UNIT – 3
Introduction to E-commerce

What is E-commerce?

- Commonly known as Electronic Marketing.
- **“It consist of buying and selling goods and services over an electronic systems Such as the internet and other computer networks.”**
- “E-commerce is the purchasing, selling and exchanging goods and services over computer networks (internet) through which transaction or terms of sale are performed Electronically.
- **E-commerce is the use of the internet and the web to transact business.**
- More formally,digital enabled commercial transactions between and among organizations and individuals.

- E-commerce and digital marketing work together to breathe life into your business. They are complementary processes. Digital marketing brings attention to your brand. E-commerce allows you to actually sell.

History of E-commerce

- **1970s**: Electronic Funds Transfer (EFT)
- Used by the banking industry to exchange account information over secured networks

- **Late 1970s** and **early 1980s**: Electronic Data Interchange (EDI) for e-commerce within companies
- Used by businesses to transmit data from one business to another

- **1990s**: the World Wide Web on the Internet provides easy-to-use technology for information publishing.

Process of E-commerce

- A consumer uses Web browser to connect to the home page of a merchant's Web site on the Internet.
- The consumer browses the catalog of products featured on the site and selects items to purchase. The selected items are placed in the electronic equivalent of a shopping cart.
- When the consumer is ready to complete the purchase of selected items, he/she provides a bill-to and ship-to address for purchase and delivery

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- When the merchant's Web server receives this information, it computes the total cost of the order--including tax, shipping, and handling charges--and then displays the total to the customer.

- The customer can now provide payment information, such as a credit card number, and then submit the order.

Process of E-commerce

- When the credit card number is validated and the order is completed at the Commerce Server site, the merchant's site displays a receipt confirming the customer's purchase.

- The Commerce Server site then forwards the order to a Processing Network for payment processing and fulfillment.

Advantages of E-commerce

1.24x7 operation

2.Global reach

3.Cost of acquiring,serving and retaining customers

4.An extend enterprise is easy to build

5.Disintermediation

6.Improved customer service to your clients

7.Power to provide the 'best of both the worlds'

8.A technology based customer interface

9.The customer controls the interaction

10.Knowledge of customer behaviour

11.Network economics

1. 24x7 operation
2. Global reach
3. Cost of acquiring,serving and retaining customers:

   because of 24x7 operation and its global reach it is relatevily cheaper to acquire new customer over the net.

4. An extend enterprise is easy to build : The internet provides an effective way to extend the enterprise beyond the narrow confines of the organization. Tools like ERP(enterprise resource planning),SCM(suppy chain management and CRM (customer relationship management)

5. Disintermediation : One can directly approach the customers and suppliers , cutting down on the number of levels and in the process , cutting down the costs.
6. Improved customer service to your clients : Results in higher satisfaction and more sales.
7. Power to provide the 'best of both the worlds' : benifits the trditional business side by side with the Internet tool.
8. A technology based customer interface : Operationally , there is no direct human intervention during any transaction **,we have either face to face or screen to face** . thus 'screen-to-customer' interface in e-commerece market comes with a solution of reintroduce humans into the process, such as service representative available on demand for web users. If interface does not work properly it can effect the revnue of the organization.

9. The customer controls the interaction : The seller has much less power in the online environment due to the control and information flows that the online world puts in customer's hands
10. Knowledge of customer behaviour

Disadvantages of E-commerce

1. There could be software/hardware compatibility issue as some E-Commerce software may be incompatible with some operating system or any other component.

2. **Initial cost:** The cost of creating / building E-Commerce application in-house may be very high. There could be delay in launching the E-Commerce application due to mistakes, lack of experience.

3. **User resistance:** User may not trust the site being unknown faceless seller. Such mistrust makes it difficult to make user switch from physical stores to online/virtual stores.

4. **Security/ Privacy:** Difficult to ensure security or privacy on online transactions.

5. Lack of touch or feel of products during online shopping.

6. E-Commerce applications are still evolving and changing rapidly.

7. Internet access is still not cheaper and is inconvenient to use for many potential customers like one living in remote villages.

