

## Module

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# CONSUMER ORIENTED E-COMMERCE

### E-Retailing

Electronic retailing, or E-tailing, is the process of selling goods and services to consumers through the internet or other electronic means. It involves conducting business transactions electronically rather than through physical storefronts or traditional brick-and-mortar shops. E-tailing leverages the capabilities of the internet to reach a wide audience and provide a platform for customers to browse, select, purchase, and receive products or services without the need to visit a physical store.

Electronic retailing has revolutionized the way businesses and consumers engage in commerce. In a world where the internet has become an integral part of daily life, electronic retailing has emerged as a dynamic and rapidly expanding avenue for buying and selling goods and services. This approach to retailing capitalises on the convenience, accessibility, and global reach that the digital age offers.

#### Examples:

- Amazon.com is the world's largest online retailer, providing consumer products and subscriptions through its website. Amazon's website shows the company generated more than \$280 billion in revenue in 2019 while posting more than \$11.6 billion in profit or net income. Other e-tailers that operate exclusively online and compete with Amazon include Overstock.com and JD.com.
- Alibaba Group (BABA) is China's largest e-tailer, which operates an online commerce business throughout China and internationally. Alibaba has adopted a business model that not only includes both B2C and B2B commerce, but it also connects Chinese exporters to companies around the world looking to buy their products. The company's rural Taobao program helps rural consumers and companies in China sell agricultural products to those living in urban areas. For the fiscal year 2020, Alibaba generated nearly \$72 billion in annual revenue while posting just under \$19.8 billion in profit.

### Definition of Electronic Retailing

Kirthi Kalyanam and Vanitha Swaminathan defines "Electronic retailing, or e-tailing, refers to the sale of goods and services over the internet. It encompasses both digital and physical products and has transformed traditional retailing by enabling consumers to shop from virtually any location at any time using a computer or a mobile device."

J. Christopher Westland and Theodore H. K. Clark defines "E-tailing involves transactions between businesses and consumers that use the Internet for delivery of information. This includes making inquiries and making purchases from suppliers' websites."

Anne T. Coughlan, Erin Anderson, Louis W. Stern, and Adel I. El-Ansary defines "Electronic retailing (e-tailing) is the sale of goods and services over the Internet. This mode of retailing can encompass various transaction types such as online shopping, mail order, and telephone order."

### Traditional retailing and E-Retailing

Traditional retailing refers to the conventional method of selling goods and services through physical brick-and-mortar stores. In traditional retailing, customers visit physical stores or outlets to browse products, make purchases, and interact with sales representatives or cashiers directly. This method of retailing has been the dominant approach for centuries and involves the establishment of storefronts where merchandise is displayed and sold to consumers. Traditional retailing typically involves face-to-face interactions between customers and store staff, allowing for tangible experiences where customers can see, touch, and try products before making purchase decisions.

Examples: Department stores, supermarkets, boutiques, specialty stores, etc.

Sl. No.	Basis	Traditional Retailing	E-Retailing
1.	Physical Presence	Requires a physical store presence.	It can be done entirely Online.
2.	Overhead Costs	It involves high overhead costs such as rent, utilities and staffing.	It requires fewer Overhead Costs.
3.	Customer Experience	It offers a more personal and interactive customer experience.	It provides Convenience and accessibility.
4.	Product Range	It has limited space for Inventory and Product display.	It offers a wide range of products and brands.
5.	Geographical Reach	It is limited to Local Customer Base.	It allows business to reach to a Global Customer Base.

### Types of E-Retailing

Electronic retailing encompasses various types of online commerce models that cater to different business strategies and consumer preferences. Here are some of the primary methods or types of electronic retailing:

- 1) **Business-to-Consumer (B2C) E-Commerce:** This is the most common form of electronic retailing, where businesses sell products and services directly to individual consumers. B2C e-commerce includes online stores, marketplaces, and brand websites. Examples include Amazon, Walmart, and individual brand websites like Apple or Nike.
- 2) **Consumer-to-Consumer (C2C) E-Commerce:** Individual consumers can sell products or services directly to other consumers through online platforms. Popular examples include

- eBay and Craigslist. C2C platforms facilitate transactions between individuals, allowing them to buy and sell used or unique items.
- 3) **Business-to-Business (B2B) E-Commerce:** While not as consumer-facing, B2B e-commerce involves the online sale of products and services between businesses. This can include wholesalers selling to retailers, manufacturers selling to distributors, and more. B2B e-commerce platforms streamline procurement processes and business transactions.
  - 4) **Drop shipping:** Online retailers don't keep the products they sell in stock. Instead, they purchase the items from third parties (often wholesalers or manufacturers) and have them shipped directly to the customer. This eliminates the need for inventory management.
  - 5) **Subscription-Based E-Commerce:** Businesses offer products or services on a recurring subscription basis. Customers pay a regular fee to receive products at set intervals. Examples include subscription boxes for cosmetics, snacks, books, and more.
  - 6) **Marketplaces:** Online marketplaces provide a platform for multiple vendors to sell their products or services. Customers can browse and compare offerings from various sellers in one place. Examples include Etsy (focused on handmade and unique items), eBay, and Alibaba.
  - 7) **Social Commerce:** This involves selling products directly through social media platforms. Businesses can set up shops on platforms like Facebook, Instagram, or Pinterest, allowing users to discover and purchase products without leaving the social network.
  - 8) **Mobile Commerce:** With the rise of smartphones, mobile commerce refers to buying and selling through mobile devices. It includes mobile-optimised websites, apps, and digital wallets for secure payments.
  - 9) **Direct-to-Consumer (DTC) E-Commerce:** Brands adopt this model to sell their products directly to consumers, bypassing traditional retail channels. This allows brands to control the customer experience and gather valuable data.
  - 10) **Brick-and-Click:** This hybrid model involves traditional brick-and-mortar retailers expanding into the online space. Customers can shop both in physical stores and on the retailer's website, creating an integrated shopping experience.
  - 11) **Flash Sales and Daily Deals:** These platforms offer limited-time deals on products or services, encouraging customers to make quick purchasing decisions. Groupon and Woot are examples of platforms that feature daily deals.
  - 12) **Digital Goods and Services:** This category includes the sale of digital products such as e-books, music, software, and online courses. Customers can download or access these goods immediately after purchase.

