produce the goods themselves, and has the resources to do so. The most important thing to note here though is not all products can be made by hand. Your product choices are limited to your skills and available resources.

#### **Pros of Manufacturing or Making Your Own Products :**

- **Lowest cost per unit :** Manufacturing often garners the lowest cost per unit, giving you the greatest margins on your product.
- **More control :** You can build your own brand, set your own prices, and control the quality of your final result without any constraints.
- **Agility :** Making your own products can give you the greatest level of agility for your business. You can adjust quality, features, and even the entire product on the fly.

#### **Cons of Manufacturing or Making Your Own Products :**

- **Minimum order quantities :** The startup costs for initial orders can be quite high. Depending on the costs of your product and the manufacturer, your inventory investment can be thousands or tens of thousands of dollars.
- **The perils of outsourcing :** Trusting external parties puts you at risk to a lot of challenges outside of your control. Nothing will bring your business to a halt like being scammed by an overseas manufacturer.
- **Upfront investment :** Both routes require time and money to get up and running. Manufacturing can be a long process of prototyping, sampling, refining, and production. And the primary costs associated with making your own products include the purchasing of raw materials, the storage of inventory, and labor.
- **Time – consuming :** Depending on your product choice, making your own products can be a time – consuming process, leaving you less time to focus on actually building your business.

#### **A Maker Success Story :**

Old World Kitchen began as a family – owned business selling products door – to – door in its local area. It went through a period of growth, where Etsy was the best move for getting the business online.

The brand, which specializes in handcrafted kitchen utensils, wanted to expand further, but to do that, it needed full control over pricing, branding, and quality control—things Etsy couldn't offer.

After moving from Etsy to Shopify, it saw a sharp increase in online conversions. It was also able to partner with relevant brands and increase its prices, all while staying true to selling goods made by hand.

### 11.4.3 Drop – shipping :

Drop – shipping attracts people who prefer to keep startup costs as low as possible and are less concerned about margins. It is also a great business model for someone who doesn't want to hold and manage inventory. Drop – shipping involves B2C commerce (when a consumer buys a product from your store) as well as B2B commerce (the amount you pay for the drop – shipper to provide the product and fulfillment services on your behalf).

#### Pros of Drop – shipping :

- **Low cost to start :** Because you're never carrying inventory, you have no inventory costs—which generally are the most substantial expense for a new ecommerce business.
- **Low risk :** Since you don't actually purchase your inventory upfront, you aren't taking the risk of holding items you can't sell.
- **Streamline sales :** Dropshipping suppliers will take on the tasks of picking, packing, and shipping your product for you. This option provides convenience and efficiency, so you can manage your business from anywhere in the world.

#### Cons of Drop – shipping :

- **High competition :** Because dropshipping has such low barriers to entry, a lot of people are doing it. Competition is stiff, and it's hard to set yourself apart from the crowd.
- **Low margins :** Low margins make it difficult to compete with paid advertising space, which means you'll have to rely more on building content, service, etc. You also have to sell at significant volume to make a decent profit.
- **Inventory syncing (back orders).** Because you're relying on someone else's inventory, there may be times when you place a shipment request to the wholesaler but the product is sold out. These delays can reflect badly on your business.

### 11.4.4 Digital Products :

A digital product is a nonphysical asset or media type that can be sold and distributed online, repeatedly, without restocking inventory. These products often come in the form of downloadable, streamable, or transferrable digital files, such as MP3s, PDFs, videos, plug – ins, and templates.

The upfront costs of creating a digital product can be high, but the variable costs of selling them is comparatively low. Once you create an asset, it's incredibly cheap to deliver to customers.

**Pros of Digital Products :**

- **Lower overhead costs :** You don't hold any inventory or run up any shipping charges.
- **Scalability :** Orders can be delivered instantly, letting you be hands-off with fulfillment. As the business grows, you can easily convert tasks into automation to free up time.
- **Extensive product offerings :** There are various routes you can take a freemium model where you provide products for free with upgradable features, monthly paid subscriptions for access to exclusive content, or licenses to use your digital products. You can build a business solely around digital products or incorporate them into your existing business.

**Cons of Digital Products**

- **High competition :** People can probably find free alternatives to your digital products. You'll have to consider the niche you target, provide superior products, and know how to build your brand in order to succeed. It's helpful to do a SWOT analysis of your competition to find an edge.
- **Piracy and theft :** You're at risk of people stealing and reusing your products as their own.
- **Selling restrictions :** For example, you can only sell physical products through Facebook and Instagram according to their commerce policy.

**11.4.5 Direct to Consumer :**

The direct – to – consumer (D2C or DTC) business model means you sell products directly to consumers, without wholesalers or third – party retailers like Amazon. It's essentially a fancy name for B2C businesses.

Think about some of the biggest trending brands: Warby Parker, Barkbox, Bonobos, Casper. What do they all have in common? A DTC business model. Even brands like Apple and Tesla are leveraging mobile commerce as a main channel for DTC sales.

These brands eliminate the hassle of researching and choosing from hundreds of competing brands, making the entire shopping experience easier for customers.

**Pros of Direct to Consumer :**

- **Own the customer relationship.** Selling directly helps you own more relationships and increase customer lifetime value.
- **Collect customer data.** Selling direct lets you collect first-party data you can use to personalize customer communications and experiences.
- **Higher profits.** You don't have to share profits with any third-party distributors.

- **Get feedback faster.** Since you can communicate with customers directly, you can easily collect feedback to improve your products and customer experience.

#### **Cons of Direct to Consumer :**

- **Costs of direct distribution.** There's no sharing of shipping or storage costs. DTC businesses need to invest more upfront to get their business operating smoothly.
- **No built-in audience.** One advantage of working with retailers is that customers can find your products easier. If you're a new brand, you'll have to market yourself. You also don't benefit from the distributor's experience or salesforce.

#### **11.4.6 Do It Yourself Model :**

"Do it yourself" ("DIY") is the method of building, modifying, or repairing things by oneself without the direct aid of professionals or certified experts. Academic research has described DIY as behaviors where "individuals use raw and semi-raw materials and parts to produce, transform, or reconstruct material possessions, including those drawn from the natural environment (e.g., landscaping)".[1] DIY behavior can be triggered by various motivations previously categorized as marketplace motivations (economic benefits, lack of product availability, lack of product quality, need for customization), and identity enhancement (craftsmanship, empowerment, community seeking, uniqueness).[2]

Boy building a model airplane, Texas, 1942 (photograph by Arthur Rothstein for the Farm Security Administration).

The term "do – it – yourself" has been associated with consumers since at least 12 primarily in the domain of home improvement and maintenance activities.[3] The phrase "do it yourself" had come into common usage (in standard English) by the 1950s,[4] in reference to the emergence of a trend of people undertaking home improvement and various other small craft and construction projects as both a creative-recreational and cost-saving activity.

Subsequently, the term DIY has taken on a broader meaning that covers a wide range of skill sets. DIY has been described as a "self-made-culture"; one of designing, creating, customizing and repairing items or things without any special training. DIY has grown to become a social concept with people sharing ideas, designs, techniques, methods and finished projects with one another either online or in person.