E-business

- Electronic Business (E-Business) is the administration of conducting any business using internet, extranet, web and intranet.
- This would include buying and selling of goods or services using commercial transactions conducted electronically along with providing customer or technical support with the help of the internet.
- E-business is similar to E-commerce but it is more than just a simple act of buying and selling services or goods online. It is the method of utilizing digital information and advanced communication technologies to streamline different business processes – from the initial to implementation phase.
- E-commerce is a part of e-business

What are The Key Differences Between E-Commerce and E-Business?

- E-Business is not limited to just buying and selling products or services. Whereas E-Commerce is the name of buying and selling products/services with the help of the internet.
- E-Commerce is a main part of E-Business
- There is no need for an E-Business to have a physical presence. If the company has physical offices along with their online business activities then it can be referred to as E-Commerce.
- E-Commerce supports any kind of business transaction related to money, but E-Business includes monetary and allied activities.
- E-Commerce needs the internet to be able to communicate with their online customers from all over the world. E-Business can use the internet, intranet and extranet to be able to connect with the parties.

E-business Models

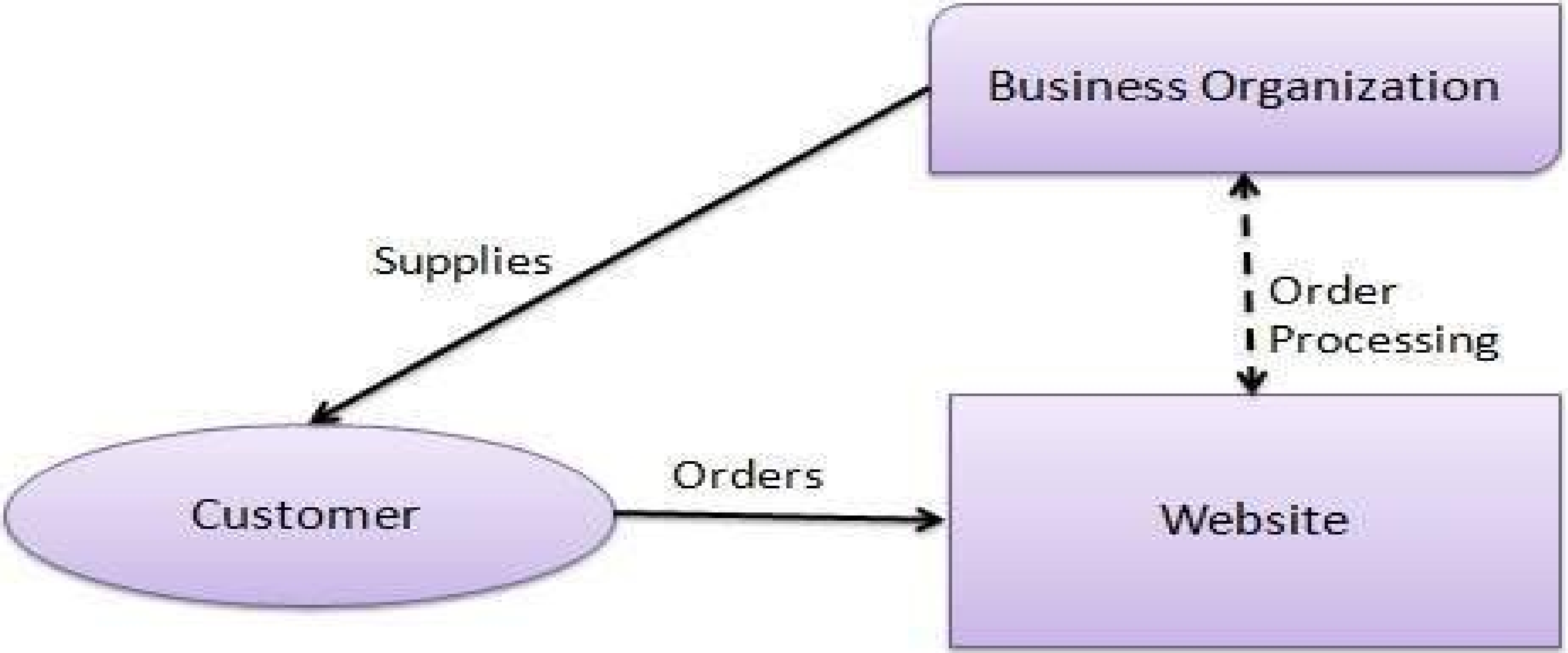
1.Business-to-Consumer(B2C)

1.Business-to-Business(B2B)

1.Consumer-to-Consumer(C2C)

Business-to-Consumer(B2C)

A website following the B2C business model sells its products directly to a customer. A customer can view the products shown on the website. The customer can choose a product and order the same. The website will then send a notification to the business organization via email and the organization will dispatch the product/goods to the customer.