## Components of E-Retailing

- 1) **Electronic retailing:** E-tailing refers to the direct sale of products, information and service through virtual stores on the web which is designed around an electronic catalogue format and auction sites. There are thousands of storefronts or e-commerce sites on the Internet that are extensions of existing retailers or start-ups.

- 2) **Attractive business-to-consumer (B2C) E-Commerce portal:** The interfaces and navigation should be user friendly and pleasing. The site should have a strong sense of branding.
- 3) **Right revenue model:** Revenue model should be accurate and there is transparency in terms of service levels and pricing.
- 4) **Penetration of the Internet:** As the e-commerce portal is in addition to the existing brick-and-mortar infrastructure aimed to bring in customer loyalty. The retailer should keep in mind the local internet penetration for better success.
- 5) **E-Catalogue:** It is a database of products with prices and available stock. The retailer can provide value added service by giving price and feature comparison between products. This would enhance the value of the e-commerce portal for the customers. The retailer can indicate special benefits available to customers under the loyalty programme thus making the customer feel special.
- 6) **Shopping Cart:** The customers can select the products that they wish to purchase and fill their shopping cart. The Shopping Cart can be designed in a way that it could allow the customer to store their preference and previous purchase history for easy selection. This adds value to the shopping experience and save time. Finally, as in a real store, at the time of checkout, the system calculates the price to be paid for the products. The experience should be seamless and without errors.
- 7) **A payment gateway:** Customer makes payments through his/her credit card or E-cash. The payment mechanism must be fully secure.
- 8) **Support Services in E-Retailing:** The electronic retail business requires support services, as a prerequisite for successful operations. These services are required to support the business, online or offline, throughout the complete transaction processing phases. The following are the essential support services:
  - Communication backbone
  - Payment mechanism
  - Order fulfilment
  - Logistics

## Features of E-Retailing

The different features of e-tailing are as follows:

- E-tailers set up virtual storefronts on websites or online platforms where customers can browse through product catalogs, view descriptions, images, and prices, and make purchasing decisions.
- Consumers can shop from the comfort of their homes or virtually anywhere with an internet connection, allowing for 24/7 access to products and services.
- E-tailers can offer a wider range of products compared to traditional retailers due to the lack of physical space limitations.
- Online shoppers can easily compare prices across different websites, helping them find the best deals and discounts.
- E-tailers often employ data-driven techniques to personalize the shopping experience.

- recommending products based on a customer's browsing and purchase history.
- Online retailers provide various payment methods, including credit and debit cards, digital wallets, and other electronic payment systems.
- E-tailers use shipping and delivery services to send products directly to customers' specified locations, eliminating the need for customers to physically travel to a store.
- Customers can leave reviews and ratings for products, which can influence other shoppers' decisions.
- E-tailing allows businesses to reach a global customer base without the need for physical expansion into new markets.

## Advantages of E-Retailing

Electronic retailing involves the sale of products and services through digital platforms. The advantages of e-tailing are as follows:

1. **Price and selection:** Online shopping provides quick deals for many items with many different vendors. E-tailing provides the facilities of online price comparison which makes selection quite easy and fast.
2. **Opportunities to reach new markets:** E-tailing gives retailers an opportunity to reach new markets which is physically not possible.
3. **Provides home shopping experience:** E-tailing overcomes some limitations of the traditional formats.
4. **Extension to leverage:** For the existing retailers, it is an extension to leverage their skills and grow revenues and profits without creating new business.
5. **Valuable insights:** E-commerce software also traces the customers' activities on the internet. It enables e-tailers to gain valuable insights to the customers shopping behaviour.
6. **24 hours shopping:** Online stores are usually available 24 hours a day. Many customers who have internet access both at work and at home go for online shopping. Moreover, increasing fuel costs, large mall crowds and time constraints are motivating buyers to shop online. Retailers can get the order from any customer living any place at any time of the day. E-tailing removes the barriers of time and space.
7. **Reasonable cost:** E-commerce channels are definitely efficient and they are highly cost-effective retailers. Retailers do not have to pay a heavy price (rent) for shops in costly shopping malls.

## Disadvantages of E-Retailing

The disadvantages of electronic retailing:

1. **Lack of Tangibility:** Customers cannot physically touch or try out products before purchasing, potentially leading to dissatisfaction.
2. **Security Concerns:** Online transactions can be susceptible to hacking, identity theft, and fraud, raising security concerns for customers.
3. **Dependence on Technology:** Technical glitches, server outages, or website crashes can disrupt the shopping experience.
4. **Shipping Delays:** Customers may experience delays or issues with shipping, impacting their satisfaction.

5. **Returns and Exchanges:** The process of returning or exchanging products can be more complicated than with physical stores.
6. **Limited Personal Interaction:** Online shopping lacks the personalized assistance and human interaction available in physical stores.
7. **Digital Divide:** Not everyone has equal access to the internet, potentially excluding certain demographics.
8. **Privacy Concerns:** Customer data collection raises privacy issues and can lead to targeted advertising.
9. **Hidden Costs:** Additional charges for shipping, taxes, or fees might not be immediately apparent during the checkout process.
10. **Quality Assurance:** Customers may receive products that differ from what was presented online, leading to disappointment.

