IMPACT OF MOBILE APPLICATIONS ON M-COMMERCE SALES WITH REFERENCE TO E-TAILING

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Abstract
Smartphone and its applications penetration have grown in India rapidly these years, and it is expected to be the next wave of electronic commerce. More ecommerce companies, such as flipkart, myntra, homeshoppoing etc. have developed mobile applications (Apps) for sales and marketing purposes, and it is important to know users' consumption behaviour so that adjustments can be made by retailers to provide better services in Apps. This study aims at investigate why consumers prefers m-commerce over e-commerce through quantitative research and approximately 60 questionnaires are analysed by SPSS v.21. Results showed that most of the smartphone users perceived Apps-commerce as highly useful.

INTRODUCTION

Electronic commerce, commonly known as E-commerce or e-commerce, is trading in products or services using computer networks, such as the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle, although it may also use other technologies such as e-mail.

E-commerce businesses may employ some or all of the following
- Online shopping web sites for retail sales direct to consumers
- Providing or participating in online marketplaces, which process third-party business-to-consumer or consumer-to-consumer sales
- Business-to-business buying and selling
- Gathering and using demographic data through web contacts and social media
- Business-to-business electronic data interchange
- Marketing to prospective and established customers by e-mail or fax (for example, with newsletters)
- Engaging in pre-retail for launching new products and services

According to Gartner's Report, India is the fastest growing e-commerce market in Asia/Pacific. The India e-commerce market will reach $6 billion in 2015 a 70 percent increase over 2014 revenue of $3.5 billion according to Gartner, Inc.

Digital commerce facilitates a purchasing transaction over the Web, and supports the creation and continuing development of an online relationship with a consumer or business customer across multiple retail, wholesale, mobile, direct and indirect sales, call center, and digital sales channels.

"Digital commerce is at a nascent stage in India. "India represents a $3.5 billion market, growing at approximately 60-70 percent every year. It represents less than 4 percent of the total retail market. B2C e-commerce leads the market in India, while B2B is limited to organizations that drive online channels to integrate with their partners and distributors."

History
Timeline for the development of e-commerce
- 1971 or 1972: The ARPANET is used to arrange a sale between students at the Stanford Artificial Intelligence Laboratory and the Massachusetts Institute of Technology, later described as "the seminal act of e-commerce" in John Markoff's book What the Dormouse Said.
- 1979: Michael Aldrich demonstrates the first online shopping system.
- 1981: Thomson Holidays UK is first business-to-business online shopping system to be installed.
- 1982: Minitel was introduced nationwide in France by France Telecom and used for online ordering.

- 1983: California State Assembly holds first hearing on "electronic commerce" in Volcano, California. Testifying are CPUC, MCI Mail, Prodigy, CompuServe, Volcano Telephone, and Pacific Telesis. (Not permitted to testify is Quantum Technology, later to become AOL.)
- 1984: Gateshead SIS/Tesco is first B2C online shopping system and Mrs. Snowball, 72, is the first online home shopper.
- 1984: In April 1984, CompuServe launches the Electronic Mall in the USA and Canada. It is the first comprehensive electronic commerce service.
- 1984: California becomes first US state to enact an Electronic Commerce Act defining basic consumer rights online.
- 1990: Tim Berners-Lee writes the first web browser, Worldwide Web, using a NeXT computer.
- 1992: Book Stacks Unlimited in Cleveland opens a commercial sales website (www.books.com) selling books online with credit card processing.
- 1992: St. Martin's Press publishes J.H. Snider and Terra Ziporyn's Future Shop: How New Technologies Will Change the Way We Shop and What We Buy.
- 1993: Paget Press releases edition No. 3 of the first AppStore, The Electronic AppWrapper.
- 1994: Netscape releases the Navigator browser in October under the code name Mozilla. Netscape 1.0 is introduced in late 1994 with SSL encryption that made transactions secure.
- 1994: Ipswitch IMail Server becomes the first software available online for sale and immediate download via a partnership between Ipswich, Inc. and Open Market.
- 1994: "Ten Summoner's Tales" by Sting becomes the first secure online purchase.
- 1995: The US National Science Foundation lifts its former strict prohibition of commercial enterprise on the Internet.
- 1995: Thursday 27 April 1995, the purchase of a book by Paul Stanfield, Product Manager for CompuServe UK, from W H Smith's shop within CompuServe's UK Shopping Centre is the UK's first national online shopping service secure transaction. The shopping service at launch featured W H Smith, Tesco, Virgin Megastores/Our Price, Great Universal Stores (GUS), Interflora, Dixons Retail, Past Times, PC World (retailer) and Innovations.
- 1995: Jeff Bezos launches Amazon.com and the first commercial-free 24-hour, internet-only radio stations, Radio HK and NetRadio start broadcasting. Dell and Cisco begin to aggressively use Internet for commercial transactions. EBay is founded by computer programmer Pierre Omidyar as Auction Web.
- 1996: IndiaMART B2B marketplace established in India.
- 1996: ECPlaza B2B marketplace established in Korea.
- 1996: Sellerdeck, formerly Actinic, the UK's first PC/LAN e-commerce platform established.
- 1998: Electronic postal stamps can be purchased and downloaded for printing from the Web.
- 1999: Alibaba Group is established in China. Business.com sold for US $7.5 million to eCompanies, which was purchased in 1997 for US $149,000. The peer-to-peer file sharing software Napster launches. ATG Stores launches to sell decorative items for the home online.
- 2000: The dot-com bust.
- 2001: Alibaba.com achieved profitability in December 2001.
- 2002: eBay acquires PayPal for $1.5 billion. Niche retail companies Wayfair and NetShops are founded with the concept of selling products through several targeted domains, rather than a central portal.
- 2003: Amazon.com posts first yearly profit.
- 2004: DHgate.com, China's first online b2b transaction platform is established, forcing other b2b sites to move away from the "yellow pages" model.
- 2007: Flipkart is established in India. Business.com acquired by R.H. Donnelley for $345 million.
- 2009: Zappos.com acquired by Amazon.com for $928 million. Retail Convergence, operator of private sale website RueLaLa.com, acquired by GSI Commerce for $180 million, plus up to $170 million in earn-out payments based on performance through 2012.
- 2010: Groupon reportedly rejects a $6 billion offer from Google. Instead, the group buying websites went ahead with an IPO on 4 November 2011. It was the largest IPO since Google.
- 2011: Quidsi.com, parent company of Diapers.com, acquired by Amazon.com for $500 million in cash plus $45 million in debt and other obligations.[21] GSI Commerce, a company specializing in creating, developing and running online shopping sites for brick and mortar businesses, acquired by eBay for $2.4 billion.

