CHETANA
International Journal of Education

Impact Factor
SJIF 2021 - 6.169

Peer Reviewed/
Refereed Journal

ISSN-Print-2231-3613
Online-2455-8729

Prof. A.P. Sharma
Founder Editor, CIJE
(25.12.1932 - 09.01.2019)

Received on 05th Jan. 2022, Revised on 13th Feb. 2022, Accepted 03rd Mar. 2022

Research Paper

Factors affecting the use of M-Commerce by Indian People

* Dr. Kamaljeet Kaur Bhatia
Principal
Radiant Institute of Management & Science, Indore
E-Mail:-kbhatiavitm@gmail.com, Mob.- 0000000000

Key words- *M-Commerce, Indian Consumers, Internet privacy etc.*

Abstract

This study aims to investigate factors affecting consumer adoption of mobile commerce in Indian consumers. Mobile commerce has become the latest trend to do business instead of electronic commerce at the earlier time. The meteoric development of communication technologies has developed a substantially effective M-Commerce market in India. Therefore, the determination of factors affecting the acquisition of M-commerce in India will have considerable value. This study reveals differences in patterns of usage and beliefs among Gen X and Gen Y users. It was found that Gen Y users used mobile apps much more extensively than Gen X users. Though both categories of users believed that usage of mobile apps made life easier, the data was analysed with the help of t-ratio. As India is going into a 5G network, the chances for mobile commerce are huge and provide that practitioners understand the potential user's behavioural intention to use mobile commerce.

Introduction

Its journey started from 1971 with cannabis sales for students at Stanford Artificial Intelligence Laboratory at Massachusetts Institute of Technology. In 1979 first online shopping system was demonstrated by Michel Aldrich. In 1981 business to business online shopping system began. Around 1990 first web browser World Wide Web using NeXt computer was introduced by Tim Berners Lee. In 1994 Mozilla one of the most famous navigator browsers was released. A new chapter added in the success book of M-commerce when Jeff Bezos launched Amazon.com.In 1999 biggest giant E-commerce giant Alibaba group established in China. On parallel track many new E-companies unfolded. In 2004 China's first Business to Business transaction company Dhgate.com was established. In 2011 Amazon.com was acquired by Quidsi.com. In 2014 Bit coin sales took place by verstock.com by this time India's Ecommerce companies grew for more than 30%. As far as present time concerned almost companies whether goods or service related have their dedicated Apps along with websites to cater and capture all categories of customers irrespective of place and time. M-commerce adds mobility and convenience to the Internet and creates a whole new set of opportunities. The probability of mobile devices offers new business applications outside the scope of fixed, desktop-based Internet offerings. Nevertheless, as m-commerce is still in its infancy, mobile applications are still not widely implemented or adopted by m33obile users. This study is set out to investigate and explore consumers' perception of various mobile applications and study various success factors for effectiveness of M-commerce in India.

This term mobile commerce came into existence in the year 1997 when it was first introduced by Kevin Duffey on the launch of Global mobile commerce forum which was organized in United Kingdom when a motive to make the electronic commerce easily accessible to users anytime, anywhere using wireless technology. Mobile commerce has travelled a long way from the first service delivered in the year 1997 [mobile-phone backed Coca Cola vending machines were installed at Helsinki area in Finland where the machines provided the facility of accepting payment through SMS text messages] and the use of mobile commerce is a perfect combination of the current trend of electronic commerce (ecommerce) and the coming up developments in personal computing, which has technologically advanced forward move from desktops to smartphones; living up a new era of anytime, anywhere commerce via internet/wireless connectivity.There are many types of

business technologies available on the information communications technology platform for the world market today such as cloud computing, business intelligen2ce and others. Current development of social media networks, ecommerce and most recently, mobile commerce is providing to be a strong contender against traditional physical shops. Internet provides a virtual platform where sellers and buyers can come in contact for sale and purchase of goods and services. They can be thousands of miles apart,may belong to different parts of the world, might speak different languages, "E-commerce"emerged as the boundary-less trade medium in the era of globalization. Both e-commerce and mobile commerce have similarities in the term of the commercialization aspect (that is it an electronic business transaction process) but differs in terms of mobility capability platform.Mobile commerce is really, the extension of and the evolution of e-commerce. Thus, some definition may define both e-commerce and mobile commerce; especially on its features.

