E-commerce

Introduction :

E-commerce, or electronic commerce, refers to the buying and selling of goods and services over the internet. It involves the use of electronic platforms, such as websites, mobile applications, and social media, to conduct transactions between businesses and consumers or between businesses. E-commerce has revolutionized the way businesses operate and has created new opportunities for entrepreneurs and consumers alike.

One of the primary benefits of e-commerce is that it offers a more convenient and efficient way to conduct business. Consumers can browse and purchase products from the comfort of their own homes, while businesses can reach a global audience without the need for a physical storefront. E-commerce has also enabled businesses to streamline their operations by automating many of the tasks involved in the sales process, such as inventory management, order processing, and shipping.

E-commerce has continued to grow in popularity and importance, particularly in light of the COVID-19 pandemic, which has led to a surge in online shopping as people seek to minimize in-person interactions. As a result, businesses that are able to adapt to the e-commerce landscape are likely to have a competitive advantage in the years to come.

Features:

Product catalog: An e-commerce platform should provide an easy way to create and manage a product catalog, including adding new products, editing existing ones, and categorizing them.

Shopping cart: A shopping cart is a tool that allows customers to add products they want to purchase and keep track of the items as they continue to browse the website.

Checkout and payment processing: A reliable checkout and payment processing system is essential for e-commerce success. Customers should be able to complete transactions quickly and easily using a variety of payment methods.

Shipping and order management: Once a customer places an order, the e-commerce platform should provide tools to manage the order, including tracking information, shipping options, and delivery status.

Customer accounts and loyalty programs: Many e-commerce platforms allow customers to create accounts, which can help businesses build relationships and loyalty. Additionally, loyalty programs can incentivize repeat purchases and encourage customers to refer others.

Marketing and analytics: An e-commerce platform should offer tools to help businesses market their products, such as email campaigns and social media integration. Additionally, analytics can help businesses

track customer behavior, identify trends, and improve their overall strategy.

Mobile optimization: With more people shopping on their mobile devices, it's essential that e-commerce platforms are mobile-optimized, with a responsive design that provides an optimal shopping experience on smartphones and tablets.

Advantages of E-commerce:

- E-commerce enables fast and secure shopping.
- It is making digitalized world.
- E-commerce also enables to choose different goods and services according to your choice.
- It is a simple way of selling and buying products and services.
- E-commerce replaced the paper work as all transactions are through internet today.
- It provides better management system, as it has a centralized database.
- E-commerce via internet covers a large number of customers worldwide.
- E-commerce has several payment modes.

Disadvantages of E-commerce:

- E-commerce has no universal standard for quality and reliability.
- E-commerce works through internet, it is possible that navigation on internet itself may be slow.
- Strong security is required in e-commerce as all transactions are through internet.
- There is high risk of buying unsatisfactory products through e-commerce.
- It uses public key infrastructure which is not safe.
- Customers also trap in banking fraud which is quite frequent.
- Hackers also try to get access of data or to destroy data in e-commerce.

Reason for Transacting online (Uses of E-commerce) :

1. **Online retail:** One of the most well-known uses of e-commerce is online retail, where businesses sell products directly to consumers through their online store, website, or mobile app.

1. **Digital products and services:** E-commerce is also commonly used for the sale of digital products and services, such as music, e-books, software, and online courses.

1. **Business-to-business transactions:** E-commerce can be used for B2B transactions, where businesses sell products or services to other businesses.

1. **Online marketplaces:** E-commerce marketplaces, such as Amazon and eBay, provide a platform for businesses and individuals to sell their products to a large audience.

1. **Auction sites:** Online auction sites, such as eBay, allow users to bid on and purchase items from other users.

1. **Online banking and financial services:** E-commerce is used extensively for online banking and financial services, including payment processing, bill payment, and money transfers.

1. **Online booking and reservations:** E-commerce is used for booking and reservations of flights, hotels, rental cars, and other travel-related services.

1. **Food delivery:** E-commerce platforms are used for online ordering and delivery of food from restaurants.
2. **Online advertising:** E-commerce is also used for online advertising, where businesses can advertise their products and services to a large audience.