- 2013: US e-commerce and Online Retail holiday sales reach $46.5 billion, up 10 percent.
- 2014: Overstock.com processes over $1 million in Bitcoin sales. India's e-commerce industry is estimated to have grown more than 30% from 2012 to $12.6 billion in 2013. US e-commerce and Online Retail sales projected to reach $294 billion, an increase of 12 percent over 2013 and 9% of all retail sales. Alibaba Group has the largest Initial public offering ever, worth $25 billion.

From 1990s onwards E-commerce (electronic commerce) is adding higher values to all types of businesses and academics as well – as a result the users are changing the way business us carried out , people are moving from offline to online transactions. The latter modality is relatively easy, convenient and cheap. But advancement of wireless technology from 2000 onwards has changed and adding new values to business, benefits and conveniences for all its users. And this advanced technology is known as M-commerce or Mobile Commerce. In other words, m-commerce refers to the commerce that is carried out by using wireless devices. Mobile Commerce is the advanced version of e-commerce, mobile commerce, which not only includes all e-commerce transactions, but also provides greater flexibility and convenience to its subscribers. Both the telecommunications industry and the business world are starting to see m-commerce as a major focus for the future.

In India, cash on delivery is the most preferred payment method, accumulating 75% of the e-retail activities. However, COD may harm e-commerce business in India in the long run [6] and there is a need to make a shift towards online payment mechanisms. Demand for international consumer products (including long-tail items) is growing much faster than in-country supply from authorized distributors and e-commerce offerings. Grocery websites like bazaar cart is also emerging as a big player in the market. Grocery Market is also increasing by rapid speed.

As of Q1 2015, six Indian Startup Company, Flipkart, Snapdeal, InMobi, Quikr, OlaCabs, and Paytm (One97), have managed to enter the Billion-Dollar club.

India has an internet user base of about 306 million as of May 2015 according to *internetlivestats*. Despite being India has an internet user base of about 306 million as of May 2015. Despite being third largest user base in world, the penetration of Internet is low compared to markets like the United States, United Kingdom or France but is growing at a much faster rate, adding around 6 million new entrants every month according to timesofindia.indiatimes/tech. 2014-11-20. Retrieved 2015-03-25. The industry consensus is that growth is at an inflection point.

M-Commerce
The phrase mobile commerce was originally coined in 1997 by Kevin Duffey at the launch of the Global Mobile Commerce Forum, to mean "the delivery of electronic commerce capabilities directly into the consumer's hand, anywhere, via wireless technology." Many choose to think of Mobile Commerce as meaning "a retail outlet in your customer's pocket."

Mobile commerce is worth US$230 billion, with Asia representing almost half of the market, and has been forecast to reach US$700 billion in 2017. According to BI Intelligence in January 2013, 29% of mobile users have now made a purchase with their phones. Walmart estimated that 40% of all visits to their internet shopping site in December 2012 was from a mobile device. Bank of America predicts $67.1 billion in purchases will be made from mobile devices by European and U.S. shoppers in 2015. Mobile retailers in UK alone are expected to increase revenues up to 31% in FY 2013–14.

Mobile commerce is finding increasing traction in mobile shopping. Marketplaces, consumer product goods, and food and beverages companies have started investing in mobile commerce. However less than 5 percent of total digital commerce happens through mobile. Mobile commerce will help organization skip the desktop wave with increasing penetration of affordable smart devices with connectivity and a rapidly growing ecosystem to engage customers on mobile. Thirty percent of traffic for e-commerce sites come from mobile and tablets.