There are different boosting factors that encourage businesses to make advances towards the M-commerce market. Firstly, m-commerce holds a promising future due to the penetration of smartphone mobile market. Wide spread and affordable availability of devices can be utilized by suppliers to directly communicate to existing and potential customers. Further, the push demand from vendors, attractive offers and content, low cost and reasonable prices of the mobile services are also encouraging substantial market growth. Apart from the first one Second most important reason are some technology related factors, such as improvement of bandwidth, development of wireless internet and software, emergence of new technologies and so on, contribute a great deal to the development of m-commerce market. In addition, there are some social tendencies, including accelerating handset culture and increasing propensity to transact online which can be called driving force for prosperity of m-commerce.

Review of Related Literature

Abhijeet R. Patil, (2017) this paper focus on how Mobile – Commerce has become fastest growing alternative for carrying out business transactions. Now days with the use of mobile phones and internet tools, people do variety of business related transactions e.g. Online shopping, mobile ticketing, online Auctions etc. Now most of the organizations viz.banking sector, consumer goods, telecom, transport, insurance, and health has extended their service on the mobile phones devices. Still how people find it difficult to understand its infinite possibility of uses and perspectives. Also fear related to identity and security of personal

information being hacked or getting misused for unlawful activities. This anxiety increases while doing money transactions on the internet or sharing personal information for online activities. This paper identifies the facts that how M-commerce uses wireless and mobile technology and gives an insight about the strength and weaknesses of the Mobile – commerce.

Naware, Archna M. (2016) M-Commerce and E-Commerce facilitate people to transfer funds, shopping, bidding without going to shops within a moment. E-commerce is conducted on handheld devices like laptops, desktop computers using internet whereas M-Commerce is conducted on mobile phones using internet. M-Commerce is E-commerce on mobile phones and it is subset of E-commerce. E-Commerce provides the facility of anytime online transactions and M-Commerce introduced anytime anywhere online transactions. The ubiquity, reachability, mobility and flexibility features of M-Commerce have increased the mobile users and mobile internet subscribers in India. M-Commerce is implemented through mobile applications. People prefer using mobile applications instead of web application for utility bill payment, ticket booking, fund transfer, email and so on. Thus M-Commerce is replacing E-commerce with great speed. Along with many advantages M-Commerce have disadvantages too such as tiny screen of device, weak processors, limited memory, poor resolutions, poor data entry, and lack of WAP-enabled devices, expensive data speed, and shortage of bandwidth. This paper sheds light on the M-Commerce, its applications, advantages, disadvantages and the growth of M-Commerce in India.

Khatana, Sonam and Dahiya, Monika (2015) In this paper author explained consumers need not be confined to the computer for a long time to perform online transactions nor do they need to carry laptops with them whatever they go. In their opinion it is great leap from E-commerce to M-commerce in the past years. After explaining the evolution and background of M-commerce, author discussed the recent trends of M-commerce as the easy and affordable availability of Smartphones with convenient and low tariff plans. Facts reveal that India is the second largest mobile user in the world. In India shopping online via smart phones is expected to be a game changer and very soon M-commerce is going to contribute almost 70% of commerce activities. Researchers revealed that as per the snap deal cofounder Kunal Bahl, close to 60% of their orders are coming over mobile now and as per Flip kart Bhatt, growth in commerce from on-metro cities has been noted and this growth can be credited to use of smart phones. Almost 75% consumers make use of their phones to access

interest. Afterwards services offered by M-commerce as entertainment, News and information and payments of bills were explained in brief. Author highlighted the growth drivers boosting M-commerce in India. Although language barrier, low graphical resolution, security, data transmission rate and lack of awareness are serious issues need to be handled with effective measures.

Dr. Batra, Sunil and Dr. Juneja, Neenu (2013) this paper is a research on mobile commerce basically in India. It lists the issues being faced by the Indian M-commerce industry. Businesses and its strategies are ever changing and dynamic with the advancement of time and technologies. Earlier, business strategies used to have geographical barriers and there was limited scope for the growth. But because of rapid advancements in the Internet and Communications technologies geographical boundaries are diminishing. M-commerce industry is quite young in India. Appox 9% Indians are using smartphones for the purpose of rapidly consuming services such as gaming, videos, songs and entertainment on their smart devices and which leads to steady growth in mobile advertising and apps industry. According to author M-commerce applications have 2 major attributes: broad reach and mobility. In paper five smart phone markets and market share for 2011, 2012 and 2016 (Based on shipment) is also described with histogram and schedule. Researcher believes that future of M-commerce seems bright and shining with the advent of 4G and 5G technologies.

