

A Study of M-Commerce in India: Virtue and Vices

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Abstract

The purpose of this paper is to spread awareness among the readers about the present scenario and status of m-commerce in India. In the past few years, growth of wireless technology had been seen in India. This growth has changed the way people doing business in m-commerce as now a day's mobile phones are becoming common to the common people, or we can also say that people are becoming "Mobify" as we can easily avail them at nominal or reasonable prices. In order to get fast transactions into market, day by day many people are transferring to m-commerce. Due to large number of mobile applications, mobile penetration growth rate is increasing day by day. Although many people in India are ready to adopt this change but still many of them are hesitate to use m-commerce because of some issues related to security, payment and complexity of the mobile application etc. In implementation of m-commerce many service providers are also facing problems as they have to think taking into considerations the needs and type of users. Beyond this it is forecasted that in the coming future it is going to be the best way of doing business by the retailers and easiest way of doing shopping by the consumers. So in this paper we identifies the facts about the feasibility of M-Commerce and also about what are the problems faced by the users and service providers in India.

KEYWORDS- m-commerce, mobile penetration, security issues, mobile applications

Introduction

The M-Commerce stands for Mobile Commerce, was originally taken in 1997 by Kevin Duffey at the launch of the Global Mobile Commerce Forum, to mean "the delivery of electronic commerce/ transaction capabilities directly into the customer's hand, anytime & anywhere, via wireless network technology"(<http://en.wikipedia.org/wiki/M-commerce>)

In the worldwide the way of doing business, way of interaction with the customer and consumer transaction has been changed with the help of the medium called Internet. A recent trend of On-line shopping or shopping through mobile is a phenomenon which definitely going to be the future of e-business in India. Use of internet by the people of India provides emerging prospects for online retailer. According to a report "India, whose Internet user base is second largest after China, will remain the fastest growing market." ('The Future of Internet in India' report by Nasscom and Akamai Technology, Aug 2016)

"It is not surprising anymore that mobile is responsible for a big chunk of this growth. In Urban India, the mobile Internet user base grew by 65 per cent over last

year to reach 197 million in October 2015. In Rural India, the mobile Internet user base is expected to reach 87 million by December 2015 and 109 million by June 2016.”(Internet in India 2015 report by Internet and Mobile Association of India (IAMAI) and IMRB International).

Mobile Commerce is getting wide scope day by day. It help us wherever we go, with the help of mobile we can easily locate nearby restaurant, stay in touch with our colleagues, or even pay for items at a store. The Internet accessible devices are becoming more personal and also internet has finds its way into our purses or shirt pockets. With the help of these devices we can run a long way as mobile phones, already know the phone numbers of our friends and colleagues. They can easily track our location. Tomorrow, they will replace our wallets and credit cards. A day may come when they turn into intelligent assistants capable of anticipating many of our needs, such as arranging for taxis automatically to come and pick us up after business meetings or providing us with summaries of messages and relevant news left by colleagues. Mobile commerce is a different form of e commerce or we can say that it is a natural successor of e commerce (Mirzae, A., Asadollahi, A., & Jahanshahi, A, 2008 and) m commerce should not be viewed as e commerce with limitations, but rather as a unique form of e commerce with its own unique benefits. (SJ Barnes&E Scornavacca Jr ,2007)

Mobile commerce is beyond Electronic commerce

Quite obviously, a large number of people believe that both m-Commerce and e-Commerce provide similar benefits, albeit to varying degrees. Interestingly, we can see the variation in the degree of benefits as a merit for either of them which might result in increasing preference for one type of virtual Commerce over the other. For instance, the common advantage of e-commerce and, m-commerce is that they both are time savers and convenient.

However, we can say that in some regions particularly, in developing countries, m-Commerce provides more convenience to consumers than e-Commerce. The reason for this could be easy availability of the platforms that required for the conduct of m-Commerce than the platforms required for the conduct of traditional e-Commerce. The result of adoption of e-Commerce in business is reduced production and transaction cost which led to increase in sales (Sharma, G., Danesh, S. Y. S., Amiri, M., Mousavian, S. J., &Eskandarpour, B. 2011). This is because just having an online presence generation of revenues goes high in businesses (Oduntan, O. A. (2010). Taxation of Electronic Commerce).