Interestingly, Gartner's report mentioned some very modest figures in their report a few days back. They mentioned that the Indian ecommerce market is currently pegged at USD 3.5B and will grow around 70 percent to USD 6B.

Indian E-Commerce Market - 700% Increase in 5 years

2019
$90B

2014
$13B

% of Orders Through Mobiles

Jabong – 27% Flipkart – 33% Snapdeal – 60%

Flipkart: In a blog post written by Sachin Bansal earlier this year, he had shared that one out of three customers of Flipkart arrive via mobile: "At Flipkart, one in every three new customers comes through mobile and this is increasing year on year. We are seeing a lot of growth in orders from non-metros cities via the mobile channel. Tier II and Tier III cities in the country are big for online retail because of an un-organized retail sector."

Considering that Flipkart reported revenues of $1 billion (Rs 6000 crore) during the period March, 2013 – March 2014, we can safely calculate that around $300 million (Rs 2000 crore) of Flipkart revenues is originating via mobile based transactions. Certainly a huge, very encouraging number.

Snapdeal: 60% of all orders received by Snapdeal originate on mobile phones, and people who order them belong to Tier 2 and Tier 3 cities. These facts were shared by Kunal Bahl, founder of Snapdeal recently, as he said, "Currently, around 60 per cent of our orders come through our mobile platform. We are hoping to receive 75 per cent of our transactions through mobile within the next one year. The same is expected to touch 90 per cent over the next three years."

Considering that they are expecting 90% of orders to come from mobile in the next three years, it speaks volume about the growth opportunity which exists in the niche. Incredible to say the least.

Jabong: During the second quarter of 2014, 27% of all orders received on Jabong came from mobile devices, a trend which is increasing at a rate of 25-35% every month. Please note that Jabong introduced their official mobile app in April this year, and after that, this number must have gone up exponentially.

And overall speaking, 62% of orders come from Tier 2 and Tier 3 cities, just like Snapdeal's customer demographic. The huge explosion of smartphones sales all over the country, and lack of branded showrooms in such cities has been cited as the factors of mobile revenues growth for the ecommerce portal.

Last year, in a comprehensive study conducted by SAP concerning mobile adaptation and usage for shopping had predicted that Indians are loving it. As per that study, more than 97% of respondents prefer and ask for mobile based platform to deal with banks, telcos, retailers, utilities and other businesses. Around 80% of respondents admitted that besides calling and messaging, they are increasingly using mobile for other activities such as Internet browsing, online purchase and online dating.

Although there exists several challenges and obstacles before mobile based shopping is fully embraced by the Indian shoppers, the trend and the growth clearly signifies that the mobile revolution has already begin; and things will only improve from this point.

Top e-tailing sites in India are Flipkart.com, eBay.in, Homeshop18.com, Snapdeal.com, Indiaplaza.com, Jabong.com, Yebhi.com, Amazon.com, Fashionandyou.com, Myntra.com (According to Nielson Report).

DEFINITIONS OF M-COMMERCE
"Mobile Commerce is the use of information technologies and communication technologies for the purpose of mobile integration of different value chains a business processes, and for the purpose of management of business relationships." (Webagency)

"M-Commerce is the use of mobile devices to communicate, inform transact and entertain using text and data via a connection to public and private networks." (Lehman Brothers)"The core of mobile e-commerce is the use of a terminal (telephone, PDA, PC device, or custom terminal) and public mobile network (necessary but not sufficient) to access information and conduct transactions that result in the transfer of value in exchange for information, services or goods." (Ovum)