Business Organization
Supplies
Order
Processing
Customer
Orders
Website

Business-to-Consumer(B2C)

Advantages of B2C :

1. Inexpensive costs, big opportunities
2. Globalization
3. Reduced operational costs
4. Customer convenience
5. Knowledge management

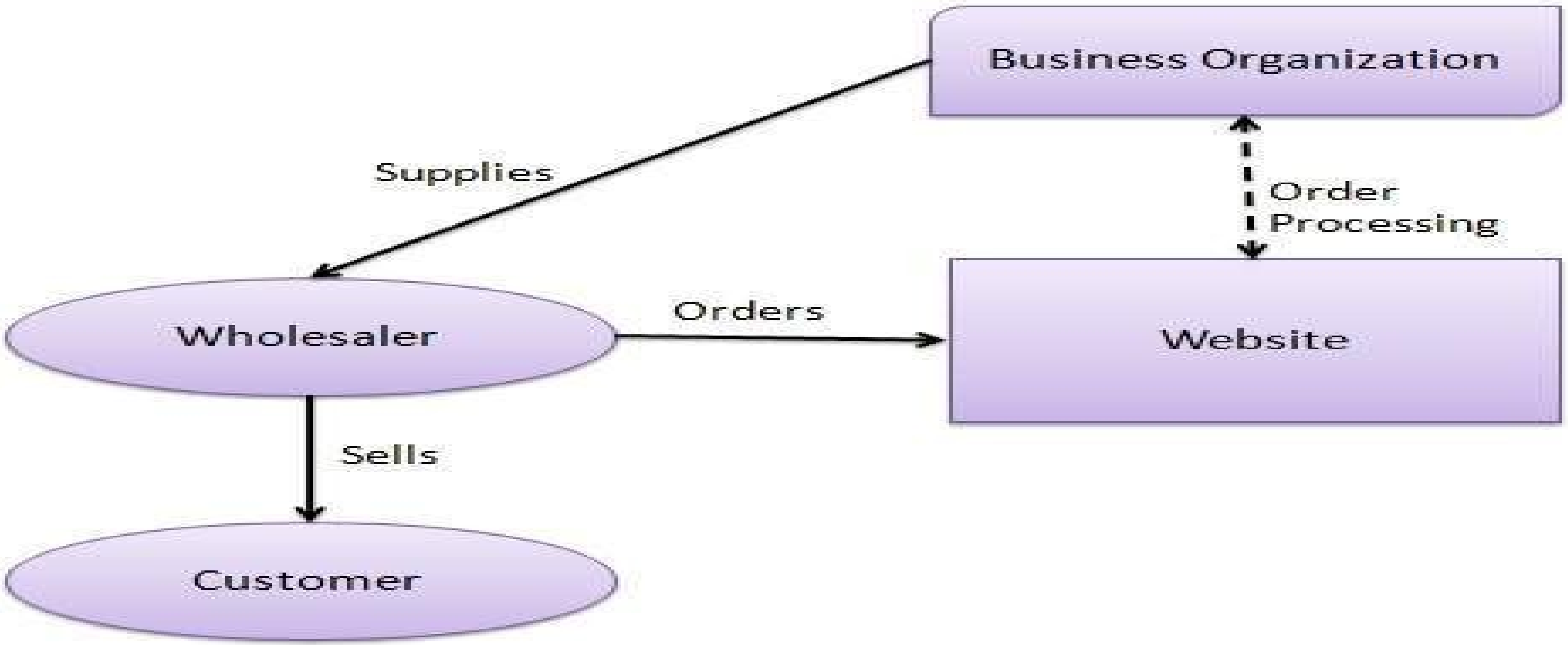
For example, Amazon was the first-ever B2C E-Commerce store.

Points of B2C Process

1. Visiting the virtual mall
2. Customer registers
3. Customer buys products.
4. Merchant processes the order
5. Credit card is processed
6. Operations management
7. Shipment and delivery
8. Customer receives
9. After-sales service

Business-to-Business(B2B)

A website following the B2B business model sells its products 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 endproduct to the final customer who comes to buy the product at one of its retail outlets.


