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# UNIT 12 E-COMMERCE AND M-COMMERCE

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## 12.0 OBJECTIVES

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After studying this unit, you should be able to:

- define the nature and concept of e-commerce;
- explain the various types of e-commerce;
- differentiate between e-commerce and e-business; and
- describe the concept of M-commerce, its advantages, disadvantages, application, and services.

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## 12.1 INTRODUCTION

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E-commerce is a revolution that has changed how businesses buy and sell products and services. It is associated with buying and selling information, products, and services on online networks. While at the same time, e-commerce also enables people to use the internet as a source of information to compare and contrast prices and products available on any marketplace. Hence, more often e-commerce is used to define a broader

process where the internet is redefining the methods used by companies in running their businesses. This includes day-to-day activities such as logistics and marketing, or interactions with their customers and suppliers, these have become the need of the hour to be able to do business electronically. It not only automates manual processes and paper transactions but also helps organizations in moving to a fully electronic environment and change the way they operate.

M-commerce refers to the practice of conducting financial and promotional activities with the use of a wireless handheld device. The term m-commerce is short for Mobile commerce and recognizes that the transactions may be conducted using cell phones, personal digital assistants (PDAs), smartphones, and other hand-held devices that we operate with Internet access. With the advancement of technologies, computers these days are being replaced by Smartphones they can do many things that our everyday laptops, gadgets, and desktops offer us and thus m-commerce is gaining popularity. This Unit highlights e-commerce, its importance, types, m-commerce applications, services, etc.

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## 12.2 ELECTRONIC COMMERCE

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Electronic commerce is an amalgamation of new selling tools, where consumers can participate in all steps of a purchase decision. The obvious difference is that all the steps here are taken electronically and not physically or via telephone. The culmination of the steps and processes that enable e-Commerce and allow the customer or consumer to access detailed product information, select & choose the items to purchase, as well as to conduct a secure financial transaction to complete the purchase. Hence, E-commerce is a concept that explains and elaborates upon the idea of buying and selling products, goods, services, and information via computers including the internet.

Due to the global scaling up of the ICTs sector, e-commerce has rapidly progressed and scaled up its presence in emerging markets of developed and even in developing countries and its effects on their economies. As can be expected, e-commerce itself has evolved as the technology for facilitating commercial transactions via the internet.

The increase in the use of the Internet in the past two decades, along with devices such as smartphones and tablets indicates that consumer confidence in e-commerce will keep growing even as it keeps evolving and expanding. The growth of social media over the past few years has ensured that the relationship between the business and the consumer has become more engaging. This has resulted in the users becoming comfortable and making it easier for transactions to take place online. All of this has resulted in e-commerce gaining momentum, as more and more people have started to purchase goods via the internet.

### 12.2.1 Defining E-commerce and Its Activities

Electronic Commerce (EC) can be defined in several ways:

1. **E-commerce** means the ability to conduct business electronically, or over the Internet.

2. **E-commerce** means managing business transactions using networking and electronic means.
3. **E-commerce** is a platform for selling products and services via the Internet.
4. **E-commerce** refers generally to all forms of commercial transactions involving both organizations and individuals that are based upon the electronic processing and transmission of data, including text, sound, and visual images. It also refers to the effects that the electronic exchange of commercial information may have on the institutions and processes that support and govern commercial activities. These include organizational management, commercial negotiations, and contracts, legal and regulatory frameworks, financial statement agreements, and taxation, among many others.

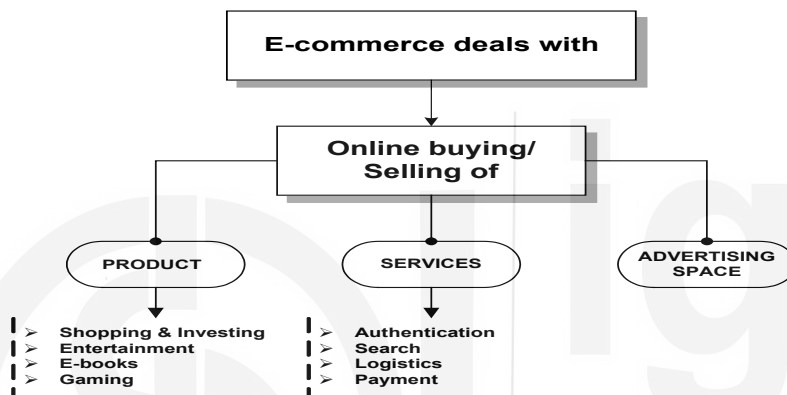


Fig. 12.1: Defining E-Commerce

(Source: Sushila Madan, *E-commerce Chapter1*)

E-commerce is part of an evolving approach to business that could eventually involve the application of information and communication technologies to the product and distribution of goods and services on a global scale. Some elements of E-commerce are ‘non-transactional’—geared to the provision of information about products and services, the delivery of information-based (intangible) products to customers, and the support of supply chains. The complete process, however, is transactional—geared directly to processes of trade in goods and services.

Electronic commerce encompasses a broad range of activities. It includes electronic trading of physical goods and services and electronic material. The ambit of e-commerce includes advertising and promotion of goods and services, facilitation of contacts between traders, pre-and post-sales support, or payment of taxes. The whole commercial cycle starting from ordering, invoicing, transporting, delivery and payment can be done electronically. E-commerce is transforming how companies do business.

### 12.2.2 Characteristics of e-Commerce

E-commerce is characterized by a wide range of business operations and transactions, including :

- Establishment of business-to-business relationship;
- Electronic payment (using electronic fund transfer, credit cards, electronic cheques, electronic cash);

- Enterprise Information System**
- Electronic distribution of products and services;
  - Exchange of information;
  - Pre–and post-sales support;
  - Customer Relationship Management (CRM); and
  - Virtual enterprises–groups of independent companies that pool their competencies so that they can offer products or services that would be beyond the capabilities of any of the individual companies.

### 12.2.3 Advantages of e-Commerce

Internet is a large system of interconnected computer networks that span the globe. The benefits of conducting business on the Internet are summarized below:

- ***The accelerated buying process for saving time***

One of the problems conventional stores face is the delay in buying by a consumer during the problem of accessing a physical store that may or may not be available. E-commerce overcomes this hurdle by aiding the consumer avail the specific product at pace and with ease. It helps the consumer choose from a wide range of products by making available goods from other chained stores as well, widening the net of available goods as well fast forward the process-to-process payments. With the availability of a wide range of options from a spectrum of vendors, E-commerce not only aids in the diversification of the marketplace but also helps access the online global market. All these processes also aid in reducing the travel and delivery time of the products.