DIY can be seen as a cultural reaction in modern technological society to increasing academic specialization and economic specialization which brings people into contact with only a tiny focus area within the larger context, positioning DIY as a venue for holistic engagement. DIY ethic is the ethic of self-sufficiency through completing tasks without the aid of a paid expert. The DIY ethic promotes the idea that anyone is capable of performing a variety of tasks rather than relying on paid specialists.



### 11.4.7 Information Service Model :

#### Introduction :

The B2B information-services market has enjoyed enviable growth rates over the past decade. Average margins are about 25 percent, and they soar to more than 50 percent for industry leaders. Growth and profitability have been driven by a surge in the number of professional knowledge workers globally and the increasing importance of data and information in decision making—trends that are likely to continue unabated. Because the data and solutions provided by B2B information – services companies become embedded in the work processes of users, these companies enjoy relatively stable and predictable revenue streams.

These sound fundamentals and growth prospects will only improve as economies of scale drive further consolidation in the industry. Large players benefit from superior distribution channels. They also have the wherewithal to invest in value-adding enhancements to their current offerings and in the shift from print to digital publishing. For some, the opportunity to expand across the value chain is also a motive to consolidate. What is more, the recent decline in market valuations makes this a particularly opportune time to pursue consolidation.

Players that seek to build a B2B business—such as B2B media companies seeking to increase scale, diversified media companies seeking to broaden their portfolios, or private-equity firms—must overcome significant challenges, however. Deal making has become exceedingly difficult, as a mismatch in expectations exists between buyers and sellers, and it remains hard to obtain financing. Even if the climate becomes more favorable for deal making, companies still face the challenge of selecting the right targets. For all the outward signs of health, some segments of the business are becoming commoditized, and acquirers must work hard to find targets with truly distinctive sources of value.

### 11.4.8 Hybrid Work Model :

#### What is hybrid work ?

**Definition :** Hybrid work is a flexible work model that supports a blend of in – office, remote, and on – the – go workers. It offers employees the autonomy to choose to work wherever and however they are most productive.



Hybrid work is a people-first approach to managing the workforce that drives increased productivity and job satisfaction while addressing the major challenges of remote work, such as isolation and lack of community. A hybrid work model provides employees with greater flexibility and the option to work from home or anywhere they can be productive. With hybrid work, the workplace is no longer inside the four walls of the corporate office—it's an ecosystem of employees working from home, in co-working spaces, and the office. Team members can migrate between various locations depending on the work they need to get done.

The hybrid work model can take different forms depending on the organization and the type of work being done.

### **What Are The Types Of Hybrid Work Models ?**

These are the four most common hybrid work models :

#### **1. Flexible Hybrid Work Model :**

Employees choose their location and working hours based on their priorities for the day.

##### **Benefits :**

- Offers freedom and flexibility for individuals to determine where and when they work
- Builds a trust – based relationship with employees, which increases loyalty and job satisfaction
- Expands talent pool, leading to more diverse thinking
- Improves the bottom-line due to cost savings on office space and travel

##### **Challenges :**

- Difficult for employees to find a suitable day or time for in – person teamwork
- Lack of visibility into how many people are going to the office on any given day and if the building has the capacity to support them

#### **2. Fixed Hybrid Work Model :**

The organization sets the days and times employees are allowed to work remotely or go into the office.

##### **Benefits :**

- Increases opportunity for in-person collaboration and team building.
- Gives employees the option to schedule appointments or run quick errands on certain days of the week.
- Provides the ability to easily forecast office capacity.

**Challenges :**

- Lack of individual choice, which could lead to a loss of productivity if employees aren't in the optimal setting for the work that needs to be done.
- Inability to reduce office space.

**3. Office – First Hybrid Work Model :**

Employees are expected to be on-site but have the flexibility to choose a few days a week to work remotely. Google plans to adopt this type of model where employees work in the office three days a week but have the option to choose two days for working remotely.

**Benefits :**

- Allows flexibility and individual choice
- Helps maintain company culture and community

**Challenges :**

- Lack of visibility for employees around who will be in the office and when
- Inability to accurately forecast how many employees will be in the office on a given day

**4. Remote – First Hybrid Work Model :**

Employees work remotely most of the time with occasional visits to co-working spaces or the office for team building, collaboration, and training. In this model, the company may not have an office space and instead relies on team members in the same area to get together when they see fit. Twitter adopted this remote-first model and will allow all employees to work from home.

**Benefits :**

- Increases productivity and job satisfaction for employees who want to work remotely most of the time.
- Provides the ability to reduce costs by reducing or eliminating office space.

**Challenges :**

- Potential for employees to feel isolated.
- Increased challenges maintaining the company culture and community.

**11.5 SUMMARY :**

The importance of private sector can be assessed in terms of its share in domestic saving and gross domestic capital formation. The gross domestic savings and gross domestic capital formation of private sector accounts for around 25 percent and 18 percent respectively of total GDP at market price. Private sector though has depicted a spectacular growth profile but it suffers from the limitations. The private sector provides around 90% of employment in

the country (including formal and informal jobs), delivers critical goods and services and contributes to tax revenues and the efficient flow of capital.

A business model is a company's core framework for operating profitably and providing value for customers. Features of an effective business model explain the customer value proposition and pricing strategy. The model identifies the products and services a company offers, its target market, and future expenses.

## 11.6 KEY WORDS :

### **Agility :**

The power of moving quickly and easily; nimbleness.

### **Perils :**

The state of being in danger of injury, loss, or destruction.

### **White label :**

When one company buys its product from another company and rebrands it as their own.

### **GDP :**

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

### **FDI :**

A foreign direct investment refers to a purchase of a particular organisation's interest by another foreign organisation.

### **Liberalization :**

Liberalisation is the process or means of the elimination of control of the state over economic activities.

### **Inflexibility :**

One that cannot be adjusted or eliminated by a company or individual.

## 11.6 SELF ASSESSMENT QUESTIONS :

1. What are business models?
2. What are the limitations of private sector?
3. Role of private sector in governance.

## 11.7 SUGGESTED BOOKS :

1. E – Banking Management – Mahmood Shah Lancashire Business school, University of Central Lancashire, UK & Steve Clarke University of Hull, UK.
2. Suneja, H.R., Practical and Law of Banking, Himalaya Publishing House.

**A.S. Kalyani**

## LESSON – 12

# E – BANKING & CORE BANKING SERVICES

### Objectives :

After reading this lesson, one should be able to

- understand meaning, and classification of E – Banking;
- understand the Concept of E – Banking;
- to know about the Core Banking.

### Structure of the Lesson :

- 12.1 Introduction of E – Banking
- 12.2 Classification of E – Banking
- 12.3 Services under E – Banking
- 12.4 Significance of E – Banking
- 12.5 Core banking system
- 12.6 Factors driving the need for Core Banking Modernization
- 12.7 Summary
- 12.8 Key Words
- 12.9 Self Assessment Questions
- 12.10 Suggested books

### 12.1 INTRODUCTION OF E – BANKING :

#### Meaning of E – Banking :

Banks give administrations or bank services to draw in clients, from giving advances, issuing of debit cards and credit cards, computerised monetary services, and surprisingly personal services or administrations. Even so, some fundamental present-day administrations are presented by many commercial banks.