With the help of e-Commerce technology, physical and geographical barriers are lessened which are associated with the transactions of the traditional business; thus increasing market reach of the business. For the consumer, they experience reduced cost of product search and have access to more varieties of product when they engage in e-Commerce (Oduntan, O. A. (2010). Taxation of Electronic Commerce). Also, e-Commerce encourages an increase in competition which often results in increased product innovation and economies of scale (Oduntan, O. A. (2010). Taxation of Electronic Commerce).

Although e-Commerce provides such immense benefits, the introduction of m-Commerce pushes the boundary of innovation in the world of business even further. While e Commerce provides the opportunity of conducting business

transactions with little or no geographical barriers, a major advantage of using m-Commerce is that it provides the opportunity of conducting business transactions anywhere and anytime (Shahram, G., Danesh, S. Y. S., Amiri, M., Mousavian, S. J., & Eskandarpour, B. 2011).. This makes it possible to conduct business transactions on the move. Also, the introduction of m Commerce provides the benefits of localisation and instant connectivity (Mirzae, A., Asadollahi, A., & Jahanshahi, A, 2008). With these features, businesses can send targeted information or advertisements to potential consumers based on their current location. The fact that mobile devices make it possible to remain connected to the internet means that such information is more likely to reach consumers in real time.

This feature tends to be more effective with m Commerce than with traditional e-Commerce because such location based information is likely to encourage more sales. For instance, a hungry consumer who receives a coupon on their mobile phone by walking past a fast food outlet is more likely to visit that outlet than a hungry person receiving the coupon from their office computer. Another advantage of m-Commerce is the concept of NFC (Near Field Communication).

NFC refers to the integration of RFID (Rapid Frequency Identification) technology with mobile phones (Priscilla Omonedo, Paul Bocij, 2014) through this technology; it is possible to make payments through mobile devices. Also, with the help of “smart poster”, consumers can wave their phone close to a poster and get more information about the poster (Priscilla Omonedo, Paul Bocij, 2014). For some people this provides a faster and more convenient way of making payments and getting information than e Commerce It includes consultation, notification, order confirmation, feedback and tracking etc.

LITERATURE REVIEW

(Gupta & Vyas, 2014) says that m commerce is complex to adapt and it is at emerging level in India. People have extended the use of mobile they use mobile phones not only to make phone call but for web access, chatting, surfing and also shopping. He has discussed about how m-commerce is developing in India and identified clear context and assistant mechanism. As a coin has two aspects so as every technology has, similarly he had discussed about benefits and drawbacks of m-commerce in India. The benefits are user-friendly, easy to carry; low internet connective area etc. and drawback are lack of internet connectivity, language barrier, less graphic resolution, less number of mobile phone users etc.

(Mirzae, Asadollahi, & Jahanshahi) has discussed about mobile wireless technologies, relationship between e commerce and m commerce, help business to define what they can derive from m commerce, fundamentals of e commerce and m commerce, categories of mobile commerce applications. He briefly discussed on applications of m commerce that have gain acceptance at all levels of society. It can be used for Travel and Ticketing, Education, Health care, Traffic etc. he had also brought into consideration about the use of m commerce in China and Brazil and India, about how it has increased from 2010 to 2011. At last he has also suggested m commerce providers to improve user interface, and implement innovative pricing structures.

(Tandon, Mandal , & Saha)has explored and presented the possible issues in mobile e commerce. He had tried to bring out the potential benefits and challenges associated

with the technology. Many wireless technology protocols like GPRS, WAP, UMTS, and GSM etc. have been discussed in the paper.

According to (Sujata P. Deshmukh, Prashant Deshmukh and G.T.Thampi), The M-commerce is the branch of Ecommerce technology, in short we can say that, e-commerce transaction carried out using a mobile hand held devices. Today internet is the part of our daily life for communication, business transaction and market transaction, but India is a country of many different languages, only 4% of people know very well about the English language. If M-commerce use local language, this will not only ensure quickly adoption by the customers but also will be an instant success.