- ***Personalized store as per Consumer preference***

A major asset of conducting an online business is the enhanced shopping experience. As each user is introduced to a different first page based on their location and advanced search for conducting a purchase. The consumer's history of purchases is also reflected in the personalized experience of online commerce. This allows consumers to avail themselves of special services like benefits and discounts due to their loyalty, order history, and so on, hence fulfilling customer expectations.

- ***Reduce recurring costs while hiring virtual support resources***

One of the key factors that aid in reducing cost when it comes to E-commerce is the outsourcing of tasks to even different countries or employees for use to many other E-commerce Businesses. This makes the presence of a company possible in multiple locations possible at a fraction of the cost of physical presence due to the reduced need for employees.

- ***Customer's retargeting is easier.***

Retargeting a customer is a key part of retaining a customer base. Below are some of the techniques which can be used to retarget customers:

- It is a good strategy to share a coupon when customers leave the checkout page.

- By sending emails that are pitching upsell and cross-sell.
- By redirecting the consumer to the desired web page or targeted advertisement based on Consumer data.

- ***Easier to encourage an impulse buy***

Impulse buying is an important tool in the arsenal of the sellers where it works as a path for consumers to act as per their choices towards particular products. It plays on the psychological behavior of humans where some of us have personality traits that encourage impulse buying. It is often because of the urge to feel good, and at the same time the attempt at deriving emotional value from certain products makes them feel good, or things that have an emotional value.

- ***Reviews Available***

The review system allows the consumer to make decisions as well as pass judgment on a wide range of variables. The presence of positive comments or a higher rating of one's business not only adds value but also builds the trust of the consumer on the product as well as the business. This not only projects the business as transparent; it helps the consumer to voice their opinion about their choices in products. This has a larger effect in generating traction for the business as well as building trust among consumers.

- ***Detailed information is available for the consumer***

The availability of detailed information is one of the key strengths of E-commerce. All consumers are always seeking detailed insights into the product they are interested in as it aids them in making an informed decision. The availability of information allows the consumer to gauge the relevance and value of the product or service according to their needs. It is the detailed description of the product that helps the consumer to make a confident choice according to their requirements.

- ***Quality service at a reasonably low operation cost***

Operational costs are a major expenditure when it comes to asserting the physical presence of any business. Usually for a business to maintain a physical presence, they have to pay a lot of money in the form of rent, salaries for employees, maintenance, and other expenses. E-commerce plays an important role in reducing the cost of operations significantly by eliminating a significant part of that expense as the business does not have to rely on a physical presence to impart quality service.

- ***Quick and affordable marketing***

E-commerce provides a cost-effective way for to businesses for marketing anything effectively. This is in contrast to the expensive and time-consuming processes used in Physical marketing practices. Some pointers for understanding marketing techniques are listed below:

- Availability of quality content for attracting customers is an important factor for being more visible or noticeable in the market.

- Creative marketing videos explaining the product and services for better understanding.
- Social networking is important for asserting one's presence everywhere and helps in the development of popularity for a product.
- Employing different tricks to reach the customers, is easy through digital marketing techniques.
- ***E-Commerce has flexibility with 24/7 service capability***

Flexibility in terms of both accessibility and affordability are major areas where Ecommerce is more powerful than conventional stores and retail spaces as it allows the service to consumers 24/7. It is not only the capability of providing a shopping option round the clock, E-commerce also helps consumers with chat support, provide recommendations and identify products being seemed by the consumer at any time and place.

#### 12.2.4 Limitations of e-Commerce

The drawbacks of conducting business on the Internet are summarized below :

- ***Lack of personal touch***

One of the things that play a huge role in consumer satisfaction is the ability to personally view and touch any product. It is an important factor when it comes to customer satisfaction as even the best detailed, expressed, and explained products can fail to convince and attract the consumer. E-commerce faces an irreparable limitation when it comes to the physical presence of the product in front of the consumer.
- ***Unsure about the quality***

When it comes to purchasing products online, it is difficult for the consumer to determine their quality. It is also common knowledge that there has been malpractice when it comes to fake reviews to artificially boost sales and of low quality or faulty products. Even though a review of the product might be available, it is difficult to convince a consumer based on the same.
- ***Late Delivery***

One of the assurances of businesses practicing E-commerce is the delivery time of the product. There is a whole range of issues that can arise when it comes to the delivery of the purchased product; hence businesses avoid giving exact delivery dates and try providing windows for the same. Many times, this results in the consumer waiting for the product for more than the assured period.
- ***Security issues***

As with anything that uses the World Wide Web, E-commerce is prone to security challenges unique to the cyber world. It is especially vulnerable and targeted frequently as it stores user data including their financial details. Hence there is a constant challenge of securing

this data from a wide range of security challenges including malware, hacking, ransomware, etc.

- **Difficulty in purchasing some products**

When some sensitive products like Gold are in question, it is difficult to purchase them via online transactions. It is also true for products that are dependent on variables that are dependent on size, shape, etc. that are difficult to quantify with exact measurement. Trust is also an important factor when it comes to these products, and the lack of the ability to verify them physically is a hindrance to purchasing such products online.

- **Site Crash issues**

There is still some uncertainty when it comes to the functioning of servers and the availability of round-the-clock and quality internet service. This can create a lot of hindrance from a sales perspective and can result in the loss of consumers as they might have to wait for an unspecified period to proceed with transactions.

### 12.2.5 Types of e-Commerce

Generally, there are various types of E-Commerce systems namely; B2B (Business-to-Business), B2C (Business-to-Consumer), C2C (Consumer-to-Consumer), C2B (Consumer-to-Business), B2G (Business-to-Government/Administration), C2A (Consumer-to-Administration), and P2P (Peer-to-Peer), Direct to consumer (D2C).

