



ISSN 2278 – 0211 (Online)

Mobile Commerce: An Indian Perspective

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Abstract:

Mobile communication and computing is presently riding a wave of popularity. The reasons may be many - Technological improvisations in networks resulting in 3G, 4G, Bluetooth, Wi-Fi, Wi-Max technologies, the high levels of penetration of mobile access devices such as laptops, cell phones, PDAs etc. Mobile communication is witnessing an unprecedented growth worldwide. This exponential increase is leading mobile computing in directions other than simple applications like SMS, Internet surfing to the idea of doing business anytime, anywhere from home, in transit or at office. M-commerce the sequel to mobile computing is gaining prominence in all spheres of society. This paper explores the various prospects for Mobile Commerce, the next generation of commerce through mobile access devices with a perspective of its status in India.

Keywords: Mobile-communication, Technological improvisations, exponential, Mobile computing

1. Introduction

Electronic commerce has come a long way overcoming many teething infrastructure problems. Today E-commerce is a buzzword in many industries. Customers, whether they are individuals or organizations or companies are using web as the first place to shop. This growth has propelled developers of mobile technology to leverage the evolutionary mobile technology for web users by offering them the ability to shop even when they are mobile using their mobile devices. The mobile devices offer the shoppers the comfort of shopping even when there are at office, transit or at home. Anytime, anywhere shopping experience a reality in today.

Mobile communication is undergoing many transformations and metamorphosis to provide the customer cheap, affordable and ease of use technology.

Mobile services have moved from a few services that were offered in its inception stage to a wide variety of services to the customer. A bundle of services are available to customer in his pocket sized handheld device. The ever growing mobile users are just button away from these services ranging from an SMS to booking a ticket for travel or an entertainment show.

Electronic commerce using desktop computers has not scaled expected heights in India especially in consumer commerce as compared with the rest of the world. The emergence of mobile technology coupled with a number of value added services can help for faster growth of electronic commerce in particular consumer commerce among the consumers. The rapid growth and sophistication in mobile technology enlivens the spirits of e-commerce experts, who believe the next generation electronic commerce or called Mobile Commerce will have a faster growth, greater reach and with spectrum of applications.

The present study attempts to focus on the following

1.1 Objectives

- Analyze the status of Mobile technology.
- Analyze the value added services and their status.
- Study the Indian Scenario
- Identify the Prospects for Future in Consumer Commerce.

1.2 Methodology for the Study

- **Type of Study:** The Study is descriptive in nature- an attempt to understand the evolution of Mobile Commerce.
- **Data Sources:** The data for the study is collected from the secondary sources such as websites, journals and magazines.

1.3. Scope and Limitations of the Study

The Scope of the study is confined to analysing the Indian Consumer Commerce environment.

1.4. The Limitations of the Study are

- The study is a general study attempting to understand the mobile technology usage for business purposes.
- The study restricts the scope for analysing the relationships between various players involved in implementing and using it.
- It is a descriptive study rather than a quantitative study.

2. Review of Literature

The Mobile Commerce in India is still in its infancy stage. However this will be the future form of electronic commerce. A review of literature on mobile commerce and its growth gives an ample evidence of the prospects this form holds for conducting business in future. A brief review of literature related to this topic is given below.

The www.india-reports.com in their articles base state- Mobile Commerce services are evolving rapidly in India due to the coming together of mobile service providers, banks and payment service providers to offer more products and secure transactions through mobile networks.

While e-Commerce is limited to PC users only, Mobile Commerce is open to almost everyone with a cell phone and mobile connection. Mobile Commerce is expected to grow because the mobile usage and ownership penetration is more than 4 to 5 times than a PC and growing at a very fast rate.

According to Vineet Thadani of Machouse India- The overall mobile ecosystem in India has created favourable conditions for m-commerce to explode. The few reasons for this trend include the fact that devices are becoming cheaper - cell phones are far cheaper than desktops and laptops. The second is mobile internet connectivity

Abhineet Kumar in his article- Mobile Commerce gets ready for the next big step in India, states the following - Mobile commerce, which in India has been limited primarily to basic banking transactions, purchase of travel tickets and payment of some utility bills, is finally taking off with banks, cellular operators and payment service providers coming together to find solutions that comply with regulatory guidelines.

Given the increasing beginners consumption of data on mobile phones we think the next wave of digital commerce customers will come from this medium, Ankit Khanna, VP product management of snapdeal.com said in a statement.

India's fast growing population of first time internet users are increasingly buying on mobile. Most of these mobile shoppers are coming from India's smaller towns. From around 25 million mobile Internet users in rural India as of October 2013. It is set to become 32 million by June 2014. By 2016 when India's internet users base reaches 400 million Accel expects around 90% of them to access the web on mobile.

Pankaj Mishra states -India's nearly 100 million smart phone users are beginning to shop online at a pace that the country's biggest e-commerce companies such as Flipkart and others are expecting the mobile, to trigger, to surpass their desktop user base this year.