Objectives of the Study

1. To study the prevailing factors of M-commerce.

2. To study the factors which are affecting the use of M-commerce by Indian consumers?

3. To Study various platform of M-Commerce

Hypothesis of the Study

H01: There is no significant impact on awareness about M-commerce because of age.

H02: There is no significant impact on use of M-commerce because of gender.

H03: There is no significant impact on easy shopping experience which mobility feature Provides.

H04: There is no significant impact of age for high contribution by young population on M-commerce enhancement.

H05: There is no significant impact of speed M-commerce enhancement in future

H06: There is no significant impact of being expensive on use of M-commerce.

H07: There is no significant impact of Risk being expensive on use of M-commerce.

H08: There is no significant impact of personal privacy Risk being expensive on use of M- Commerce.

Sample and Sample Size

The population of this research is M-commerce users in India with special reference to Indore. All M-commerce users were selected randomly and are they user M-commerce and smartphone were the screening questions. If they said no they were being removed from the survey and if answered yes the questionnaire was hand to them. Questionnaires were distributed in person, some were directly e-mailed out of 70 were received nearly 50 were recognized as valid ones after data cleansing. Sample Size is of 50. Respondents are the users of smartphones and M-commerce.

Stastical Tool

The data required for the study were collected from Primary sources. Primary data were collected using questionnaires and through formal and informal discussions with the concerned members. In this research questionnaire is based on Five point Likert Scales with end points as [1] Strongly Agree [2] Agree [3] Neutral [4] Disagree [5] Strongly Disagree were used to examine respondents responses to the statements. To analyse the data collected Statistical Package for Social Sciences (SPSS) version 22.0 were employed for the present study.

Analysis and Interpretation

Table No. 01

Paired Samples Test between Age and Awareness about M-commerce

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
AGE –Awareness About M-commerce	49	6.58	1.05	6.2816	6.8784	44.3120	0.0001

The calculated values of t-test of much higher side while the tabular value than the null hypothesis **H01** is rejected.

Table No. 02

Paired Samples Test between Gender and Use of M-commerce

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
GENDER – Use of M-commerce	49	7.70	1.44	7.2908	8.1092	37.8106	0.0001

The calculated values of t-test of much higher side while the tabular value than the null hypothesis **H02** is rejected.

Table No.03

Showing paired t- test

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
Provides Mobility Feature –Easy Shopping Experience	49	8.89	1.69	8.4097	9.3703	37.1963	0.0001

As per the paired test performed between two variables the calculated value of 37.1963 which is more than tabular values of both the limits so we reject our null hypothesis **H03** that there is significant impact on easy shopping experience which mobility feature provides.

.**Table No.04**

Paired Samples Test High contribution of young population on its enhancement

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
AGE – High Contribution Of Young Population	49	7.70	1.66	7.2282	8.1718	32.7995	0.0001

As per the paired test performed between two variables the calculated value of 32.7995 which is more than tabular values of both the limits so we reject our null hypothesis **H04** that there is significant impact of age for high contribution by young population on M-commerce enhancement.

Table No.05

Paired Samples Test Enhancement of M-commerce on its enhancement & between speed and on Enhancement of M-commerce

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
Speed A Hurdle – M-commerce Enhancement In Future	49	8.44	1.28	8.0762	8.8038	46.6249	0.0001

As per the paired test performed between two variables the calculated value of 46.6249 which is more than tabular values of both the limits so we reject our null hypothesis **H05** there is significant impact of speed M-commerce Enhancement in future.