"The use of mobile handheld devices to communicate, interact via an always-on high-speed connection to the Internet." (Forrester)
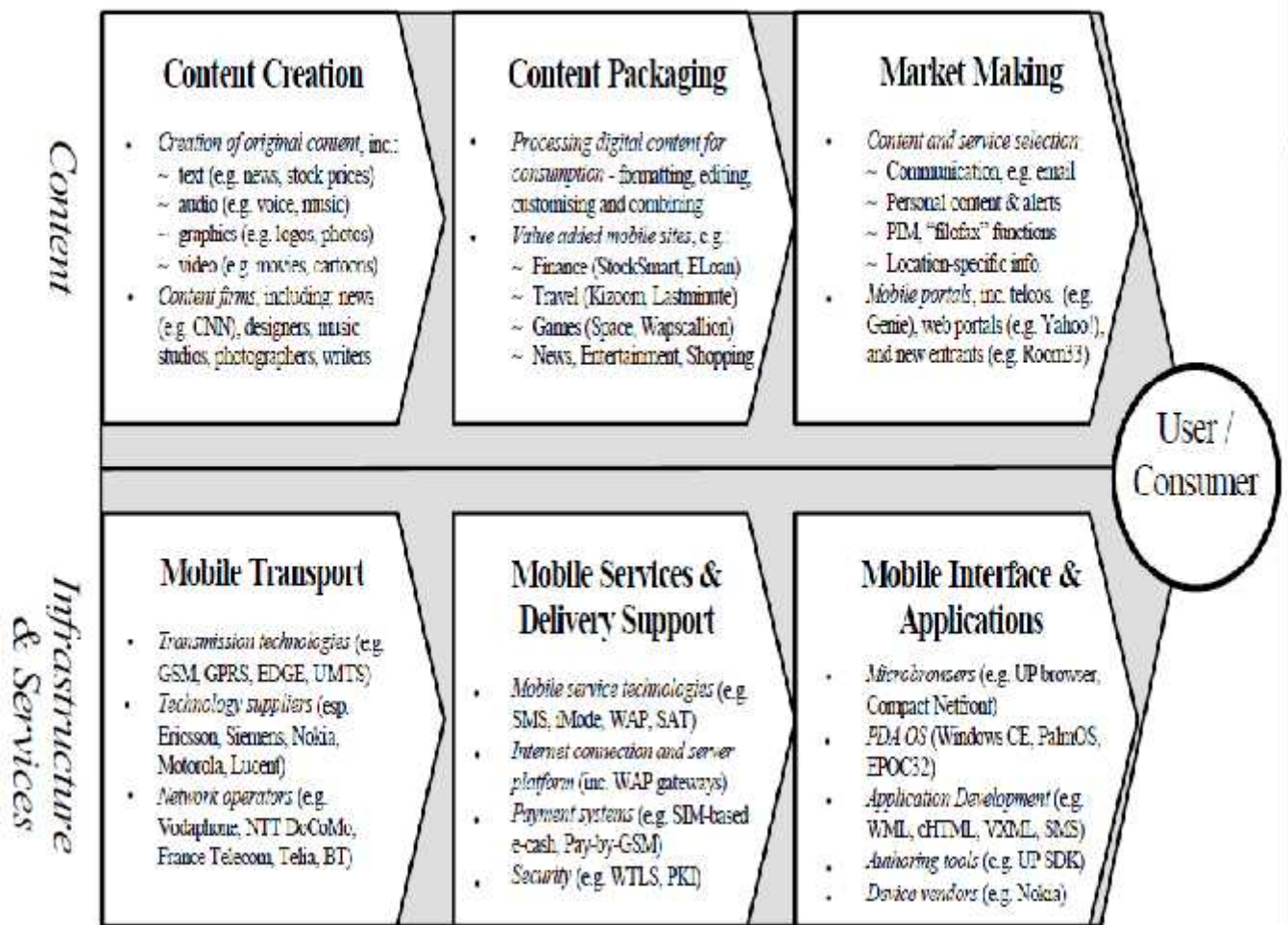

Fig. 1. The m-commerce value chain

As depicted in the figure the M-Commerce value chain includes content creation, content packaging, market making, mobile transport, mobile services and mobile interface and application those are used by the users to practice M-commerce. It is carried out using mobile phone devices, PDAs or other handheld devices. M-commerce applications have 2 major characteristics: broad reach and mobility. Mobility implies portability, for example, users can conduct their businesses in real time via mobile devices. With the help of M-commerce, people can be reached at any time via mobile devices. And by broad reach it means that the reach of M-commerce is more than e-commerce as for the use M-commerce, mobile devices are needed which are already widely spreading all over the world. Such is the extent of adoption of mobile phones that researchers have forecasted that by 2017 the number of mobiles on earth would exceed the population on earth. [Source: M-commerce in India, Emerging issue by Dr. Sunil Batra and Dr. Neenu Juneja]

MOBILE APPLICATIONS FOR E-TAILING
Indian e-Commerce market, which is currently pegged at Rs 78,000 crore ($13 billion) is all set to cross Rs 5,40,000 crore ($90 billion) by 2019, an increase of 700% in 5 years. As per a research by eTailing India, such a huge jump in overall digital industry in India will lead to tectonic shift in the way advertisements are done, audiences are profiled and messages conveyed.

As per a statement released by them, "Much like Apple changed the music industry, e-commerce will not only impact retail, but also the advertising industry."

And the most interesting aspect in the incredible growth story is that, mobile will hold the key to this growth.

E-TAILING
E-tailing (less frequently: etailing) is the selling of retail goods on the Internet. Short for "electronic retailing," and used in Internet discussions as early as 1995, the term seems an almost inevitable addition to e-mail, e-business, and e-commerce. E-tailing is synonymous with business-to-consumer (B2C) transaction.

According to Turban (2006), e-tailing is defined as retailing conducted online, over the internet. Wang (2002) has provided a broad definition of e-tailing by defining it as the selling of goods and services to the consumer market via the internet. Zeithaml (2002) has defined that the success of e-tailing depends on the efficient web site design, effective shopping and prompt delivery. The other e-store services are delivery on real time, return and replacement process, period of filling out online orders form, speed of response time to e-customers queries.