According to Muntazir Abbas's ET report, Sep 4 2014, Times of India, low cost smart phones are fuelling m-commerce growth. M-commerce saw growth of 800% in 2013 and is expected to clock a CAGR of 150% till 2016.

According to a report prepared by Internet and Mobile Association of India on Mobile VAS in India- Though M-commerce is in its nascent stage many initiatives are taken to create business models in this space like M-banking, M-payments etc. The report also points out that though m-commerce penetration is still low, awareness is increasing. The report expects m-commerce to increase by three folds.

3. Technological Evolution of Mobile Communication

The Telecommunication infrastructure in India started way back in 19th century and the process of evolution is continuing even in 21st century. But the journey that began in 1850 during the British rule when the first telegraph line was started on an experimental basis between Calcutta (now Kolkata) and Diamond Harbour in November 1850 for East India Company. The Telegraphic system is origin of the Telephone system. By 1881 private operators were allowed to operate telephone systems in Madras, Bombay and Calcutta and in 1882 first telephone exchange was opened at Bombay. The Telecommunication systems eventually started to penetrate in to the Indian Society. However at the time of independence there were only 80,000 telephone subscribers in India. However by 1980 when first telecommunications satellite was launched the telecommunication system in for the first witnessed rapid developments in the communication systems. C-DOT¹ was established, the first radio paging service was first introduced in MTNL² Delhi and VSNL³ was setup and International gateway packet switch was commissioned in Bombay.

1990's is marked by the setting up Telecom Regulatory Authority of India or TRAI a regulatory body acting as an apex body for formulating rules, regulations, tariff mechanism as many private operator had entered in the telecom industry. Also this decade witnessed the first wireless local loop phones being provided by the operators.

By 2000 the telecom sector grew by leaps and bounds. There was an unprecedented growth in subscriber base. With better infrastructure the mobile telephone had growth rate far beyond expectations. The call rates were reduced drastically and mobile instruments became cheaper and affordable.

The Mobile communication has grown from the need to have communication even when people are on move to doing various other day-to-day activities. Today mobile is growing faster than fixed and also Internet connectivity. Mobile telephone users are growing at

¹ C-DOT- Centre for Development of Telematics- A Government of India Enterprise.

² MTNL- Mahanagar Telephone Nigam Limited.

³ VSNL-Videsh Sanchar Nigam Limited

a rate of nearly 13% every quarter which almost close to adding 10 million subscribers every month.⁴ In fact the while mobile subscriber base in increasing the fixed line telephone is showing a negative growth rate. With the technology becoming superior the quality and quantity of services would become much better and at affordable prices for a common man.

The following are the milestones scaled by the telecommunication system in India till today

- 1851 – First Telegraph line was started between Calcutta and Diamond Harbour.
- 1882 – First Telephone Exchange was opened in Bombay.
- 1913-1914 - First Automatic Exchange installed in Shimla.
- 1933 - Radiotelephone system inaugurated between the UK and India.
- 1960 - First subscriber trunk dialing route commissioned between Kanpur and Lucknow.
- 1975 - 1976 - First digital microwave junction introduced.
- 1979 - First optical fibre system for local junction commissioned at Pune.
- 1980 - First satellite earth station for domestic communications established at Secunderabad, A.P.
- 1983 - 1984 - C-DOT established for indigenious development and production of digital exchanges.
- 1985 - First mobile telephone service started on non-commercial basis in Delhi.
- 1994- Formulation of National Telecom Policy.
- 1995- setting up of Telecom Regulatory authority of India (TRAI)
- 2002 – Privatization of VSNL. [Ref 4]
- 2009- No of Subscribers of Mobile devices is 502 million.
- 2011- Evolution of MVAS in India
- 2013-No. of Mobile phone subscribers have reached 875.45 million by telecommunication statistics.
- 2014- No. of Mobile phone subscribers have reached 933 million by telecommunication statistics.

4. Growth Patterns of Mobile Telephony in India

In India the Mobile users has increased substantially and continues to grow. According to India Telecom Report published by the Telecom Regulatory Authority of India (TRAI) in Nov 2013 there were 870.58 million wireless subscribers in India. Nearly 59.75% of these the subscriber base is in urban India while only 40.25% of them are from rural areas.

5. Mobile Value Added Services-An Overview

Mobile telephones today not only provide voice communication but also many services referred to value added services. In a report titled Mobile VAS in India prepared by IAMAI⁵ stated that Mobile VAS industry in India is undergoing a lot of structural changes and is poised to grow and contribute greater revenues to the telecom industry in years to come.

In Many Countries where the Mobile Markets are becoming highly competitive and have reached saturation in terms of voice connectivity, Mobile operators are pushing for non-voice value-added services. Even in South Asian countries like India where mobile connectivity is growing at a constant pace the mobile operators are offering value-added services taking into consideration cultural and religious aspects. The SMS, where mobile subscribers respond to an application such as voting through SMS for a TV program, is on the rise. In terms of Premium Content – Mobile Entertainment segment, it remains the most significant form of mobile VAS especially in India.

