

“M-Commerce- Facilitator Of E-Commerce”

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Abstract

Mobile phones are central to the lives of most people in developed countries and are growing in importance in less developed countries. Since their mainstream adoption in the 1990s, they have remained primarily communication devices. We use mobile phones to talk to other people and we carry mobile phones with us so that other people can talk to us.

However, the situation is changing. Mobile phone manufacturers have developed mobile devices that can serve many functions beyond voice communication such 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 Radio-frequency Identification (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. All these activities fall under M-commerce.

The mobile phone of the future is a device that enables users to communicate, connect, transact and innovate.

Keywords: m-commerce, e-commerce, mobile marketing, mobile network, e-commerce, mobile banking

Introduction

More recently, brick-and-mortar business owners, and big-box retailers in particular have made an effort to take advantage of mobile commerce by utilizing a number of mobile capabilities such as location based services, barcode scanning, and

push notifications to improve the customer experience of shopping in physical stores. By creating what is referred to as a ‘bricks and clicks’ environment, physical retailers can allow the customers to access the common benefits of shopping online (such as product reviews, information, and coupons) while still shopping in

the physical store. This is seen as a bridge between the gaps created by e-commerce and in-store shopping and is being utilized by physical retailers as a way to compete with the lower prices typically seen through online retailers.

Objectives of the study

- To understand the concept of m-commerce
- To learn about its importance and applications
- To find out the key drivers of growth and barriers to m-commerce
- To know about the guidelines for m-commerce

Research methodology

The study focuses on extensive study of Secondary data collected from various books, National & international Journals, publications from various websites which focused on various aspects of m-commerce.

Concept of M-commerce

Mobile commerce is any transaction, engaging the transfer of ownership or rights to use goods and services, which is started and completed by using mobile access to computer -mediated networks with the help of an electronic device. It is a type of e-commerce conducted through mobile devices such as mobile phones, personal digital assistants and other mobile devices with a wireless

connection, including smart phones (I Phones, Google Android), tablets (iPad, Amazon Kindle), net books and notebooks. Since the launch of the iPhone, mobile commerce has moved away from SMS systems and into actual applications.

Need and Importance of M-commerce

M-commerce has the following advantages:

- Convenience

It is a true convenience to do much from a handy device via M-Commerce. With wherever you are, in just a few clicks on your mobile device, you can already do shopping, banking and download media files.

- Flexible Accessibility

User can be accessible via mobile phones and at the same time be accessible online too through logging on to various mobile messengers like Yahoo and G-talk and other networking platforms. On the other hand, user may also choose not to be accessible by shutting down his mobile device, which at times can be a good thing.

- Easy Connectivity

As long as the network signal is available, mobile devices can connect and do commerce transactions, mobile to mobile and even mobile to other devices. No need for modem or wireless fidelity (WI-FI) connectivity set up.

- Personalization

Each mobile device is usually dedicated to a specific user, it is personal. You can do whatever you want to your mobile device, modify the wallpaper, change view settings or modify contact information as you send emails or e-payments.

- Time Efficient

Doing M-Commerce transactions do not require the user to plug anything like personal computer or wait for the laptop to load. Just hit the on button of your mobile device and your ready to go.

Despite the small screen, having something in your pocket that can do so much via M-Commerce is really an amazing technology and a great help. E-Commerce businesses are also making applications for mobile phones which allow users to browse their online products and make payments with couple of buttons.

M-commerce Applications

The general m-commerce applications are:

1. Mobile ticketing

Tickets can be sent to mobile phones using a variety of technologies. Users are then able to use their tickets immediately by presenting their phones at the venue. Tickets can be booked and cancelled on the mobile with the help of simple application downloads or by accessing Wireless Application Protocol (WAP) portals of various Travel agents or direct service providers. Mobile ticketing for airports, ballparks, and train stations,

for example, will not only streamline unexpected metropolitan traffic surges, but also help users remotely secure parking spots (even while in their vehicles) and greatly facilitate mass surveillance at transport hubs.

2. Mobile vouchers, coupons and loyalty cards

Mobile ticketing technology can also be used for the distribution of vouchers, coupons and loyalty cards. The voucher, coupon, or loyalty card is represented by a virtual token that is sent to the mobile phone. Presenting a mobile phone with one of these tokens at the point of sale allows the customer to receive the same benefits as another customer who has a loyalty card or other paper coupon/voucher. Mobile delivery enables:

- economy of scale
- quicker and easier delivery
- effective target marketing
- privacy-friendly data mining on consumer behavior
- environment-friendly and resources-saving efficacy

3. 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.

4. Location-based services

Unlike a home Personal Computer (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

5. 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

Particularly, more customized traffic information, based on users' travel patterns, will be multicast on a differentiated basis, instead of broadcasting the same news and data to all Users. This type of multicasting will be suited for more bandwidth-intensive mobile equipment.

6. 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.