## Key success factors

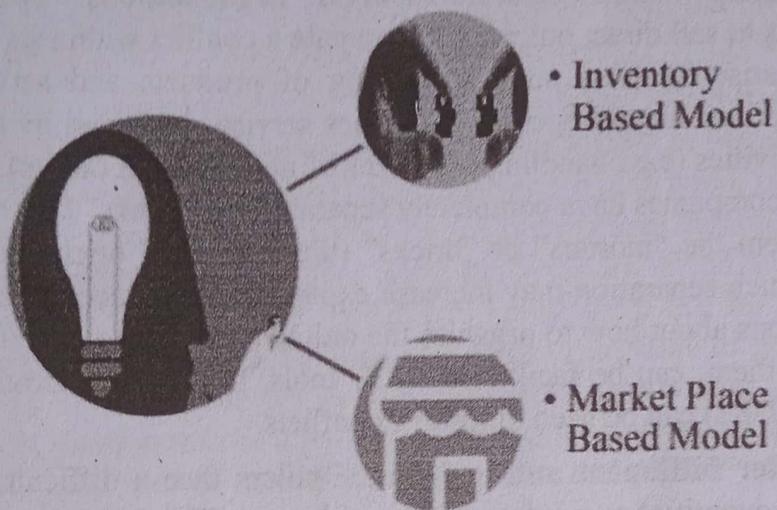
E-tailing, also known as online retailing or e-commerce, refers to the practice of selling products or services through digital channels, such as websites, mobile apps, social media platforms, or marketplaces. It is a rapidly growing method of commerce that has revolutionized the way people shop. In e-tailing, customers can browse, select, and purchase products or services online using a computer or mobile device. E-tailers typically maintain an online store where customers can view product information, images, and reviews, and make a purchase using a computer or mobile device. E-tailers typically maintain an online store where customers can view product information, images, and reviews, and make a purchase using a secure payment system. E-tailers can also leverage technology to offer personalized recommendations, optimise the shopping experience, and provide fast and reliable shipping.

The success of e-tailing depends on various factors, including:

1. **User-friendly website:** A well-designed and user-friendly website is essential for e-tailers. The website should be easy to navigate, have clear product descriptions and images, and provide a seamless checkout process.
2. **Mobile optimisation:** With the growing use of mobile devices, e-tailers need to ensure their websites are optimised for mobile devices, such as smartphones and tablets.
3. **Strong online presence:** E-tailers should maintain a strong online presence through social media, search engine optimisation (SEO), and other digital marketing strategies to attract and engage customers.
4. **Customer service:** Providing excellent customer service is critical for e-tailers to build customer loyalty and gain repeat business. This includes prompt and helpful responses to customer inquiries, fast shipping, and hassle-free returns.
5. **Competitive pricing:** E-tailers need to offer competitive pricing to remain competitive in the market. This may involve offering discounts, promotions, or price matching.
6. **Wide range of products:** E-tailers should offer a wide range of products to appeal to different customer segments and increase the likelihood of making a sale.
7. **Security and privacy:** E-tailers must ensure the security and privacy of customer

- information, including payment details and personal information, to build trust and credibility with customers.
8. **Efficient supply chain:** E-tailers should have an efficient supply chain to ensure timely delivery and avoid stockouts or overstocking.
  9. **Data analytics:** E-tailers should use data analytics to track customer behavior, preferences, and trends to inform marketing and product development strategies.
  10. **Innovation and Adaptability:** E-tailers need to be and adaptable to changing customer needs, advancements, and market trends to stay ahead of the competition.

## Models of E-tailing



1. **Inventory based model:** According to the FDI policy in India, "Inventory model of e-commerce means an e-commerce activity where inventory of goods and services is owned by e-commerce entity and is sold to the consumers directly." It includes the e-tailing activities where inventory of products and services is owned by e-tailers and it is directly sold to customers. The main feature of this model is end to end process i.e., from initiating from product purchase to managing logistics and finally dispatching the products.

**Example:** Alibaba, Jabong.

2. **Market place-based model:** According to the FDI policy guideline, "Marketplace model of e-commerce means providing of an information technology platform by an e-commerce entity on a digital and electronic network to act as a facilitator between buyer and seller." This model provides a platform where buyers and sellers do the transactions in efficient, transparent and trusted environment. Here, buyers can compare the prices and accordingly place the orders to the authorised sellers on the website. Majorly, e-tailers like Amazon, Paytm mall and Flipkart practice the marketplace-based model.

**Example:** When a buyer login to Amazon India and place an order to a registered seller, Amazon India act as a mediator here. Subsequently, the registered seller takes care of logistics and dispatching of the products to the customers.

## Challenges in E-tailing

The different challenges in e-tailing are as follows:

- I. Resolving channel conflict:** If a seller is a click-and-mortar (both web and physical presence) company, such as Levi's or GM, it may face a conflict with its regular distributors when it sells directly online. This is known as channel conflict. This situation can alienate the regular distributors. Channel conflict has forced some companies (e.g., Lego.com) to limit their B2C efforts. Others (e.g., some automotive companies) have decided not to sell direct online. An alternative approach is to try to collaborate in some way with the existing distributors whose services may be restructured. For example, an auto company could allow customers to configure a car online. It requires that the car be picked up from a dealer, where customers would arrange financing, warranties, and service. IT tools can facilitate resolution of channel conflict.
- II. Resolving conflicts within click-and-mortar organisations:** When an established company decides to sell direct online, it may create a conflict within its existing operations. Conflicts may arise in areas such as pricing of products and services, allocation of resources (e.g., advertising budget) and logistics services provided by the offline activities to the online activities (e.g., handling of returns of items bought online). As a result of these conflicts, some companies have completely separated the "clicks" (the online portion of the organisation) from the "mortars" or "bricks" (the traditional brick-and-mortar part of the organisation). Such separation may increase expenses and reduce the synergy between the two. The decisions about how to organise the online and off-line operations and whether or not to separate them, can be facilitated by IT tools. In addition, Group Decision Support System (Group DSS) can be used to resolve conflicts.
- III. Organising order fulfilment and logistics:** E-tailers face a difficult problem of how to ship very small quantities to a large number of buyers. This can be a difficult undertaking, especially when returned items need to be handled. IT-supported decision models can help with scheduling, routing, shipments, inventory management and other logistics-related decisions.
- IV. Determining viability and risk of online e-tailers:** Many pure online e-tailers faced the problems with customer acquisition, order fulfilment, and demand forecasting. Online competition, especially in commodity-type products such as CDs, toys, books, or groceries, became very fierce, due to the ease of entry to the marketplace. So a problem most young e-tailers face is to determine how long to operate while they are still losing money and how to finance the losses. In deciding on new EC initiatives, or on an entire dot-com company, a risk analysis is needed. A DSS modeling can be helpful in such cases.
- V. Identifying appropriate revenue models:** Many dot-com companies were selling goods at or below cost, with the objective of attracting many customers and advertisers to their sites. One early dot-com model was to generate enough revenue from advertising to keep the business afloat until the customer base reached critical mass. This model did not work. Too many dot-com companies were competing for too few advertising dollars, which went mainly to a small number of well-known sites such as AOL and Yahoo. In addition, there was a "chicken-and-egg" problem. Sites could not get advertisers to come if they did not have enough visitors. To succeed in e-commerce, it is necessary to identify appropriate revenue models.
- VI. Requirement to Change Business Process:** The process of procurement, storage and