Ratchford (2001) have told that through Internet, consumers can gather information about merchandise and they compare a product across suppliers at a low cost. Rao (1999), E-commerce offers increased market activity for retailers in the form of growing market access and information and decreased operating and procurement costs. Myerson (1998) expressed that consumers are getting smarter in using e-tailers (and online search engines and agents) for convenience and comparison shopping. Guttman (1998), describes Several unique elements make online shopping different from the traditional in-store retail model. Besides offering convenience and expanded product variety, the online model also makes it easy for consumers to access and compare data from multiple sources. Meeker (1997), retailers might cry foul, but the new shopping paradigm they have to face is that as premium customers begin to accept the e-tail alternative in larger numbers.

REVIEW OF LITERATURE
LITERATURE REVIEW: FROM RESEARCH ARTICLES – JOURNALS

Sl.No.	Title/Abstract	Source
1	**"Exploring the implications of m-commerce for markets and marketing"** Business pundits have enthusiastically prognosticated about a seamless, mobile world where commerce occurs on an anywhere, anytime basis. This type of commerce has been referred to as mobile commerce or, more simply, m-commerce. However, there have been relatively few attempts to systematically explore the opportunities and challenges posed by m-commerce. This study investigates the implications of m-commerce for markets and marketing by means of a formal conceptualization of m-commerce, a space-time matrix that delineates the impact of mobile technologies, and taxonomy of m-commerce	Academy of Marketing Science. **Journal**; Fall 2002; 30, 4; BI/INFORM Global ,pg. 348

	applications. Authors: Balasubramanian, Sridhar; Peterson, Robert A; Jarvenpaa, Sirkka L.	
2	E-commerce is widely considered the buying and selling of products over the internet, but any transaction that is completed solely through electronic measures can be considered e-commerce. E-commerce is subdivided into three categories: business to business or B2B (Cisco), business to consumer or B2C (Amazon), and consumer to consumer or C2C (eBay), also called electronic commerce. M-commerce is a term that is used to refer to the growing practice of conducting financial and promotional activities with the use of a wireless handheld device. The term m-commerce is short for mobile commerce, and recognizes that the transactions may be conducted using cell phones, personal digital assistants and other hand held devices that have operate with Internet access. E-commerce Security is a part of the Information Security framework and is specifically applied to the components that affect e-commerce that include Computer Security, Data security and other wider realms of the Information Security framework. E-commerce security has its own particular nuances and is one of the highest visible security components that affect the end user through their daily payment interaction with business. Authors: Niranjanamurthy M 1, Kavyashree N 2, Mr S.Jagannath3 DR. Dharmendra Chahar 4	*International Journal of Advanced Research in Computer and Communication Engineering Vol. 2, Issue 6, June 2014 ISSN (Print) : 2319-5940 ISSN (Online) : 2278-1021 www.ijarcce.com*
3	This article attempts to quantitatively measure the various influences on mobile phone adoption at the bottom of the pyramid (BoP) in Bangladesh, Pakistan, India, Sri Lanka, the Philippines, and Thailand. Based on an existing theoretical framework, adoption is modelled by fitting a logit model to a large six country dataset. The study finds evidence for the importance of social influence in mobile adoption in two modes: one that exerts pressure on individuals to adopt, and another that helps to generate benefits via social networks that are tied in with economic and business networks. The article elaborates on the resulting social policy implications for using mobile telephone services to fight poverty at the BoP in these and similar countries. Authors: Harsha de Silva, Dimuthu Ratnadiwakara, Ayesha Zainudeen	2011 USC Annenberg School for Communication & Journalism. Published under Creative Commons Attribution-Non Commercial-Share Alike 3.0 Unsorted license Volume 7, Number 3, Mobile Telephony Special Issue.
4	In this review mobile device shopping, consumers' use of mobile devices while shopping, is assumed to be an extension of consumers' shopping behaviours developed on internet connected desktop and laptop computers (PC). The purpose is to describe existing knowledge on how mobile marketing can increase value for consumers and retailers, enabling more precise research and development of managerial concepts and tools, providing both managers and academics with increased understanding of mobile marketing and its outcome value for retailers. *Methodology/Approach:* The review is based on a qualitative content analysis of 64 selected peer-reviewed articles presenting empirical results. The results are categorized based on research themes, and then discussed within and be-tween categories. Authors: Roger Storm*, Halmstad University, Sweden ,Martin Vendel, KTH Royal Institute of Technology, Sweden.	
5	Exploring individual personality factors as drivers of M-shopping acceptance **Abstract** Purpose – The purpose of this paper is to evaluate how personality variables related to technology (innovativeness, compatibility and affinity) can modify the influence of classical technology acceptance model (TAM) variables on behavioural adoption intention of mobile shopping. Authors: Joaquı´n Alda´s-	Industrial Management & Data Systems Vol. 109 No. 6, 2009pp. 739-757 EmeraldGroup