Paul Budde's paper, "Australia -Mobile Data - Mobile commerce and M-Payment" (2010), communication expert, provides the overview of mobile commerce in the Australia and identifies the impact factor that will be important for the future of the market transaction. Paul resist that, M-commerce market place in Australia is small compare to Asian market.

K.S. Sanjay (2007) states that, Mobile hand held technology is less cost included and also provides a better flexibility and effectiveness to its users. M-commerce is also a subset of E-commerce, but the difference lies that M-commerce uses wireless technology. So it gives flexible and convenient experience.

M Commerce by Lehman Brothers, Ovum , and Forrester, (2016) . The various devices had been discussed. He had also studied the sales and available users of smart phones in India which shows tremendous increase in the graph although it is new in India. According to him the growth drivers of m-commerce are Instant Connectivity, Personalization factor, mobility Factor, Immediacy, Localization etc. He had also focused on Mobile commerce Applications in India like entertainment, ticketing, e auction etc. To summarize his research M Commerce has changed the life of people and way of doing business. With the help of m commerce one can get the entire word knowledge on their phones, can access and manage the bank accounts, avoid parking rush, health issues etc. but the he had also discussed about the security issue and speed that is not sufficient to make purchases and pay online.

Chandan Gupta (2016) , According to him M-commerce provides some unique services which is not possible in E- commerce, However m commerce is just considered as the extension of e- commerce. He gives the equation "**Internet + E-commerce + Wireless = M-Commerce**". He said that scope of M- commerce is wide spread at almost every walk of life . like the field of content, entertainment ,travel; banking and marketing He categorises the m-commerce application in two categories like one is Content Delivery: It includes consultation, notification, order confirmation, feedback and trackers and the other is Transactions: it includes purchasing, making payments, checkouts, data entry & maintenance.

RISE OF M-COMMERCE

When we talk about Largest mobile Market in the world India is the largest one after China. The number of internet users in India reaches 302 million by December 2014, according to the survey of IAMAI and IMRB international. In the sector of M-commerce 2014 has been a landmark year for India. (Mirzae, A., Asadollahi, A., & Jahanshahi, A) . According to Nielsen survey in 2014, smart phone penetration in

Indonesia (23%), India (18%) and the Philippines (15%). Wi-Fi is often used in India by mobile users everywhere in malls, cafes etc. “This reflects the slow pick up of 3G connections in India, which have reached a penetration level of 3.4% in January 2014”(Nielsen Survey, 2014).

The transaction made with mobile phones increased in 2014 by over 250% compare with the last financial year according to PayPal mobile commerce. If we talk about investment than, since 2014 most of the investment of our country has gone in top the development of manpower & marketing. As internet users are increasing rapidly in India as a result most of the marketing money is spent on the manufacturing of smart phones. (8th WSEAS International Conference) .It is assumed that in India mobile commerce market is going to increase from the current 2 billion \$ to 19 billion\$ by 2019.(A report by Zinnov market research firm) . It has also been seen that since 2014, as customers are becoming more feasible to purchase goods and services through mobile phones that’s why there has been dramatic increase in the sales of mobile phones.

Another important aspect which give rise to m-commerce in India is easy to use “lite” sites means various retailers are using this while designing their applications for mobile phones that data usage will be less and with less drain on battery life , reason is most of the mobile users in India have basic smart phones or weak internet connections. “They also allow established brands to continue to leverage mobile search to drive organic traffic rather than relying on users to discover and download entirely separate mobile applications.”(techinasia.com, indian-mobile-commerce-change-2016)

CURRENT SCENARIO OF M COMMERCE IN INDIA

M commerce Industry is getting wings in India due to exploded adoption of mobile applications, smart phones and mobile internet.