Business Organization
Supplies
Order
Processing
Wholesaler
Orders
Website
Sells
Customer

Business-to-Business(B2B)

Advantages of B2B

1. Direct interaction with customers
2. Focussed sales promotion
3. Building customer loyalty
4. Scalability
5. Savings in distribution costs

Example :

- Intel selling Microprocessor to Dell
- Heinz selling Ketchup to McD.

Business-to-Business(B2B)-Transactions

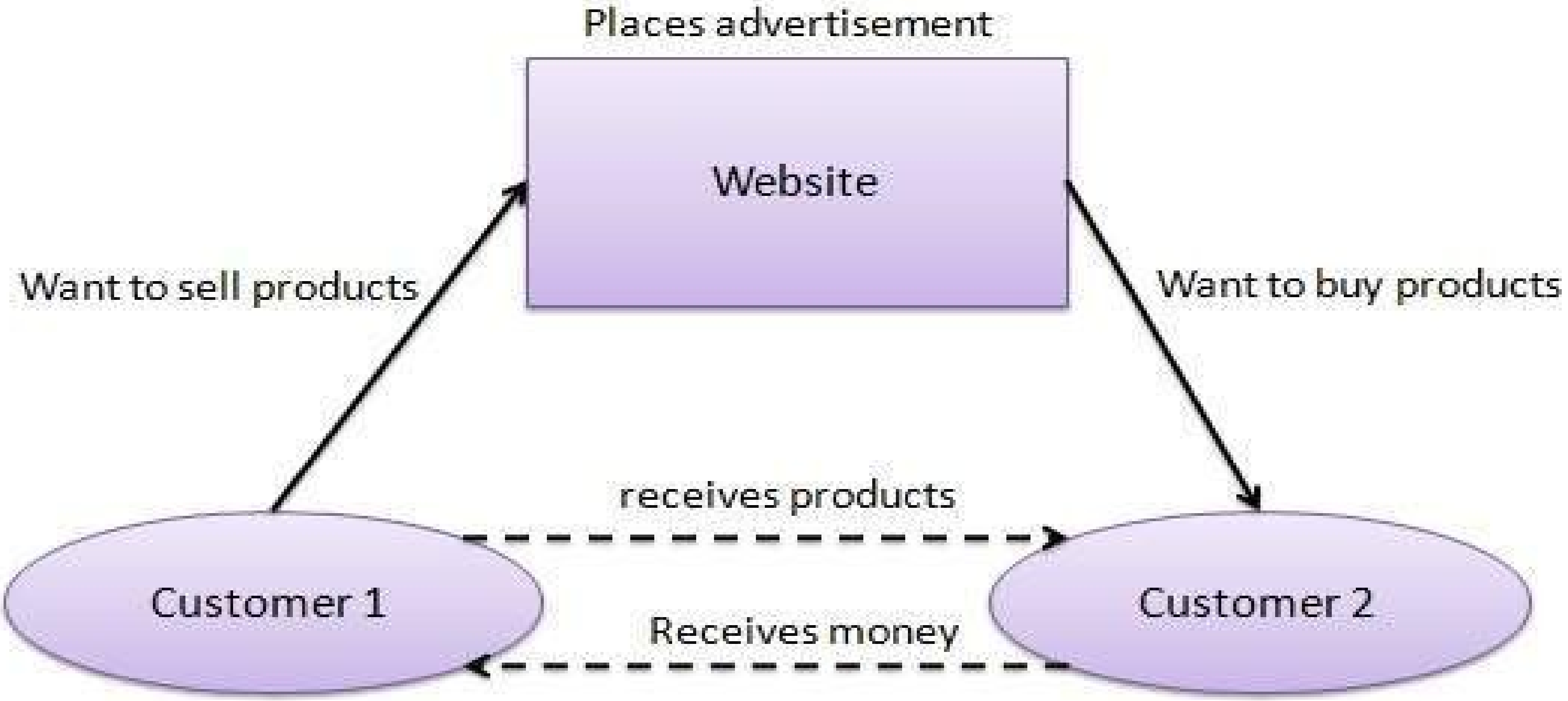
1. Review catalogues
2. Identify Specifications
3. Define requirements
4. Post request for proposals
5. Review vendor reputation
6. Select vendor
7. Fill out purchase orders
8. Send PO to vendor
9. Prepare invoice
10. Make payment
11. Arrange shipment
12. Organize product inspection and reception

Consumer-to-Consumer(C2C)

- C2C is simply commerce between private individuals or consumers.
- Consumer sell directly to other cosumers via
  - online classified ads and auctions
  - by selling personal services or expertise online.