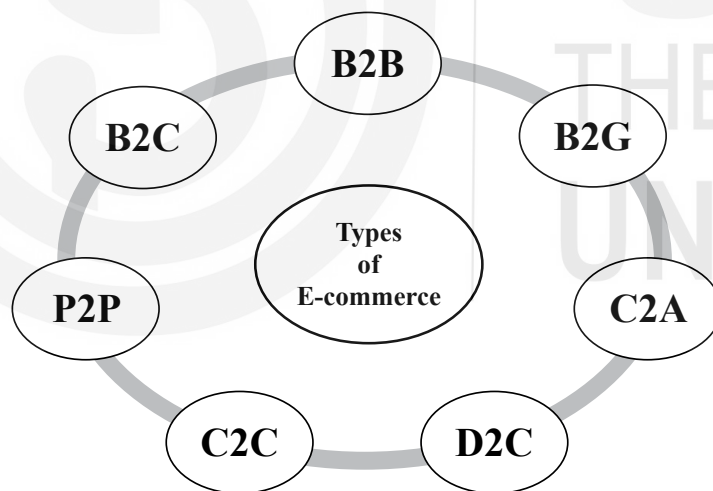


Fig 12.2: Types of e-Commerce

Many different types of e-commerce and transactions exist in the world of e-commerce today. These various types of different E-Commerce that are used today are classified based on the nature of their transactions and are elaborated upon below.

#### **B2B (Business-to-Business)**

This form of E-commerce is understood to be of the kind that takes place between companies. In the Business-to-Business type of E-Commerce system, the companies involved come together to conduct business with

each other. An example for the same can be when a manufacturer sells a product to a wholesaler, while the wholesaler tries to sell the same product to a retailer, they are all said to be doing business.

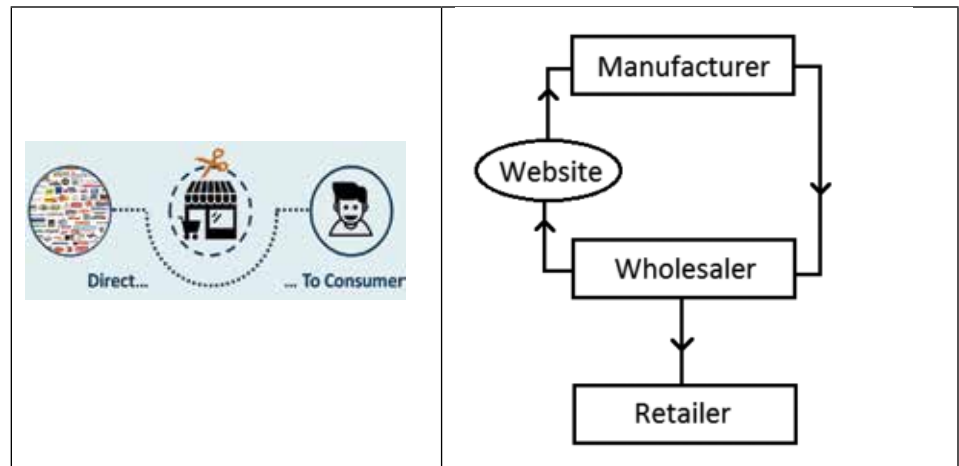


Fig 12.3: B2B model

Fig 12.3 above illustrates the ‘B2B’ model for the mentioned example. As shown, there are three main businesses i.e., wholesaler, manufacturer, and retailer. The Manufacturer has a website that can be used by the wholesaler to place orders for the product; this order is then processed and sent to the wholesaler. After receiving the product, the wholesaler can use a digital medium to advertise the product or take orders from a retailer for the same. This kind of business is called the B2B type of E-commerce.

**B2C (Business-to-Consumer)**

This model of E-commerce is understood to be the process where a company or business sells its goods, services, and products directly to the consumer via the internet. The consumer has the liberty of browsing through the internet to filter, check and view products and then ordering them. After receiving an order, the company proceeds to process and send the order directly to the consumer. Daily life examples of such types of E-commerce companies are Amazon, Flipkart, and so on. It is important to note that many of these giant E-commerce companies do not manufacture or produce these services or products, but rather list them on their website for commission-based payments.

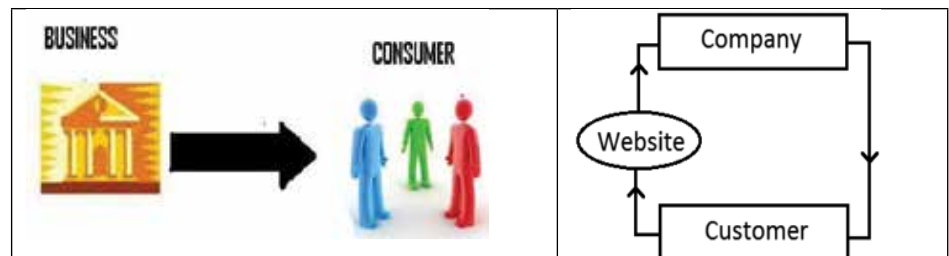


Fig 12.4: ‘B2C’ Model

The above Fig. 12.4 shows the process followed in this model, the consumer can surf the websites or mobile applications of the mentioned companies and the like to order available products. After receiving the order, the company processes the same before sending it to the consumer. Hence, in this ‘B2C’



model of E-commerce, the company tries to sell a product directly to the consumer.

**C2C (Consumer-to-Consumer)**

This form of E-commerce is understood to be a model where consumers sell goods, services, and products to another consumer via web technologies and the internet. This model comprises the selling of a wide range of products including movable assets and properties. Companies such as Quicker, OLX, and so on are some examples of this model of E-commerce which is illustrated below.

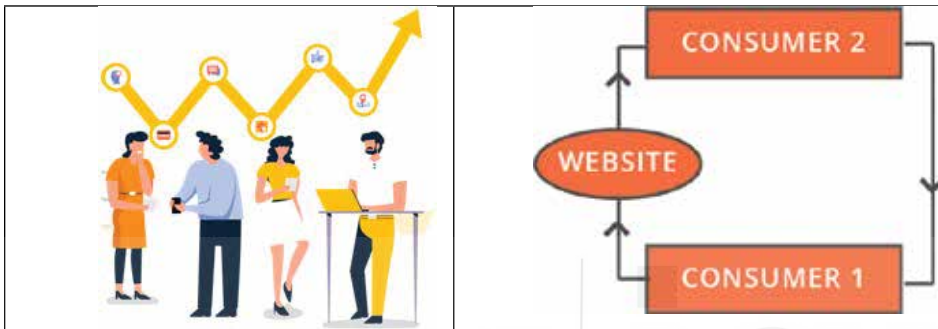


Fig 12.5: C2C Business Model

**C2B (Consumer-to-Business)**

This model of E-commerce for all purposes is the opposite of the 'B2C' model where businesses produce goods, services, and products for consumers. It is a type of commerce where a consumer provides goods, services, and products to an organization or business in Fig 12.6.