Table No.06

Paired Samples Test between Being Expensive and Use of M-commerce

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
Expensive - Use of M-commerce	49	9.05	1.31	8.6777	9.4223	48.8497	0.0001

According to test calculated p value of t test between expensive and use of M-commerce is 48.8497 while tabular value is comparatively low so null hypothesis **H06** is rejected, which means there is significant impact of being expensive on use of M-commerce

Table No.07

Paired Samples Test between M-commerce enhancement in future and Risk in buying potential products

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
M-commerce Enhancement In Future-Risk In buying Potential Products	49	10.01	2.06	9.4246	10.5954	34.3599	0.0001

Value of p of paired t test is more than its tabular value so our null hypothesis **H07** rejected and alternative is accepted that there is significant impact of being expensive on use of M-commerce.

Table No.08

Paired Samples Test between Invasion of personal privacy and Risk of Identity theft.

	Degree of Freedom	Mean	S.D.	95% Confidence Interval of the Difference		t- value	p- value
				Lower	Upper		
Invasion Of Personal Privacy -Risk Of Identity Theft	49	8.19	1.60	7.7353	8.6447	36.1950	0.0001

In this paired t test between Invasion of Personal Privacy and Risk of Identity The calculated t value is 36.1950 which is more than tabular value so our null hypothesis **H08** is rejected, which means there is significant impact of being expensive on use of M-commerce.

Limitations of the Study

Screen size: While mobile phones and tables screens are becoming bigger, the screens are still significantly smaller than those of laptops and PCs. As a result, information has to be condensed or, often better, simply not be offered. The same applies for certain features that

may work well on larger screens but are nearly impossible to use on a small screen, like product configurations.

No keyboard: While several technologies have made it easier to fill in forms on a mobile screen, it is still tough compared to keyboards of laptops and PCs. Retailers have to be aware that on mobile devices they should offer as little information as possible. It is best to store preferences as delivery address and payment preferences as much as possible in the user profile so that he does not have to retype these.

Chances of Fraud: Many frauds and cheating also take place in mobile commerce. There are few incidence of online shopping in which by making online payment, product is booked, but in delivery it is observed that the delivered product is not same what was booked. For making online transactions credit/debit card details is given, many times these confidential details are Misused and fraud is done.

Bandwidth: While bandwidth is in most countries improving rapidly (most countries now offer 4G next to 3G with 5G being introduced in the first countries in 2018. However, while bandwidth is improving, it is by far stable. Depending on the number of people in the neighbourhood, actual Internet speed may still be low. Retailers have to be aware that their mobile websites have to be kept "light".

Payment: Depending on the country, the number of payment methods suitable for mobile usage may vary between many and zero. Entering credit card details on a website using a mobile phone is tedious. In China, mobile wallets like those of We Chat and Alipay were built for mobile devices.

Processors: Use of less powerful processors leads to slow processing speed. To overcome this issue web developer would have to use server ride scripting which will bring more load to the servers.

Expensive: Wireless connection of a mobile device to the internet is still a relatively new technology although the cost of wireless connection also expensive as the technology is still under heavy development.

Speed: In India average available speed of internet is 6.5Mbit/s and the average peak connection speed is 100Mbit/s globally according to the Akamai Q1 2017 report. Internet based operations keep buffering for quite long's India is heading towards becoming digital

India, but this speed is a big constraint in success path.

Language barrier: Language is a barrier in M-commerce success as English is the main language used for operating phone and internet. Although India is the world's second largest English speaking country. But still only 10%of its population or 125 million people are comfortable with English language. Although now most of the mobile phones provide option of Hindi language but for getting online knowledge of English is must.

Literacy barrier: India literacy rate is 74.04%. Literacy rate in India is uneven and as such, different states, UT and cities of India have difference in their literacy rates. Use of M-commerce is confined to literate people only. This is one of the main challenges of M-commerce. As out of total literate population those who reside in urban areas are main users of mobile commerce. But major population resides in villages, in rural areas and their mobile Commerce is yet to reach.

Physical shopping satisfaction: In India still most of the people do not get shopping satisfaction unless they physically touch the product. In online shopping consumers don't get the facility of physically checking the goods. Only on the basis of pictures and videos consumers take the decision and select the product. Although 65% population of India is young by age. But still old and mid-aged people do not get convinced to shop without Physical verification.