logistics in e-businesses is different from that in traditional brick-store businesses. The e-retail organisation has to carefully redesign and integrate various processes to suit the new e-business. Traditional sections of departments and management hierarchy may pose hindrances and bottlenecks in the process of order processing and shipments. For example, the traditional business may require the goods to be present at the warehouse and inspected before being shipped to the customer. In electronic retailing, shipping of goods from one place to another to a customer would not be possible. The retailer may appoint a local supplier at the city where the customer resides and instruct the supplier to deliver the goods. This would require by passing certain business rules and a lot of faith on the local supplier. It would require business confidence that the supplier would follow the instructions and deliver the same product in good quantity and perfect quality. Merchandise planning and demand analysis is also difficult in e-retailing, as compared to traditional retail businesses. IT can play a great role in defining these processes and ensure compliances.

**VII. Legal Issues:** Proper laws have not yet evolved for Internet based transactions. Validity of e-mails, digital signatures and application of copyright laws is being checked by various government authorities. E-mail and digital signatures are now being recognised as valid for any legal purpose. Value Added Tax (VAT) is yet another area that creates problems. Taxes on goods and services are still an issue. Since the taxes are levied and shared by multiple government agencies at local, state or federal level, there are no clear rules to guide retailers. In e-retailing, the place of billing, the place of dispatch of goods and the place of delivery all differ. If these three places fall in different jurisdictions of governments, levy and submission of taxes would be a problem. IT needs to understand these implications and built in a proper system to take care of them and ensure compliance

**VIII. Security and Privacy:** Security is one of the major challenges in the digital world. Despite a lot of security arrangements, such as passwords and firewalls, we come across the news of website hacking and data pilferages. The Internet being on public domain is more susceptible to unauthorised peeping. People are suspicious about disclosing information regarding their credit cards and personal details on the Net because of a fear that they can be misused. Cyber criminals have exploited the Internet weaknesses and have broken into computer systems, retrieving passwords and banking information. Security of payment gateway is a major concern, which has to be taken care of by the retailer by putting up proper security layers. IT has to ensure proper established framework that can have multiple layers of security. IT should also ensure inter-operability between systems.

## E-Services

“E-services” typically refer to electronic services, which are services delivered or facilitated through digital channels, such as the internet or other electronic means. These services are often accessible online, allowing users to interact with them remotely without the need for physical presence.

### Features of E-Services

The features of E-Services are as follows:

1. **Accessibility:** E-services are accessible 24/7 from anywhere with an internet connection, allowing users to interact with them at their convenience.

2. **Convenience:** Users can access e-services from the comfort of their own homes or on-the-go using computers, smartphones, or other internet-enabled devices.
3. **Self-Service Options:** Many e-services offer self-service options, allowing users to perform tasks, transactions, or inquiries without the need for human intervention.
4. **Personalization:** E-services often provide personalised experiences tailored to the individual preferences and needs of users, such as customised recommendations or content.
5. **Automation:** E-services may incorporate automation to streamline processes and reduce manual intervention, improving efficiency and speed of service delivery.
6. **Security:** E-services typically employ security measures such as encryption, authentication, and data protection to ensure the confidentiality, integrity, and privacy of user information.
7. **Scalability:** E-services can scale to accommodate varying levels of demand, allowing them to handle large numbers of users or transactions without sacrificing performance.
8. **Integration:** E-services may integrate with other systems, platforms, or applications to provide seamless experiences and interoperability with existing infrastructure.
9. **Feedback Mechanisms:** Many e-services include feedback mechanisms such as ratings, reviews, surveys, or customer support channels to gather input and address user concerns.
10. **Transaction Tracking:** E-services often allow users to track the status of transactions, orders, or requests in real-time, providing visibility and transparency into the process.

## Categories of E-Services

E-services encompass a wide range of offerings across various industries and sectors, including:

1. **E-Commerce Services:**
  - **Online Retailing Platforms:** Websites and mobile apps where businesses sell products directly to consumers.
  - **Online Marketplaces:** Platforms that connect buyers and sellers, offering a wide range of products from various vendors.
  - **Digital Storefronts:** Websites or apps dedicated to specific brands or businesses showcasing and selling their products.
2. **E-Government Services:**
  - **Online Tax Filing:** Portals for individuals and businesses to file taxes electronically.
  - **Permit Applications:** Online platforms for applying for permits, licenses, or certifications.
  - **Public Records Access:** Websites providing access to government records, documents, and data.
  - **Online Voting:** Digital platforms for voter registration, absentee voting, and online voting in elections.

**3. E-Banking and Financial Services:**

- **Online Banking:** Internet banking portals and mobile apps for managing bank accounts, transferring funds, and paying bills.
- **Electronic Fund Transfers:** Services for transferring money electronically between accounts or financial institutions.
- **Online Investing:** Platforms for trading stocks, bonds, mutual funds, and other securities online.
- **Digital Payment Systems:** Payment gateways, digital wallets, and peer-to-peer payment platforms for making electronic payments.

