

ROLE OF MOBILE COMMERCE IN PROMOTING BUSINESS IN PAKISTAN& ITS FUTURE

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Abstract

Large tome level content is available over the Mobile Commerce, but still the topic is in its infancy and is attributed as under developed and offers a wide potential for further research and application development. This paper focuses on the functionality available over M-Commerce at the international M-Commerce community level, and pros & cons of the Pakistan Economy with respect to the Mobile Commerce. The come forth of issues related to M-Commerce in the Pakistan Mobile based industry are the main point of focus, their instigation, predicament, elucidation, and remedies are discussed and they are the basic motivation of the this paper.

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Introduction

Electronic Commerce abbreviated as E-Commerce or E-Com, is the buying and selling of products and services on payment of currency (electronic / plastic or any alternative to both) by businesses, consumers, governments or any other entities over any network medium (most popular one is internet, but it's not the only medium over which transactions could be done).

Electronic commerce comprises of technologies including supply chain management, electronic funds transfer, online transaction processing, Internet marketing, inventory management systems, electronic data interchange (EDI), and automated data collection systems. Listed below is a shortened chart of the E-Commerce growth

Brief History of E - Commerce Growth:

1979	Online shopping is invented by Michael Aldrich
1982	Minitel is introduced by France Telecom in France and used for online ordering.
1984	CompuServe launches the first comprehensive electronic commerce service, the Electronic Mall in the USA and Canada.
1987	An electronic merchant account is provided by Swregfor software and shareware authors to sell their products online
1993	Graphical Bulletin Board Online shopping System is Introduced
1994	SSL, Netscape Navigator, Pizza hut Online Orders, Online Banks Started
1995	Amazon.com launched, Ebay as Auction Web Founded
1998	Alibaba Group is founded in China
1999	Napster, A peer-to-peer file sharing software is launched
2000	.com bust
2001	Alibaba Achieves profitability in December 2001
2002	Paypal is acquired by Ebay for \$1.5 billion
2003	First Yearly profit is posted by Amazon
2004	DHgate.com, China's online b2b transaction platform, draws other b2b sites to move away from the "yellow pages" model
2005	Payoneer - Secure Online payment distribution solution
2009	Zappos.com acquired by Amazon.com
2012	US Online Retail sales and E-Commerce projected to reach \$226 billion, 12 percent increment over 2011.

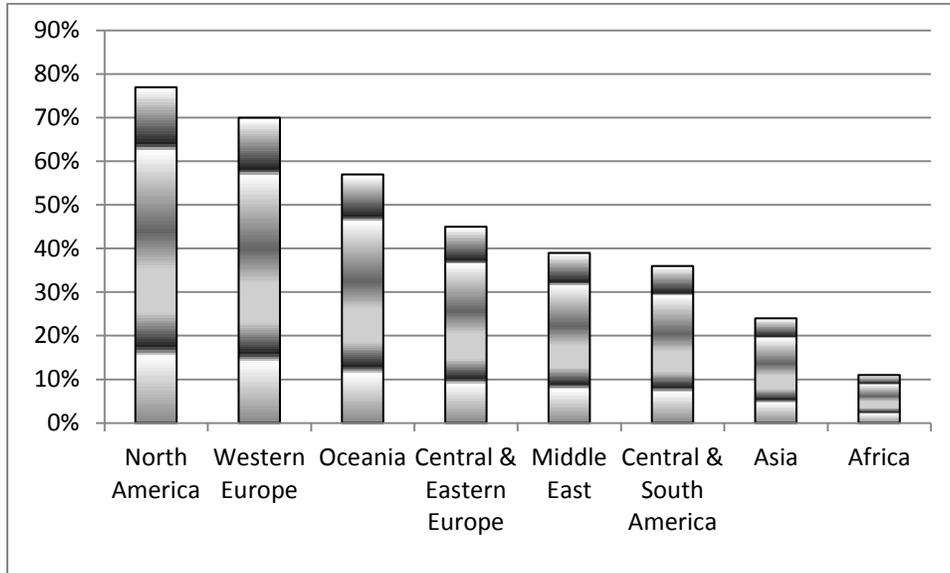
The conceptualized idea being observed from the chart is that, E-Commerce started from a small scale volume hardly from a few thousand Dollars to now trillions of Dollars of worth around the globe.¹

¹ Changsu Kim, Robert D. Galliers, Namchul Shin, Joo-Han Ryoo, Jongheon Kim, "Factors influencing Internet shopping value and customer repurchase intention", Electronic Commerce Research and Applications, Volume 11, Issue 4, July–August 2012, pp.374–387, Elsevier.

