

## International Journal of Innovative Research in Science, Engineering and Technology

*(A High Impact Factor, Monthly Peer Reviewed Journal)*

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# To Study the Usage & Awareness of M-Commerce and its services with reference to Nagpur City

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**ABSTRACT:** Mobile Commerce is the division of e-commerce. Wireless technology converts E-commerce into mobile commerce (M-commerce). Mobile commerce has very important function in current business. In the today's technology world, an individual is heavily dependent on mobile/cell to complete business activities (fund transfers) as well as personal tasks varying from bill payment to GPRS etc. Without mobile commerce, it is impossible to be competent in this economical commerce world.

This study is based on Primary Research which investigates the integrating use of mobile technologies, information services, and Multimedia Messaging Systems (MMS) by the citizens of Nagpur City. It also highlights the awareness of such services among the youth.

**KEYWORDS:** Mobile Commerce, M-Commerce Services, Environmental awareness.

## I. INTRODUCTION

E-commerce normally means as transaction conducted over the internet. E-commerce is a large domain on conducting business over internet and E-retailing is a part of it. When we discuss on digitally / Internet enabled commercial transactions between organizations and individuals using latest web technologies as per the policies of the organization. Electronic commerce also includes many other activities, such as business trading with other business and internal processes that companies use to support their buying, selling, hiring, planning and other activities. It simple means as E-commerce includes buying, selling and hiring a particular product or services. The rapid growth of mobile telephony has provided a foundation for M-commerce namely E-commerce activities carried out via a Mobile device, such as a cell phone it is called M-commerce. M-commerce also refers to the transaction conducted via mobile device or Wi-Fi network.

## II. M- COMMERCE DEFINITION

Mobile Commerce, or m-Commerce, is regarding the explosion of applications and services that are suitable accessible from Internet-enabled mobile devices. It involves new technologies, services and trade models. M-commerce services represent that rely on mobile communication networks, mobile phones, notebook computers and devices to cooperate with a variety of business activities and various business information. It is fairly different from traditional e-Commerce. Mobile phones require very changed constraints than desktop computers. In fact the main difference in M-commerce definition with E-commerce uses the wireless net for performing financial services and purchases.

In the M-commerce entire types of trades such as business-to-consumer, business-to-business and consumer-to-consumer are there. Mobile e-commerce (m-commerce) is a word that describes online sales, business transactions that use wireless electronic devices such as mobile phones, desktop computers, and laptops. These wireless devices interact with computer networks that have the capacity to perform online products purchases and any business transaction. Any type of cash exchange is referred to as an e-commerce transaction. Mobile e-commerce is nowadays one of the various subsets of electronic commerce. Mobile e-commerce is also known as mobile commerce.

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## III. FEATURES OF M-COMMERCE

The following are the features of Mobile commerce, making it one of the effective ways of doing commerce:

- **Ubiquity:** Consumers can avail or buy products / services from anywhere independent of his/her current geographic location. Customer can buy respective of the regions they reside or companies can do business.
- **Convenience:** Services like GPRS gives convenience and keeps always in touch and connected. This helps the companies to well connect with the customers.
- **Personalization:** M-Commerce services has been personalized, it can be used as per requirement of the consumer.
- **Location based services:** A service such as GPS allows companies to offer goods and services as per the location based.
- **Timely services:** Consumers are directly connected; it provides real time availability of service.

## IV. TOOLS FOR MOBILE COMMERCE

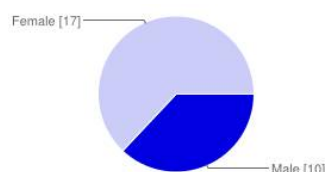
In present market, number of mobile tools available for the companies to engage customer in Business, the following are some of the technologies that help in reaching the customers:

1. **SMS (Short Message Service):** SMS is short messaging service which consists of 160 characters of black and white. It is the widely used and cheapest form of mobile marketing. Companies can send bulk messages and customers can also respond in the same form to order a product or service.
2. **MMS (Multi-media Message Service):** MMS is Multimedia Message Service. This Consists of time slide show of images, text audio and video. Mobile set with color screen are capable of sending and receiving standard MMS message. Product demonstration, use and other things can be done with help of MMS to convince customers to buy products or services.
3. **Mobile Web Applications:** Accessing web page on mobile device is an option where Yahoo, Google and other mobile content providers have been selling advertising placement on their properties. **Bluetooth or Blue casting:** A Bluetooth message can be circulated within a 10 meter range. Retailers, mall owners and small business holders use this tool to sell their product to the customers who come to in the proximity of that area.
4. **Location-based marketing:** Location based marketing helps to locate the customer location via GPS (Global Positioning System) technology and company delivers the contents, offers relating to that particular location.
- V. **Voice:** Voice based marketing over the mobile is emerging form of marketing. Interactive voice Response (IVR) is very popular and companies use to offer various services to their customers. **OBJECTIVES:**

1. To understand what is m-commerce.
2. To understand the advantages of m-commerce.
3. To identify the various services available on mobiles.
4. To understand the preference among the various services in of M-commerce
5. To identify the scope of M-Commerce in near future

## VI. DATA COLLECTION AND DATA ANALYSIS

Random sampling was done for which a sample size of 27 students belonging to the age group between 15-30 years were taken ,in which 17 were females and 10 were males.

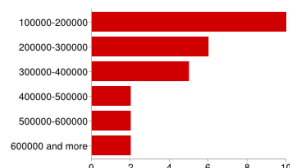


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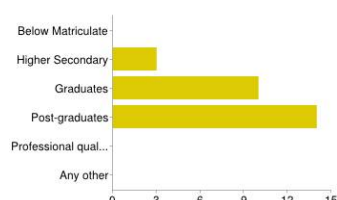
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## The family income for the students was



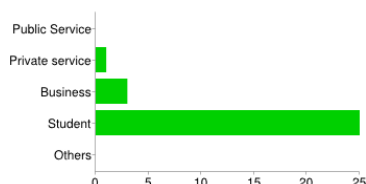
37 % of the population was in the income bracket of 100000-200000 and 22.2% of the people belong to 400000 and above.

## Qualification



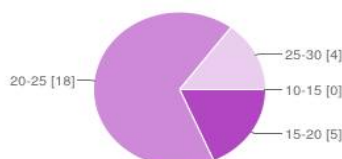
Maximum data was collected from the Post Graduate students only 11.1% were higher secondary and 37% were graduate students.

## Occupation



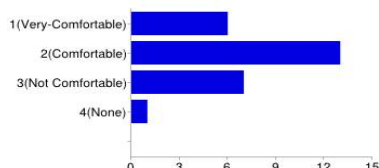
92.6% data was collected from the respondents who were in the private service, and only 3.7% and 11.1% were of the business people.

## Age Group



66.7% respondent were of 20-25 age, 18.5% were in 15-20, in 25-30 there were 14.8% person. In the sample, literate youngsters are selected so that the real picture of M-commerce can be understood.

## Bill Payment [How far are you comfortable using following services via mobile phone rather than desktop]



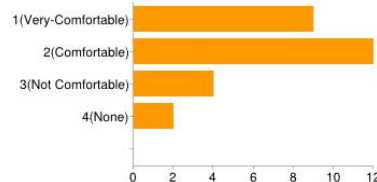
From the above figure it is evident that 48.1% were comfortable using mobile phone for bill payment. However 22.2% were very comfortable & 25.9% were not comfortable. Which shows that for the service of Bill payment people prefer mobiles over desktop?

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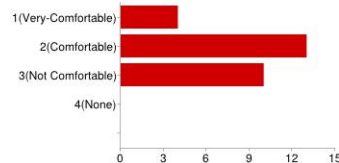
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## Online shopping



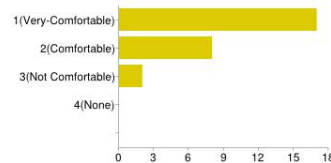
From the above figure it is shows that 44.4% were comfortable using mobile phone for online shopping. Moreover 33.3% were very comfortable & 14.8% were not comfortable.