M Commerce growth in India is the outcome of an increased adoption of smart phones and the internet. “In a country with a population of 1.3 billion, there are 331 million smart phone users as of now. The number of mobile internet users in India stood at 371 million as of June 2016 and is expected to reach 500 million by 2017”(report by Pranav Poddar, dazeinfo.com, dec 2016). These figures indicate that the riding on the back of mobile E Commerce industry in India has only scratched the surface and still has a huge growth potential. Reasons of Popularity of M commerce in India are firstly the price of devices had gone down. Now a days the devices that are being used is available at reasonable price and people are becoming use to of mobile phones. Every level of people in India have started using phones (Smart phones).According to the reports every 74.16 persons per 100 mobile users are there in India and India stands second in world ranking in terms of mobile phone/ mart phone usage. Internet on mobile phones are easily available and at feasible rates. Mobile service providers are giving internet connection for mobile phones at very nominal price that is affordable by more than 50% of the population.(TRAI press release 14 October 2014)

In the last few months mobile service providers have slashed down their 3G Rates in India. Bharti Airtel by 70%, Reliance up to 90% and Vodafone by 80%.According to TRAI, there are over 431 million internet capable mobile devices in India, making

access easy for consumers across the length and breadth of India. (Business Standard, December 02, 2014)

Many e-commerce companies switch to mobile in order to expand their sales. M-Commerce accounts for 41% of the total e-commerce sales in 2014. (According to the Internet trends report of KPCB partner Mary Meeker's 2015) "Indian e-commerce leaders are also more mobile-centric as compared to global leaders. Mobile accounts for around 75% of Snapdeal's orders and around 70% of Flipkart's orders. This has probably incentivised e-retailers like Myntra to chuck the desktop site and adopt an app-only model."

Most of the companies are running their on-line portals to sell their products/services on-line. Though online shopping is very common outside India, its growth in Indian Market, which is a large and strategic consumer market, is still not in line with the global market. Currently there are lots of mobile applications which are getting wider scope in the digital marketing some of them are:

Ticket Sales

IRCTC, Book my show etc. apps are there that helps users book their ticket for entertainment and travelling sitting at home. Skyscanner is there to book airline tickets. Amigo is there to search hotels and accommodations.

Restaurant Apps

Urban Q is an app that helps us to find restaurant near by us. Domino's Pizza app also helps us place our customized order from the phone.

Mobile Marketing Apps

Mobile Deals: Mobile users get various discounts, and buy deals on-the-go. For example,

Restaurants, bars or shops may offer various deals and may even use GPS features to find deals closest to the mobile user.

Mobile Coupons: Mobile coupons are a popular app for mobile phone users. They are a marketing tool, and to be effective often need to be store-specific and integrated into the shopping experience.

Retail Store Apps

There are many apps available in store that helps and guides the user to buy products online. Flipkart, Snapdeal, Amazon etc. have launched their apps for retail purchasing.

Social and Gaming Apps

Mobile gaming apps are beginning to integrate in-game content purchase by integrating with payment systems. We have app store on almost all operating system whether it is Android or iOS or Symbian etc.

Banking Apps

Mobile banking services are increasingly popular. Most banks offer many banking services such as credit card payments, bill payments, on-the-go access to financial services and real-time personalized messages to consumers. We have mobile banking provided by all leading banks like Axis, Bank of Baroda, SBI etc.

Portability and availability of the device is 24X7.- Mobile phones size has decreased and facilities have increased. It is easy for the users to carry small devices as

compared to laptops etc. along with this m commerce sites are available 24 hours and so is our phone

Fewer prices of the products- The products that are available online are comparatively cheaper to the products available in shops. And also users get various discounts, free shipping, and coupons if they use m commerce sites for buying a product.

Future of m-commerce:

Mobile connections and mobile shopping options led to increasing the scope of m commerce day by day and hence m commerce is having bright future in India.. Also, In order to provide m commerce facilities and offer a huge variety in that, many banks are tying up with telecommunications service providers. Day by day large number of people is getting initiated into the world of m commerce. Today In India, most of the consumers in order to pay different kinds of bills are using mobile phones. (Rajnish Tiwari &Stephan Buse, 2007). Different kinds of applications have been introduced by the network providers which can be used for paying different bills like electricity bills, internet bills, phone bills etc. (Singh, 2012). The government of India is also taken steps to ride the m commerce wave and has introduced mobile payment options for house tax, electricity, water, gas etc. Right now this is in growing stage, but, very soon all the utility bills will be paid by the consumers through mobile phones. This will save the time of consumers and will be highly convenient for them. Another aspect of m-commerce that is gaining huge popularity in India is transferring money. Now almost every bank is providing its mobile banking application that enable consumers to stay connected with their bank account through mobiles. For this specific apps have been created. While people can download and installed the applications for money transfers, people can check their account details and bank balance via sms as well. In the upcoming years surely mobile transactions are going to be increasing as the applications are becoming more fast and secure. (Singh 2012).