**4. E-Health Services:**

- **Telemedicine Consultations:** Virtual healthcare consultations via video conferencing or chat.
- **Online Health Portals:** Websites and apps for accessing medical records, lab results, and health information.
- **Health Tracking Apps:** Mobile applications for monitoring health metrics such as fitness, nutrition, sleep, and medication adherence.
- **Remote Monitoring Systems:** Devices and platforms for remotely monitoring patients' health conditions, vital signs, and medical devices.

**5. E-Learning and Educational Services:**

- **Online Courses:** Platforms offering courses in various subjects, often with video lectures, quizzes, and assignments.
- **Virtual Classrooms:** Digital platforms for live or recorded lectures, discussions, and collaboration among students and instructors.
- **E-books:** Digital books and educational materials available for purchase or subscription.
- **Educational Apps:** Mobile applications for learning languages, skills, or specific topics.

**6. E-Entertainment Services:**

- **Streaming Services:** Platforms for streaming movies, TV shows, music, games, and other digital content on-demand.
- **Digital Content Creation Platforms:** Websites and apps for creating, sharing, and monetizing digital content such as videos, music, and artwork.
- **Virtual Events:** Online events, concerts, festivals, and conferences accessible via streaming platforms or virtual reality.

**7. E-Travel and Tourism Services:**

- **Online Travel Agencies:** Websites and apps for booking flights, hotels, car rentals, and vacation packages.

- **Travel Information Portals:** Websites providing travel guides, destination information, and travel planning tools.
- **Booking Platforms:** Platforms for booking transportation tickets, tours, activities, and attractions online.

#### 8. E-Marketing and Advertising Services:

- **Email Marketing:** Sending promotional emails and newsletters to subscribers.
- **Social Media Marketing:** Advertising and promotion on social media platforms like Facebook, Instagram, Twitter, and LinkedIn.
- **Search Engine Optimisation (SEO):** Strategies for improving website visibility and ranking in search engine results.
- **Online Advertising Campaigns:** Display ads, video ads, and sponsored content on websites, search engines, and social media platforms.

#### 9. E-Logistics and Supply Chain Services:

- **Online Order Fulfilment:** Digital platforms for managing orders, inventory, and shipping logistics.
- **Inventory Management:** Tools for tracking and managing inventory levels, stockouts, and reorder points.
- **Shipment Tracking:** Services for tracking the status and location of shipments in real-time.
- **Supply Chain Optimisation:** Software solutions for optimising supply chain operations, including procurement, production, and distribution.

#### 10. E-Ticketing and Event Management Services:

- **Online Ticket Sales:** Platforms for selling tickets to events, concerts, movies, sports games, and other activities.
- **Event Planning and Management:** Software for organising and managing events including ticketing, registration, scheduling, and attendee management.

### Web-Enabled services

Web-enabled services, also known as web-based services, leverage the internet to provide various functionalities and capabilities to users. These services operate through web browsers or specialized applications accessed via the internet. The key aspects of web-enabled services are:

1. **Accessibility:** Web-enabled services are accessible from anywhere with an internet connection, allowing users to access them using computers, smartphones, tablets, or other internet-enabled devices.
2. **User Interface:** These services typically feature a user-friendly interface accessible through web browsers, with intuitive navigation and interactive elements for ease of use.
3. **Functionality:** Web-enabled services offer a wide range of functionalities, including but not limited to:
  - **Communication:** Email, messaging, video conferencing, and collaboration tools.

- **Information Retrieval:** Search engines, news portals, online encyclopaedias, and knowledge bases.
  - **Transaction Processing:** E-commerce platforms, online banking, payment gateways, and financial management tools.
  - **Content Creation and Sharing:** Social media platforms, blogging platforms, content management systems (CMS), and file-sharing services.
  - **Productivity Tools:** Office suites, project management tools, cloud storage, and task management applications.
  - **Entertainment:** Streaming services, gaming platforms, digital media stores, and online forums.
  - **Education and Training:** E-learning platforms, virtual classrooms, online courses, and educational resources.
4. **Interactivity:** Web-enabled services often facilitate interactive experiences, allowing users to engage with content, perform actions, and communicate with others in real-time.
5. **Data Handling:** These services may involve the processing, storage, and retrieval of large volumes of data, necessitating robust data management and security measures to ensure confidentiality, integrity, and availability.
6. **Integration:** Web-enabled services may integrate with other systems, applications, or APIs to exchange data, share functionality, or provide interoperability with external platforms.
7. **Security:** Security is a critical aspect of web-enabled services, involving measures such as encryption, authentication, access control, and vulnerability management to protect against threats such as data breaches, cyberattacks, and unauthorised access.
8. **Scalability:** Web-enabled services must be designed to scale to accommodate growing user bases, increased data volumes, and fluctuating demands while maintaining performance and responsiveness.
9. **Cross-Platform Compatibility:** These services are typically designed to be compatible with various devices, operating systems, and web browsers, ensuring a consistent user experience across different platforms.
10. **Regulatory Compliance:** Web-enabled services may need to comply with legal and regulatory requirements related to data privacy, consumer protection, accessibility, and intellectual property rights.

Web-enabled services play a vital role in modern society, enabling communication, collaboration, productivity, commerce, entertainment, education, and more in the digital age.

## Matchmaking services

Matchmaking services in E-Services encompass various digital platforms or features that utilise algorithms, data analysis, or user-provided information to connect users with specific services or resources tailored to their needs or preferences. These services aim to facilitate efficient and personalized interactions between service providers and users in the digital realm.

1. **Service Matching Algorithms:** E-service platforms may employ algorithms to match users with service providers based on specific criteria such as location, availability, service type,

pricing, and user preferences. For example, platforms for finding freelancers, professionals (e.g., Upwork, TaskRabbit) use algorithms to match users with service providers based on their project requirements and skillsets.