Electronic banking has many names like web-based banking, e – banking, virtual banking, or web banking, and online banking. It is just the utilisation of telecommunications networks and electronic networks for conveying different financial services and products. Through e – banking, a client can acquire his record and manage numerous exchanges utilising his cell phone or personal computer.

### 12.2 CLASSIFICATION OF E – BANKING :

Banks offer different kinds of services through electronic financial stages. These are of three sorts :

**Type 1 :**

This is the essential degree of administrations or services that banks offer through their sites. Through this assistance, the bank offers data, information regarding its services and products to clients. Further, a few banks might respond to an inquiry through email as well.

**Type 2 :**

In this category, banks permit their clients to submit directions or applications for various administrations, check their record balance, and so on. Be that as it may, banks don't allow their clients to do any fund-based exchanges with respect to their records or accounts.

**Type 3 :**

In the third category, banks permit their clients to work or operate their records or accounts for bill payments, purchase and redeem securities and fund transfers, and so on.

Most conventional banks offer e-banking administrations as an extra technique for offering support. Further, many new banks convey banking administrations principally through the other electronic conveyance channels or web. Likewise, a few banks are 'internet only' banks with no actual branch anyplace in the country.

**Banking Sites are of Two Sorts :**

**Transactional Websites :** These sites permit clients to go through with exchanges on the bank's site. Further, these exchanges can go from a plain retail account balance request to huge business – to – business liquid assets transfers. The accompanying table records some normal wholesale and retail e – banking administrations presented by financial institutions and by banks.

**Informational Websites :** These sites offer general data regarding the bank and its services and products to the clients.

**Wholesale services by banks :** Include Account management, Cash management, Small business loan applications, Approvals or advances, Commercial wire transfer, Business-to-business payments, Employee benefit, and Pension administration.

**Retail services by banks :** Include Account management, Bill payment, New account opening, Consumer wire transfers, Investment and brokerage services, Loan application and approval, and Account Aggregation.

**12.3 SERVICES UNDER E – BANKING :****Mobile Banking :**

Mobile banking (otherwise called M-banking) is a name utilised for performing account exchanges or transactions, bill payments, credit applications, balance checks, and other financial exchanges through a mobile phone like a Personal Digital Assistant (PDA) or cell phone.

**Electronic Clearing System (ECS) :**

The Electronic Clearing System is a creative provision for occupied individuals. With this provision, an individual's credit card bill is consequently charged from the same individual's savings bank account, so one doesn't have to stress over missed or late payments.

**Smart Cards :**

A smart card is a card that stores data on a microchip or memory chip or a microprocessor in lieu of the magnetic stripe found on debit cards and credit cards. Smart cards are not utilised for transferring or moving monetary data alone, but also they can be utilised for an assortment of identification grounds. Exchanges made with smart cards are scrambled or encrypted to shield the exchange of data from one party to another. Each encoded exchange can't be hacked and doesn't transmit any extra data past what's required for finishing the single exchange or transaction.

**Electronic Fund Transfer (ETF) :**

Electronic fund transfer (EFT) is the electronic exchange of cash starting with an individual account in the bank to another individual account of the same bank, or within or with other financial institutions or with multiple institutions, by means of personal computers based frameworks, without the immediate intercession of bank staff.

**Telephone Banking :**

Telephone banking is an assistance given by a bank or other monetary foundation or other financial institutions, that empower clients to perform via telephone a scope of monetary exchanges which don't include cash or financial instruments, without the need to visit an ATM or a bank branch.

**Internet Banking :**

Web – based banking is an assistance presented by banks that permits account holders to get their record information by means of the web or the internet. Web-based banking or Internet banking is otherwise called “Web banking” or “Online banking.”

Internet banking through customary banks empowers clients to play out every standard exchange, for example, bill payments, balance requests, stop-payment requests, and balance inquiries. Some banks even proposition online credit card and loan applications.

Account data can be acquired day or night, and should be possible from any place.

**Home Banking :**

Home banking is the most common way of concluding the monetary exchange from one's own home as opposed to using a bank's branch. It incorporates making account requests, moving cash, covering bills, applying for credits, and directing deposits.

**Popular Services under E – Banking in India :**

- ATMs (*Automated Teller Machines*)

- Telephone Banking
- Electronic Clearing Cards
- Smart Cards
- EFT (*Electronic Funds Transfer*) System
- ECS (*Electronic Clearing Services*)
- Mobile Banking
- Internet Banking
- Telebanking
- Door – step Banking

**Further, under internet banking, the following services are available in India :**

- 1. Bill payment :** Every bank has a tie-up with different utility companies, service providers, insurance companies, etc. across the country. The banks use these tie-ups to offer online payment of bills (electricity, telephone, mobile phone, etc.). Also, most banks charge a nominal one-time registration fee for this service. Further, the customer can create a standing instruction to pay recurring bills automatically every month.
- 2. Funds transfer :** A customer can transfer funds from his account to another with the same bank or even a different bank, anywhere in India. He needs to log in to his account, specify the payee's name, account number, his bank, and branch along with the transfer amount. The transfer is effected within a day or so.
- 3. Investing :** Through electronic banking, a customer can open a fixed deposit with the bank online through funds transfer. Further, if a customer has a demat account and a linked bank account and trading account, he can buy or sell shares online too. Additionally, some banks allow customers to purchase and redeem mutual fund units from their online platforms as well.
- 4. Shopping :** With an e – banking service, a customer can purchase goods or services online and also pay for them using his account. Shopping at his fingertips.

## **12.4 SIGNIFICANCE OF E – BANKING :**

We will look at the importance of electronic banking for banks, individual customers, and businesses separately.

### **Banks :**

1. Lesser transaction costs – electronic transactions are the cheapest modes of transaction.
2. A reduced margin for human error – since the information is relayed electronically, there is no room for human error.



3. Lesser paperwork – digital records reduce paperwork and make the process easier to handle. Also, it is environment – friendly.
4. Reduced fixed costs – A lesser need for branches which translates into a lower fixed cost.
5. More loyal customers – since e-banking services are customer-friendly, banks experience higher loyalty from its customers.

**Customers :**

1. Convenience – a customer can access his account and transact from anywhere 24x7x365.
2. Lower cost per transaction – since the customer does not have to visit the branch for every transaction, it saves him both time and money.
3. No geographical barriers – In traditional banking systems, geographical distances could hamper certain banking transactions. However, with e-banking, geographical barriers are reduced.

**Businesses :**

1. Account reviews – Business owners and designated staff members can access the accounts quickly using an online banking interface. This allows them to review the account activity and also ensure the smooth functioning of the account.
2. Better productivity – Electronic banking improves productivity. It allows the automation of regular monthly payments and a host of other features to enhance the productivity of the business.
3. Lower costs – Usually, costs in banking relationships are based on the resources utilized. If a certain business requires more assistance with wire transfers, deposits, etc., then the bank charges it higher fees. With online banking, these expenses are minimized.
4. Lesser errors – Electronic banking helps reduce errors in regular banking transactions. Bad handwriting, mistaken information, etc. can cause errors which can prove costly. Also, easy review of the account activity enhances the accuracy of financial transactions.
5. Reduced fraud – Electronic banking provides a digital footprint for all employees who have the right to modify banking activities. Therefore, the business has better visibility into its transactions making it difficult for any fraudsters to play mischief.

