

Quadrant II - Notes

Paper Code: COG138

Module Name: Meaning and Definition of M-Commerce, Devices Used in M-Commerce, Applications of M-Commerce

Meaning of Mobile commerce

M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as cellular telephone and personal digital assistants (PDAs). Known as next-generation e-commerce, m-commerce enables users to access the Internet without needing to find a place to plug in. The emerging technology behind m-commerce, which is based on the Wireless Application Protocol (WAP), has made far greater strides in Europe, where mobile devices equipped with Web-ready micro-browsers are much more common than in the United States.

In order to exploit the m-commerce market potential, handset manufacturers such as Nokia, Ericsson, Motorola, and Qualcomm are working with carriers such as AT&T Wireless and Sprint to develop WAP-enabled smart phones, the industry's answer to the Swiss Army Knife, and ways to reach them. Using Bluetooth technology, smart phones offer fax, e-mail, and phone capabilities all in one, paving the way for m-commerce to be accepted by an increasingly mobile workforce.

As content delivery over wireless devices becomes faster, more secure, and scalable, there is wide speculation that m-commerce will surpass wireline e-commerce as the method of choice for digital commerce transactions. The industries affected by m-commerce include:

- Financial services, which includes mobile banking (when customers use their handheld devices to access their accounts and pay their bills) as well as brokerage services, in which stock quotes can be displayed and trading conducted from the same handheld device
- Telecommunications, in which service changes, bill payment and account reviews can all be conducted from the same handheld device
- Service/retail, as consumers are given the ability to place and pay for orders on-the-fly
- Information services, which include the delivery of financial news, sports figures and traffic updates to a single mobile device

IBM and other companies are experimenting with speech recognition software as a way to ensure security for m-commerce transactions.

Definitions

“M-commerce is the use of mobile devices to communicate, inform transact and entertain using text and data via a connection to public and private networks.”

(Lehman Brothers)

“Business-to-consumer transactions conducted from a mobile device.”

(J.P. Morgan)

Devices Used in M Commerce

1. Web Phone

Web Phone is a Voice over Internet Protocol (VoIP) service that lets you make phone calls for less! With the free Web Phone software, you can place calls from your computer to any phone, anywhere in the world starting at just 1.9¢ a minute. Because calls are routed over the Internet, the cost is lower and the savings are passed on to you! You can also have a phone number to receive incoming calls with the Web Phone Plus option. Additionally, Web Phone offers a convenient calling card feature for making low-cost calls from any phone when away from your PC.

To get started, simply sign up, download the free Web Phone software. During sign up, you will choose a 7-digit User ID and a 4-digit PIN to login to the Web Phone software and Account Centre. Web Phone Plus customers will choose a phone number for incoming calls. You may also add funds to your account for PC2Phone calling. You will need to be connected to the Internet and have a headset or speakers and a mic to make calls.

A pop up message will appear on your computer screen when you are receiving an incoming call. The calling number or contact information will be displayed, if available. You may accept or decline the call. Simply click "Accept" to answer the call. If you decline the call, it will go to Voice Mail. If no action is taken, a pop-up message will notify you that you missed a call.

To receive an incoming call, you must be logged into your Web Phone client and be connected to the Internet.

2. Portable Computer

A portable computer is a computer that can be moved from one place to another and includes a display and a keyboard. Laptop is one example of portable computer.

Laptops are useful for data transmission at any place laptop uses thin-screen technology.

3. Personal Digital assistant

These are also known as palmtop computers. These can be used as mobile phones. Web browsers, or portable media players personal Digital (PDAs) assistant are small mobile hand-held device that provide computing, information, storage and retrieval capabilities for personal or business use. PDA has a touch screen for entering data, a memory card for data storage and at least one of the devices i.e. Bluetooth, wi-fi or connectivity.

4. Two-way pager

A two-way pager is a pager that allows you to send data as well as receive it. Some two-way pagers can handle alphanumeric input and display and can send and receive email and SMS messages.

Pagers were once fairly widely used by people who frequently needed to be reachable when out of the home or office. Mobile phones have largely replaced them for general use. However, pagers are still fairly widely used among medical and emergency personnel as well as IT support staff.

Pager manufacturers include Motorola and Sharp.

5. Voice portal

A voice portal is a software, and sometimes hardware, setup that allows a person to access information using his or her voice. This could be through a mobile device and an interactive voice response (IVR) system, or it could be through a computer with a microphone. The information that can be retrieved through a voice portal could be anything, including Internet search results, emails, weather and even directions to a location. The process is intended to be mostly automated and more convenient than using a keyboard to perform the same queries.