## Company Apps



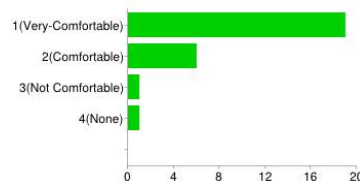
From the above figure it is shows that 48.1% were comfortable using mobile phone for Company Apps. Moreover 14.8% People were very comfortable & 37% were not comfortable.

## Playing games



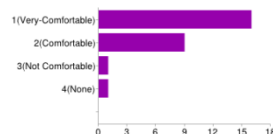
From the above figure it is evident that 63% were very comfortable using mobile phone for playing games. Moreover 29.6% People were comfortable & 7.4% were not comfortable.

## Chatting



From the above figure it is evident that 70.4% were very comfortable using mobile phone for Chatting. Moreover 22.2% People were comfortable & 3.7% were not comfortable.

## Information Sharing



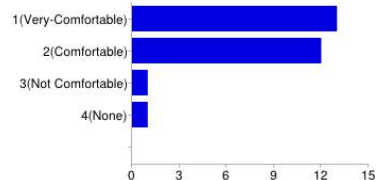
From the above figure its shows that 59.3% of the respondents were very comfortable using mobile phone for information Sharing. Moreover 33.3% respondents were comfortable & 3.7% were not comfortable.

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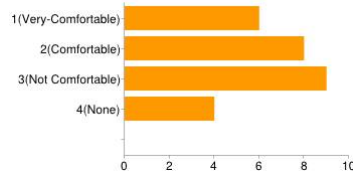
## Entertainment



1(Very-Comfortable)	13	48.1%
2(Comfortable)	12	44.4%
3(Not Comfortable)	1	3.7%
4(None)	1	3.7%

From the above figure its shows that 48.1% of the respondents were very comfortable using mobile phone for Entertainment. Moreover 44.4% respondents were comfortable & 3.7% were not comfortable.

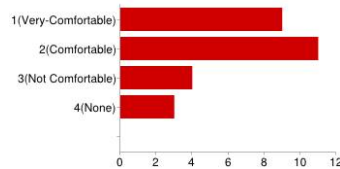
## E-Banking



1(Very-Comfortable)	6	22.2%
2(Comfortable)	8	29.6%
3(Not Comfortable)	9	33.3%
4(None)	4	14.8%

From the above figure its shows that 33.3% of the respondents were not comfortable using mobile phone for E-banking. Moreover 29.6% respondents were comfortable & 22.2% were very comfortable.

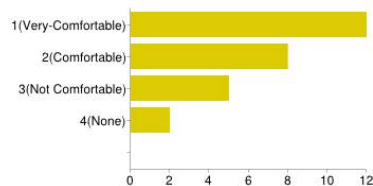
## Ticket Booking



1(Very-Comfortable)	9	33.3%
2(Comfortable)	11	40.7%
3(Not Comfortable)	4	14.8%
4(None)	3	11.1%

From the above figure it is shows that 40.7% were comfortable using mobile phone for T-booking. Moreover 33.3% People were very comfortable & 14.8% were not comfortable.

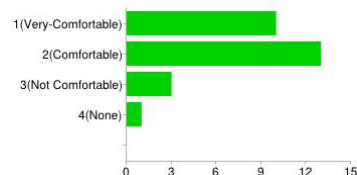
## GPS



1(Very-Comfortable)	12	44.4%
2(Comfortable)	8	29.6%
3(Not Comfortable)	5	18.5%
4(None)	2	7.4%

From the above figure it is shows that 44.4% were very comfortable using mobile phone for GPS. Moreover 29.6% People were very comfortable & 18.5% were not comfortable.