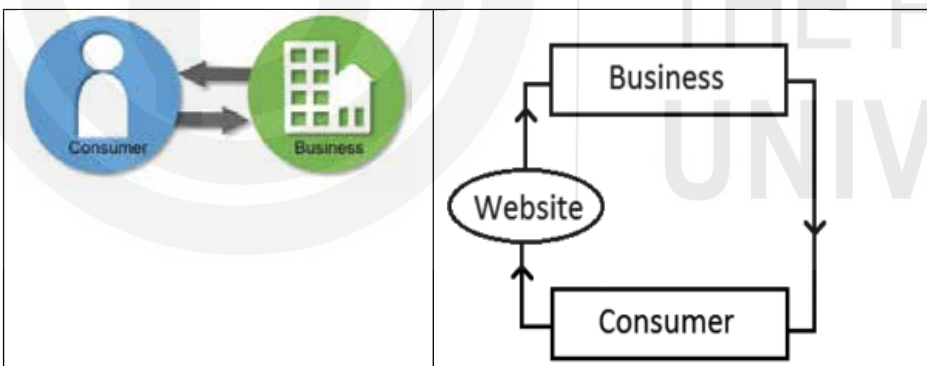


Fig 12.6: B2C Business Model

**B2G (Business-to-Government)**

Business-to-government, also known as business-to-administration, refers to trade between the business sector as a supplier and a government body as a customer. This kind of E-commerce refers to the situation where businesses conduct commerce with the government; it is essentially a part of the 'B2B' model. It is essentially a model where government-related agencies and different businesses use web-based applications for the exchange of information as well as for conducting business more effectively and efficiently compared to off-web transactions.

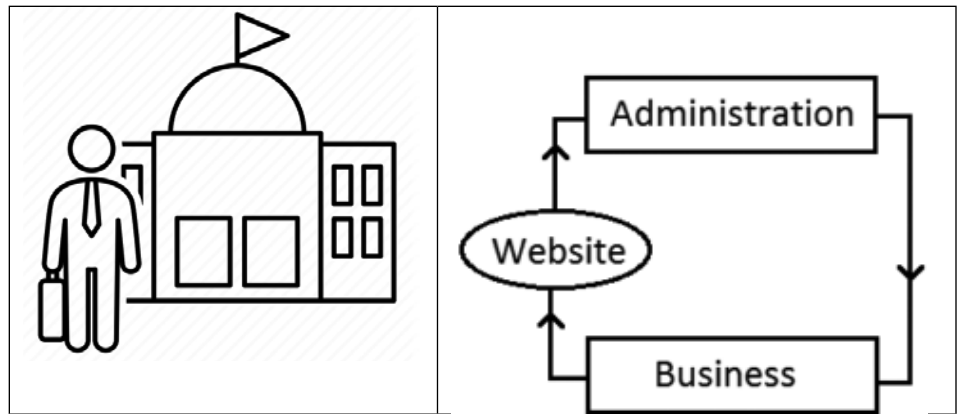


Fig 12.7: A2B Business Model

B2G business, as illustrated in Fig. 12.7, is generally also referred to as public sector marketing, which indicates the marketing of products and services to various government agencies and various levels. The business network provides a platform for businesses to bid on government opportunities such as auctions, tenders application submission, and so on for various services, etc. These activities are increasingly being conducted through the internet via real-time bidding

**C2A (Consumer-to-Administration)**

The model refers to the E-commerce process followed by the consumers when interacting directly with the government agencies. This may be in the form of payments, information access requests, or feedback to various agencies among other things. The consumer-to-government/administration model for E-commerce is the ideal answer for establishing communication between the consumers and the government. Examples of ‘C2A’ models include payment of bills including electricity and water, tax payments, health insurance payments made via web and mobile applications. A simplified representation of the model is illustrated in Fig.12.8.

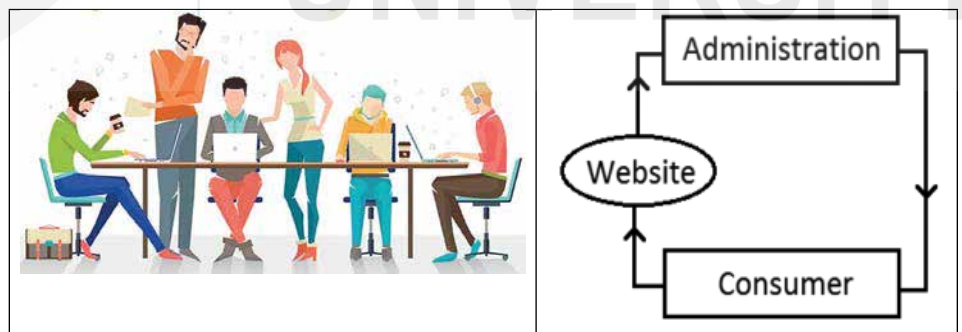


Fig 12.8: A2C Business Model

**P2P (Peer-to-Peer)**

This model of E-governance refers to a distributed platform enabling different individuals to partake in transactions with each other without an intermediary third party via a P2P service. There are some examples of ‘P2P’ services that do not involve economic transactions for buying and selling but simply provide a platform or individuals to interact for various ends. These services may be operated as free non-profit services or generate

revenue by advertising to users or by selling users' data. This model of network arrangement is different from the client-server model where communication takes place from the central server.