E commerce Global Reach

E – Commerce is growing proportionally to the growth of internet around the globe. The number of Internet Users around the globe has reached around 2 Billion users, approximately 30% of the world population. While the western hemisphere has a stronger Internet infrastructure, the Developing countries are experiencing a rapid surge in the Internet Users database. Internet Users in Pakistan rose up to 31 million users or 17.6% of the total population; Compared to 2006, when approximately 12 million users or 7.2% of the population had access to internet. The chart below summarizes the Regional Internet usage around the globe.²

Regional Penetration of Internet around the Globe:

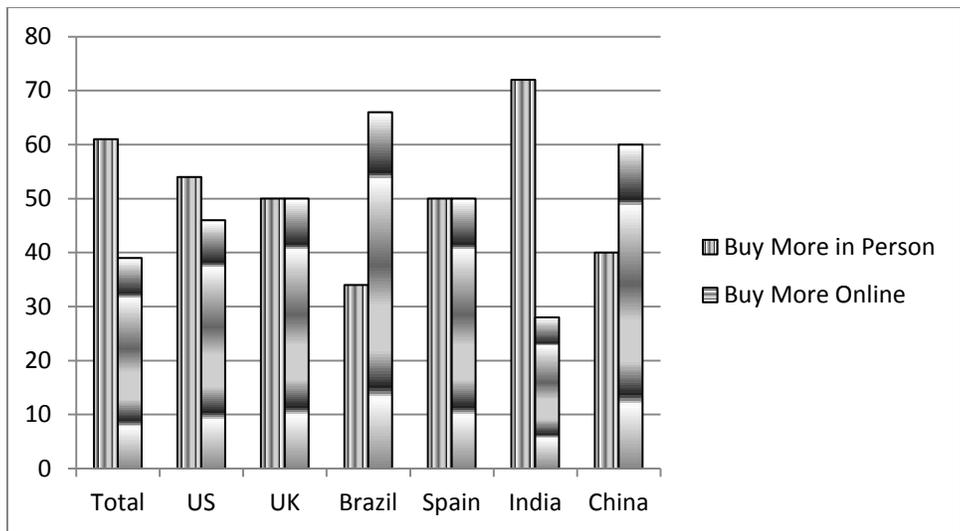


Online Shopping Among Youth:

E-Commerce and Online Shopping are gaining popularity among the youth. Youth (15-25 yrs) are supposed to be the most net savvy people around the globe and the utilization of the internet among the youth is observed the most in all regions around the globe, youth represent more than 50% of the population who use the internet and the World Wide Web services including the E-Commerce. The bar graph below shows the college students utilization the Internet and WWW services for online shopping around the globe.

% of College Students Online Shopping around the globe

² Lan-Ying Huang, Ying-Jiun Hsieh, "Consumer electronics acceptance based on innovation attributes and switching costs: The case of e-book readers", *Electronic Commerce Research and Applications*, Volume 11, Issue 3, May–June 2012, pp. 218–228, Elsevier.



Payment Methods for Online Shopping

When it comes to shopping the return to the supplier or seller is a must (which is supposed to be the revenue return in some currency), it could be either in physical currency form or some sort of alternative to currency most popular terms used are plastic money, online funds transfer etc. Online Payment Methods and Security of transactions provided the basis of E-Commerce; and the continuous development in the field is gaining lot of Users confidence.³

1. The most common and prevailing method of online shopping today are the credit cards:
 - a. In recent online purchases globally, 60% consumers used a credit card.
 - i. Visa is the most common credit card used, used by 53% of all consumers using a credit card.
 - ii. Credit card usage is most common in Turkey, where 91% of online purchases are completed using a credit card followed by 86% in Ireland and 84% in India and UAE.
2. PayPal is the Second most popular online payment method, with around 25% of consumers using it for an online payment.
3. Debit card is another popular method of shopping online in the UK and US as 59% and 40% of the consumers prefer debit cards over credit cards respectively.