**12.5 CORE BANKING SYSTEM :****Core Banking ?**

Core banking is a back-end system that connects multiple branches of the same bank together to deliver operations like loan management, withdrawals, deposits and payments in real – time.

**What does Core Banking Mean ?**

The term CORE stands for Centralized Online Real-time Environment, which implies that the customer can experience the bank as a single entity, regardless of their location –

with the aim to provide more independence for the customers in terms of using their accounts and conducting transactions from any location in the world.

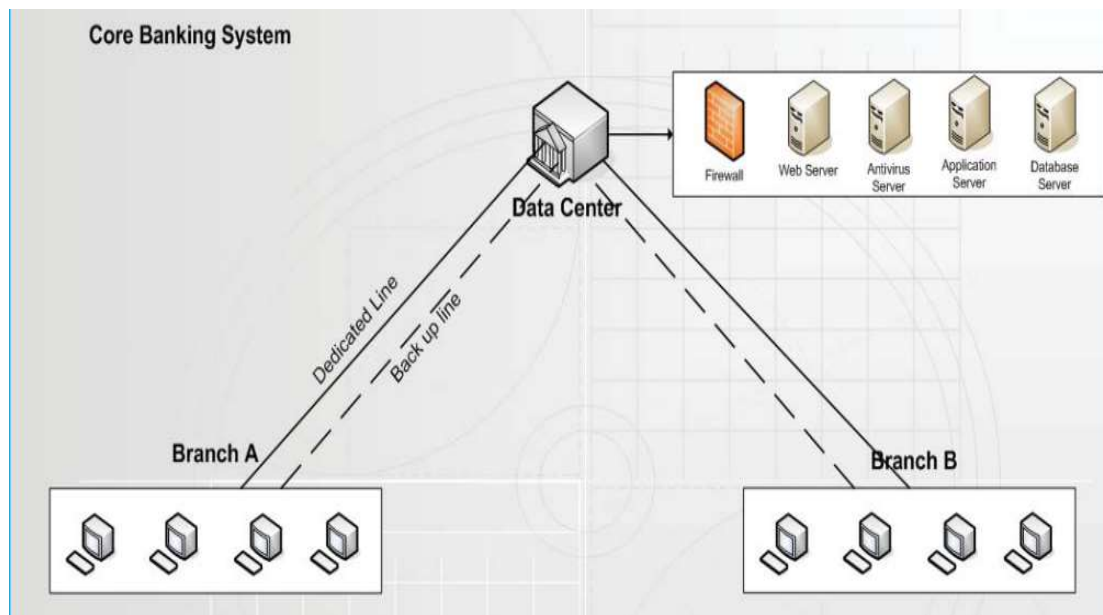
### What are IT Core Banking Services?

The key core banking services include new accounts creation and customer relationship management, interest calculations, deposits and withdrawals processing, loans issuing and servicing etc.

### How does Core Banking Work?

A core banking system comprises back-end servers that handle standard operations like interest calculation, passbook maintenance, and withdrawal.

When a customer withdraws money from a branch or an ATM, the application sends a request to the centralized data center, which then processes the request and authenticates the operation.



The data center contains the database, an application server, a web server, and a firewall to protect the system from malware attacks. Banks can host their data center locally or on the cloud.

### What are the essential IT Core Banking Features ?

After analyzing the top banking software vendors, we've figured out the core banking features indispensable in a decent solution.

- **Centralized Dashboard :**

Bankers need a single – view dashboard to visualize the system in real time. Also, bankers and clients should have access to the same dashboard view; this will help diagnose and solve issues faster.

- **On – boarding (With KYC Features) :**  
Before using the dashboard, the client must sign in to their account with a unique username and password. With KYC features, banks can verify identities of prospective customers when they register. The on boarding process should also be simple enough for users to complete without stress.
- **Two – Factor Authentication :**  
The solution needs to offer two-factor verification to boost security and protect clients' sensitive data.
- **Push Notifications :**  
When building a core banking solution for mobile, use push notifications to deliver timely account updates to clients.
- **Loan Management :**  
The core banking solution must allow customers to monitor their loans and schedule payments according to the specified plan.
- **Interest Calculators :**  
For loan and mortgage payments, users need access to real-time calculators to help them make informed decisions.
- **Live Chat :**  
A live chat feature must be on the platform to help users contact support agents when they need assistance. Automated chatbots can also provide templated answers to frequently asked questions.
- **Transaction Management :**  
Clients can customize their popular payments and P2P transfers to ensure that their contact lists remain updated. They can also use multi-currency exchanges to trade on their preferred currencies.

### **What are the types of Core Banking Systems?**

Depending on the hosting, IT core banking systems can fall into the following categories :

1. **On – premise solution :** This system works on a locally – hosted infrastructure, providing the bank administration with several customization options.
2. **Cloud – based core banking software :** As the name suggests, it is hosted on the cloud. Sometimes, a cloud vendor offers the application as a Cloud as a Service (CaaS) on a pay – per – use basis. Other times, companies can move their local servers to the cloud to enjoy more flexibility.

## What are the Core Banking System Advantages ?

With a better understanding of the working principle and features of the core banking platforms, let's explore their key benefits :

- **Enhanced Productivity :**

Core banking platforms increase operational efficiency by reducing the time it takes to connect with multiple branches. As a result, banks can process transactions faster, regardless of the client's physical location.

- **Improved Security :**

Core banking systems use advanced encryption modules to protect the infrastructure from hackers and malware. On the client's side, bio-verification and two-factor authentication also provide additional layers of security to the platform. These features help banks maintain KYC standards and comply with other banking regulations.

- **24/7 Access To Banking Services :**

In this era of contactless payments, access to round-the-clock bank services is vital. Users can conduct financial operations anywhere and anytime since the core banking platform never goes offline. Clients can also contact customer support for assistance at any time.

- **Lower Operational Costs :**

Banks can rely on their core platforms to reduce operational costs since these systems require fewer human resources to function. Besides, the AI – powered infrastructure increases the completion rate of operations and reduces the chances of errors in documentation.

- **Multiple Currencies :**

Users can trade in multiple currencies instantly without needing to change large amounts at a currency exchange.

## Limitations of IT Core Banking Solutions :

Despite the amazing benefits of core banking solutions, these systems still have flaws.

1. Technical downtimes can disrupt regular banking operations, thereby frustrating clients.
2. Using a core banking system can introduce a single point of failure that affects all branches simultaneously in the case of a cyber attack.
3. Modern core banking systems can be expensive to buy and maintain, especially for small and medium-sized banks.
4. Legacy core banking software can leave the entire infrastructure vulnerable to system failure. The modernization effort will also cost a lot of money.

### **Why choose a Core Banking Solution?**

Despite the few limitations mentioned earlier, your bank still needs a core banking platform to streamline operations and maximize ROI.

SDK finance can help you develop banking software using a ready – made backend FinTech platform to accelerate time to market. We provide a flexible banking core that serves as a foundation for building any PayTech products.

Choose your development approach :

- Dedicated development team with more than 10 years of experience to bring your digital bank to life faster
- Self – service development with a pre-developed Platform by SDK.finance to support your technical team. The Platform is available in SaaS and Source Code modes.

Both modes allow you to accelerate the development of your banking software and focus on the customer and product experience.