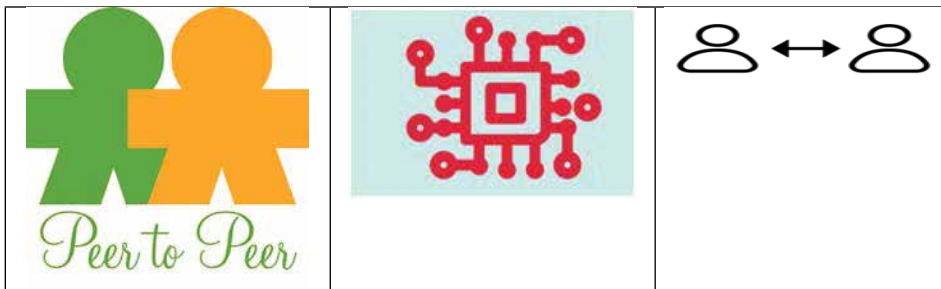


Fig 12.9: P2P Business Model

The absence of a 'Third party' may increase the risk of service not being delivered, service being of poor quality, delay or refusal of payment as well as the exploitation of asymmetric information. This added risk generally results in increased transaction costs for the parties involved. Often businesses are created to facilitate P2P transactions and reduce the risk for both the buyer and the seller. Some examples of 'P2P' services are open-source software, online marketplaces, cryptocurrency and Blockchain, ridesharing, and so on.

### D2C (Direct-to-Consumer)

Direct-to-consumer refers to selling products in a straight line to customers, bypassing any third-party retailers, wholesalers, or any other middlemen. DTC brands are usually sold online only and specialize in a specific product category: Casper, Warby Parker, Everlane, Harry's, Outdoor Voices, AWAY, and Dollar Shave Club.



Fig 12.10: D2C Business Model

Direct-to-consumer companies are transforming how people shop. In the progression, these brands, spanning everything from detergent to sneakers, are radically changing consumer preferences and expectations. Finally,

Direct-to-consumer brands have used that infrastructure to grow fast and connect directly to their customers. In addition to establishing a direct relationship with customers, these brands are building a community of ambassadors on social media. The result is a long-lasting relationship, and strong interaction, commitment, and loyalty.

**Check Your Progress 12.1**

- Note:** a) Use the spaces given below for your answers.  
b) Check your answer with those given at the end of the unit.

1. Define E-commerce?

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.....

2. What are the different categories of e-commerce?

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**12.3 BUSINESSES TO BUSINESS (B2B)  
E-COMMERCE**

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B2B is e-commerce between businesses. Internet-based business-to-business (B2B) e-commerce is conducted through industry-sponsored marketplaces and private exchanges set up by large companies for their suppliers and customers. Companies use such marketplaces mainly to purchase commodity goods, manage their supply chains, and conduct indirect procurement transactions not related to their core business.

Business-to-business (B2B) e-commerce is significantly different from business-to-consumer (B2C) e-commerce. While B2C merchants sell on a first-come, first-served basis, most B2B commerce is done through negotiated contracts that allow the seller to anticipate and plan for how much the buyer will purchase. In some cases, B2B is not so much a matter of generating revenue as it is a matter of making connections with a business partner.

B2B Web sites can be sorted into:

- **Company Web sites:** Since the target audience for the company is other companies and their employees. Company sites can be thought of as round-the-clock mini-trade exhibits. Sometimes a company Web site serves as the entrance to an exclusive extranet available only to customers or registered site users. Some company Web sites sell directly from the site, effectively e-tailing to other businesses.
- **Product supply and procurement exchanges:** A company’s agent may purchase supplies from vendors, request proposals, and, in some cases, bid to purchase at the desired price. Sometimes referred to as e-procurement sites, some serve a range of industries and others focus on a niche market.
- **Specialized or vertical industry portals:** Such portals provide a “subWeb” of information, product listings, discussion groups, and other features. These vertical portal sites have a broader purpose than

the procurement sites (although they may also support buying and selling).

- **Brokering sites:** These sites act as an intermediary between someone wanting a product or service and potential providers. Equipment leasing is an example.
- **Information sites:** These sites are sometimes known as infomediary, which provide information about a particular industry for its companies and their employees. These include specialized search sites and trade and industry standards organization sites.

Many B2B sites may seem to fall into more than one of these groups. Models for B2B sites are still evolving.

The difference between B2B and B2C e-commerce are listed in Table 12.1.

**Table 12.1: Difference between B2B and B2C e-commerce**

	<b>Business-to-Consumer</b>	<b>Business-to-Business</b>
Type of Relationship	The consumer uses a PC browser to order products via the merchants' Websites.	A representative of a business uses the company's Web browser to order products or to inquire via another business (e.g., suppliers) Website.
Level of Procurement	Get finished product.	Get raw material or unfinished product.
Level of Trust	May not be trusted partners.	Trusted partners.
Flow of Information	<ul style="list-style-type: none"> <li>a. Placing orders</li> <li>b. Executing payments</li> <li>c. Fulfilling orders</li> <li>d. Browsing of merchant's catalog</li> <li>e. Sending feedback or e-mail messages</li> </ul>	<ul style="list-style-type: none"> <li>a. Online procurement</li> <li>b. Tracking order status</li> <li>c. Executing payments</li> <li>d. Managing promotions, returns, catalog information</li> <li>e. Fulfilling orders</li> </ul>
Nature of control	The unidirectional relationship defined by the merchant	Mutual agreement among businesses
Level or nature of need-based segmentation	Not very focused, e.g., a B2C website can sell various types of gift items.	More focused than B2C e.g., An automobile company buys only motor parts not aircraft parts
Sales Complexity	Not very complex	Complex supply chain
Types of Network	Internet-based	Intranet or Extranet (based on Internet)

**Activity12.1:**

List the various e-commerce sites, list some of its important aspects such as distribution of product and services, payment mechanism, web layout, Pre-and post-sales support, etc.

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**Check Your Progress 12.2**

**Note:** a) Use the spaces given below for your answers.  
b) Check your answer with those given at the end of the unit.

1. Fill in the blanks
  - (a) B2B is trading between \_\_\_\_\_ partners and B2C is trading between \_\_\_\_\_ partners. (Untrusted and Trusted)
  - (b) In B2B network is either \_\_\_\_\_ or \_\_\_\_\_ based on Internet.
2. Differentiate between B2B and B2C e-commerce?