	Manzano, Carla Ruiz-Mafe´ and Silvia Sanz-Blas	Publishing Limited 0263-5577DOI 10.1108/0263557091 0968018
6	An Empirical Study of Factors Driving to M-shopping Usage Abstract: Advances in mobile technology have had considerable influence on the sustained involvement in shopping-shopping anywhere and anytime. M-shopping connects existing online and offline environments and enables consumers to engage in m-shopping anytime, anywhere, thereby providing them with new value. This study provides an empirical analysis of the relationships between m-shopping characteristics and use through the mediating effect of m-shopping value, and the results have important theoretical and practical implications. The results show that personalization, self-efficacy, intimacy, simplicity, mobility, and connectivity have considerable influence on m-shopping value and that the shopping value that users experience during m-shopping can be divided into utilitarian value and hedonic value. Authors: Dr. Mirsobit Mirusmonov, Dr. Changsu Kim, Professor, Dr. Jai Jin Jung	The Business Review, Cambridge * Vol. 22 * Num. 1 * Summer * 2014 ISSN 1553 – 5827 www.jaabc.com
7	Abstract This study analyses the possible significant impacts of mobile phone technology developments on marketing and determines those target mobile phone users who have the most positive attitudes towards mobile marketing tools. The survey results, conducted on 418 mobile phone users, show that the mobile phone users 'adaptation to mobile shopping is low; however, mobile phone users have positive attitudes towards mobile marketing tools —mobile advertising, mobile discount coupons, mobile entertainment, location-based mobile services, mobile internet and mobile banking. The survey results suggest that target segment / segments can be determined for mobile marketing strategies. Managerial implications and recommendations are also offered that may work to increase mobile commerce and marketing adaptation rates. Authors: Suleyman Barutcu	Journal of Targeting, Measurement and Analysis for Marketing (2007) 16, 26 – 38. doi: 0.1057/palgrave.jt.57 50061
8	Abstract: Purpose – Smartphone adoption by consumers is increasing exponentially, and presents marketers with many new opportunities to reach and serve customers. However, are consumers ready for mobile marketing through their smartphones? This study aims to investigate consumers' willingness to accept marketing through their smartphones. Authors: Ajax Persaud and Irfan Azhar	Journal, **Marketing Intelligence & Planning** 30.4 (2012): 418-443

Sl.No.	Thesis: Title	Research Gap
1	Mobile Commerce – The use of M-commerce by Customers Today	This study identifies a new buying process for m-commerce; it would be interesting to conduct a research on m-commerce buying process in order to measure the effectiveness. Sources: Md. Shaidul Islam Sheikh, Lulea University of Technology, ISSN: 1653-01857
2	Mobile Commerce – The use of M-commerce by Customers Today	The Research proposes to conduct research on how m-commerce is exploring in global perspective and also to know m-commerce buying process in order to measure the effectiveness. Sources: Md.Shaidul Islam Sheikh
3	Best Practice Mobile Marketing	The Research recommends 'consumer centricity' as pivotal core for mobile marketing in the stated context implies a future responsibility of academics and mobile marketing practitioner to constantly track and comply with changes in consumer attitudes and behaviours. It is

		therefore recommended that similar research studies be conducted in frequent iteration. Sources: Henrik Timm Damsgård Laustsen, Aarhus University
4	An Empirical Study of Factors Driving to M-shopping Usage	This study is one of the first to examine the relationships between m-shopping characteristics, value, and use, but it has some limitations, which provide some interesting avenues for future research. First, in addition to the personality (personalization and self-efficacy), usability (intimacy and simplicity), and technological (mobility and connectivity) factors in m-shopping and the proposed mediators of utilitarian value and hedonic value, there may be other factors that are meaningful for m-shopping research. Therefore, future research should provide a systematic analysis by considering other useful factors through literature reviews and empirical analyses. Second, with the increasing popularity of m-shopping, future research on m-shopping value and use should focus on formulating the value and process after m-shopping use. In this regard, there is a need for a better understanding of differences between factors influencing m-shopping use as well as an in-depth analysis of processes following m-shopping use. Sources: Dr. Mirsobit Mirusmonov,CCBA, Dhofar University, Sultanate of Oman ,Dr. Changsu Kim, Professor, Yeungnam University, Republic of Korea ,Dr. Jai Jin Jung, Dankook University, Korea,The Business Review, Cambridge * Vol. 22 * Num. 1 * Summer * 2014,ISSN 1553 – 5827,www.jaabc.com

Advancements in wireless communication technologies and the new generation of mobile devices have increased the number of people using mobile devices, opening the door for rapid growth of m-commerce M-commerce (MC) refers to "any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and /or completed by using mobiles access to computer-mediated networks with the help of mobile devices".