According to Lavanya Palani Batcha, Industry Analyst, ICT Practice, Frost & Sullivan, South Asia and Middle East, “With many markets almost reaching saturation point or having surpassed saturation in terms of mobile subscriptions penetration, telecom service providers are in need to bolster the ARPUs; and mobile VAS has the potential to alleviate this issue of declining ARPUs.”

The value added services offered by mobile companies in India are the following:

- Ringtones
- SMS
- Internet Surfing
- Ticket Reservation (Air, Train, Bus, Cinema)
- Mobile Banking
- Alerts
- Film Clips
- Film Song

India is the fastest growing mobile market in South Asia with good potential for growth amongst the rural population. The mobile VAS market is set to grow at a strong CAGR of 16.6 percent from 2008 to 2015.

These services and more have led to a steady increase in MVAS market in India is expected to grow roughly by \$ 6.6 billion in 2013.

⁴ India Telecom Report; Wireless subscribers – Published by Telecom Regulatory Authority of India (TRAI)

⁵ IAMAI- Internet and Mobile Association of India

6. Mobile Commerce in India

The development of Internet-based business brought along with it a number of benefits to both seller and the buyer, the geographical barriers are broken. The seller and buyer can be from any part of the world and need not face each other. The convenience of shopping on Internet provided the customer the advantage wide range of products at his disposal and at an effective cost. The customer also had the advantage of doing shopping at any time of the day or night all seven days. In India also Electronic Commerce gained momentum with by late 1990s. The government of India's proactive policies like passing of IT ACT 2000 and its subsequent amendments that provided a legal framework for doing online business, impetus on providing improved communication infrastructure necessary for sending and receiving data and privatization of Internet Service all contributed to the greater usage of e-commerce in business. The First generation Electronic commerce however did not penetrate as expected. The reasons that can be attributed to the sluggish growth of first generation e-commerce especially in B2C segment are

- Bandwidth problems
- Internet connectivity costs higher than the rest of the world
- Security issues
- Lack of understanding in its usage.

But as the applications in e-commerce are getting more and more sophisticated there could be an increase in the penetration rate. However with the mobile technology growing at a rate faster than any other technology, mobile services providers are looking for providing value added services along mobile telephony.

Increased smart phones adoption and growing mobile internet penetration have led operators to increase the value added services offer to their subscribers. Operators across India now offer mobile services related to-

- **Health-** MNOs have partnered with health care components to help users find hospitals, schedule appointments, get medical services and facilitate treatment.
- **Education-** Partnering with NGOs MNOs now offers real-time interactive courses, IVR-based education and additional initiatives aimed at under prime children.
- **Commerce-** Mobile payment systems have already taken off in India, encouraging telcos to offer other services such as microfinance, retailing and mobile wallet.
- **Infotainment-** Users can subscribe various infotainment services, receiving everything from sports scores and travel updates to ring tones, games etc. on their mobile phones.
- **Agriculture-** Services for framers help provide them access to market conditions, commodities prices, weather updates and so on.

Thus the mobile commerce is in for a bright future. Mobile commerce is the commerce conducted using Internet technologies on mobile devices. As the hardware and software for mobile devices gets sophisticated they offer a convenient way of doing business anytime, anywhere and even when in transit. The unprecedented growth in mobile devices in urban and rural areas gives the mobile companies and mobile commerce developers to look for more services that can be provided to customers with a good revenue generation model. People are also increasingly looking for easy access to an umbrella of services under one mobile phone. The services providers are competing with each other to offer varied services at a competitive price, thus giving customers a chance for wide range of options to get the service from different operators.

The mobile phone subscription in India as seen earlier has increased remarkably, so m-commerce has a good growth opportunity.

7. Mobile Commerce – Future Prospects

Telecom major Bharti Airtel announced the launch of its m-Commerce service 'mChek on Airtel', which will allow its subscribers to pay their Airtel mobile and fixed-line bills on the voice platform. The service would also help in recharging Airtel mobile pre-paid and DTH accounts as well as Delhi-Gurgaon expressway toll tags through Interactive Voice Response (IVR).

There is a tremendous potential for voice enabled m-Commerce services in India and we are giving a huge thrust in this area. We believe that m-Commerce has the power to facilitate a paradigm shift in the way mobile users do commercial transactions and business in future," Bharti Airtel President (Mobile Services) Atul Bindal said.

The other applications which will gain considerable attention in future is **localization of content**, migration to 3G environment resulting in higher bandwidth and better services in music, video applications. Stock purchases and selling could also be conducted using mobile technology. As the services offered by mobile operators may lose its novelty and so the need for constant innovation in terms of services offered will continue to challenge the mobile service industry.

8. Conclusion

The Value Added Mobile services industry cutting across countries rich or poor is growing far beyond expectations. The Earlier desktop e-commerce is today provided as mobile commerce for people who did not even know what e-commerce is. This new and second-generation commerce with different value-added services is offered to any person with an access to a mobile phone.

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