One of the leading uses for voice portal technology is in the online and catalogue sales industry. By providing an IVR to customers calling a service number, a properly configured system could interpret what a customer is saying, retrieve relevant information such as order status, and then read that information back to the customer. This can help a company to keep their phone lines to live agents open for problems that the IVR cannot resolve.

Applications used in M commerce

1) Mobile Ticketing

Mobile Ticketing is the process where the customers can order, pay for, obtain and validate tickets from any location and at any time using Mobile phones . Tickets can be booked and cancelled on the mobile device with the help of simple application downloads. Delivery of tickets to mobile phones can be done in the form of a SMS or by a MMS. Mobile Tickets can be purchased in a variety of ways including online, via text messaging or in a secure mobile application.

Mobile Ticketing is used in many applications like:

- Airline ticketing
- Cinema ticketing
- Railway & Bus ticketing
- Concert/Event ticketing
- Consumer voucher distribution

Benefits to the ticket buyer

1. Instant delivery of mobile tickets at the time of purchase.
2. Individual mobile tickets can be forwarded to a friend.
3. Quicker entry with no waiting in lines.

Benefits to the Event organizer

1. Reduced will call lines and staffing.
2. Guaranteed security, only one entry per barcode.
3. Event is 'greener' with reduced paper waste.

2. Content purchase and delivery

Currently, mobile content purchase and delivery mainly consists of the sale of ring-tones, wallpapers, and games for mobile phones. The convergence of mobile phones, mp3 players and video players into a single device will result in an increase in the purchase and delivery of full-length music tracks and video. Download speeds, if increased to 4G levels, will make it possible to buy a movie on a mobile device in a couple of seconds, while on the go.

3. Information services

A wide variety of information services can be delivered to mobile phone users in much the same way as it is delivered to PCs. These services include:

- news services
- stock data
- sports results
- financial records
- traffic data and information

4. Mobile Banking

Banks and other financial institutions are exploring the use of mobile commerce to allow their customers to not only access account information, but also make transactions, e.g. purchasing stocks, remitting money, via mobile phones and other mobile equipment. This service is often referred to as Mobile Banking or M-Banking. More negative issues like ID theft, phishing and pharming are lurking when it comes to mobile banking, particularly done on the mobile web. Net security technology free from redundancy and paradigm shifts away from mobile web-based banking will be an optimal solution to mobile banking in the near future.

- Mobile Banking Services are

1. Mini-statements and checking of account history

2. Checking the balance
3. Recent transactions
4. PIN provision, Change of PIN and reminder over the Internet
5. Cash-in, cash-out transactions on an ATM

5. Location-based services

Unlike a home PC, the location of the mobile phone user is an important piece of information used during mobile commerce transactions. Knowing the location of the user allows for location based services such as:

- local maps
- local offers
- local weather
- people tracking and monitoring

6. Mobile marketing and advertising

Mobile marketing is an emerging concept, but the speed with which it's growing its roots is remarkable. Mobile marketing is highly responsive sort of marketing campaign, especially from brands' experience point of view. And almost all brands are getting higher campaign response rates. Corporations are now using m-commerce to expand everything from services to marketing and advertisement. Although there are currently very few regulations on the use and abuses of mobile commerce, this will change in the next few years. With the increased use of m-commerce comes increased security. Cell phone companies are now spending more money to protect their customers and their information from online intrusions and hackers.

- Types of M-marketing and advertising:

- Mobile Web Poster
- SMS advertising
- MMS advertising
- Mobile games
- Mobile videos
- Audio Advertisements

7. Mobile brokerage

Stock market services offered via mobile devices have also become more popular and are known as Mobile Brokerage. They allow the subscriber to react to market developments in a timely fashion and irrespective of their physical location

8. Mobile purchase

Mobile purchase allows customers to shop online at any time in any location. Customers can browse and order products while using a cheap, secure payment method. Instead of using paper

catalogues, retailers can send customers a list of products that the customer would be interested in, directly to their mobile device or consumers can visit a mobile version of a retailer's ecommerce site. Additionally, retailers will also be able to track customers at all times and notify them of discounts at local stores that the customer would be interested in.

9. Mobile Browsing

Using a mobile browser-a World Wide Web browser on a mobile device-customer can shop online without having to be at their personal computer.