(Tiwari and Buse, 2007). According to researchers, MC is now seen as the business model that has the potential to have a greater impact on business communities and industries than what e-commerce (EC) did in the early 2000s (Chong et al.,2011). It was estimated that the number of mobile phone subscribers is surpassing the number of Internet users in some countries (Xie et al., 2009). This growth has been related to the improved mobile broadband and mobile networks, the growing popularity of social networking, video services and voice over IP (VOIP) services, as well as significant advances in mobile handset technology (Church and Oliver, 2011). Realizing the potential of MC, many retailers are considering MC as a new venue for future growth and have invested significantly in the development of mobile-enabled sites for MC (Patel, 2011). According to current estimations, the US MC sales are predicted to reach $163 billion in sales by 2015, compared to $4.9 billion in 2011 (ABI, 2010). MC has different characteristics from traditional EC. First, due to the ever-present access of the mobile Internet, MC facilitates anytime, anywhere transactions. Therefore, while EC continues to be used for exploring the advantages of the Internet, mobile access appears to attract people because of its immediate accessibility (Sumita and Yoshii, 2010). In this context, it was also reported that a growing number of users are accessing the Web through mobile devices in non - mobile settings like at home or at work (Nylander et al., 2009). Second, personalization allows MC applications to be personalized in order to represent information or to provide services, which are appropriate to specific group of users. Unlike EC on computers, mobile devices such as mobile phones are usually owned by a single user.

Third, with smartphones individual users are using their phones for various activities such as social networking, scheduling events, emailing, searching for maps and directions(Chong, 2013)Finally, small screens and low usability of mobile devices may hamper long and complex use of the MC channel. Relatively less time spent per visit and less complex navigation is expected on MC Webpages (Bang et al., 2013). Despite the inherent different characteristics, little empirical research attention was given to investigate the manner in which these differences are realized in usage behaviour. IS Studies which examined the post-adoption MC usage, provided evidence about usage intensity measures (e.g. visit's duration and number of navigated pages) in MC, relying mainly on subjective methods (Gerpott and Thomas, 2014). However, these studies did not refer to the possible differences between MC and EC usage intensity measures. Moreover,

usage intensity measures have limited contribution in understanding user behaviour patterns. In the context of EC, Web usage mining was widely used to explore the hidden user browsing behavior patterns discovered from Web logs in order to understand and better serve the needs of Web-based applications (Liu and Keselj, 2007).

However, as far as we know, Web usage mining was not used in the context of MC. We argue that analysing usage behavior as reflected in Web pages accessed by a user may provide new insights regarding the differences between MC and EC usage behavior. In particular it is important to understand the navigation path at the session level, which provides an objective measure of usage behavior (Chou et al., 2010). Therefore, we analyse Web-server log files, as they offer large samples of browsing information regarding Web pages accessed through various devices. We refer to the following research question: Is the device type (mobile Internet access versus stationary Internet access) associated with unique browsing behavior? To answer this question we perform an exploratory study through the application of a Web usage mining approach on Web-server log files of a large-retailer in Israel, whose site can be accessed through mobile as well as stationary devices. This provides a unique opportunity to compare Web usage behavior on both MC and EC channels. The obtained results will contribute to the emerging research area of MC and can be also used to guide future development of mobile websites and increase their effectiveness.

STATEMENT OF THE PROBLEM
The growth of Internet, Smartphones and its user base in recent years has been truly phenomenal. With the phenomenal growth of the Internet and Telecom over the past few years the m-commerce growth is increasing especially with the use of retail applications like flipkart, amazon, snapdeal, myntra, olx etc. Some of the renowned ecommerce companies have shut their websites seeing the growth of mobile commerce sales. Everything about apps feels like a win for users—they are faster and easier to use than what came before. But underneath all that convenience is something sinister: the end of the very openness that allowed Internet companies to grow into some of the most powerful or important companies of the 21st century.

This study is designed to understand what drives consumers in both urban and rural to shop using mobile apps. There are several questions that need to be answered so that m-commerce users do online shopping without any risk, fear or lack of trust especially when it comes to online payment. Moreover demographic characteristics like income and education are also anticipated to influence m-commerce purchase decision. This study was undertaken to provide solution to the above mentioned problems.

SCOPE OF STUDY
The study covers the population of Bangalore, the urban population who use extensive smartphone for m-commerce activities.

OBJECTIVE OF THE STUDY
1. To identify key factors that impacts m-commerce adoption by consumers in e-tailing.
2. To find out the scope of m-commerce over e-commerce

HYPOTHESIS
HO: M-commerce is far better than e-commerce for Generaion Y, Echo Boomers or Millenniums.
H1: M-commerce is not better than e-commerce for z-generation Generaion Y, Echo Boomers or Millenniums.

METHODOLOGY
RESEARCH APPROACH
The purpose of this thesis is somewhat exploratory since it provides a better understanding of how m-commerce can be used as tool for creating customer value. The study descriptive in a sense that the buying process was portrayed in order to find out the differences and similarities. The descriptive purpose is also justified by the sense that the research purpose is clearly structured. Finally, the study becomes slightly explanatory, as the research questions of this study will be answered in the final chapter.

RESEARCH DESIGN
A research design is a framework or blueprint for conducting the scientific inquiry. It details the procedures necessary for obtaining the information needed to structured or solve marketing research problem. The purpose of the research design is to provide the plan for answering the research question or testing the hypothesis. In other words, a basic aspect of research

design is to set up the research so as to allow logical inferences to be drawn. Research design may be broadly classified as exploratory or conclusive (Descriptive research and Causal research).