M-commerce and Demonetisation

The Centre's move of demonetisation will augur well for the m-commerce industry in the country and most of the retail commerce will shift to mobile in the near future, (Demonetisation to help m-commerce in India, Dec 2016)

“It has been a while since the move to ban the Rs 500 and Rs 1,000 notes was announced. The demonetisation move was exactly the fillip the fledgling m-commerce ecosystem in India was looking for,” (CII Grant Thornton report on m-commerce.)

M-commerce is the buying and selling of goods and services through mobile phones. Smartphone usage has grown at an explosive pace in recent past and expectation is to grow even faster with demonetisation and entry of new service providers such as Reliance Jio.

“This in turn will fuel the growth of m-commerce and we envisage that most of the retail commerce will shift to m-commerce in the foreseeable future,” (CII Grant Thornton report on m-commerce) . M-commerce accounts for nearly 60 per cent of online sales in the country. The growth in m-commerce has been fuelled by the availability of affordable smart phones and mobile data plans. India currently has 292 million smart phone users, and more than 45 per cent of all mobile phones shipped in Indian market were smart phones in the first quarter of 2016. (CII Grant Thornton report on m-commerce.)

Mobile Internet user base in India has increased to 371 million in 2016 and the user base is expected to annually grow by 50 million till 2019. Online shoppers in India are likely to more than double by 2020. It also observed that 60 per cent of online shoppers prefer mobile devices. It noted that mobile wallets have become a key enabler for m-commerce as most people are hesitant to share their bank account details or credit/debit card details due to the fear of sensitive information getting compromised.

“While online banking and even mobile banking has been around for a long time, mobile wallets have made it easier to shop. From grocery to cab rides to movie tickets to food deliveries to utility bills, almost anything can be bought and paid via simple mobile apps,” it pointed out.

Over the past four years, mobile wallet transactions have jumped from Rs 10 billion (60 mill transactions) in 2012-13 to over Rs 490 billion (600 mill transactions) in the year 2015-16. (CII Grant Thornton report on m-commerce)

With ever-increasing Internet and mobile penetration and the recent demonetisation event, India is all set to witness a massive surge in the adoption of digital payments in the recent future

ISSUES IN USING M COMMERCE

In India M – commerce is still at its growth stage and various e -commerce companies are still experimenting with mobile applications and mobile sites, to make convenient and hassle free shopping experience for the customers. Many e -commerce companies are in dilemma whether mobile applications are useful for them or they should use mobile-optimized websites. (Praveen Sinha, co-founder, Jabong.com)

But still there are many reasons for not using m commerce very widely by the people of India and that is : Due to Lack of awareness and Insecurity. .Although we have already discussed that many people in India are now using smart phones but still they don't know what all can be done using mobile phones. In India there a lot of insecurity among people while using payments over mobile phones.

Security issues

The internet's speed does not allow mobile users to make payment in an efficient manner. Generally mobile users don't have software of security available so there may be the threat of identity theft, phishing, hacking etc. And while accessing apps in mobile, user's personal details and identity and bank credential is used by the app store. Another issue is when a user makes a payment he is taken to third party, and if something goes wrong either they have to make the payment again or the order of the user remains pending and many times cancelled. CII's Vikram Tiwathia noted, “Users will engage in m commerce only if they trust that the transactions made through their devices are secure.”

Device dependency

To be successful, **M-Commerce** systems typically need to run on a variety of mobile device platforms. Examples include conventional phones (WAP, SMS), Smart Phones (Running the Java MIDP platform), PDAs (such as the Palm), Communicators A browser-based architecture such as WAP might be sufficient for some m-

commerce solutions, but others will require the deployment of a mobile application (for example a trading user interface) onto the mobile device.