2. **Personalized Service Recommendations:** Some e-service platforms offer personalized service recommendations based on user-provided information, past interactions, behaviour patterns. For instance, a streaming service might suggest movies or TV shows based on a user's viewing history, ratings, and preferences.
3. **Appointment Scheduling and Booking:** E-service platforms often provide tools for users to schedule appointments, book services, or make reservations online. These platforms may offer features such as calendar integration, real-time availability, and automated reminders to streamline the booking process and enhance user convenience.
4. **Customized Service Packages:** Certain e-service providers allow users to customize service packages according to their preferences or specific requirements. For example, platforms offering travel or vacation services may allow users to select individual components such as flights, accommodations, and activities to create personalized itineraries.
5. **Virtual Assistants or Chatbots:** E-service platforms may incorporate virtual assistants or chatbots to assist users with service-related inquiries, recommendations, or troubleshooting. These AI-driven tools can provide personalized assistance, answer frequently asked questions, and guide users through the service selection or booking process.

Matchmaking services in E-Services aim to optimise user experiences, increase service provider efficiency, and foster meaningful connections between users and service providers in the digital landscape. These services leverage technology to deliver personalized, convenient, and efficient solutions tailored to individual needs and preferences.

## Information-Selling on the web

Selling on the web, also known as e-commerce, has become an increasingly popular way for businesses to reach customers and generate revenue.

1. **Choosing the Right Platform:** Selecting the right platform to sell your products is crucial. You can opt for popular e-commerce platforms like Shopify, WooCommerce (built on WordPress), Magento, or BigCommerce. Each platform has its own features, pricing structures, and level of customisation.
2. **Setting Up Your Online Store:** This involves tasks such as choosing a domain name, designing your website, and organising your products into categories. Make sure your store has a user-friendly interface and is optimised for mobile devices.
3. **Product Listings and Descriptions:** Create compelling product listings that include high-quality images, detailed descriptions, pricing, and any relevant specifications. Clear and accurate product information helps customers make informed purchasing decisions.
4. **Payment Processing:** Set up a secure payment gateway to accept online payments. This typically involves integrating payment processors like Stripe, PayPal, or Square into your website. Ensure that your payment processing system is PCI-compliant to protect sensitive customer data.

5. **Shipping and Fulfilment:** Develop a strategy for shipping and order fulfilment. Determine shipping rates, choose shipping carriers, and establish policies for handling returns and exchanges. Consider offering free shipping or flat-rate shipping to attract customers.
6. **Marketing and Promotion:** Implement marketing strategies to drive traffic to your online store and increase sales. This may include search engine optimisation (SEO), social media marketing, email marketing, content marketing, and online advertising. Engage with your target audience and build relationships with potential customers.
7. **Customer Service:** Provides excellent customer service to build trust and loyalty. Offer multiple channels for customer support, such as email, live chat, and phone support. Respond promptly to customer inquiries and address any issues or concerns in a timely manner.
8. **Analytics and Optimisation:** Analytics tools to be used to track website traffic, conversion rates, and other key performance metrics. Analyse data to identify trends, understand customer behaviour, and optimise your marketing efforts. Continuously test and refine your strategies to improve your online store's performance.

## E- Entertainment

“E-entertainment” typically refers to electronic entertainment, which encompasses various forms of entertainment that are digitally mediated or delivered through electronic devices. This can include things like video games, streaming services, online videos, virtual reality experiences, and digital media content in general. The “E” often stands for “electronic” or “digital,” indicating that the entertainment is experienced through technology.

### Features of E-Entertainment

The features of e-entertainment are as follows:

1. **Accessibility:** E-entertainment can be accessed from anywhere with an internet connection, allowing users to enjoy entertainment on various devices such as smartphones, tablets, computers, and smart TVs.
2. **Interactivity:** Many forms of e-entertainment offer interactive elements that allow users to engage with the content in meaningful ways. This could include interactive storytelling, multiplayer gaming, or participatory online experiences.
3. **On-Demand Content:** E-entertainment platforms often offer on-demand access to a vast library of content, allowing users to choose what they want to watch, play, or experience at their convenience.
4. **Personalization:** E-entertainment services frequently use algorithms and user data to personalize recommendations and content suggestions based on individual preferences and viewing habits.
5. **Social Integration:** Many e-entertainment platforms integrate social features, enabling users to connect with friends, share content, and participate in online communities centered around their favourite entertainment.
6. **Variety of Content:** E-entertainment encompasses a wide range of content types, including movies, TV shows, music, video games, podcasts, live streams, virtual events, and more.

7. **Subscription Models:** Some e-entertainment platforms operate on subscription-based models, where users pay a monthly fee for access to a catalog of content without ads or with limited interruptions.
8. **Monetization Options:** E-entertainment creators and platforms may employ various monetization strategies, such as advertising, sponsorships, in-app purchases, premium memberships, or pay-per-view models.
9. **High-Quality Production Values:** E-entertainment content often features high production values, including HD or 4K video resolution, immersive audio experiences, and professional-grade graphics for games and virtual experiences.
10. **Cross-Platform Compatibility:** E-entertainment services are often designed to be compatible with multiple devices and operating systems, allowing users to seamlessly switch between different devices while enjoying a consistent experience.

## Auctions and other specialized services

Auctions and other specialized services in the context of e-entertainment can refer to various online platforms or features tailored to specific industries or interests.

1. **Online Auctions:** Platforms like eBay, Christie's, and Sotheby's host online auctions where users can bid on a wide range of items, including collectibles, art, antiques, jewellery, and memorabilia.
2. **Streaming Services:** Streaming platforms like Netflix, Hulu, Disney+, and Amazon Prime Video offer specialized services catering to entertainment preferences, such as movies, TV shows, documentaries, and original content.
3. **Gaming Platforms:** Gaming platforms like Steam, PlayStation Network, Xbox Live, and Nintendo E-Shop provide specialized services for purchasing and downloading digital games, accessing online multiplayer features, and participating in gaming communities.
4. **Music Streaming:** Services like Spotify, Apple Music, and Tidal offer specialized platforms for streaming music, creating playlists, discovering new artists, and accessing exclusive content.
5. **Live Streaming:** Platforms like Twitch, YouTube Live, and Facebook Gaming specialize in live streaming content, including gaming broadcasts, live events, concerts, podcasts, and talk shows.
6. **NFT Marketplaces:** NFT (non-fungible token) marketplaces like OpenSea, Rarible, and Foundation specialize in buying, selling, and trading digital collectibles, artwork, virtual real estate, and other unique digital assets.
7. **Online Courses and Tutorials:** Platforms like Udemy, Coursera, and Skillshare offer specialized services for accessing online courses, tutorials, and educational content on a wide range of topics, including art, music, gaming, and entertainment industry skills.
8. **Virtual Events:** Platforms like Eventbrite, Zoom, and Hopin specialize in hosting virtual events, including concerts, conferences, expos, meetups, and fan conventions, allowing participants to attend remotely from anywhere in the world.
9. **Fan Engagement Platforms:** Services like Patreon, OnlyFans, and Ko-fi provide specialized platforms for creators to monetize their content and engage directly with their fans through subscriptions, exclusive content, and personalized interactions.