Example :

- buying an iPod from eBay
- selling a Car to neighbour
- OLX


Places advertisement
Website
Want to sell products
Want to buy products
receives products
Customer 1
Customer 2
Receives money

E-Marketing

- If marketing is whatever you do to promote the sale of your products or services, then it should **include**:

1. **Market research** – from competitive information-gathering to industry awareness to soliciting customer opinions and preferences
2. **Publicity from press** releases to the positioning of your company and its offerings in the marketplace
3. Advertising that is **text-based** and **graphic-based**
4. **Sales**, including distribution and merchandising
5. Customer **service** and customer **support**.

Traditional-Marketing

Problems associated with the Traditional Market:

1. Traditional Marketing is often **expensive**.
2. Traditional Marketing can be a very **time-consuming process**.
3. Traditional marketing often has a “**hit and miss**” quality.

What is E-Marketing

- Electronic marketing or E-marketing is the use of electronic media and applications to conduct marketing research and communication activities.
- The term electronic marketing initially served as an extension of "Internet marketing" to address the growth of mobile technology and digital applications used in marketing.
- The terms E marketing , Internet Marketing, Online marketing are interchanged and frequently can be considered synonymous

Features

- Internet marketing allows global marketing facility.
- It is less expensive.
- It makes marketing easier.
- It increases the choice of products,services and sellers.
- Vast availability of information.

Internet marketing tools

- It includes Websites, social media and online advertisement.
- Use of social media.
- Marketing plan.
- Social media is the latest marketing buzz,by both online and offline marketing experts way to reach customers.
- A properly designed website is one of the most important marketing tools that an E. Marketing needs, because through that the customer will get the attraction to visit again and again.

E-marketing value chain

Customer acquisition (Pre-purchase support)	Customer support (during purchase)	Customer fulfilment (purchase dispatch)	Customer support (post purchase)

e-marketing thrives with the maintenance of strong relationship between the company and the customer . It is like a chain - the company acquires customers , fulfills their needs and offers support (before and after purchase) , and gains their confidence so that they return to it again.

Site Adhesion

1. **Content**

   A customer accesses a website for the content of that site. Initially a customer will want to navigate quickly to gain a clear understanding of the site's progression to more detailed information.

2. **Format**

   - The format of an organization's site is important with respect to the customer's technical sophistication.
   - Vendors need to create a balance between information provision and information delivery speed.
   - The selection of data format is crucial, as initially the goal is to create viewer interest and engage the viewer in a prolonged interaction.

3. **Access**

   Online data access depends on the bandwidth requirement. The clear rule in the initial interaction phase is to use as minimal a bandwidth as is feasible to facilitate as wide as audience as possible.

Metrics Defining Internet Units of Measurement

To measure parameters associated with the web and websites we have to assess two things

1. Advertising – how many people saw our banner ad?
2. Visitation – how many people came to our site?

Metrics Defining Internet Units of Measurement

Click-through captures	How many users click through to the next stage in the customer acquisition process?
Time Spent	How long did the viewer stay at the site and which items, pages or routes did the viewer select to navigate through the site?
Time Spent searching	Did the viewer use the 'site map' or 'search' feature, and if so for what and for how long?
Time Spent before click-through	How long did a viewer linger in the opening stages of the interaction and where?
E-mails and telephone calls	How many e-mails or calls did this section generate and on what issues?

ADVANTAGES OF E- MARKETING

1. E- MARKETING offers bottom-line benefits that tie in directly to the demands placed on the organization trying to make a transition into the new economy.
2. E- MARKETING can save money and help to strech the market budget.
3. E- MARKETING can save time.
4. E- MARKETING gives customers another way to buy.
5. E- MARKETINGg can be information-rich and interactive.
6. E- MARKETING erases the time and distance barriera that get in the way of conducting business transaction with customer in other countries.
7. E- MARKETING can lower barriers to entry and offer equal opprtunity for access.
8. E- MARKETING can be continuosly available.