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. Auctions

Over the past three years Mobile reverse auction solutions have grown in popularity. Unlike traditional auctions, the reverse auction (or low-bid auction) bills the consumer's phone each time they place a bid. Reverse auctions are high return applications as they allow the consumer to transact over a long period of time.

9. 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.

10. 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.

Key Drivers of Growth for M-commerce

- Changing behavior pattern and expectation of consumers with regard to shopping and brand loyalty
- Businesses are changing the way they do their work. Mobile phones are enabling these changes to happen.
- Exponential growth of consumer interest and adoption of the internet and e-commerce.
- Development of real-time transfer of data over 2.5G/high speed Internet network. With the introduction of 3G services and with the expected private sector participation, 3G will enable faster data transmission and universal connectivity.
- The evolution of the handheld devices incorporating Wireless Application Protocols (WAP) and General Packet Radio Service (GPRS).
- With the rise in the number of subscribers of database services, the cost of entry into m-commerce is low for most entrants.

Barriers to m-commerce

- The existing technology is not best suited for mobile data transfer. The connections are unstable, the data transfer rate is limited, transfer duration is too long, and the costs involved are high.
- Acceptance of m-commerce is slow.
- M-commerce can have a profitable future only when it can offer new services or existing services in a new quality.

- After an initial enthusiasm there is some disillusionment with m-commerce. M-banking has made customers uncertain, and hence, slowed down mobile banking.
- Many times, simple things are being ignored such as what kind of people are behind the billions of mobile services. Lack of infrastructure (wireless and business), competing standards, poor input and display capabilities in cell phones and customer indifference, piracy fear, human fear to learn new things are other constraints in the use of m-commerce.
- Security of m-commerce transactions needs to be ensured.
- There are problems of legal documentation, consumer protection and liability of service providers.

Reserve bank of India guidelines for mobile banking

In June 2008, the Reserve Bank of India, India's central bank issued a set of draft guidelines, 'the long term goal of mobile payment framework in India would be to enable funds transfer from an account in one bank to any other account in the same or any other bank on a real time basis, irrespective of the mobile network a customer has subscribed to. Key provisions of the draft guidelines include the following:

- Only banks that are licensed and supervised in India and have physical presence in India will be permitted to offer

mobile payment services to the Indian residents. They would be expected to ensure compliance with the guidelines.

- Banks should offer mobile-based banking services only to their own customers.
- Banks should have their mobile payments scheme approved by their boards before offering it to their customers. Board approval must document the extent of operational and fraud risk assumed by the bank and the bank's processes and policies designed to mitigate such risk.
- The technology used for mobile payments must be secure and should ensure confidentiality, integrity, and authenticity. It should be interoperable across banks and mobile networks.
- If sufficient safeguards are provided, SMS text messaging may be used for 'micro payment transactions' of up to INR 1500 (US \$35) and for 'repetitive utility bill payment transactions' of up to INR 2500 (US \$58).

Applications such as these mentioned above demonstrate the potential of m-commerce, but they are relevant primarily for urban residents who already have bank accounts and credit cards. Several existing barriers will have to be overcome if m-commerce is to emerge as a viable option for the country's entire population. These constraints in the application and growth of m-commerce are as follows.

M- commerce: the future scenario

- One of the most promising value added services for mobile phones in m-commerce is the ability to make purchases or conduct financial transactions by using a mobile phone. M-commerce could be particularly important in India, where only a small fraction of population currently has either a bank account or a credit card. Several Indian banks have introduced 'mobile banking' services for their customers. Similarly, Airtel has partnered with several Indian banks and VISA to provide mobile bill payment, money transfer, and prepaid phone recharge services. Movie tickets and tickets for sports events can now be purchased using mobile phones, and the Indian Railway system has announced plans for a scheme to allow its passengers to make reservations for rail travel through their mobile phones.
- In order to exploit the m-commerce market potential, handset manufactures such as Nokia, Ericsson, Motorola and Qualcomm are working with carriers such as AT & T Wireless and Sprint companies to develop WAP enabled smart phones.
- As content delivery over wireless devices becomes faster, more secure, and scalable, there is wide speculation that it will surpass wire line e-commerce as the method of choice for digital commerce transactions.

By 2020, more than ten billion people are expected to own mobile phones in the world. India is the second largest nation in the world in terms of number of mobile subscribers and is growing at the fastest pace in terms of number of mobile subscribers.

In India, though the m-commerce is still in its nascent stage with about 5-10 million transactions per day, however, it is picking up fast. Some of the commonly used mobile payment platforms include mCheck, ngpay, Obopay, PayMate, ATOM, Oxicash, etc. the Reserve Bank of India (RBI) issued guidelines for mobile banking in October 2008 with the limit on per day transaction as INR 10,000. This has now increased to INR 50,000 per day. This will certainly push the demand of m-commerce/m-banking. With the introduction of 3G/BWA service in the country many more 3G/4G networks will provide the infrastructure for the companies to move forward with the wireless technology applications.

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