### **Final Words :**

Core banking financial services offer several advantages to banks and their customers. With advanced data analytics, bank administrators can improve ROI while maintaining client satisfaction at an optimum level. You can also rely on automation to keep your application's infrastructure running. And most importantly, modern core banking solutions will protect your company's and client's data from hackers.

## **12.6 FACTORS DRIVING THE NEED FOR CORE BANKING MODERNIZATION :**

### **Growth of Products and Channels :**

An ever – increasing number of products catering to diverse customer segments, compounded by a rising number of channels, financial institutions confront dramatically increased complexity with multi – channel banking. Handling this scenario necessitates the use of scalable and sustainable modern core banking systems capable of handling any number of product-channel transactions and payments.

### **Legacy Systems Management :**

Due to their intrinsic incompatibility with modern operating systems and programming languages and heavy reliance on hard-coded business rules, many legacy core banking systems are challenging, if not impossible, to upgrade.

### **Lowering of Costs :**

Banks are turning to core banking system modernization as a practical means of achieving internal cost reductions as they seek to increase internal IT efficiency in the current macroeconomic climate.

Modern core banking systems can consolidate many stand-alone apps and save expenses for processing hardware and core applications.

**Rising Level of Competition :**

With traditional institutions, Neobanks, and other recent market entrants, including tech giants, vying for dominance, the banking sector has emerged as one of the most competitive sectors in business. These circumstances make it unsustainable for traditional banks to continue using outdated legacy systems.

**Regulatory Compliance :**

In order to comply with a rising number of new regulations aimed at boosting risk management and governance processes as well as increasing the transparency of banking operations in customer interactions, banks require the flexibility and agility to adjust to new inputs and requirements, which legacy core banking systems are unable to provide.

**The Focus on the Customer :**

Banking has always been product – focused, but today’s products have become commodities.

Today’s banking industry is increasingly customer – focused, with a new emphasis on relationship – based pricing, single view of the customer, and customer service.

**12.7 SUMMARY :**

Electronic banking has many names like web-based banking, e – banking, virtual banking, or web banking, and online banking. Through e-banking, a client can acquire his record and manage numerous exchanges utilising his cell phone or personal computer. Banks offer different kinds of services through electronic banking. Conventional banks offer e – banking administrations as an extra technique for offering support. A few banks are ‘internet only’ banks with no actual branch anyplace in the country.

E – Banking provides different kinds of Services to their customers Such as mobile banking, ECS, Smart cards, EFTs and so on. Core banking is a back – end system that connects multiple branches of the same bank together to deliver operations like loan management, withdrawals, deposits and payments in real – time. A core banking system comprises back – end servers that handle standard operations like interest calculation, passbook maintenance, and withdrawal. When a customer withdraws money from a branch or an ATM, the application sends a request to the centralized data center, which then processes the request and authenticates the operation.

**12.8 KEY WORDS :****Offsite :**

A meeting or other event that happens away from an office building factory.

**ECS :**

Electronic Clearing Service or ECS is a method of transferring funds electronically and is generally used for bulk transfers.

**Surcharges :**

Surcharges are fees that are tacked onto the price of goods and services.

**Fraudulence :**

The intent or the act of misrepresentation – scammers lying about themselves or their actions and services – to cause a gain or loss.

**Grace period :**

The period of time after payment is due but before late fees, interest, or other penalties start to accrue.

**NEFT :**

NEFT is an electronic payment system developed by RBI to facilitate transfer of funds by customers from one bank to another bank in India.

**MIS :**

Information system used for decision-making, and for the coordination, control, analysis, and visualization of information in an organization.

**Refreshing :**

Bracing, exhilarating, fresh, invigorating, stimulating, and cooling.

**12.9 SELF ASSESSMENT QUESTIONS :**

1. Define E – Banking and write about the classifications of E – Banking.
2. What are the services under E – Banking ?
3. Importance of E – Banking.
4. Write about core banking ?
5. What are the factors affecting core banking ?

**12.10 SUGGESTED BOOKS :**

1. Muraleedharan – Modern Banking: Theory and Practice, PHI.
2. Maheswary and Paul – Banking Theory, Law and Practice, Kalyani Publishers.
3. S. Natarajan, P. Parameswaran – Indian Banking, S. Chand and Company Ltd.

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## LESSON – 13

# SMART CARDS

### Objectives :

After reading this lesson, one should be able to

- understand meaning of Concept of ATM , Credit Card;
- to know about the Debit Card;
- to know about the Data communication networks and technology upgradation.

### Structure of the Lesson :

- 13.1 ATM
  - 13.1.1 Types of ATMS
  - 13.1.2 How to use ATMS
  - 13.1.3 Advantages and Disadvantages
- 13.2 Credit Card
  - 13.2.1 Credit Card – Advantages and Disadvantages
- 13.3 Debit Card
  - 13.3.1 Advantages and Disadvantages of Debit Card
- 13.4 Data Communication Network
  - 13.4.1 Components of Data Communications Networks
- 13.5 Technology Upgradation
- 13.6 Management Information System (MIS)
- 13.7 Functions of Data Warehouse Tools and Utilities
- 13.8 Summary
- 13.9 Key Words
- 13.10 Self Assessment Questions
- 13.11 Suggested Books

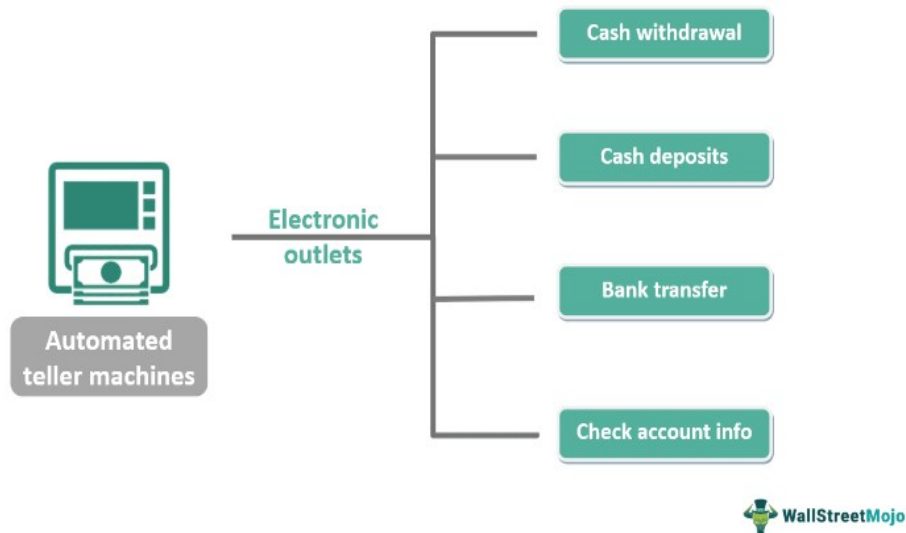
### 13.1 ATM (AUTOMATED TELLER MACHINE) :

#### ATM – Meaning :

Automated teller machines (ATMs) or cash machines are simple electronic devices that provide instant liquid cash and other banking services. Hence, customers can avoid going to their banks for basic services. Instead, they can use any ATM, even the ones operated by other banks, using their debit or credit cards.