Mobile Commerce

Mobile Commerce is a rapidly growing field of E-Commerce around the globe today. Mobile Commerce eliminates the need of large computer systems and wired networks to

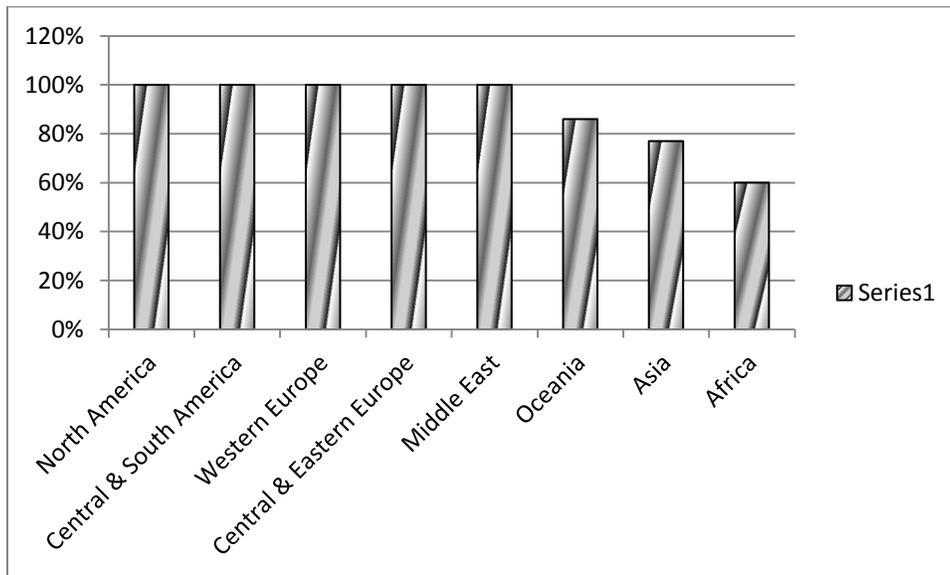
³ Sonja Utz, Peter Kerkhof, Joost van den Bos, "Consumers rule: How consumer reviews influence perceived trustworthiness of online stores", *Electronic Commerce Research and Applications*, Volume 11, Issue 1, January–February 2012, pp.49–58, Elsevier.

perform an online business activity, and allows business transactions to be completed remotely.⁴

Growth of Mobile Commerce

Due to greater penetration of Mobile Phones around the globe, and now with the advent and spread of smart phones have greatly influence Mobile Commerce and is now the leading branch of E Commerce, around 38% of the smart phone users globally have used their phones to make an online purchase at least once By November 2011 and the numbers are increasing rapidly.⁵

Mobile reaches 86% of the global population and there are more than 5.8bn subscribers worldwide.⁶ North America, Western Europe, Central and South America, Middle East and Central and Eastern Europe all boast 100+% mobile penetrations.⁷



Products and services available over Electronic Mediums

Mobile Commerce has increased the products and services provided by E-Commerce and also made them easily available on the go.⁸

⁴ David M. Weber, Robert J. Kauffman, "What drives global ICT adoption? Analysis and research directions", *Electronic Commerce Research and Applications*, Volume 10, Issue 6, November–December 2011, pp. 683–701, Elsevier.

⁵ Ashraf M. Attia, Nergis Aziz, Barry Friedman, Mahdy F. Elhousseiny, "The impact of social networking tools on political change in Egypt", *Electronic Commerce Research and Applications*, Volume 10, Issue 4, July–August 2011, pp. 369–374, Elsevier.

⁶ We Are Social, January 2012

⁷ Ibid.

Mobile ATM

Mobile ATMs provide bank grade ATM capability to consumers, and facilitate users in all ways as the traditional ATMs do, in the form of mobile money. Sicap is a leading mobile banking service provider, based in Switzerland. Sicap Mobile ATMs have been specially engineered to connect to mobile money platforms and provide bank grade ATM quality. In Hungary, Vodafone allows cash or bank card payments of monthly phone bills.⁹

Mobile Tickets

Tickets can be sent to mobile devices using various technologies. Users can then use their tickets by presenting their mobile devices, Reference numbers or any other such identification which are provided to them on their mobile devices.

