

## **Implementation of Mobile Commerce in Libraries: A Case Study of Maulana Azad National Urdu University Central Library, Hyderabad**

**Dr. Ayesha Sultana**

Assistant Librarian

Maulana Azad National Urdu University

Gachibowli, Hyderabad

E-mail: aeshal3lib@gmail.com

***Abstract** - The present topic deals with the study of mobile commerce (m-commerce) and its various applications in different sectors like financial sector, telecommunication sector, Retail sector, and information sector. The application of m-commerce in IT sector has made information transfer more easy and reliable and this has given the platform to library professionals to use its applications in various library activities.*

**Keywords:** Mobile commerce, Telecommunications, m-commerce, Information Technology.

### **Introduction**

Mobile phones were developed primarily for communication purpose. Since the past 10 years mobile phones have changed the way that we live and work. Mobile phones have gained importance in both the developed and developing countries. The situation is slowly changing now. Mobile phones are being developed with many devices that can serve voice communication as well as taking photos and listening to music. Mobile network operators are offering services that give greater value to subscribers, such as portable email for business users. Mobile phones are now equipped with cameras with the potential to turn them into portable bar code scanners. Handset manufacturers are developing RFID chips that can turn mobile phones into mobile wallets able to carry and exchange electronic money securely and engage in other transactions with RFID readers in the physical world.

The combination of more powerful mobile devices, more innovative mobile operators and change in the mobile network infrastructure (such as 3G networks able to carry large amounts of data at high speed as broadband connections do for computers) is setting the stage for an enormous change in a already fast-moving sector. Mobile devices are fast becoming the place where numerous technologies meet and create applications that are useful for both consumers and businesses across the globe. The mobile phone of the future is a device that enables users to communicate, connect, transact and innovate. In most markets, phones with the characteristics below are already becoming available:

### **Definition**

Mobile Commerce refers to wireless electronic commerce used for conducting business transactions through a handy device like cellular phone or Personal Digital Assistant (PDAs). M-commerce enables users to access the Internet without plugs. The technology behind the emergence of m-commerce is based on the Wireless Application Protocol.

M-Commerce is a platform which enables user to do any sort of transactions like buying and selling of the goods, asking any services, transferring the ownership or rights, transacting and transferring the money by accessing wireless internet service on the mobile handset itself.

Due to its wide potential reach all major mobile manufacturing companies are making WAP enabled smart phones and providing the maximum wireless internet and web facilities which covers personal requirements as well as, official and commerce requirement also to pave the way of m-commerce.

### **History of m-commerce**

The use of wireless POS (Point Of Sale) swipe terminals has made its way into cellular phones and PDA's (Personal Digital Assistants). The first enabling m-commerce technologies were presented through Wireless Application Protocol (WAP) and i-mode mobile Internet service. WAP builds on digital phone technology and first emerged on 2.5 G phone technology that allowed users to browse the Internet. This technology paved the way of m-commerce, which has strongly developed on 3G-phone technology. Nokia has first introduced m-commerce application software Nokia toolkit version 4.0. Several experiments are going on to introduce the upgraded version of mobile likely to emerged with the evolution of 4G mobile technology.

Medical librarians were among the first to widely recognize the potential impact of mobile technologies on librarianship. A 2002 article in the Journal of the Medical Library Association and a monograph by Colleen Cuddy are among the first publications that focus on Personal Digital Assistants.

### **Advantage of m-Commerce**

- M-commerce has several major advantages over its fixed counterparts because of its specific inbuilt characteristics such as ubiquity, personalization, flexibility, and distribution, mobile commerce promises exceptional business market potential, greater efficiency and higher fruitfulness.
- Mobile commerce is emerging much faster than its fixed counterpart. Mobile commerce has been entered in finance, services, retails, tele-communication and information technology services. In these sectors, M-Commerce is not only being widely accepted but also it is being more used as a popular way of business/commerce.
- The content delivery over wireless devices has become faster, more secure, and scalable. The industries affected by m-commerce include:

### **Financial services**

The application of Mobile Commerce in financial sector includes banks, stock market and share brokers. Whenever any user needs money or any sort of banking service 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.

User can do money transaction, or pay the bill from its bank account using mobile commerce facilities. Banks also provide round the clock customer care services, which can be used any

time through voice calling. Customer care services are also provided on mobile that is known as insta-alert facility.

While in the stock market, the user can access the stock market quotes and get in live touch with 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 broker can suggest the appropriate stock for intra-day trading to their users.

### **Telecommunications service**

Mobile has played a big role in communication technology through its versatility and superiority. The popularity and easy usage has made it extremely popular. It has already superseded the fixed phone in the world. For operating any mobile Software is very essential. It has revolutionized the communication world because of its functioning as a small computer. The excess popularity of mobile phones has developed a new commerce that can reach the masses.

### **Service and Retail sector**

Service and Retail sectors are also among the leading sectors, which have gained most popularity from mobile commerce. M-Commerce has proved a major boon for these sectors. Several business dealings are being finalized on the mobile phone. Customer 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 services, which include the delivery of financial news, sports figures and traffic updates to a single mobile device

### **Information Sector**

In the IT field, mobile commerce has been used to deliver financial news, stock updates, sports figures and traffic updates and many more. IBM and other companies are experimenting with speech recognition software as a way to ensure security for m-commerce transactions. Wireless technology is well suited for bringing e-commerce to automobiles and other forms of transportation.

### **Digital content delivery:**

Wireless devices can retrieve information, such as weather, transit schedules, flash news, sports scores, ticket availability and market prices, instantly from the providers of information. Digital products, such as MP3 music, software, high-resolution images and full-motion advertising messages, can be easily downloaded and used in wireless devices. This will help wireless users to access, retrieve, store and display high-resolution video content for a time of entertainment, product demonstration and e-learning.