# What are Automated Teller Machines?



The full form of ATM is “Automated Teller Machine“. It is an electronically operated device that operates in self-operating mode and provides the facility of immediate cash withdrawals of different maximum limits set by different banks.

ATMs are located worldwide, with each city itself having more than 10,000 ATMs and smaller villages and cities with around 500 and 1,000 ATMs on an average rate available 24\*7. The best part about ATMs is that they can withdraw money irrespective of whether you have a running bank account in that particular branch ATM or not. It is also known as a Cash machine and helps in functions like deposit transfer, check balance, updating passbooks, etc.

## 13.1.1 Types of ATMs :

In general, there are two types of ATMs prevailing in India.

One is a simple basic unit ATM by which you can withdraw cash, get account updates, update or change your PIN, check account balance and so on.

The other kind of ATM is called a complex unit that is not commonly available and is used for depositing cash or cash and making bill payments.

Although, based on labels, ATMs are often divided into the following types :

- **White Label ATMs** : These are special kinds of ATMs run by Non – Banking Financial Institutions and were started by TATA
- **Green Label ATMs** : Green labels are ATMs used specifically for transactions relating to agricultural purposes

- **Yellow Label ATMs :** These are ATMs set up for providing E-commerce facilities and transactions
- **Pink Label ATMs :** These are ATMs set only for women to avoid making them stand in long queues
- **Orange Label ATMs :** Orange label ATMs are used only to share transactions
- **Brown Label ATMs :** These are ATMs taken on lease by third parties other than the bank to provide banking services to the customers
- **Onsite ATMs :** Onsite ATMs are set inside the bank itself in the bank premises and can be used by customers
- **Offsite ATMs :** These ATMs are set in places other than the banking premises and easily do transactions
- **Biometric ATMs :** These special security ATMs use your eyeballs or fingerprints as a scanner with their sensor.

### 13.1.2 How to use ATMs :

ATMs are easy to use and can be assessed by every individual if they are careful and educated enough to use them. Various banks also discuss seminars and basic information, and the RBI issues guidelines on how to use ATMs and what precautions to take.

To use an ATM, there are two kinds of cards :

- Debit Card allows you to withdraw cash and make online payments and billing.
- ATM Card – It allows you to withdraw cash.

To easily use ATMs, people can follow these steps :

- Go to your nearest ATM (try to use the same bank ATM after 3 – 4 transactions to avoid service charges).
- Swipe or Push your ATM card or Debit Card inside the ATM allotted to you by your bank.
- Wait until the ATM reads your chip and then enter your bank's PIN provided to you to conduct transactions.
- Conduct your financial transactions like checking balance, withdrawing cash and so on.

### 13.1.3 Advantages And Disadvantages :

ATMs are an important innovation in this digital era. It simplified the banking experience much before internet banking services became available and reliable. Let's look at its pros and cons.

Advantages	Disadvantages
24X7 operations.	Runs out of cash sometimes.
Multiple locations (ATMs operated by other banks can also be used).	High fees in case of withdrawal from another bank's ATM.
Traveling to one's bank for basic services is no longer necessary, thus also reducing the bank's workload.	Chances of robbery of machines as such.
Maximum security.	Maximum security.

## 13.2 CREDIT CARD :

### What is Credit Card :

A credit card is a type of credit facility, provided by banks that allow customers to borrow funds within a pre-approved credit limit. It enables customers to make purchase transactions on goods and services. The credit card limit is determined by the credit card issuer based on factors such as income and credit score, which also decides the credit limit. Bonus tip : use the free credit score checker tool to check your current score.

The credit card information includes credit card number, cardholder's name, expiration date, signature, CVC code, etc. The best part about a credit card is that it is not linked to a bank account. So, whenever you swipe your credit card, the amount is deducted from your credit card limit, not your bank account. You can use it to pay for food, clothes, take care of medical expenses, travel expenses, and other lifestyle products and emergency services.

### 13.2.1 CREDIT CARD – ADVANTAGES And DISADVANTAGES :

#### Credit Card Advantages :

Credit cards have surely become a must-have financial tool. Listed below are a few reasons for the hype that has been created around them –

#### Luxury of Credit :

Having a credit card gives you the luxury of spending out of your pockets. Credit cards allow you to borrow money from a bank and make necessary purchases for the time being. All you need to do is plan your finances well so that you can repay the credited amount well in time. Moreover, you can borrow as much as you need (within your credit limit) on an interest – free credit period of upto 45 – 50 days.

#### Affordable EMIs :

Making big purchases with your credit card? Don't worry about repaying the huge amount. You can choose to convert your billed amount into easy, affordable EMIs and pay the billed amount over a long period of time. This will avoid the burden of making a huge hole in your pocket as you pay your credit card bill.

**Build Financial Health :**

Timely repayment of credit card bills help build a healthy financial status. One of the major credit card benefits is that its proper usage can actually help you build and maintain a line of credit. This line of credit can be used by banks to view your card usage and credit repayments.

**Improves Credit Score :**

Using a credit card effectively shows that you are able to maintain your financial situation well. Hence, having a credit card helps individuals convert their low credit score to a higher one. Credit cards are often used as “credit builders” as a way to improve and enhance your borrowing habits. As you use your credit card properly, you will gradually be able to build your credit rating and prove that you are able to manage your loans and credits over a period of time.

**Security :**

Credit cards are a safe and secure financial instrument. As compared to other financial products, credit cards hold a lot more safety features. Unlike the old credit cards, the ones being issued in the recent times are secured with EMV (Europay, MasterCard and Visa) chip, which eventually saves you from being prey to any frauds. Additionally, various banks and credit card issuing companies have introduced various security measures that ensure safety of transactions.

Along with this, the Reserve Bank of India has made it mandatory for the banks to prove the customer’s liability in case there are any unauthorised electronic banking transactions. Hence, the card holder does not have to prove his/her innocence if there’s any fraudulent online transaction.

**Balance Transfer :**

If used properly, one of the major credit card advantages is that it allows you to transfer funds from one account to another, even if they are not from the same credit card providers. This option enables you to lower the applicable interest charges. For instance, if you have a pending bill of one credit card, and not sufficient funds to pay the bill at the moment, then you can choose to transfer the balance from one credit card to the other and make benefit of the interest rate charges of the new card. Additionally, in certain cases, you may also avail the benefit of zero-percent introductory interest charges on balance transfer. However, in a few cases, you may also have to pay a fee for transferring the balance.

**Easy Loan Approvals :**

Credit cards also allow you to borrow loans from banks. When you do so, your bank will transfer money against your available credit limit to your bank account. Once your loan gets approved, the applied loan amount will be transferred to your bank account in a few minutes. You must also note that having a healthy credit/borrowing history will also work effectively on your credit score.

**Additional Benefits :**

There are a lot of additional credit card benefits offered on the transactions made using a specific type of credit card. These additional benefits can be provided to you in the form of reward points, cash backs and discounts that can be redeemed on the future transactions. You can also choose to buy the credit card depending upon your specific needs. This type of credit card will offer additional benefits on the amount spent.

**Record of Expenses :**

When you use a credit card, all the transactions made on it will be saved. These details will be visible to you in your credit card statement. Having a complete track of your expenses made on a credit card will help you manage your finances and build the monthly budget in a better way.