Tickets can be booked and cancelled with mobile devices via simple mobile web browsers, mobile applications or specific portals of travel agents, etc.¹⁰

Mobile coupons, vouchers, coupons, loyalty cards and tokens

Distribution of vouchers, coupons and loyalty cards can also be performed via Mobile ticketing. These tokens are represented by a virtual token that is sent to the mobile device. A customer presenting a mobile device with one of these tokens at the point of sale receives the same benefits as if they had the conventional token. Stores may send tokens to customers using location-based services to determine when the customer is nearby.¹¹

Content purchase and deliverance

Content purchase and delivery are one of the highly used benefits of Mobile commerce. Sale of ring tones, wall papers, games, productivity software and other applications can be easily purchased via mobile devices and delivered to the customer as a simple download. The rapid surge of smart phones and its easy availability, which provide the capabilities of a mobile phone, video players and audio players in a single device, is growing the number of sales of music tracks and video clips. Lightning fast speeds

⁸ Yaobin Lu, Ling Zhao, Bin Wang, "From virtual community members to C2C e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention", *Electronic Commerce Research and Applications*, Volume 9, Issue 4, July–August 2010, pp. 346–360, Elsevier.

⁹ Paul Gerhardt Schierz, Oliver Schilke, Bernd W. Wirtz, "Understanding consumer acceptance of mobile payment services", *Electronic Commerce Research and Applications*, Volume 9, Issue 3, May–June 2010, pp. 209–216, Elsevier.

¹⁰ Trent J. Spaulding, "How can virtual communities create value for business?", *Electronic Commerce Research and Applications*, Volume 9, Issue 1, January–February 2010, pp. 38–49, Elsevier.

¹¹ Ming-Chi Lee, "Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit", *Electronic Commerce Research and Applications*, Volume 8, Issue 3, May–June 2009, pp. 130–141, Elsevier.

provided by 4G cellular networks, now even full length movies can be downloaded on a mobile device within seconds.¹²

Location-based services

Mobile phone user's location is useful information for mobile commerce services. Information about user's locality can be easily provided, or requested by the user on multiple issues:

- Local discount offers
- Local weather
- Traffic situation
- Best traffic routes to reach a location
- Nearby malls
- Nearby restaurants
- Nearby worship places, etc.

Information services

Information services are always attractive for the people. The information services can encapsulate huge number of fields; including:

- News
- Stock quotes
- Sports scores
- Financial records

Mobile banking

Mobile commerce services can be provided by banks and other financial services to their customers, allowing them to access their account information, process transactions, including purchasing stocks and remitting money. These types of services are usually known as Mobile banking.¹³

Mobile Store Front

The invention of smart phones and the advancement of their computational power to the level of personal computers have and will greatly revolutionize the mobile commerce and make them feasible practically. According to a research firm, by 2015, \$119bn worth of services and goods will be traded via smart phones.¹⁴

¹² Yoris A. Au, Robert J. Kauffman, "The economics of mobile payments: Understanding stakeholder issues for an emerging financial technology application", *Electronic Commerce Research and Applications*, Volume 7, Issue 2, Summer 2008, pp. 141–164, Elsevier

¹³ Nir Kshetri, "Barriers to e-commerce and competitive business models in developing countries", *Electronic Commerce Research and Applications*, Volume 6, Issue 4, Winter 2007, pp. 443–452, , Elsevier.

¹⁴ Arno Scharl, Astrid Dickinger, Jamie Murphy, "Diffusion and success factors of mobile marketing", *Electronic Commerce Research and Applications*, Volume 4, Issue 2, Summer 2005, pp. 159–173, Elsevier.