Business Application of E-commerce:

- Conversational commerce: e-commerce via chat
- Digital Wallet
- Document automation in supply chain and logistics
- Electronic tickets
- Enterprise content management
- Group buying
- Instant messaging
- Newsgroups
- Online banking
- Online office suites
- Online shopping and order tracking
- Pretail
- Print on demand
- Shopping cart software
- Social networking
- Teleconferencing
- Virtual assistant (artificial intelligence)
- Domestic and international payment systems

Types of E-commerce

E-commerce, also known as Electronic Commerce, refers to the purchase and sale of goods and services through the Internet. The first online transaction occurred in 1994 when a guy sold a Sting CD to a friend via his website Net Market, an American retail platform. This is the first case of a consumer purchasing a product from a business over the World Wide Web, sometimes known as e-commerce. After that, e-commerce evolved to make it easier to locate and purchase products through online merchants and marketplaces.

E-commerce can be broadly classified into 4 types.

1. B2B Commerce

Both parties involved in e-commerce transactions are business firms, hence the name <u>B2B</u>, which stands for business-to-business.

The creation of utilities or the delivery of value requires the interaction of a business with a number of other business firms, which may be suppliers or vendors of various inputs, or they may be a part of the <u>channel</u> through which a firm distributes its products to consumers. For example, the production of an automobile requires the assembly of a large number of components, which are manufactured elsewhere, either locally or overseas.

2. B2C Commerce

B2C (business-to-customers) transactions involve business firms on one end and their <u>customers</u> on the other. Although online shopping is the first thing that comes to mind, it is important to remember that selling is the outcome of the<u> marketing process</u>. Marketing begins before a product is offered for sale and continues after the product is sold. As a result, B2C commerce entails a wide range of marketing activities such as identifying activities, promoting, and sometimes even delivering products that are carried out online.

3. C2C Commerce

C2C Commerce consists of the transactions taking place between two or more customers. For example, you could sell used books or clothes for cash or in exchange for goods. People can search for potential buyers all over the world because of e-commerce. Quikr, OLX, are such platforms where customers sell their goods and services to other customers.

Furthermore, e-commerce technology provides market system security to such transactions, which would otherwise be missing if buyers and sellers interact in the anonymity of one-to-one transactions. An excellent example of this can be found on eBay, where consumers sell their goods and services to other consumers. Several technologies have emerged to improve the security and robustness of this activity. For beginners, eBay allows all sellers and buyers to rate one another.

4. Intra B-Commerce

The interaction and dealing among various departments and persons within the firm is known as Intra B-Commerce. An intranet is used to interact and deal between various departments and firms within a firm. Intra B-Commerce has facilitated flexible manufacturing. For example, finance department may interact regularly with marketing department within a firm. Intra-B-commerce transactions are conducted for <u>Inventory</u> and <u>cash management</u>, reporting by subordinates to superiors, <u>human resource management</u>, <u>recruitment</u> and <u>selection</u>, and for<u> training, development, and education</u>. Nowadays, companies use VPN, which is, Virtual Private Network technology, which helps employees access the organisation's network and enable work from anywhere through network.

Types of E-commerce Business model:

There are <u> types of e-commerce models</u> that can describe almost every transaction that takes place between consumers and businesses.

1. **Business to Consumer (B2C):** When a good or service is sold to an individual consumer by a business, e.g., we buy a pair of shoes from an online retailer.
2. **Business to Business (B2B):** When a good or service is sold by a business to another business, e.g., a software-as-a-service is sold by a business for other businesses to use.
3. **Consumer to Consumer (C2C):** When a good or service is sold by a consumer to another consumer, e.g., we sell our old furniture on eBay to another consumer.
4. **Consumer to Business (C2B):** When a consumer's own products or services is sold to a business or organization, e.g., an authority offers exposure to their online audience in exchange for a fee or a photographer licenses their photo for a business to use.
5. **Business-to-government (B2G):** In this model, businesses sell products or services to government agencies through online portals or marketplaces.
6. **Government-to-business (G2B):** In this model, government agencies sell products or services to businesses through online portals or marketplaces.
7. **Government-to-consumer (G2C):** In this model, government agencies provide products or services directly to consumers through online portals or marketplaces.