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**12.4 ACHIEVING CUSTOMER INTIMACY IN B2C E-COMMERCE**

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Intimacy generally refers to the feeling of being in close personal association and belonging together. Customer intimacy is a marketing strategy where an online merchant gets close to his/her customers. Greater customer intimacy leads to higher customer loyalty levels. It describes the ability of an online merchant to become accepted and known as the regular partner with its customers. Below mentioned are some of the ways to achieve customer intimacy in B2C E-Commerce.

**12.4.1 Interactive Marketing**

John Deighton at Harvard has defined interactive marketing as the ability to address the customer, remember what the customer says, and address the customer again in a way that illustrates that we remember what the customer has told us. The emphasis on interactive marketing has changed from transaction-based effort to conversation. Interactive marketing features “the ability to address an individual and the ability to gather and remember the response of that individual” leading to “the ability to address the individual once more in a way that takes into account his or her unique response”.

As the nature of e-commerce technology is interactive, a great deal of information about the customer can be gathered in the marketplace at

the moment of purchase. The information about the customer's past purchases and behavior can be stored and used by online merchants. This permits personalization and customization. E-commerce technologies make it possible for merchants to know more about customers and use this information more effectively. This information can be used by online merchants to:

- Enhance their ability to brand products.
- Charge premium prices for high-quality service.
- Divide the market for their product into different subgroups and charge different prices to different segments.
- Develop new information asymmetries.

#### 12.4.2 Personalization

E-commerce technologies permit personalization. Personalization has become a very common marketing technique. Online merchants can send their marketing messages to specific individuals by adjusting the message to a person's name, interests, and past purchases. A highly targeted personalized e-mail campaign merged with the internal behavioral, transaction and demographic data about the customers can result in a significant increase in revenue. By greeting customers (based on cookie files), an online merchant can recommend the recent products to its customers based on their preferences (based on user profile in the database). The four primary ways of performing personalization are:

1. **Greetings:** Greetings are the most basic form of personalization. The customer is greeted by name and welcomed back when he or she comes on the site. Personalization engines recognize a visitor's Internet protocol address or cookies stored on his personal computer and correlate that information with past visits to recognize the visitor.
2. **Customization:** Customization means changing the product according to the user's preferences. By offering "build-to-order" customized products, the online merchant can win customer loyalty. Moreover, the customer would always be willing to pay a little more for a unique product.
3. **Narrowcasting:** Narrowcasting is the delivery of time-sensitive information, personalized to each customer. Instead of sending messages to a large number of customers, they can be intimated about particular events they want to be alerted about. These kinds of messages can be sent through e-mail, and phone which enables the customer to be informed without having to connect to the site.
4. **Recommendations:** Recommendation enables a site to propose a product that is tailored to customers' requirements, whether they have been explicitly expressed by the customer or implicitly calculated by the e-commerce engine. \

Personalization in e-commerce can be achieved through Personalized order tracking; Maintaining the purchase histories of customers; Maintaining the personalized information of customers such as their birthdays and wedding anniversary dates, etc.

Self-service is the process by which consumers engage in all or a portion of the provision of a service or product. Customer Self-service technology allows the customer to perform the service himself without the interference of service personnel. Self-service allows a customer to do business from anywhere at any time at his convenience. It allows customers to manage their purchasing requirements and rules. Self-service enables the customers to conduct in-depth sales information, check user manuals and get technical help. Some customers prefer self-service. With the growth of internet usage, the world nowadays is increasingly dependent on technology-facilitated transactions. Customers interact more with technology instead of interacting with the firm's employees to create an outcome. They want to research purchases at their leisure, get answers to technical questions 24x7, and make decisions on their own time. The consumer controls the search process, the time spent on various sites, the degree of price/product comparison, the people with whom he/she comes in contact, and the decision to buy. Customer self-service offerings transform customer relationships, improve profitability, and increase customer loyalty. Self-service provides the following benefits to consumers:

- Faster service.
- More convenience as self-service technologies make a business available 24 hours a day, seven days a week.
- Ease of use.
- Monetary savings associated with the self-service option as an online merchant may offer discounts to customers opting for self-service.
- Self-service tools can also be enabled to provide a customer real-time access to their account activity, such as order status, shipment tracking, invoices, payments, and credit notes.

**Check Your Progress 12.3**

**Note:** a) Use the spaces given below for your answers.

b) Check your answer with those given at the end of the unit.

1. Fill in the blanks

a) \_\_\_\_\_ is the process by which consumers engage in all or a portion of the provision of a service or product.

b) \_\_\_\_\_ is the ability to address the customer, remember what the customer says.

2. True and False

a) Self-service provides faster service and ease of use to consumers.

b) Self-service technologies make a business available 12 hours a day, five days a week.



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## 12.5 M-COMMERCE

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M-commerce refers to the practice of conducting financial and promotional activities with the use of a wireless handheld device. The term m-commerce is short for Mobile commerce and recognizes that the transactions may be conducted using cell phones, personal digital assistants (PDAs), smartphones, and other hand-held devices that we operate with Internet access. M-commerce site is a version of a company's webpage that is designed to fit within the constraints of a cell phone or PDA. It is an E-Commerce with mobile devices (PDAs, Cell Phones, Pagers, etc.).

In contrast to e-commerce, m-commerce does not include laptops and computers. With the advancement of technologies, computers these days are being replaced by smartphones. Computers these days are being replaced by Smartphones they can do many things that our everyday laptops, gadgets, and desktops offer us. Smartphones are like microcomputers that are capable to access and processing a host of data and have a camera, interfaces, internet browsing, text and instant messaging, Wi-Fi, and Geographical Positioning System (GPS) capabilities. On a Smartphone input can be provided through a touch screen interface and output can be seen on the screen. Today's smartphones are incredibly more influential as compared to the desktop and laptops we have been using since years ago. The smartphone is an incredibly essential tool in our daily lives; they are smaller in size and are portable which a computer monitor and keyboard aren't. From replying to emails to checking out your daily feed on social media, and uploading the occasional selfie to share to the world, smartphones can do a bunch of imaginable things. In addition to performing the basic functions, smartphones are capable enough to perform various computing activities.

Today's smartphones are more advanced than ever before. The beauty in all of this is the heightened level of productivity that can now be achieved by our smartphones. A smartphone can be quickly and easily transformed into a versatile desktop PC. Even though it won't replace the desktop experience it can come in handy when required. Take a Bluetooth keyboard and mouse, along with one of those portable external displays, and you can get your desktop setup situated just about anywhere.