The research design for this study is descriptive in nature and both qualitative and quantitative research methodologies are used. In this two stage research design, first stage of the research design is exploratory. Output of the exploratory is used in the second stage of the research. Qualitative output was used for the formulation of questionnaire especially for item construction for the scale to measure motivation aspect and attitude etc. Semi structured questionnaire will be used for the second stage quantitative research. A semi structured questionnaire is designed and will be pre-tested before using as a final instrument for collecting the data.

FIELDWORK OR DATA COLLECTION
Sources of Data
Secondary data is collected in form of literature reviewed from various national and International Journals, Websites, Books, Online Databases, libraries and Reports. The major online databases reviewed so far are Electronic database like PROQUEST, EBSCO & J-GATE.

PRIMARY DATA
Online survey conducted across 60 respondents (approx.), age group of 18 years plus, who are an active Internet user and online shopper, which means they had used the internet in the past 1 month and had bought at least one product from the subcategories that are mentioned above – Books, Movies, Music & Games; Electronics & Computer; Home, Garden, and Tools; Food, Health and Beauty; Toys, Kids, and Baby; Clothing, Shoes, and Jewellery; Sports and Outdoor; and Automotive, in last 6 months online.

DATA ANALYSIS
The collected data was then subjected to suitable statistical analysis including
Chi-square test
Chi Square is one of the very popular methods for testing hypotheses on discrete data. Chi-square is used for finding significant relations. It is used to determine if categorical data shows dependency or the two classifications are independent. This test can also be used to make comparisons between theoretical populations and actual data when categories are used. A small chi-square statistic indicates that the null hypothesis is correct and that the two variables are independent of each other.

Here Chi-Square is proposed to be used to find significant relations between:
- Products/Services bought online by online buyers using smartphone apps and their demographic
- Characteristics
- Normally adopted payment mode by m-commerce users and their demographic characteristics
- Types of m-commerce buyers and their demographic characteristicsEtc.

DATA ANALYSIS
Data showing why m-commerce is chosen comparatively to e-commerce under chosen parameters:

QUESTIONS	TOTAL	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	TOTAL
Compatibility	59	25%	41%	20%	8%	5%	100%
Upgradability	59	22%	39%	14%	22%	3%	100%
Findability	58	19%	33%	29%	10%	9%	100%
Sharability	59	32%	34%	17%	14%	3%	100%
Reach	57	28%	39%	21%	11%	2%	100%
Time	58	40%	29%	14%	12%	5%	100%
Cost	57	23%	28%	33%	12%	4%	100%
User-friendly	58	38%	33%	12%	7%	10%	100%

Portable	56	11%	36%	32%	18%	4%	100%
Support	58	14%	45%	29%	7%	5%	100%
Sustainability	58	7%	48%	24%	17%	3%	100%
Mobile website can be a pp	58	29%	26%	21%	12%	12%	100%
Security	57	19%	26%	40%	9%	5%	100%
Banking	56	20%	39%	21%	9%	11%	100%
Confidentiality	58	16%	31%	22%	16%	16%	100%
Offline mode	58	2%	22%	45%	19%	12%	100%
Accessibility	57	19%	39%	25%	5%	12%	100%
Efficiency	58	12%	47%	22%	14%	5%	100%
Gaming	58	16%	47%	5%	22%	10%	100%
Surfing	57	5%	40%	33%	16%	5%	100%

Interpretation: Time, support, sustainability, app, banking/payment facility, confidentiality, offline mode, accessibility, efficiency, gaming, surfing

CHI-SQUARE TEST
GET
FILE='H:\ \Are mobile apps better than online surfing\mobilereponsedata.sav'. /CRITERIA ALPHA=0.05 CILEVEL=95.

Output Created		07-JUL-2015 16:01:43
Comments		
Input	Data	H:\ \Are mobile apps better than online surfing\mobilereponsedata.sav
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	59
	Syntax	NPTESTS /ONESAMPLE TEST (Mobilewebsitecanbeaapp) /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE /CRITERIA ALPHA=0.05 CILEVEL=95.
Resources	Processor Time	00:00:00.28
	Elapsed Time	00:00:00.23

[DataSet2] H:\ \Are mobile apps better than online surfing\mobilereponsedata.sav

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Mobilewebsitecanbeapp occur with equal probabilities.	One-Sample Chi-Square Test	.127	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hence Null Hypothesis is accepted. M-commerce is far better than e-commerce for Generaion Y, Echo Boomers or Millenniums.

CONCLUSION
This study proves generaion Y, Echo Boomers or Millenniums prefers mobile application for online shopping because of the factors like Time, support, sustainability, app, banking/payment facility, confidentiality, offline mode, accessibility, efficiency, gaming, and surfing. Hence brick mortar companies and existing ecommerce companies should give importance to m-commerce in implementing mobile applications as medium for communication, order, payment transactions and distribution.

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