**Disadvantages of Credit Card :**

While they have innumerable benefits, there may also be a few disadvantages of credit card. As it is said, excess of anything is harmful, it is recommended that you use your credit card effectively. Here are some factors that may prove negative if you don't use the credit card effectively.

- **Overspending :**

Since credit cards offer you credit to a huge extent, there may be instances where you make unnecessary purchases of the available limit and fall in debt trap later.

**Solution :** To avoid overspending on your credit card, you must not spend more than 50%-60% of your credit limit. Ensuring this and staying a little tight on your unnecessary expenses will keep you away from overspending and hence, will not let you fall in debts.

- **Fraudulence :**

Even though credit cards are considered one of the safest financial tools, they may still be susceptible to online frauds. Fraudsters or thieves may also steal your credit card information and make improper use of the same. Additionally, if the fraudulent transaction is made by any third party, it becomes the cardholder's responsibility to inform the bank within three days of occurrence of the transaction.

**Solution :** To safeguard yourself against such fraudulent transactions, you can choose to disable any foreign transactions on your card. Additionally, you are advised not to open any emails or messages that look suspicious to you. Along with this, do not hand over your credit card to anybody and / or share your credit card details or PIN with anyone.

- **High Interest Charges :**

There is a very high interest rate applicable on the billed amount using a credit

card, which may eventually lead you to high debts. However, this interest is applicable only in case of late payments of the credit amount.

**Solution :** If you continue to pay your credit card bills on time, you can easily get rid of the high interest charges on a credit card.

- **Surcharges**

Upon making a certain specific payment using a credit card, you might have to incur an additional fee known as surcharge. This fee, is however, generally applicable on expenses made on fuel and railway bookings.

**Solution :** Certain credit cards, such as the fuel credit card offer a fuel surcharge waiver. The surcharge fee is generally waived off when the transaction amount is within a specific range as decided by the bank. Additionally, there might also be a limit on the monthly surcharge waiver amount.

- **Limited Cash Withdrawal**

Unlike debit cards, cash withdrawals from credit cards charge a fee. There is an applicable annual interest rate of around 40% (3.35% per month) on withdrawing cash using a credit card.

**Solution :** To stay away from paying any additional charges, which is considered to be one of the major disadvantages of credit card, you must opt not to withdraw any amount using your credit card. Use your debit card to make cash withdrawals, instead.

- **Additional Expenses**

A lot of credit cards include some additional expenses such as the annual credit card fee, charges on foreign transactions, charges on cash withdrawals, etc.

**Solution :** Before you apply for a credit card, you must go through all the related terms and conditions so that the applicable expenses are not hidden. You must be aware of all the expenses that you may have to incur on your credit card before you choose the type of credit card that you want to buy.

- **Minimum Due**

One of the major disadvantages of a credit card is the minimum due amount mentioned at the top of the credit card statement. A lot of credit card holders, especially the new ones, mistake the minimum due amount for the total credit card bill amount and do not pay the bill amount in full. Due to this, users believe that their credit card bill is actually low and eventually end up spending a higher amount and paying high interest charges.

**Solution :** It is important to study the credit card statement thoroughly. It is equally important to be aware of all the major credit card terms in order to avoid falling into any sort of trap.

### 13.3 DEBIT CARD :

#### What is Debit Card ?

A debit card, also called plastic cash, is issued by banks and used to fund purchases in daily life. It is used to withdraw cash at ATMs and make other online and offline store purchases.

#### Best Debit Cards in India 2023 :

The following are the 5 best debit cards for shopping, international transactions, lounge access, rewards, and more.

- HDFC Easy Shop Platinum Debit Card
- HDFC Millennia Debit Card
- Axis Bank Burgundy Debit Card
- ICICI Coral Debit Card
- SBI Platinum Debit Card

#### Debit Cards can function in Two Ways :

- **Like an ATM card** for immediate withdrawals of cash.
- **Like a check** when buying an item. The money used to pay for the transaction is usually deducted from your account within a day or two depending on when the retailer presents the transaction for payment.

#### 13.3.1 Advantages And Disadvantages Of Debit Card :

##### Advantages of a Debit Card :

- **Easy to obtain.** Once you open an account most institutions will issue you a debit card upon request.
- **Convenience.** Purchases can be made using a contactless or chip-enabled terminal or by swiping the card rather than filling out a paper check.
- **Safety.** You don't have to carry cash or a checkbook.
- **Readily accepted.** When out of town (or out of the country), debit cards are usually widely accepted (to not have an interruption in service, make sure to tell your financial institution you're leaving your city).

##### Disadvantages of a Debit Card :

- **No grace period :** Unlike a credit card, a debit card uses funds directly from your checking account. A credit card allows you to borrow funds on credit, leaving disposable cash in your account.
- **Check book balancing :** Balancing your account may be difficult unless you record every debit card transaction.

- **Potential fraud :** Most financial institutions will try and protect their customer from debit card fraud. However, a customer could potentially be liable for a portion of fraudulent debit card transactions. Be sure to check with your financial institution to learn the details.
- **Fees :** Using your debit card for ATM transactions may be costly if the ATM is not affiliated with your institution.

## **13.4 DATA COMMUNICATION NETWORKS :**

### **Introduction :**

#### **Data Communication Networks :**

Data communications reduce the time it takes to move data from a place of origin to a computer and data from the computer to the site of use.

### **13.4.1 Components of Data Communications Networks :**

Various data transmission components are usually used in data communications. The components are considered to create a network when they work together to share resources. Different data communication components make up data communication, and it is made up of three parts.

#### **1. Transmission Devices and Interface Equipment :**

- Electrical signals and bit sequences are used to represent numbers and characters when data is conveyed over the communication line between computer equipment.
- A modem is a hardware or application that allows a computer to send data via a telephone or cable connection. Information saved on computers is stored digitally, but information sent via telephone lines is sent as analogue waves. Between these two versions, a modem transforms, and an interface device called a modem performs modem conversion between digital and analogue formats.

#### **2. Transmission Medium :**

Data must pass through some media during transmission when communicating between computers. Terrestrial, microwave, and satellite data communication systems are the most common.

##### **(A) Terrestrial Cables (Three Types) :**

- **Twisted – wire Pair :** Two insulated copper wires are twisted together to form a twisted pair.
- **Coaxial cable** is made up of an inner copper conductor that is kept in place by round spacers.
- **Optical Fibre :** Optical fibre has revolutionised communications technology. It has a data throughput of 2 gigabits per second. Fibre Optics allows for high-



speed, high – quality signal transmission. Electromagnetic interference has no effect. Data is sent by a laser beam through very thin glass or plastic fibres. The laser beam is the light source, which is powered by a high – speed, high – current driver.

**(B) Microwave systems :**

A microwave system is a set of equipment that transmits microwave data. Radios mounted high atop microwave towers are used to transmit microwave communications utilising a line of sight microwave radio technology in a conventional microwave system.

**(C) Communication Satellite :**

- A satellite is a body that travels around another body in a mathematically predictable orbit.
- A communication satellite is nothing more than a space – based microwave repeater station that aids in telecommunications, radio, and television, as well as internet applications.
- A repeater is a circuit that amplifies the signal it receives and then retransmits it. However, in this case, the repeater acts as a transponder, switching the broadcast signal's frequency range from the received one.
- Uplink frequency refers to the frequency with which the signal is transmitted into space, whilst Downlink frequency refers to the frequency with which the signal is sent by the transponder.