Forces Behind E Commerce

The primary forces driving e-commerce are economic and marketing factors, technological advancements, and customer interaction and social shifts. These forces enable reduced costs, global market access, enhanced customer experiences through convenience and personalization, and a shift towards a more connected virtual marketplace.

Economic & Marketing Forces

- **Reduced Costs:**

E-commerce significantly lowers communication and transaction costs for businesses, making it more efficient to reach customers and suppliers.

- **Global Reach & New Opportunities:**

Businesses can access a worldwide customer base 24/7, creating new sales opportunities not available with traditional brick-and-mortar stores.

- **Enhanced Marketing & Customer Service:**

E-commerce allows for more efficient global promotion, personalized marketing, and cost-effective customer service.

Technological Advancements

- **Internet & Network Infrastructure:**

The development of the internet, PCs, and local area networks provided the foundation for e-commerce.

- **Digitization and Convergence:**

Advances in digitizing information, compressing data, and the convergence of multimedia and telecommunications have made communication more efficient and integrated.

- **Innovations in Platforms and Devices:**

The rise of mobile technology, virtual reality (VR), and other digital tools offers new ways to interact with customers and products, improving the user experience and sales.

Customer Interaction & Social Factors

- **Convenience:**

Customers benefit from the convenience of online shopping, which removes barriers of time and distance.

- **Interactivity & Personalization:**

E-commerce platforms allow for increased interactivity and personalized experiences, such as VR try-ons, which appeal to consumers seeking unique and tailored interactions.

- **Information Access:**

Customers gain easier access to information about prices, products, and services, fostering a more informed and potentially competitive market.

Dynamic WWW In E Commerce

In ecommerce, "www" stands for World Wide Web, which is the system of interconnected web pages accessible through the internet where e-commerce transactions and platforms reside. Businesses use the World Wide Web to create online stores, display products, process payments, and connect with global customers, turning the web into the foundation for online buying and selling.

Role of the World Wide Web in E-commerce

- **Information and Access:**

The WWW allows businesses to share information about their products and services with a vast audience.

- **Platform for Online Stores:**

E-commerce platforms and websites, such as Shopify or Amazon.in, are hosted on the World Wide Web, providing the infrastructure for online sales.

- **Global Reach:**

The WWW breaks down geographical barriers, enabling businesses to reach customers worldwide and allowing consumers to buy from anywhere at any time.

- **Transaction Facilitation:**

The web supports the transfer of data and money necessary for completing transactions, from browsing products to making secure payments.

- **Customer Engagement:**

Through websites and online marketplaces on the web, businesses can provide detailed product information, personalized shopping experiences, and customer support.

Internet in E Commerce

The internet is fundamental to e-commerce, providing the global, accessible, and digital platform necessary for buying and selling goods and services online. It enables virtual storefronts, global reach, online transactions, personalized marketing, and streamlined operations like payment processing and customer relationship management, making it essential for modern businesses and a key driver of the global economy.

How the Internet Enables E-commerce

- **Global Platform**:

The internet allows businesses to bypass geographical limitations and physical storefronts to reach a vast global customer base.

- **Virtual Storefronts**:

Businesses create websites and online applications to display products, manage inventories, and provide a shopping experience for customers from the comfort of their homes.

- **Online Transactions**:

The internet facilitates secure payment systems and digital checkout processes for online orders, handling everything from order placement to the transfer of funds.

- **Communication and Information Sharing**:

Businesses can use the internet for various communication methods, such as email and instant messaging, to interact with customers and manage internal processes.

- **Targeted Marketing**:

E-commerce platforms use the internet to gather information and deliver targeted marketing campaigns to reach specific consumer segments effectively.

- **Streamlined Operations**:

The internet allows for automation of many sales processes, including inventory management, order processing, and shipping, enhancing business efficiency.

Designing Building And Launching E Commerce Website

To design, build, and launch an e-commerce website, you must first define your business model and research your target audience and competitors. Then, you will choose an e-commerce platform, such as Shopify, WooCommerce, or Wix, and register a domain name. You'll design your store's look and user experience, add your products with high-quality photos, and set up secure payment gateways and shipping options. After rigorous testing, you can launch your site and begin marketing to attract customers.