Mobile commerce can be based on two technologies:

- a) **Mobile sites** which appear inside the browser on any internet-enabled mobile device
- b) **Mobile applications** which require a device-specific download from a marketplace, such as the Apple App Store or the Android Market.

One of the basic examples of m-commerce is receiving sales promotions via a hand-held device. The most common application would involve the service provider sending text messages to the subscriber that promote new product offerings, free trials on additional services, or other types of promotional campaigns. The subscriber is not charged a fee for the text message and often can respond with a return text message without incurring any type of fee. Several major cellular services offer subscribers to opt into this type of

**Enterprise Information System** m-commerce or be excluded from receiving the message. M-commerce is not just about using mobile phones as end-user devices. The following list gives an overview of different kinds of mobile devices.

- Mobile phone
- PDA (Personal Digital Assistant)
- Smart phone: the smartphone combines mobile phone and PDA technology into one device.
- Laptop
- Earpiece (as part of a personal area network)

### 12.5.1 Advantages and Disadvantages of M-Commerce

M-commerce offers both advantages and disadvantages. The following list summarizes the *advantages* of m-commerce:

1. **Ubiquity:** The use of advanced wireless handheld accessories become available, more applications are released to enables the user to receive information and conduct transactions anywhere, at any time “anywhere shopping,”
2. **Accessibility:** Mobile device enables the user to be contacted at virtually any time and place. The user also has the choice to limit their accessibility to particular persons or times.
3. **Convenience:** The portability of the wireless device and its functions from storing data to access information or persons.
4. **Localization:** The emergence of location-specific based applications enables the user to receive relevant information on which to act.
5. **Instant Connectivity:** The emergence of 5G networks, GPRS, or EDGE is becoming more prevalent as it provides instant connectivity or “always-on” connectivity. Users of 5 services are benefited from easier and faster access to the Internet.
6. **Personalization:** The combination of localization and personalization is creating a new channel/business opportunity for reaching and attracting customers. Personalization takes the form of customized information, meeting the users’ preferences, followed by payment mechanisms that allow for personal information to be stored, eliminating the need to enter credit card information for each transaction.
7. **Time Sensitivity:** Access to real-time information such as a stock quote that can be acted upon immediately or a sale at a local boutique.

The following list summarizes the *disadvantages* of m-commerce:

1. **Absence of services in rural areas:** Most of India lives in rural areas. In most of the rural areas, m-commerce is still unknown to many and there is still a dearth of availability of mobile phones and Internet connection, which is a big hindrance in proper applicability and penetration of m-commerce.

2. **Fraud risks and security concerns:** With the rising trends of fraud risks and security concerns, m-commerce is no exception to them. There is still a lack of proper grievance redressal, proper awareness, and a robust regulatory framework. People usually fear losing their money while using m-commerce.
3. **Connectivity issue:** The massive obstacle for M-commerce is the internet connection issue. If the net connection is poor then the transaction cannot be executed.
4. **Resistance to change:** People usually don't like to come out of their comfort zone which leads to their lack of adaptability of trying out and accepting new things and technologies and thus they resist change. Some people deny getting into modern technology and some take too much time in adopting new technologies.

### 12.5.2 Applications of M-Commerce

In the current commerce industry, mobile commerce or M-Commerce has been entered in finance, services, retails, telecommunication and information technology services. In these sectors, M-Commerce is not only being widely accepted but also is being more used as a popular way of business/commerce. The applications of M-commerce are explained below:

#### Finance Sectors

- Mobile Commerce works vastly in the finance sector including all big and major financial institutes, banks, stock markets, and sharebrokers. Whenever any user needs money or wants any sort of banking and finance-related services, he/she can access the services or register services via voice calling or via Short Message Services (SMS) services. WAP-based mobile handsets allow the user to access the official website of the institute.
- Users can transact money or transfer money, or pay the bill from their bank account using mobile commerce facilities. Banks also provide round-the-clock customer care services, which can be used any time through voice calls. Some customer care services are also providing non-voice services on mobile that is known as the instant-alert facility.
- While in the stock market, the user can access the stock market quotes and get in live touch with the current trading status on its mobile in two forms either voice (customer assistance) or non-voice (SMS alerts) or both.
- The share broker sends market trends and tips of trading on their clients' mobile. Also, the broker can suggest the appropriate stock for intra-day trading to their users.

#### Telecommunication Sectors

- Mobile has played a giant role in communication technology through its versatility and superiority. Its ubiquity and easy usage have further made it extremely popular across the globe. It has already surpassed the fixed phone in the world. The software platform is

essential for operating any mobile and this tool has revolutionized the communication world because it functioned as a small computer.

- The booming popularity has forced the corporate world to develop a new commerce platform that can reach to masses. Mobile commerce has attracted massive traffic because of its unique characteristics. The user can change the service of any financial institution or bank if gets a better product and service or user is unsatisfied with the service of the subscribing company.

#### **Service / Retail sectors**

- Service and Retail sectors are also among the leading sectors, which have nurtured most from mobile commerce. M-Commerce has proved a major boon for these sectors. Several business dealings no matter how big or small are being finalized on the mobile phone. Customers would be able to book the order, can hire carrier/courier services, and above all could also pay the dues related to it through mobile.

#### **Information Sector**

- The evolution of mobile commerce has evolved to exercise IT-enabled commerce for IT experts.
- In the IT field, mobile commerce has been used massively to deliver financial news, stock updates, sports figures, traffic updates, and many more onto a single handheld device 'mobile'. Besides this several bills can be paid using mobile and users can also check the available balance, the status of cheques, the status of requested processing, and customer care support.

#### **12.5.3 Mobile Commerce Services**

Mobile commerce services are increasingly dynamic, value-rich services for the consumer market. As technology improves consumers are increasingly relying on mobile devices for access to services that touch all areas of their life. Today's consumers use their mobile phone to function as an all-in-one wallet, organizer, Internet connection, jukebox, game console, messaging device. Using mobile devices for commerce is a natural extension of this lifestyle. It offers consumers the convenience of ubiquitous access to value-added services and allows organizations to differentiate their services, create new revenue streams, and build customer loyalty.