Requirements of Digital Payment

1. Atomicity

Atomicity guarantees that either the user’s on– line payment transaction is completed or it does not take place at all. If the current on–line payment transaction fails then it should be possible to recover the last stable state. This feature resembles the transactional database systems, in which either a transaction is committed or rolled back.

2. Anonymity/Privacy

Anonymity suggests that the identity, privacy and personal information of the individuals using the on– line payment methods should not be disclosed. In some on– line payment methods, it is possible to trace the individual’s payment details. In case of purchases using Debit Card, it is possible to find out the purchase details as that information is registered at the vendor and the bank’s databases. So some on– line payment systems like

Debit cards are not anonymous systems. In some other payment systems, anonymity can be weak as the efforts to get the purchase details of the user can be more expensive than the information itself. There are privacy laws in several countries to guarantee the privacy of the user and protect the misuse of personal information by the financial institutions.

3. Scalability

As the on– line payment methods are getting more and more acceptance of the users, the demand for on– line payment infrastructure will also be increasing rapidly. Payment systems should handle the addition of users without any performance degradation. To provide the required quality of service without any performance degradation, the payment systems need a good number of central servers. The central servers are needed to process or check the payment transactions. The growing demand for the central servers, limits the scalability of the on– line payment systems.

4. Security

Security is one of the main concerns of the on– line payment methods and it is one of the crucial issues which decide the general acceptance of any on– line payment methods. Internet is an open network without any centralized control and the on– line payment systems should be protected against any security risks to ensure a safe and reliable service to the users. When users are paying on– line they want to be sure that their money transaction is safe and secure. On the other hand, banks and payment companies and other financial institutions want to keep their money, financial information and user information in a secure manner to protect it against any possible misuse.

5. Reliability

As in any other business activity, even in on– line payment methods, the user expects a reliable and an efficient system. Any on– line payment system would fail, despite of it's advanced technological features, if it fails to get the users acceptance and pass their reliability tests. There are many reasons, which can make the system unreliable to the users. Some of them are Security threats, poor maintenance and unexpected breakdowns.

6. Usability

Usability is an important characteristic of an interactive product like on– line payments. On–line payment systems should be user friendly and easy to use. Any on– line payment system with complicated procedures, complex payment process and other associated complications with the payment environment, can't get users acceptance. Poor usability of a web shopping or a payment method could also discourage on– line shopping. To make the online payments simple and user friendly, some of the on– line payment systems allow the users to make payments with minimum authorization and information inputs.

7. Inter operability

In on– line payment Technologies, different users prefer different payment systems. The different payment systems use different kinds of currencies and the payment systems should support interoperability between them. If a payment system is inter operable, then it is open and allows other interested parties to join without confining to a particular currency. In the real life situation, there should be some sort of mutual agreement between various on– line payment systems to provide the interoperability. Interoperability can be achieved by the means of open standards for data transmission protocols and infrastructure. An interoperability system can gain much acceptance and high level of applicability than individually operating payment systems.

Risk for E-payment System

1. **Credit risk:** There is risk to a transaction if a party cannot provide the necessary funds for a settlement to take place. This can occur if an originator goes bankrupt or returns come in after settlement. Weaknesses such as a inadequate originator credit analysis, elevate the potential for credit risk.

Risk in using Credit cards

Operational Risk :

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events.

Credit Risk:

Credit risk refers to the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do .The risk is primarily that of the lender and include lost **principal** and **interest**, **disruption** to cash flows, and increased collection costs.

Legal Risk:

Legal risk is a type of risks that means that a counterparty is not legally able to enter into a contract.

2. **Fraud risk**

- Fraud in commerce is called payment fraud and is basically any type of illegal or false transaction.
- eCommerce fraud is an illegal transaction performed on an eCommerce platform by a criminal or fraudster by using stolen payment information for online transactions without the account owner’s knowledge.
- It is also known as purchase fraud. It can be done by using a false identity, stolen credit card, fake cards, and details, false personal and card information, etc.