"m" in m-commerce should stand for "minor."

“m” can be stands for "Minuscule." "Marginal." Usually, slow adoption of mobile data and m-commerce is blamed on the lagging rollout of data-capable devices. Wireless might be more a medium of message than of purchase. They must do a much better job of providing consistent interfaces that allow users to move seamlessly between mobile applications, the fixed-line Internet and traditional brick and mortar offerings."Wireless consumers act quite differently than standard online users, Most wireless users spend less than five minutes using m-commerce applications and only eight percent use m-commerce services for more than an hour a week

One of the biggest reasons consumers failed to adopt m-commerce is because no compelling applications were offered by service providers. "Weather, sports scores, stock quotes -- those are the kinds of things that people aren't going to pay for because anywhere there's a television, you can get them for free,"

Low internet connectivity (2G, 3G, now 4G)

The rates of 3G have declined tremendously in India when the introduction of 4G took place but it is available in limited cities and areas in India and not all the mobile devices supports 4G and 3G and 2G is having very low speed and also 4G is not affordable by whole of the population Example in most of the part of Bangalore and Pune only 4G connection is available but again the device and connection rate is very high.

ROPO- (Research Online and Purchase Offline tendency of the people)

This is a very common tendency of the Indian people as there are lots of mobile users who have various shopping application in their devices but they access mobile app to see the products and compare it online and they prefer to purchase the product offline because they believe in feel and buy method and also they don't want to involve in returning policies and all that.

Language Issue-

English is the most common language that is used by the most of the applications available and still in many parts of India people are not used to this language, they prefer their own regional language . And till now there are only few applications which are available in regional languages like Tamil Seitagal in tamil and panchanga in kannad, sparsh Marathi keyboard and English to gujarati dictionary etc. but still many banking and shopping applications are lacking in this .

People are technology lovers but not users-

In India people like to carry good looking, hi tech, big screen mobile phones but usually they avoid purchase option through mobile the reason for this may be screen resolution and the catalogue presented to them does not give exact enlarged view of the things generally users are looking for. So we can say that people in India are technology lovers but not users.

Complex nature of mobile applications-

As compare to the commerce websites the mobile applications are generally available are in complex nature. The mobile - commerce applications need to understand the need of the users and recent shopping trend so that they can ease the use. The two options that are efficient in m-commerce sites which hinders the usage are searching and filtering.

Wireless Internet Infrastructure –

The infrastructure for wireless internet is very insecure. It is easy for an intruder to get in between two parties making purchase online and can do whatever he wants.

CONCLUSIONS:

This research paper conclude that in spite of issues and challenges in the digital market, m-commerce is getting its scope wider day by day. The reason for this wide spread could be the easy availability of smart phones among the Indian people due to which they not only enjoying the audio and video call facility but they also got the freedom to access almost every segment of the business from views of the product to, adding it to cart, making the payments and in just few clicks they can get their products at home. With the availability of smart phones, people are moving towards m commerce from e commerce. Indian retailers understood the market situation and now they are making strategies to attract their customers with the help of mobile applications not only they can shop through mobiles but customers are also able to manage their bank accounts, email accounts etc or even they can book movie tickets, shows, table at restaurants, flight tickets, hotel rooms etc through m commerce. Even demonetisation in India is also considered as real turning point of m commerce market and it has been predicted that most of the retail commerce will shift to mobile commerce in the future (report by Indian express.com). Beyond this as we know every coin has two aspects similarly m commerce is also facing some adverse aspects such as security issues and some issues related to privacy as wireless connections are very open threats even when user access to these applications various personal information like mobile phone data, personal data, location details and permission to use data is allowed to the public and service providers. Even our bank credentials, credit card and debit card details can also be viewed to others etc. and if there is any connection loss or any other technical issues like cancellation of order and due to this requesting again and again which is many times irritating for the user. Like this there are many reasons for the success and failure of the m commerce in order to overcome these failure various software has been launched in the market for maintaining the privacy of the m commerce user even government is also taking some steps in order to make m commerce successful.

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