Mobile stock trading

The transformation of world into a global village, and the vastness of modern cities combined with the overly congested traffic, makes it difficult for a stock trader to be always present in a locality. Mobile brokerage services that can allow the users to perform according to the latest market development quickly greatly benefit the stock traders.¹⁵

Auctions

The developments in the field of smart phones and mobile commerce, now can even allow the users to take part in auction remotely. Many mobile commerce systems and solutions are now available for users to take part in auctions remotely via their smart phones.¹⁶

Mobile Browsing

As was the case with the Desktop Web browser, the development of mobile web browser has given the users the complete control over the internet. Nearly all activities that can be performed on a desktop web browser are now available and can be performed by users on their mobile phones.¹⁷

Mobile Purchase

Wholesale traders and catalog merchants, in the past had to manage a lot of paper work for their businesses and travel with huge heaps of catalogs. The development of personal computers allowed them to send the catalogs electronically from one stationary location to another, thus reducing the effort required. With the advancement in smart phones, the process is a lot easier and can be performed from any location remotely, with better features and services.¹⁸

Mobile marketing and advertising

No commerce is feasible without adequate marketing and advertising and such is the case with the mobile commerce too. The development of smart phones now is at a stage, that every possible way of marketing and advertising can be sent to user's mobile device. Be it a video ad, an audio ad, a pamphlet, a poster, or any other type of marketing or advertisement. The general public can be reached on their mobile devices for these purposes, very easily and a lot cheaply too. Advertisements can be sent through emails to the mobile devices, sales representatives can call the client and give it a personal touch, a recorded audio clip can be sent to a mobile as a voice call, or latest offers can be enumerated in a sms message. With MMS availability, posters, pictures,

¹⁵ Keng Siau , Ee-Peng Lim, and Zixing Shen, "Mobile Commerce: Promises, Challenges and Research Agenda", Volume 12, Issue 3. Copyright © 2001. 10 pages, Journal of Database Management (JDM)

¹⁶ B. Anckar, D. D'Incau, Value creation in mobile commerce: findings from a consumer survey, Journal of Information Technology Theory and Application 4 (1) (2002) 43 - 64.

¹⁷ K.V. Andersen, A. Fogelgren-Pedersen, U. Varshney, Mobile organizing using information technology (MOBIT), Information, Communication and Society 6 (2) (2003) 211 - 228.

¹⁸ M. Andrieu, The future of e-money: main trends and driving forces, foresight, The Journal of Future Studies, Strategic Thinking and Policy 3 (5) (2001) 429 - 451.

slide shows and other multimedia content can also be delivered to the client in an effective, quick and cheap manner.¹⁹

Payment methods

Many forms of payment are now available for mobile commerce, including:

1. Premium-rate telephone numbers, which apply charges to the consumer's long-distance bill for any purchases. These types of payments are used in many business transactions, including online games etc.
2. Charges can be added to the consumer's mobile telephone bill.
3. Credit cards can be easily used as a payment method from mobile phones.
4. Some telecom service providers allow credit cards to be linked to a phone's SIM card
5. Micropayment services are quite prevalent in online games.
6. Stored-value cards, often used with mobile-device application stores or music stores²⁰

Mobile Commerce in Pakistan Mobile Penetration in Pakistan

Pakistan is one of the fastest growing telecommunications market. In 2008, it was placed as the third in the world's fastest growing telecommunications market. The telecom infrastructure in Pakistan is improving by the day with the help of domestic and foreign investments. Fiber Lines are being laid throughout the country, which will greatly boost the country's telecom infrastructure.

Mobile network system is improving dramatically in Pakistan in the recent years. The demand and the competition between the mobile network providers are increasing the service quality rapidly in the country. Mobile connections are now very cheaply available in the country.²¹

The numbers of mobile subscribers are growing rapidly and by March 2012, estimated 118,316,916 mobile subscribers are present in Pakistan. This figure establishes the tele-density of mobile phone subscribers in Pakistan to be at 68.2%. This is the highest tele-density of mobile penetration in the whole South Asian region.²²

In terms of mobile phone users Pakistan ranks 8th worldwide and 5th in Asia. In a world having 5.6 billion mobile-phone users, China tops the ranking by having the maximum number of mobile phone users followed by India, United States, Indonesia, Brazil, Russia, Japan and Pakistan.

¹⁹ S. Anil, L.T. Ting, L.H. Moe, G.P.G. Jonathan, Overcoming barriers to the successful adoption of mobile commerce in Singapore, *International Journal of Mobile Communications* 1 (1/2) (2003) 194 - 231.

²⁰ S.T. Anwar, NTT DoCoMo and m-commerce: a case study in market expansion and global strategy, *Thunderbird International Business Review* 44 (1) (2002) 139 - 164.