**3. Transmission Processors :**

Transmission processors are designed to improve data communication between two places. The following are some examples of communications processors :

- A message switcher is a device that stores and forwards data to several terminals over a single communication channel.
- A multiplexer sends several signals across a single communication channel at the same time.
- The front end Processors for the host computer that intercept and manage communication activity. A device that connects the CPU to the host computer. It frees the computer from communication responsibilities, allowing it to focus on application processing.

**Modes of Transmission :**

- Simplex – data is sent in only one direction (commercial radio).
- Half – duplex transmission sends data in both directions at the same time.  
WALKY TALKY WALKY

**What distinguishes RTGS from NEFT (National Electronic Funds Transfer) ?**

NEFT is an electronic financial transfer system that uses a Deferred Net Settlement (DNS) model. In other words, NEFT transactions are paid in batches, but in RTGS, each transaction is resolved separately. As a result, every transaction launched after a specified settlement / cut-off time in NEFT must wait until the next specified settlement time.

**What are the benefits of utilizing the NEFT system ?**

For cash transfer or reception, NEFT gives the following benefits :

- Availability every day of the year, 24 hours a day.
- Funds move to the recipient account in near – real – time and safe settlement.
- Pan-India coverage is provided through a wide network of bank branches of various sorts.
- Interest penalty provision for late credit or transaction returns.

**13.5 ROLE AND USES OF TECHNOLOGY UPGRADATION :****Introduction :**

The banking industry is the backbone of the Indian financial system, and it is beset by several challenges. One such driver is the information technology revolution. Technology assistance is critical for the banking sector's successful operation in today's world. We cannot imagine the banking industry's prosperity without IT and communication; it has expanded the banking sector's importance in the Indian economy. Technology plays a critical role in developing an efficient financial system that can adapt properly to the requirements of a rising economy.

**Role and uses of Technology Upgradation :**

In the banking industry, information technology refers to the application of sophisticated information and communication technologies, as well as computer science, to enable banks to provide better services to their customers in a secure, reliable, and affordable manner, while maintaining a competitive advantage over other banks. The financial sector recognizes the importance of technology since it provides banks with a competitive edge through effective client service. Technology has enabled banks to provide much more to their consumers, such as card and telephone access, 24-hour ATMs, credit card, debit card, and POS (Point of Sale) access, and anytime and anywhere banking. Thanks to technological advancements, customers now have global access to their accounts at their fingertips.

**Data and Message Transferring :**

- Electronic Mail
- Electronic Data Interchange (EDI)
- Corporate Websites
- Account services

- A node for commerce
- Financial Advice
- Dissemination of information
- Gateway to the Internet
- To highlight non-banking activities
- Selling financial products

### **13.6 MANAGEMENT INFORMATION SYSTEM (MIS) :**

A management information system is a computerized system used in an organization for decision-making, information coordination, control, analysis, and visualization. The study of management information systems in an organizational setting, including people, processes, and technology.

#### **Trends in Technology Development :**

Advances in software tools, computer hardware, and telecommunications have altered banks' focus away from data processing and toward computerization.

#### **Data Warehousing :**

The process of building and using a data warehouse is called data warehousing. This is built by combining data from a variety of heterogeneous sources to provide analytical reporting, organized and /or ad hoc queries, and judgement. Cleaning, integrating, and consolidating data are all aspects of data warehousing.

#### **Information from a Data Warehouse :**

Decision support systems can help you make better use of the data in your data warehouse. These technologies assist executives in efficiently and successfully using the warehouse. They may acquire information, evaluate it, and make judgments based on the information in the warehouse. The data collected in a warehouse can be applied to any of the following areas :

- Tuning Production Strategies : Product strategies may be fine – tuned by repositioning items and managing product portfolios by comparing quarterly or annual sales.
- Customer analysis includes examining a customer's purchasing preferences, purchasing time, budget cycles, and other factors.
- Data warehousing also aids in customer relationship management and environmental remediation, according to Operations Analysis. We may also use the data to examine business operations.

### **13.7 FUNCTIONS OF DATA WAREHOUSE TOOLS AND UTILITIES :**

The purposes of data warehouse tools and utilities are as follows :

- **Data extraction** entails acquiring information from several distinct sources.
- **Data cleaning** entails locating and resolving data problems.
- The activity of transforming data from a legacy format to a warehousing format is known as **data transformation**.
- **Data loading** involves sorting, summarizing, consolidating, confirming integrity, and creating indices and divisions.
- Updating data sources in the warehouse is known as **refreshing**.

### **What are Electronic Clearing Services (ECS)?**

It is a method of electronic cash transfer from one bank account to another via the clearing house mechanism. It comes in handy when making large payments from one account to many accounts or vice versa. The recipient must have an account with one of the banks at the ECS Centre.

### **What are some of the Pros of Data Mining ?**

Some of the advantages of data mining are :

- Data mining assists businesses in making lucrative changes to their operations and output.
- Compared to other statistical data applications, data mining is a cost – effective and efficient option.
- The decision – making process is aided by data mining.
- It may be integrated into both new and current platforms.

## **13.8 SUMMARY :**

Banks offer different kinds of services through electronic Banking. E- Banking provides different kinds of Services to their customers like Smart cards, ATM , Debit cards, Credit cards etc,. ATMs are easy to use and can be assessed by every individual if they are careful and educated enough to use them.

A credit card is a type of credit facility, provided by banks that allow customers to borrow funds within a pre – approved credit limit. It enables customers to make purchase transactions on goods and services. A debit card, also called plastic cash, is issued by banks and used to fund purchases in daily life. It is used to withdraw cash at ATMs and make other online and offline store purchases.

## **13.9 KEY WORDS :**

### **Swipe :**

Move it in a sweeping motion.

**Yellow Label :**

Set up for the purpose of E-commerce.

**Overspending :**

Spend more than the expected or allotted amount.

**Innumerable :**

Too many to be numbered or countless.

**Balance Transfer :**

A balance transfer involves moving outstanding debt from one credit card to another card—typically, a new one.

**Repayment :**

An amount of money that is paid back.

**Security :**

A set of guidelines that ensures safe online transactions.

**Precautions :**

Care taken in advance.

**Withdraw :**

To take back or away (or) withdraw money from the bank.

**Transactions :**

The exchange of products and services or the transfer of money, or the commitment to exchange goods and services in the future.

**Components :**

A part or element of something.

**Expenses :**

The cost incurred in or required for something.

**Safeguard :**

Something that protects and gives safety.

**13.9 SELF ASSESSMENT QUESTIONS :**

1. Define ATM.
2. Advantages and disadvantages of ATMs.
3. Advantages and disadvantages of Credit Card.

4. Advantages and disadvantages of Debit Card.
5. Data communication networks and its components.
6. What is the role and uses of technology upgradation?
7. Explain MIS.

**13.10 SUGGESTED BOOKS :**

1. Muraleedharan – Modern Banking : Theory and Practice, PHI.
2. Radhaswamy and Vasudev – Banking Theory and Practice, Vikas Publications
3. Satyadevi, C., Financial Services Banking and Insurance, S.Chand.

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