Conclusion

M-commerce means exchange of goods and services over the internet by the use of mobile phones or Mobile commerce is wireless electric commerce used for conducting commerce related activities of business using a wireless hand held devices like cellular phone or tablet. Nowadays it is defined as next generation M-commerce, which enables users to make access to the internet without requirement of a place to plug in. The main technology makes the dream of M-commerce a reality is wireless application protocol (WAP). Mobile is becoming quite dominant reason for accessing communications mainly because using mobile network is not only cost-efficient but also mobile provides greater flexibility and convenience to its subscribers in comparison to landline telephones.

Over the last few decades, mobile applications have been evolving in India, with a wide variety now in use. Applications have been developed for existing mobile platforms

including smart-phones, laptop PCs, PDAs, tablets and specialty pagers. In recent years, the use of new information and communication technologies like mobile telephony has experienced unprecedented growth, providing consumers with new options of relating and remains more updated, personalized communication. The mobiles complementary, interactive nature and synergy with other direct sales systems such as internet and television have made it an excellent interactive marketing tool which helps companies to complement their communication and sales actions on other media. Studying the generalized use of mobiles and the scarcity of studies which analyze the profile of the users of this system, this work has contributed to the research by providing an understanding of the factors influencing M-commerce adoption. NFC(Near Field Communication) based mobile payment will show steady growth in the near future as more and more people will start using their smartphones for making mobile payments or for making mobile banking transactions. As security is one the major limitations of mobile commerce many technological advancements in form of biometric authentication as well as voice command recognition are taking place for safety and security of users data and personal information and for catering to growing user demands. In order to offer reliable, fault-proof and secure mobile payment systems to vast number of mobile users on daily basis.

There are new trends reshaping the world. Mobile commerce is sometimes described as a wireless extension of wired electronic commerce which is easily accessible anytime from anywhere. Products and services like M-shopping, M-ticketing, Mobile money transfer, Mobile banking, Mobile ATM, Location based services etc; are the factors which are making M-commerce so popular day by day. Mobile commerce is the way of doing business in a flexible way, by making the transaction anytime from anywhere. M-commerce depends on the availability of mobile connectivity. We have become used to making mobile phone calls anywhere, at any time in the same way consumers are able to shop using a hand held device,PDA, mobile and Tablet ,wearable computer or smart wireless devices. M-commerce offers multiple advantages like ubiquity, personalization, flexibility, and distribution, instant Connectivity, immediacy. There are many ways in which consumers of India can be benefited from advancement of mobile commerce.

Refrences

1. Abhijeet R. Patil, (February, 2017), "Strength and Weakness of Mobile-Commerce: A Study", International Journal of Computer Science and Mobile Computing, Vol 6 Issue 2 . PP 30-35.

2. Gupta Chandan, Prof. Chndhok Anil & Dr. Gupta Meena, (January, 2016), "Hardship of M-commerce in India: Problems & Challenges", IOSR,e- ISSN: 2278-487X , p- ISSN:2319-7668,Volume 18, Issue 1.Ver. 1, PP 22-26.

3.Naware, Archna M.,(April, 2016), "M-commerce in India", International Journal of Advanced Research in Computer and Communication Engineering, Vol 5, Issue 4,PP 913-915.

4. Khatana, Sonam and Dahiya, Monika (2015), "Upcoming boom in Mobile commerce in India", EPRA International Journal of Economic and Business Review, Vol-3,Issue-2, PP:226-229.

5. Lack of awareness hinders mobile commerce growth in India,(2014) Times of India, June 29,

6. Dr. Batra, Sunil and Dr. Juneja, Neenu (February, 2013), "M-commerce in India: Emerging Issues", International Journal of Advanced Research in IT and Engineering, Vol 2, No. 2, PP: 54-65.

7. Budde, P. Australia (March, 2010),"Mobile commerce and M-Payment", Paul Budde Communication Pvt. Ltd, Australia.

8. Tarasewich, Designing mobile commerce applications, Communications of the ACM 46 (12) 57– 60.

9. Olsson, A. Nilsson, MEP: a media event platform, Mobile Networks and Applications 7 (3) (2002) 235 – 244.

10. M.W.C. So, D. Sculli, The role of trust, quality, value and risk in conducting ebusiness, Industrial Management 102 (9) (2002) 503 – 512.

**** Corresponding Author***
Dr. Kamaljeet Kaur Bhatia
Principal
Radiant Institute of Management & Science, Indore
E-Mail:-kbhatiavitm@gmail.com, Mob.- 0000000000