²¹ S.T. Anwar, CASES Vodafone and the wireless industry: a case in market expansion and global strategy, *The Journal of Business and Industrial Marketing* 18 (3) (2003) 270 - 288.

²² Y. Aoyama, Sociospatial dimensions of technology adoption: recent m-commerce and e-commerce developments, *Environment and Planning A* 35 (7) (2003) 1201 - 1221.

The number of smart phones users is also growing rapidly in the country and according to a study; around 23% of the 68.2% population that has a mobile phone has smart features. Smartphone prices are falling sharply in Pakistan and every grade of smart phone is available for the general public, from the latest and costly to as cheap as few thousand rupees.²³

Progress of Mobile Commerce in Pakistan

One of the toughest Questions we need to answer is: What is the Role of Mobile Commerce in Pakistan, the world's third fastest growing telecommunications market in the World?

The Negative fractions in Pakistan being a third world country

Lack of Proper Network Licenses

Sadly, Mobile Commerce is still in its infancy in Pakistan. One of the major reasons for lack of mobile commerce in Pakistan can be attributed to the Slow Edge networks available in Pakistan. Telecommunication Companies in Pakistan have the capability to provide 3G services to mobile users but the mismanagement and lack of competence at the government level is obstructing the auction of 3G licenses to telecom companies; which not only results in loss for the general public but can also help the continuous heavy budget deficit burdened economy of the Country.²⁴

Consumer Identification / SIM Identification

Other factors that influence lack of mobile commerce in Pakistan, is the mismanagement in issuing of SIM cards, which is the basic issue as the consumer in the electronic world needs to be identified, as the issued is "who is supposed to pay for the purchase?". Although this issue is being addressed vibrantly by PTA with the Help of NADRA, More works is needed to curb Unknown SIM registrations.²⁵

Security Situation

Although Mobile Commerce is a safer way of doing business, especially in countries with the security situation of the likes of Pakistan; The Continuous Worsening Security situation in the country, and in the likes of cities like Karachi and Lahore; Investors are reluctant to invest huge amount in the country.

The prevailing worst security situation even harasses the general public to use their mobile devices in public places thus resulting in less utilization of even the available Mobile Commerce facilities. The snatched mobile ratio in the major cities of Pakistan has also worsened the issue, as user accounts are usually associated with Mobile phone (IMEI number) over which the M-Commerce transactions are being done, in case your mobile is being snatched the entire information regarding the Account(s) used in the M-

²³ S. Balasubramanian, R.A. Peterson, S.L. Jarvenpaa, Exploring the implications of m-commerce for markets and marketing, *Academy of Marketing Science Journal* 30 (4) (2002) 348 - 361.

²⁴ S. Baldi, H.P.P. Thaug, The entertaining way to m-commerce: Japan's approach to the mobile Internet—a model for Europe? *Electronic Markets* 12 (1) (2002) 6 - 13.

²⁵ M. Barbero, Preparing to ride the wireless wave, *Journal of Business Strategy* 22 (5) (2001) 10 - 12.

Commerce are being transferred to the snatcher who could misuse the information for online purchase or terrorist activities.²⁶

Literacy Rate

Although Pakistan has the third largest Mobile User base in the world, the literacy situation plays a big role in Mobile commerce. With the Country literacy rate hardly around 50% in regional languages, mobile services that are normally in English can hardly target 50% of the Mobile user base.²⁷

Mobile Commerce Services Comparison in Pakistan and India

Mobile payment services are the basis for Mobile commerce anywhere in the world. But sadly again, the security situation, the Incompetent government and negligence of relevant authority has put an embargo situation to the benefits of Mobile commerce, no effort has been put at national level to attract Mobile payment services giants and other global Mobile commerce services to operate in Pakistan. The chart listed below summarized the fact that global payment dealing (electronic/plastic money) companies has presence in India but they are not operating in Pakistan.²⁸

E commerce Service Providers	In India	In Pakistan
PayPal	Yes	No
AlertPay	Yes	No
Ebay	Yes	No
Amazon	Yes	No
World Play	Yes	No

Mobile Commerce in India

India has an Internet user base of around 121 million and mobile user base of 930 Million users, and it is rapidly growing in the Mobile Commerce field. India now has 3G coverage all over the country via different providers. 4G license was acquired by airtel (Indian cellular company) in April 2012. The pace at which India is experiencing the growth in E-Commerce sector, it would soon be among the top E-Commerce solution providers and E-Commerce strong user base countries.²⁹

India's E-commerce market worth has increased from \$2.5 billion in 2009 to and is expected to touch \$8.8 billion by 2016 at an estimated Compounded Annual Growth

²⁶ S.J. Barnes, The mobile commerce value chain: analysis and future developments, *International Journal of Information Management* 22 (2) (2002) 91 - 108.

