



NAME	
ROLL NUMBER	
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COURSE CODE	DCA3143
COURSE NAME	E-COMMERCE

## SET-I

### **Question 1.) Explain the goal of E-Commerce? Discuss its various types in detail. Provide the real-life business examples for each type.**

**Answer:-** The goal of E-Commerce (Electronic Commerce) is to facilitate the buying and selling of goods and services over the internet. It aims to streamline transactions, expand market reach, and enhance customer convenience. E-Commerce encompasses various types:

1. B2C (Business-to-Consumer): In this model, businesses sell products or services directly to individual consumers. Example: Amazon, where consumers purchase a wide range of products online.
2. B2B (Business-to-Business): E-Commerce between businesses involves transactions of goods or services among companies. Example: Alibaba, which connects manufacturers and wholesalers globally.
3. C2C (Consumer-to-Consumer): Here, individual consumers sell products or services to other consumers through online platforms. Example: eBay, where individuals auction or sell items to fellow consumers.
4. C2B (Consumer-to-Business): In this model, individuals or consumers offer products or services to businesses. Example: Freelance platforms like Upwork, where individuals provide services to companies.
5. P2P (Peer-to-Peer): P2P E-Commerce connects individuals for sharing or renting assets or services. Example: Airbnb, which allows homeowners to rent their properties to travelers.
6. G2C (Government-to-Consumer): Governments provide services or information to citizens through online platforms. Example: Online tax filing systems like IRS in the U.S.
7. **\*\*G2B (Government-to-Business)\*\***: Governments interact with businesses, offering services, licenses, or regulatory information online. Example: Government procurement portals for businesses.

Each type of E-Commerce serves distinct purposes, catering to a wide range of transactions and industries, contributing to the global digital economy's growth and diversity.

## **Question 2.) What is reference model? Explain its various types and functionality in detail.**

**Answer:-** A reference model is a conceptual framework or blueprint used in various fields to standardize and provide a common structure for understanding and discussing complex systems or processes. In the context of computer networking and communication, reference models are used to define the functions and interactions of various network components. Two prominent reference models are the OSI (Open Systems Interconnection) model and the TCP/IP (Transmission Control Protocol/Internet Protocol) model:

### 1. OSI Model:

- **Functionality:** The OSI model divides network communication into seven layers, each with specific functions. These layers, from the bottom up, are Physical, Data Link, Network, Transport, Session, Presentation, and Application.
- **Types:** The OSI model has influenced various networking protocols and technologies. It serves as a guide for designing and understanding network architectures.
- **Key Role:** It helps in standardizing network communication by providing a clear framework for developing and troubleshooting network protocols and devices.

### 2. TCP/IP Model:

- **Functionality:** The TCP/IP model, used as the foundation for the internet, comprises four layers: Network Interface, Internet, Transport, and Application.
- **Types:** It's the basis for the modern internet and most networking protocols today.
- **Key Role:** The TCP/IP model simplifies networking by emphasizing practicality, making it easier to implement and manage complex networks.

Both models help in designing, implementing, and troubleshooting networks by breaking down the communication process into manageable layers, promoting interoperability, and guiding the development of networking protocols and technologies. The choice between them depends on the specific requirements and context of the network being designed or analyzed.

**Question 3.) Perform a comparative study of traditional and modern marketing. The comparison must include at least 5 points against each type. Out of this at least one case study for both must be included.**

**Answer:- Traditional Marketing:**

1. Medium: Traditional marketing relies on offline channels such as print media, radio, TV, and direct mail.

2. Reach: It often has a local or limited reach, making it challenging to target specific demographics effectively.

3. Cost: Traditional marketing can be expensive, especially for advertising on prime-time TV or full-page magazine ads.

4. Feedback: Gathering customer feedback is slower and less interactive, making it challenging to adapt campaigns in real-time.

5. Case Study: Coca-Cola's "Share a Coke" campaign in 2014, which printed popular names on their bottles, creating a personalized experience for customers.