## E-Learning



1(Very-Comfortable)	10	37%
2(Comfortable)	13	48.1%
3(Not Comfortable)	3	11.1%
4(None)	1	3.7%

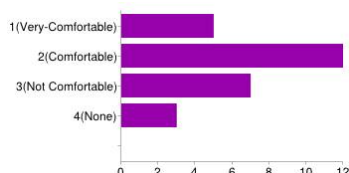
From the above figure it is shows that 48.1% were comfortable using mobile phone for E-learning. Moreover 37% People were very comfortable & 11.1% were not comfortable.

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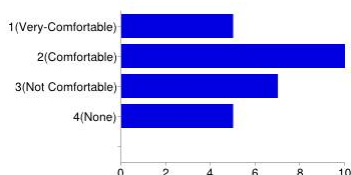
## M-Shop



1 (Very-Comfortable)	5	18.5%
2 (Comfortable)	12	44.4%
3 (Not Comfortable)	7	25.9%
4 (None)	3	11.1%

From the above figure it is shows that 44.4% were comfortable using mobile phone for M-Shop. Moreover 25.9% People were not comfortable & 18.5% were very comfortable.

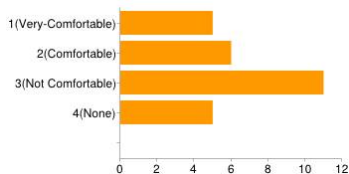
## Promoting Business



1 (Very-Comfortable)	5	18.5%
2 (Comfortable)	10	37%
3 (Not Comfortable)	7	25.9%
4 (None)	5	18.5%

From the above figure it is clear that 37% were comfortable using mobile phone for Promoting Business. Moreover 25.9% People were not comfortable & 18.5% were very comfortable.

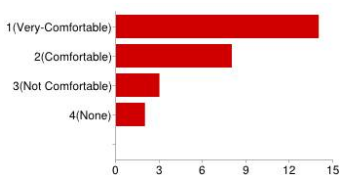
## Sports watching Live



1 (Very-Comfortable)	5	18.5%
2 (Comfortable)	6	22.2%
3 (Not Comfortable)	11	40.7%
4 (None)	5	18.5%

From the above figure it shows that 40.7% were not comfortable using mobile phone for Sports watching Live. Moreover 22.2% were comfortable & 18.5% were very comfortable.

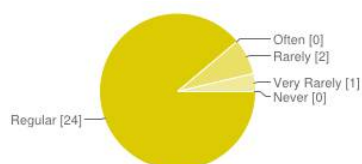
## Multimedia



1 (Very-Comfortable)	14	51.9%
2 (Comfortable)	8	29.6%
3 (Not Comfortable)	3	11.1%
4 (None)	2	7.4%

The above chart shows that 51.9% were very comfortable using mobile phone for Multimedia. Moreover 29.6% People were comfortable & 11.1% were not comfortable

## How frequently you use internet



Regular	24	88.9%
Often	0	0%
Rarely	2	7.4%
Very Rarely	1	3.7%
Never	0	0%

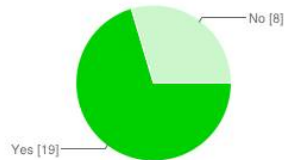
It has been found that 88.9% of the respondents use internet regularly. Moreover 7.4% used rarely and 3.7% were very rare users. Thus we can say that people are aware of the available services on mobile phones.

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## Are you aware of the Mobile Service Tracker

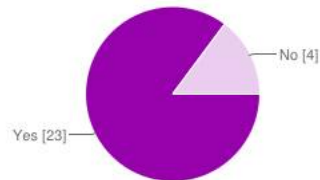


Yes 19 70.4%

No 8 29.6%

It has been found that 70.4% of the respondents were aware of the mobile service tracker. Moreover 29.6% were not aware of it.

## Do you feel keeping track of your bills and products purchased are helpful.

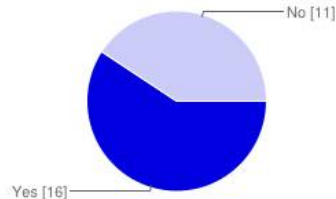


Yes 23 85.2%

No 4 14.8%

It has been found that 85.2% of the respondents were in favour of keeping track of their bills. Moreover 14.8% were not aware of such technology.