1. Planning & Research

- **Define Your Business Model:** Determine how you will sell products and what makes your business unique.
- **Research Your Target Audience:** Understand your ideal customer's demographics, interests, and pain points.
- **Analyze Competitors:** Research other e-commerce sites in your niche to identify their strengths, weaknesses, pricing, and customer service strategies.

2. Platform & Technical Setup

- **Choose an E-commerce Platform:** Select a platform that suits your needs, such as Shopify for quick setup, Wix for a complete website builder, or WooCommerce for a WordPress integration.
- **Register a Domain Name:** Choose a unique and memorable domain name for your online store.
- **Set Up Hosting:** Your platform may include hosting, or you may need to select a separate hosting plan, especially if you're using WordPress and WooCommerce.

3. Design & Product Setup

- **Design Your Store:** Create a visually appealing and user-friendly design with clear navigation and a consistent layout across all devices.
- **Add Products:** Take high-quality product photos and write compelling product descriptions.
- **Set Up Payment Gateways:** Integrate secure payment processing options like Stripe or PayPal.
- **Establish Shipping & Logistics:** Configure your shipping options and delivery methods.

4. Launch & Marketing

- **Test Your Website:**

Thoroughly test your site's functionality, including the checkout process, on different devices.

- **Prepare for Launch:**

Create an "About Us" page, contact information, and clear return policies to build customer trust.

- **Market and Promote:**

Implement a marketing strategy to drive traffic to your new e-commerce store.

systematic approach involve decision regarding hardware and software selection

A systematic approach to hardware and software selection involves a defined process to ensure choices align with organizational needs, budget, and future goals, including requirements analysis, market research, defining evaluation criteria, vendor selection, and a trade-off analysis between performance, cost, and complexity. Key factors include functionality, user needs, integration, cost, security, and scalability, often managed by a cross-functional steering committee to achieve a well-functioning and cost-effective system.

1. **Requirements Analysis**:
   - Identify the specific business, user, and technical needs that the hardware and software must address.
   - Define what functions the system must perform and consider future needs like scalability, security, and performance.
   - Deliverable: A requirements specification document.

1. **Market Research**:
   - Explore available hardware and software solutions from different vendors.
   - Identify potential technologies, review case studies, vendor whitepapers, and industry benchmarks.

1. **Establish Evaluation Criteria**:
   - Define clear criteria to evaluate potential options, including functionality, ease of use, scalability, integration capabilities, reliability, performance, and cost.
   - Ensure the selected hardware supports the chosen software and existing applications.

1. **Vendor and Solution Selection**:
   - Shortlist vendors based on preliminary evaluations and preliminary research.
   - Evaluate options, whether custom-built solutions or off-the-shelf packages, considering speed and cost trade-offs.

1. **Trade-off Analysis**:
   - Perform trade-off analyses to balance factors like performance vs. power consumption, hardware cost vs. software complexity.
   - Ensure the final decision provides an optimal return on investment.

1. **Implementation and Monitoring**:
   - Plan for user training and changeover methods to manage personnel reactions to the new system.

- A steering committee with representatives from affected departments should oversee the process and monitor operations.

Outsourcing Vs In House Development Of A Website

Outsourcing involves hiring an external company to develop your website, offering a global talent pool, cost-effectiveness, and faster development for specific projects, while in-house development means hiring a dedicated internal team for greater control, improved communication, and stronger cultural alignment. The best choice depends on your budget, timeline, project complexity, and need for direct control versus access to specialized, readily available expertise.

Choose Outsourcing When:

- **Cost is a major factor:**

Outsourcing can reduce labor costs and allow you to "grow on a budget".

- **You need specialized skills quickly:**

Outsourcing provides access to a global talent pool with specific required expertise for your project.

- **You have a tight deadline:**

Outsourced teams can often start quickly and scale up resources to meet rapid development needs.

- **You want to focus on your core business:**

Outsourcing can help you concentrate on your main business functions rather than managing a development team.

Choose In-House Development When:

- **You need direct control:**

You have greater oversight of the development process and can make immediate adjustments.

- **Communication is critical:**

Face-to-face or in-person communication with an in-house team can minimize misunderstandings.

- **Cultural alignment is important:**

An internal team is often more connected to your company's mission, values, and overall culture.

- **The project is highly complex or unique:**

For extremely complex projects requiring deep integration with your organization, an in-house team may be more suitable.