- 10. AR and VR Experiences:** Platforms like Oculus, Steam VR, and PlayStation VR offer specialized services for accessing augmented reality (AR) and virtual reality (VR) experiences, including games, immersive storytelling, virtual tours, and interactive simulations.

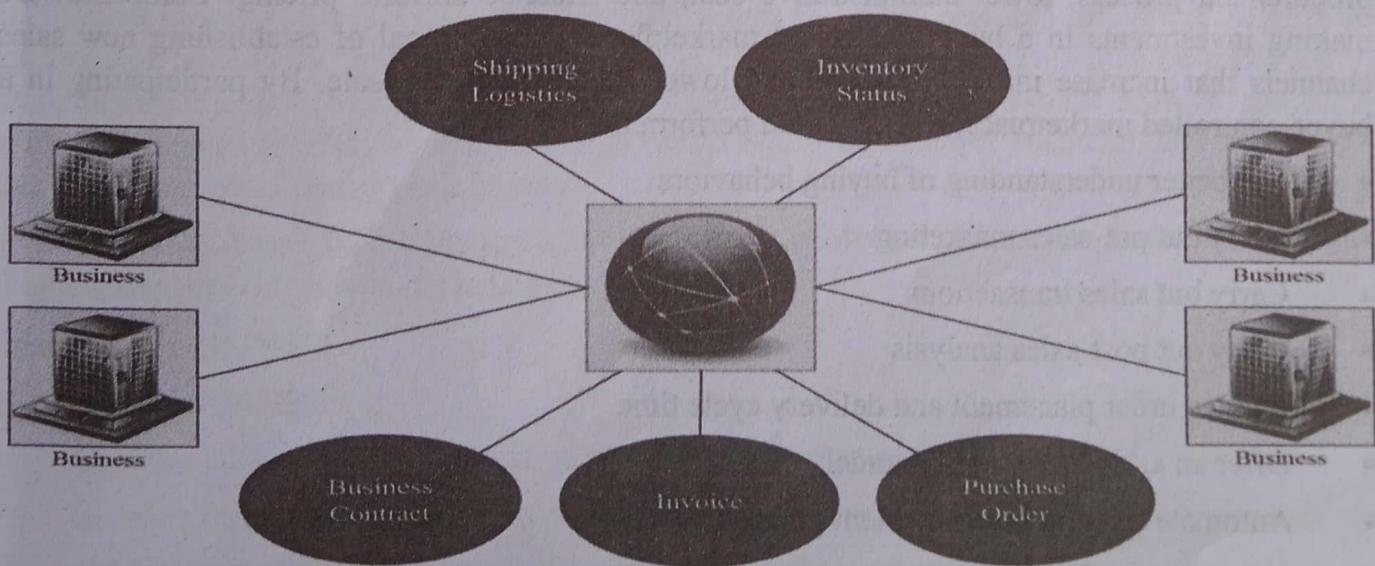
## Business-to-Business Electronic Commerce

Business-to-Business e-commerce holds electronic transactions among and between businesses. The Internet and reliance of all businesses upon other companies for supplies, utilities, and services has enhanced the popularity of B2B e-commerce and made B2B the fastest growing segment within the e-commerce environment. In recent years, extranets (more than one intranet) have been effectively used for B2B operations. B2B e-commerce creates dynamic interaction among the business partners; this represents a fundamental shift in how business will be conducted in the 21st century.

Oracle, PeopleSoft, SAP, Broad vision, Commerce One, 12 Technologies, Inc., Aspect Development, Baan, BEA Systems, Internet Capital Group, Vertical Net, Vignette are some of the major vendors of e-commerce and B2B solutions.

Companies using B2B e-commerce relationship observe cost savings by increasing the speed, reducing errors, and eliminating many manual activities. Walmart Stores is an example for B2B e-commerce. Wal-Mart's major suppliers (e.g., Proctor & Gamble, Johnson and Johnson, and others) sell to Wal-Mart Stores electronically; all the paperwork is handled electronically. These suppliers can access online the inventory status in each store and refill needed products in a timely manner.

In a B2B environment, purchase orders, invoices, inventory status, shipping logistics, and business contracts handled directly through the network result in increased speed, reduced errors, and cost savings. B2B e-commerce reduces cycle time, inventory, and prices and enables business partners to share relevant, accurate, and timely information. The result is improved supply-chain management among business partners. The following figure illustrates a generic B2B relationship.



## Major Models of Business-to-Business E-Commerce

The three major B2B e-commerce models are determined by seller, buyer or intermediary (third party) who controls the marketplace. Consequently, the following four marketplaces have been created. Each model has specific characteristics and is suitable for a specific business:

(1) **Seller-controlled marketplace:** This is the most popular type of B2B model for both consumers and businesses. In this model the sellers who provide to fragmented markets such as chemicals, electronics, and auto components come together to generate a common trading place for the buyers. While the sellers aggregate their market power, it simplifies the buyers search for alternative sources. Businesses and sometime consumers use the seller's product catalog to order products and services online.