**Modern Marketing:**

1. Medium: Modern marketing leverages digital channels like social media, email, content marketing, and influencer partnerships.

2. Reach: It has a global reach, enabling businesses to target specific demographics with precision through data-driven strategies.

3. Cost: Digital marketing is often more cost-effective, with options for various budget sizes, including pay-per-click advertising.

4. Feedback: Real-time data analytics and customer engagement on social platforms allow for quick campaign adjustments and customer interaction.

5. Case Study: Airbnb's Instagram campaign, #WeAccept, in 2017, which addressed social issues and conveyed the company's commitment to inclusivity, generating widespread support and positive brand image.

In conclusion, traditional marketing relies on offline, costly, and less interactive methods, while modern marketing uses digital channels for a wider reach, cost-efficiency, real-time feedback, and adaptability. The case studies demonstrate how each approach can impact a brand's image and customer engagement. Today, a blend of both traditional and modern marketing methods is often the **most effective** strategy.

## SET-II

**Question 4.) What is the benefit of e-payment system in modern e-commerce? Explain at least 4 modern payment methods in detail.**

**Answer:- Benefits of E-Payment Systems in Modern E-Commerce:**

**1. Convenience:** E-payment systems offer unparalleled convenience for both customers and businesses. Shoppers can make purchases from anywhere with internet access, 24/7, eliminating the need to visit physical stores or banks. This convenience leads to increased sales and customer satisfaction.

**2. Security:** Modern e-payment methods come with robust security measures like encryption and multi-factor authentication, reducing the risks of fraud and unauthorized transactions. This fosters trust among customers.

**3.Speed and Efficiency:** Electronic payments are processed much faster than traditional payment methods like checks, reducing transaction times and enabling quicker order fulfillment.

**4.Global Reach:** E-payment systems transcend geographical boundaries, allowing businesses to serve customers worldwide, expanding their market and revenue potential.

### **Modern Payment Methods in Detail:**

#### **1.Credit/Debit Cards:**

- Description: Customers enter card details online to complete transactions. The payment is processed through a payment gateway.
- Benefits: Widely accepted, secure, and familiar to customers.
- Example: Visa, MasterCard.

#### **2.Mobile Wallets:**

- Description: Users link their bank accounts or credit cards to mobile apps like Apple Pay, Google Pay, or Samsung Pay, enabling them to make in-store and online payments via their smartphones.
- Benefits: Speed, security, and ease of use.
- Example: Apple Pay.

#### **3. Digital Payment Platforms:**

- Description: Services like PayPal and Square Cash facilitate online money transfers between individuals and businesses. Users can link their bank accounts or cards to these platforms.
- Benefits: Versatile for online transactions and person-to-person payments.
- Example: PayPal.

#### **4. Cryptocurrency:**

- Description: Digital or virtual currencies like Bitcoin and Ethereum are decentralized and offer anonymity. Customers can make purchases using cryptocurrency wallets.
- Benefits: Lower transaction fees, global accessibility, and potential for investment.
- Example: Bitcoin.

E-payment systems enhance the efficiency, security, and accessibility of transactions in modern e-commerce, contributing to the growth and globalization of online businesses. Businesses should consider offering multiple payment options to cater to diverse customer preferences.

**Question 5.) Explain the importance of supply chain management for e-commerce. Provide the explanation with the help of any suitable case study from modern e-commerce.**

**Answer:- Importance of Supply Chain Management for E-commerce:**

Supply chain management (SCM) is critical for e-commerce businesses due to its profound impact on customer satisfaction, cost efficiency, and overall success. It involves planning, optimizing, and controlling the flow of goods, information, and finances from suppliers to manufacturers to end customers. Here's why SCM is vital in e-commerce:

- 1. Customer Satisfaction:** Efficient SCM ensures timely order fulfillment, accurate delivery, and effective returns management. This leads to improved customer experiences and loyalty.
- 2. Cost Efficiency:** Effective SCM helps reduce operational costs by optimizing inventory levels, minimizing shipping expenses, and streamlining processes.
- 3. Competitive Advantage:** E-commerce is highly competitive. SCM allows businesses to differentiate themselves by offering faster shipping, better inventory management, and superior service.
- 4. Inventory Management:** SCM enables businesses to maintain optimal inventory levels, reducing the risk of overstocking or stockouts, which can lead to lost sales or excess costs.
- 5. Scalability:** As e-commerce businesses grow, SCM helps manage increased complexities and volumes, ensuring operations remain efficient and cost-effective.

**Case Study: Amazon**

Amazon, one of the world's largest e-commerce companies, exemplifies the importance of SCM. Their success is underpinned by a robust supply chain.

- 1. Fulfillment Centers:** Amazon has built a vast network of fulfillment centers globally. These strategically located warehouses ensure quick delivery to customers, reducing shipping times and costs.
- 2. Inventory Management:** The company uses advanced algorithms and data analytics to forecast demand accurately. This allows them to maintain optimal inventory levels, reducing carrying costs.
- 3. Delivery Innovations:** Amazon introduced initiatives like Amazon Prime for fast, free shipping, and innovative delivery methods like Amazon Flex and Amazon Lockers.
- 4. Vendor Relationships:** Strong relationships with suppliers and third-party sellers are crucial. Amazon collaborates closely with suppliers to ensure timely and quality product deliveries.
- 5. Returns Management:** Amazon's hassle-free returns process enhances customer satisfaction and trust, which is fundamental in e-commerce.

In summary, Amazon's case illustrates how effective supply chain management plays a pivotal role in e-commerce success, enabling rapid growth, cost efficiency, and customer-centric operations. It serves as a prime example of the competitive advantage a well-optimized supply chain can provide in the e-commerce industry.

## **Question 6.) Explain the architecture and working of wireless application protocol.**

**Answer:-** Wireless Application Protocol (WAP) was a technology developed to enable mobile devices with limited capabilities to access internet services and information. It had a specific architecture and working mechanism:

### **Architecture:**

- 1. Mobile Device:** This is the user's mobile phone or device, equipped with a WAP browser optimized for small screens and limited processing power.
- 2. WAP Gateway:** The gateway acts as an intermediary between the mobile device and the internet. It optimizes web content for mobile viewing, handles protocol translation, security, and content adaptation.
- 3. WAP Application Server:** This server hosts lightweight WAP applications designed for mobile devices, offering services like news, weather updates, and email access.
- 4. Internet/Intranet Services:** These are the services and content users want to access through their mobile devices, hosted on the internet or an organization's intranet.

### **Working:**

1. **Request:** A user initiates a request for a web page or a WAP application through the WAP browser on their mobile device. This request is sent to the WAP gateway.

2. **\*\*WAP Gateway:** The gateway performs several functions:

- It checks the device's capabilities using user agent information.
- It forwards the request to the relevant WAP application server or internet/intranet service.
- Content adaptation may occur, converting HTML content into WML for mobile-friendly display.
- Security measures, like encryption and authentication, may be applied.
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3. **WAP Application Server or Internet/Intranet Service:** The requested content is generated or retrieved from the server or service.

4. **Response:** The content is sent back to the WAP gateway, which may further optimize it for the mobile device.

5. **Delivery to Mobile Device:** The WAP gateway delivers the optimized content to the user's mobile device, where it's displayed using the WAP browser.

6. **Interaction:** Users can interact with the content on their mobile device, such as clicking links or submitting forms, through the WAP browser.

In summary, WAP served as a bridge between mobile devices and the internet, simplifying web content for mobile consumption. While it's mostly obsolete today, it laid the foundation for modern mobile internet technologies, providing valuable lessons in content adaptation, security, and user experience optimization on mobile devices.