Some of the applications of wireless technologies to e-commerce activities are summarized here. E-commerce payment systems can also benefit from wireless technology. One scenario involves a consumer not having to stand in line to make a purchase, but simply paying for an item through a wireless device. Final payments might even be billed to a telephone company.

Bluetooth technology may enable a list of available services to be generated automatically on a device when a user walks close to a Bluetooth-equipped cash register. Traffic advisory systems can warn of impending traffic jams. Cars will eventually be able to report potential problems to service centers themselves. The service center might even make minor adjustments to the car online. Car-mounted devices will eventually allow regular Internet access, although safety issues of “browsing while driving” must be addressed. While most initial mobile commerce applications seem to be aimed at the business-to-consumer market, business-to-business and intranet applications are also appearing. Service technicians can be dynamically assigned new tasks and sent problem information while they are traveling. Sales people can go literally anywhere in the field and access product information and customer accounts, although the applications right now are still subject to the constraints of current wireless devices. Organizations must address the issue of designing complex, robust applications that work well within these current (and any foreseeable) device limitations. Flexibility can be integrated into designs to enable future functionality.

#### **Areas of application of mobile commerce to library services:**

- Mobile Ordering, checking availability and prices, delivery information with acknowledgment and confirmation
- The NEWGENLIB software for libraries contains the facility of SMS service. Through this service the users are intimated about overdue of books, reservation of books, Inter-library loan services etc.
- Libraries are creating mobile versions of their websites for their users to have access. These libraries offer information about library services and collection access to library catalogue search, subject guides, e-journals and library hours and Mobile OPACs
- Libraries can offer their patrons digital media collections that include audio book collections, e-books, video and music files.
- SirsiDynix has developed a hand-held circulation tool called pocketCirc, which enables librarians to access the Unicorn Library Management System on a PDA device. This wireless application enables library staff to assist users in the stacks, check out materials and update inventory items while walking around the library.
- The use of messaging such as twitter and SMS text messaging has enhance library services via hand phones. The SMS have also been incorporated into enquiry and reference services.
- The SMS is an ideal way to reach out to a greater number of potential users for offering reference service. The advantages of portability of the cellular phone and ease in using SMS, has made clear that SMS provides an alternative and potentially ideal mode of posting reference enquiries for users on the move. Text message alerts provide mobile owners with quick news announcements, reminders about important events etc. Libraries can provide these speedy services to patrons.
- Mobile Web 2.0 and 3.0 applications for social networking enabled discussions, blogs, wikis for library community as well as overall development of libraries. Libraries are also tapping into social video such as video blogging and YouTube to create a presence at these sites. These are being used as marketing tools.

#### **Implementation of Mobile commerce service at Maulana Azad National Urdu University (MANUU) Central Library**

- The MANUU Central Library uses “NEWGENLIB” software that contains the facility of SMS service. Through this service the users are intimated about overdue of

books, reservation of books, Inter-library loan services etc. The benefit of this service would be reduction in queues to access library computers to search for resources. Users can access up-to-date information as to the availability of resources. This service allows users to monitor when a book is due to be returned and also allows users to reserve library books currently on loan and also can receive automatic notification when a particular book is available. The SMS service offers not only text references but also gave an option for communicating with reference librarians, thus expanding the reference services to included face-to-face, e-mail, IM chat and text services.

- MANUU Central Libraries is planning to create mobile versions of the website for their users to have access to library resources. This offers information about library services and collection, access to library catalogue search, subject guides, e-journals and library hours and Mobile OPACs.
- MANUU Central Library is planning to offer their patrons digital media collections that includes audio book collections, video and music files.

## Conclusion

Wireless devices continue to change rapidly. While no one is quite sure what the ultimate wireless device(s) will be, there is definitely a need to ensure that devices can function with one another. There is also the need for a truly global wireless communication infrastructure with sufficiently high bandwidth to satisfy the needs of wireless and m-commerce applications. The establishment of a wireless infrastructure costs a great deal, and there will be many difficulties ahead for the companies paving the way for m-commerce, but the long-term prospects look good for the companies that survive. Leading online booksellers already started the commercial activities for wireless devices. The digitization of libraries, the use of mobile technology and the shift towards open access have placed the library in everyone's pocket, allowing people to have access to information and learning materials from anywhere and at any time to achieve the goal of providing universal education for all.

## References:

1. Ally, Mohamed (ed.) and Needham, Gill (ed.) *M-Libraries 2: a virtual library in everyone's pocket*, Facet Publishers: London, 2010.
2. Carolyn Klatt, "Going Mobile: Free and Easy," *Medical Reference Services Quarterly* 30, no. 1 2016: 56-73.
3. Dresselhaus, Angela and Shrode, Flora (2012) "Mobile Technologies & Academics: Do Students Use Mobile technologies in their academic lives and are librarians ready to meet this Challenge?" *Information Technology and Libraries*, June 2012, 82-101
4. HomeServicesM-commerce Mobile Commerce, M-Commerce Services, Mobile Commerce in India: Advantages and History of Mobile Commerce, retrieved from <http://searchmobilecomputing.techtarget.com/definition/m-commerce>.
5. "M-Libraries: Library Success: A Best Practices Wiki," [www.libsuccess.org/index.php?title=M-Libraries](http://www.libsuccess.org/index.php?title=M-Libraries).
6. Todd Spires, "Handheld Librarians: A Survey of Librarian and Library Patron Use of Wireless Handheld Devices," *Internet Reference Services Quarterly* 13, no. 4 (2008): 287- 309.