²⁷ S.J. Barnes, Provision of services via the wireless application protocol: a strategic perspective, *Electronic Markets* 12 (1) (2002) 14 - 21.

²⁸ S.J. Barnes, Developments in the m-commerce value chain: adding value with location-based services, *Geography* 88 (4) (2003) 277.

²⁹ S.J. Barnes, Location-based services, *e-Service Journal* 2 (3) (2003) 59 - 70.

rate (CAGR) of 30% compared to global growth rate of 8-10%. India's E-Commerce market share is dominated by the travel sector.³⁰

Solution & future in this regard

Shortfalls and Problems in Pakistan can be rightly attributed to incompetent and mendacious Government in Pakistan which has attributed to inept, ham-fisted and bungling governance, which has been hollowing the economy of Pakistan over past many years. Pakistani Youth and Intelligentsia have enough talent and capability to provide Pakistan with a strong E-Commerce solution provider's base and E-Commerce strong user-base for E-Commerce Market which in turn will strengthen Pakistan's economy. Government of Pakistan should ensure quick issuing of 3G licenses and Encourage Mobile Telecom Companies to establish the infrastructure for 4G communication. The most important factor, whatsoever remains in Pakistan is the security. Ignoring the security factor, improvement in business, industry, commerce or any field is a day dream.³¹

Future of Mobile Commerce in Pakistan

Although Mobile Commerce is not much prevalent currently in Pakistan, still many developments have been made in this regard. Frequent Meetings and Presentations are held on E-Commerce by the Intelligentsia of the country and private sector groups. With Competent Governance and much needed economical and security reforms, mobile commerce has a bright future in Pakistan. Following Aspects of mobile Commerce can have great attraction in Pakistan and Benefit for the businesses and general Public.³²

Mobile ATM

Many banks have services that allow users to pay their utility bills through the Fixed ATM machines. This service if made available on Mobile Platform will greatly benefit the general public, the banks and the utility providers. This service will ensure fast and quick payment of utility bills, Ease the burden of queuing for the general public and lot less paper work by the Banks and the utility providers. Given the security situation of the country this service will be greatly appreciated in the general Public.³³

Mobile Tickets

Mobile Ticketing could be beneficial in many ways; including booking for conferences, presentations, hotels and other gatherings. Mobile Ticketing can also be developed to booking and cancellation of Domestic and International flights. The Less paper work not only does reduce the labor force but also is environment friendly. Environment friendly

³⁰ S.J. Barnes, B. Corbitt, Mobile banking: concept and potential, *International Journal of Mobile Communications* 1 (3) (2003) 273 - 288.

³¹ S.J. Barnes, S.L. Huff, Rising sun: iMode and the wireless internet, *Communications of the ACM* 46 (11) (2003) 79 - 84. [17] N. Barnett, S. Hodges, M.J. Wilshire, *M-commerce: an operator's manual*, McKinsey Quarterly 3 (2000) 173 - 192.

³² U. Bertele, A. Rangone, F. Renga, Mobile internet: an empirical study of B2c WAP applications in Italy, *Electronic Markets* 12 (1) (2002) 27 - 37.

³³ V. Blazevic, A. Lievens, E. Klein, Antecedents of project learning and time-to-market during new mobile service de- velopment, *International Journal of Service Industry Management* 14 (1) (2003) 120 - 147.

measures are highly required in the over congested cities of Pakistan, like Karachi and Lahore. Mobile Ticketing and other Travel related Commerce has 75% share in India's \$2.5 Billion E commerce market worth.³⁴

Content purchase and deliverance

Soft content purchase is booming globally at the moment. With Millions of download every day from Apple App Store, Google Play Store and Windows phone market; Soft Content Purchase is the leading Mobile Commerce application around the globe. Hundreds of apps has been developed and uploaded from Pakistan on Apple, Google and Microsoft Stores. Content purchase and delivery at this moment is also limited in Pakistan due to the prevailing slow edge networks. Bandwidths available in 4G Networks can allow users to download even high quality movies and films within minutes and seconds.³⁵

Hard content purchase and delivery system can be as beneficial and easy through Mobile Applications; but as other services, this service also requires security to be able to widely reach people.