Over the past several years, mobile operators, merchants, content providers, and financial institutions have successfully launched a range of mobile applications worldwide. These initial deployments—and their adoption by consumers—have created a demand for a larger set of commerce services that allow consumers to use their mobile device to conduct transactions flexibly and conveniently (e.g., to purchase a digital good such as a ring tone or video clip, or tangible good, such as a book or a CD). These services, predominantly in the areas of entertainment, marketing, advertising, banking, ticketing, and retail are likely to drive consumer adoption of mobile commerce services. They will enable providers to differentiate themselves by offering highly personalized services and delivering a rich user experience.

- **Entertainment:** Mobile entertainment includes content services such as watching movies, listening to music, videos, gaming, etc.
- **Marketing and advertising:** Mobile operators and other companies are using targeted mobile advertising and mobile coupons to connect advertisers with specific demographics. Recent mobile campaigns have enabled users to quickly search various categories of products and services in their immediate area, and then access, save and redeem related discounts, promotions, and coupons all via their phone numbers.
- **Banking and bill payment:** Mobile banking enables customers to use their mobile phones to receive alerts, manage their accounts, pay bills, and transfer funds.
- **Ticketing:** Mobile ticketing allows device users to purchase tickets for events, transportation, and parking. These services have been widely being used all over the world where consumers use mobile devices to feed parking meters and purchase cinema, train, and ski lift tickets online.
- **Retail and peer-to-peer payments:** Mobile payments have triggered peer-to-peer payments. Consumers are increasingly comfortable with paying for goods and services and transferring money electronically, and mobiles are the best alternative to it. Some of its services are for home-delivery shopping services, vending machines and in-store purchases, taxis, and purchases at fuel stations and other retail outlets, etc.

Their emergence and increasing popularity are evidence of mobile commerce's growing momentum. As the starting point for a new generation of services, they are already shaping the mobile culture and driving requirements for a comprehensive mobile commerce system.

**Activity 12.2:**  
Make an observation what all e-commerce activity you can perform using M-commerce?  
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.....  
.....  
.....  
.....  
.....  
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**Check Your Progress 12.4**

- Note:** a) Use the spaces given below for your answers.  
b) Check your answer with those given at the end of the unit.
1. Define the term 'Mobile commerce'.  
.....  
.....  
.....

2. What are the applications of M-commerce?

.....  
 .....  
 .....

3) True and False

- a) Mobile Platform allows you to make micro and macro payments.
- b) M-commerce is devoid of security challenges.

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## 12.6 LET US SUM UP

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E-commerce means the ability to conduct business electronically, or over the Internet. B2C is the selling of goods and services to a customer and the transaction takes place through the Internet. B2B is a commercial transaction between two or more businesses. B2B E-commerce primarily refers to supply chain technology, which is by far the largest and most successful e-commerce technology employed today. The C2B model, also called, “reverse auction” or “demand collection model,” enables buyers to name their own prices, often binding, for a specific good or service generating demand. With the C2C e-business model, consumers sell directly to other consumers via online classified ads and auctions, or by selling personal services and expertise online. Customer intimacy is a marketing strategy where an online merchant gets close to his/her customers. Interactive marketing features “the ability to address an individual and the ability to gather and remember the response of that individual” leading to “the ability to address the individual once more in a way that takes into account his or her unique response”. The term m-commerce is short for Mobile commerce and recognizes that the transactions may be conducted using cell phones, personal digital assistants (PDAs), smartphones, and other hand-held devices that we operate with Internet access.

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## 12.7 KEYWORDS

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<b>B2B</b>	: Commercial transactions between two or more businesses.
<b>B2C</b>	: Selling of goods and services to a customer and the transaction takes place through the Internet
<b>C2B model</b>	: Also called, “reverse auction” or “demand collection model,” enables buyers to name their prices, often binding, for a specific good or service generating demand.
<b>C2C</b>	: An e-business model, consumers sell directly to other consumers via online classified ads and auctions, or by selling personal services and expertise online.
<b>E-commerce</b>	: Refers generally to all forms of commercial

transactions involving both organizations and individuals, that are based upon the electronic processing and transmission of data, including text, sound, and visual images

- Interactive marketing** : The ability to address the customer, remember what the customer says, and address that customer again.
- Intranet** : Uses Internet technology to allow employees to view and use internal Web sites that are not accessible to the outside world.
- M-commerce** : Refers to the practice of conducting financial and promotional activities with the use of a wireless handheld device.
- Mobile applications** : *Require a device-specific download from a marketplace, such as the Apple App Store or the Android Market.*
- Mobile sites** : *They appear inside the browser on any internet-enabled mobile device*
- Self-service** : The process by which consumers engage in all or a portion of the provision of a service or product.

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## 12.8 SUGGESTED FURTHER READINGS/ REFERENCES

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5. Sushila Madan, E-commerce Sixth Edition, Mayur Paperbacks, 2011.
6. The Complete E-Commerce Book, Second Edition: Design, Build & Maintain a Successful Web-based Business by Janice Reynold.
7. [The Ultimate Guide to Marketing Your Business with Pinterest](#) by Gabriela Taylor.

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## 12.9 ANSWERS TO CHECK YOUR PROGRESS

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### Check Your Progress 12.1

1. E-commerce means the ability to conduct business electronically, or over the Internet.
2. B2B, B2G, C2A, D2C, C2C, P2P, B2C

**Enterprise Information System Check Your Progress 12.2**

1. a) Trusted and Untrusted  
b) Intranet or Extranet
2. In **Business-to-Consumer**, the consumer uses a PC browser to order products via the merchants' Websites. In **Business-to-Business**, a representative of a business uses the company's Web browser to order products or to inquire via another business (e.g., suppliers) Website.

**Check Your Progress 12.3**

1. a). Self-service            b). Customer intimacy
2. a). True                      b). False

**Check Your Progress 12.4**

1. M-commerce refers to the practice of conducting financial and promotional activities with the use of a wireless handheld device. The term m-commerce is short for Mobile commerce and recognizes that the transactions may be conducted using cell phones, personal digital assistants (PDAs), smartphones, and other hand-held devices that we operate with Internet access. An M-commerce site is a version of a company's webpage that is designed to fit within the constraints of a cell phone or PDA.
2. Applications in the finance, services, retails, telecommunication and information technology services
3. a) True  
b) False

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