## Do you agree that m-commerce is a part of Global Warming

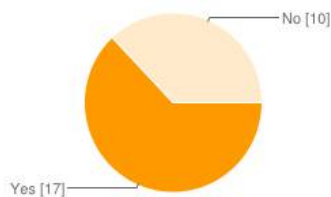


Yes 16 59.3%

No 11 40.7%

It has been found that 59.3% of the respondents agree that m-commerce is a part of Global Warming. Moreover 40.7% were No.

## Do you agree that M-Commerce is more convenient to use over desktop with more of devices such as Tabs, Smart Phones etc.

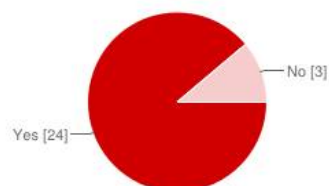


Yes 17 63%

No 10 37%

It has been found that 63% of the respondents were yes. Moreover 37% were No. This shows that m-commerce is preferred using mobiles over desktop.

## Do you feel services such as 3G, 4G will enhance the use of mobiles for M-Commerce



Yes 24 88.9%

No 3 11.1%

It has been found that 88.9% of the respondents agree that upcoming technology will enhance the use of m-commerce. Moreover 11.1% were No.

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## VII. CONCLUSION AND SUGGESTIONS

From the above data analysis we conclude that youth of Nagpur is only comfortable using some of the services such as entertainment, playing games, chatting and using GPS. Whereas the services available for online shopping, bill payment, ticket booking etc.... have a lower percentage of people using such services. The above statistics also shows that 88.9% of the people are regular user of internet.

Thus we conclude that people are aware about it but there are some barriers preventing M-commerce from taking off. This includes lack of user trust in the technology and the security system used in M-commerce. Thus we suggest that the company websites such as Myntra.com, Snapdeal, Flipkart and others should maintain high quality and a proper security in order to win the trust of common man at the same time they should also take care of providing quality services to the customers in order to attract more visitors.

### QUESTIONNAIRE:

**Gender** ☐ Male ☐ Female

**Status: (Single/Married)** ☐ Single ☐ Married

**Family Income p.a** ☐ 100000-200000 ☐ 200000-300000 ☐ 300000-400000  
☐ 400000-500000 ☐ 500000-600000 ☐ 600000 and more

**Qualification** ☐ Below Matriculate ☐ Higher Secondary ☐ Graduates ☐ Post-graduates  
☐ Professional qualification ☐ Any other

**Occupation** ☐ Public Service ☐ Private service ☐ Business ☐ Student ☐ Others

**Email id**

**Age Group** ☐ 10-15 ☐ 15-20 ☐ 20-25 ☐ 25-30

**How far are you comfortable using following services via mobile phone rather then desktop?**

	1 (Very-Comfortable)	2 (Comfortable)	3 (Not Comfortable)	4 (None)
Bill Payment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online shopping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company Apps	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playing games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chatting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	1(Very- Comfortable)	2(Comfortable)	3(Not Comfortable)	4(None)
Information Sharing (mails)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entertainment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-Banking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ticket Booking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
GPS	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-Learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M-Shop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promoting Business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sports watching Live	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multimedia	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**How frequently you use internet**

☐ Regular ☐ Often ☐ Rarely ☐ Very Rarely ☐ Never

**Are you aware of the Mobile Service Tracker**

☐ Yes ☐ No

**Do you feel keeping track of your bills and products purchased are helpful .**

☐ Yes ☐ No

**Do you agree that m-commerce is a part of Global Warming**

☐ Yes ☐ No

**Do you agree that M-Commerce is more convenient to use over desktop with more of devices such as**

**Tab, Smart Phones etc.**

☐ Yes ☐ No

**Do you feel services such as 3G , 4G will enhance the use of mobiles for M-Commerce**

☐ Yes ☐ No

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