Location-based services

Location based services in huge cities like Karachi and Lahore can greatly benefit businesses and general public in Pakistan but will require greater Social Security for the General Public. Pakistan has great attraction for location based services provided on the following parameters:

- Local discount offers
 - In Pakistan, and especially in the urban areas, allowing users to know the nearest discount offers will not only benefit the general public greatly, but will also boost the businesses as they will be able to address their desired public.³⁶
- Local weather
 - Local weather conditions, when provided on mobile phones, will allow users to schedule their time properly.³⁷
- Traffic situation
 - In congested cities, like Karachi and Lahore, traffic is the biggest problem at peak times; Knowledge of current traffic situation around the user's location can help the user to choose the best route according to the current situation and save his time.
- Best traffic routes to reach a location
 - In addition to traffic situation, a calculated best route will enhance the location based services. Customized local traffic information, based on a user's actual travel practices, can be sent to a mobile device. This customized data is more useful than the conventional generic traffic-report broadcast, but was impractical before the invention of modern mobile devices due to the bandwidth requirements.
- Nearby malls

³⁴ G. Bloch-Morhange, E. Fontela, Mobile communication from voice to data: a morphological analysis, Info—The journal of Policy, Regulation and Strategy for Telecommunications 5 (2) (2003) 24 - 33.

³⁵ D. Buhalis, M.C. Licata, The future e-Tourism intermediaries, Tourism Management 23 (3) (2002) 207 - 220.

³⁶ S. Buttery, A. Sago, Future applications of Bluetooth, BT Technology Journal 21 (3) (2003) 48 - 55.

³⁷ H. Cao, S. Wang, L. Li, Location dependent query in a mobile environment, Information Sciences 154 (1/2) (2003) 71 - 83.

- The malls are always full in the urban areas in Pakistan, and people are always passionate to buy the latest items; Information of nearby malls on user's mobile devices can greatly benefit the malls and even the users.
- Nearby restaurants, etc.
- The economy of Pakistan may be declining rapidly, but the food consumption and food wastage are still one of the top priorities for the people who can afford it. Information about the currently available dishes in the nearest location and other offers are a sure shot of benefit for the restaurants. What may be the situation of Pakistan, Food businesses are never in a loss, and so will be the mobile services for it.

Information services

Information services are always attractive for the people. The information services can encapsulate huge number of fields; including:

- News
- Breaking News are favorites of the general public, it allows them to break away from their regular routines and waste their time on the latest idiocy of the government or relax, if the breaking news is related to the security situation in the locality.
- Stock quotes
- Stock quotes on user mobile devices will greatly help the stock traders.
- Sports scores
- Cricket and now Football, are one of the greatly followed sports by the youth of Pakistan, Latest News on the sport scores, will attract a huge number of Pakistani youth.
- Financial records

Mobile marketing and advertising

Mobile Marketing and Advertising is a great way to get involved in Mobile Commerce. Especially in a country like Pakistan, where millions are invested in advertisement and you can see every wall chalked and a board at every corner of the street, Mobile marketing and advertisement is a much decent way to get involved into Mobile marketing and advertisement. Many Brands are now turning towards E marketing and E advertisements through Google Ad-Sense and Face-book ads; The Change towards Mobile marketing can be more beneficial.

Conclusion

Mobile Commerce has a bright Future in Pakistan, if better Networks Technologies are made available; the E-Commerce sector could provide its better share in the development of the Economy of Pakistan. Shortfalls and Problems in Pakistan's E-Commerce base can be rightly attributed to incompetent and mendacious Government in Pakistan which has attributed to inept, ham-fisted and bungling governance, and the overall security situation, because of which investment in the E-Commerce infrastructure is hard to find in the country or even the external investors are reluctant to invest because of the security issues in Pakistan.