Types of Ecommerce Frauds

1) **Identity theft :** Identity theft or identity fraud takes place when an impostor obtains and uses personally identifiable and financial information of another person. This is the form of illegal impersonating. It is the unauthorized use of personal and financial data. This fraud not only affects customers but equally affects the merchant, as customers can place a refund request.

2) **Chargeback fraud :** This is also known as friendly fraud. In this type of fraud, the customer keeps the goods/products purchased online from the eCommerce shop but still asks for a refund stating purchase never made or payment being made twice or item was never received.

3) **Clean fraud :** This fraud is done with the stolen credit card from a genuine user and is used to make an online purchase. The stolen card and card holder’s information is used to commit the fraud which looks like a legitimate purchase made by verified customers.

4) **Phishing:** In phishing personal information of a genuine user like user id, card number, password, other credit card information is collected via a fraudulent SMS or an email and used to make an online purchase illegally or without the owner’s knowledge. In this type, the user generally gets an SMS or email requesting personal data or a false link to install the malware to obtain this personal data. The fraudster often pretends to be a trusted company or source to ask such information.

5) **Triangulation fraud:** In this type of fraud, the fraudster creates a fake online shop offering goods/ products at cheap prices. These webshops are used to collect credit card data from the customers who visit the site.

When the order is placed, the fraudster orders the product from the real website/merchant using the stolen credit card information and has sent that product to the customer. Fraudster gains the payment for the goods and the customer ends up paying twice. Once for the fraud store and once for the actual price to the real merchant.

3. **Compliance risk:**

- Compliance risk is an organization's potential exposure to legal penalties, financial forfeiture and material loss, resulting from its failure to act in accordance with industry laws and regulations, internal policies or prescribed best practices.
- Compliance risk is also known as integrity risk.
- An organization's failure to comply with applicable laws and regulations can affect its revenue, which can lead to loss of reputation, business opportunities and valuation.

Some common compliance risks include:

Corruption. ...

Employee Behavior. ...

Workplace Health and Safety. ...

Environmental Impact. ...

Quality. ...

Process. ...

Social Responsibility.

4. **Liquidity risk:**

- Liquidity risk is the risk of companies and individuals not meeting their short-term financial obligations, specifically because they’re unable to convert assets into cash without incurring a loss.
- Liquidity Risk’ means ‘Cash Crunch’ for a temporary or short-term period, and such situations generally have an adverse effect on any Business and Profit making Organization.

5.Opreational and Transaction Risk

Operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events. The main causes for operational risk can be:

- Inadequate Information Systems
- Breaches in internal controls
- Fraud
- Processing Errors

Transactional Risk: The common transactional risks of online dealings are:

A) Default on order – A seller may deny that the customer ever placed the order.

B) Default on delivery – Sometimes, goods may be delivered to the wrong address or goods other than ordered may be delivered to the buyer.

C) Default on payment – Sometimes, the seller does not get the payment for the goods supplied, whereas the customer claims that the payment has been made.

6. Reputational risk

Reputational risk is a threat or danger to the good name or standing of a business or entity. Reputational risk can occur in the following ways:

- Directly, as the result of the actions of the company
- Indirectly, due to the actions of an employee or employees
- Tangentially, through other peripheral parties, such as joint venture partners or suppliers

- Reputational risk is a hidden threat or danger to the good name or standing of a business or entity and can occur through a variety of ways.
- The biggest problem with reputational risk is that it can erupt out of nowhere and without warning.
- Reputational risk can pose a threat to the survival of the biggest and best-run companies and has the potential to wipe out millions or billions of dollars in market capitalization or potential revenues.

7. Strategic Risk :

- Strategic risk is the risk associated with failed business decisions.
- These types of risks affect overall business strategy, but sometimes they are necessary to reap the rewards.
- For example, a bank takes on strategic risk by offering credit, but it’s an inherent risk that is directly related to its business goals. Since strategic risk is all centred around “doing the right things,” it may be harder to identify than operational risks, which come down to “doing things right.”
- Strategic risks occur when businesses fail to meet the market’s needs.
- It can also be caused by externally because of market demand and the environment in which products get released.

Some examples of strategic risk include:

- Technological changes
- Senior management turnover
- Merger integration
- Stakeholder pressure
- Competitive pressure
- Consumer demand shifts
- Consumer preferences changes
- Regulatory changes