One popular application of this model is e-procurement, which significantly streamlines the traditional procurement process by using the Internet and web technologies. E-procurement is radically changing the buying process by allowing employees throughout the organisation to order and receive supplies/services from their desktop with just a few mouse clicks. This results in major cost savings and improves the timeliness of procurement processes and the strategic alliances between suppliers and participating organisations. E-procurement may qualify customers for volume discounts or special offers. E-procurement software may make it possible to automate some buying and selling, resulting in reduced costs and improved processing speeds. The participating companies expect to be able to control inventories more effectively, reduce purchasing-agent overhead, and improve manufacturing cycles. E-procurement is expected to be integrated into standard business systems with the trend toward computerized supply-chain management.

(2) **Buyer-controlled marketplace:** This model is used by large companies with significant buying power or a consortium of several large companies. The consortium among Ford, General Motors and Daimler Chrysler is a good example of this model. In this model, a buyer or a group of buyers opens an electronic marketplace and invites sellers to bid on the announced products or RFQs (request for quotation). Using this model, the buyers are looking to efficiently manage the procurement process, lower administrative cost, and exercise uniform pricing. Companies are making investments in a buyer-controlled marketplace with the goal of establishing new sales channels that increase market presence and lower the cost of each sale. By participating in a buyer-controlled marketplace, a seller could perform the following:

- Get better understanding of buying behaviors
- Carry out pre-sales marketing
- Carry out sales transactions
- Carry out post-sales analysis
- Reduce order placement and delivery cycle time
- Offer an alternative sales channel
- Automate the order management process
- Automate the fulfillment process

**(3) Third-party exchanges marketplace:** A third-party-controlled marketplace model is controlled by a third party, not by sellers or buyers. A third-party controlled marketplace model offers suppliers a direct channel of communication to buyers through online storefronts. The interactive procedures within the marketplace contain features like product catalogs, request for information (RFI), rebates and promotions, broker contacts, and product sample requests. The marketplace makes revenue from the fees generated by matching buyers and sellers. These marketplaces are usually active either in a vertical or horizontal market.

A vertical market focuses on a specific industry or market. The following are some examples of this type: PaperExchange.com (supplies for publishers), PlasticsNet.com (raw materials and equipment), SciQuest.com (laboratory products), VerticalNet.com (Provide end-to-end e-commerce solutions that are targeted at distinct business segments).

A horizontal market concentrates on a specific function or business process. They provide the same function or automate the same business process across different industries. The following are some examples: Employee.com (employee benefits administration), CtSpace.com (web-based collaboration, business process management and document management solutions).

**(4) Trading partner agreements:** The main objectives of the trading partner agreements B2B e-commerce model are to automate the processes for negotiating and enforcing contracts between participating businesses. This relatively new model is gaining popularity.

This model is expected to become more common as extensible markup language (XML) and the E-business XML initiative (EbXML) become more accepted. This worldwide project is attempting to standardize the exchange of e-business data via XML, including electronic contracts and trading partner agreements. Using this model enables customers to submit electronic documents that previously required hard-copy signatures via the Internet. As soon as a law passed by the Turkish Government that gives digital signatures the same legal validity as handwritten signatures, this model will also be very popular in Turkey too.

The main advantage of XML (extensible markup language) over hypertext markup language (HTML) is that it can assign data type definitions to all the data included in a page. This allows the Internet browser to select only the data requested in any given search, leading to ease of data transfer and readability because only the suitable data are transferred. This may be particularly useful in m-commerce (Mobile commerce); XML loads only needed data to the browser, resulting in more efficient and effective searches. This would significantly lower traffic on the Internet and speed up delay times during peak hours.

**Example:** XML-based B2B trading partner agreements configurations can be business contracts, shipping logistics, inventory status or purchase order.

## Advantages of B2B

The advantages of B2B are:

- Business to Business is a global trade market, where you can buy anything at anytime.
- Suppliers to use the B2B site to respond to buyers comments and send additional catalogs.
- Replacing a purchasing bureaucracy with online links means savings.
- Improved efficiency in ordering material.

- Many fewer errors.
- Just-in-time environment that minimizes inventory sitting in the warehouse.
- Distributors, suppliers, retailers and other partners have formed on the electronic Union helps in trace the customer's sales history, product sales history;
- The electronic Union helps in determining the cost and terms of delivery, transportation arrangements, inventory location, transportation costs and inventory replenishment of the response time.

## Disadvantages of B2B

The disadvantages of B2B are:

- Explosive growth in the number of B2B websites to obtain cheaper and faster delivery, opened hundreds of websites to support the automotive, chemical, pharmaceutical, retail and other industries. E-commerce is not suitable for every business.
- B2B is a problem in this type of business will lead to a possible lack of credit. For example large electronics market owners may deliberately kill smaller competitors' transaction. Electronic public bidding itself may lead to dubious price signals.
- This process has often happened in the newspaper, telephone and face-to-face meetings. No one is given to ensure the success of B2B business model. Most sites charge a small fee per transaction as a percentage of revenue. Reason is competition. Moreover, the monopoly a special service providers and enterprises are building for ten of his own trading platform products and industries.
- Possible antitrust violations.
- Low barriers to entry for competitors.

## Review Questions

### Section A

1. What is Traditional Retailing?
2. What is E-Retailing?
3. Define E-Retailing.
4. What is Inventory based model?
5. What is Market place-based model?
6. What is E- Entertainment?
7. What do you mean by E-Services?

### Section B

1. Explain the types of E-Retailing.
2. Explain the components of E-Retailing.
3. Explain the advantages and disadvantages of E-Retailing.

4. Differentiate between Traditional Retailing and E-Retailing.
5. Explain the Challenges and features in E-Retailing.
6. Explain the features of E-Services.
7. Explain the features of E-Entertainment.
8. Explain the key success factors of E-Retailing.

**Section C**

1. Briefly explain Business to Business Commerce and its components.
2. Briefly explain the Models of E-Retailing.
3. Briefly explain the Categories of E-Services.
4. Briefly explain the Web-Enabled services and Match making services.
5. Briefly explain the Information-Selling on the web.
6. Briefly explain the Auctions and other specialized services.