

Analysis on the Educational Qualification and access to Mobile Internet

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Abstract - One of the most rapidly rising segments of e-commerce is retail sales, which are growing at a rate of up to 50% per year, thanks in part to mobile commerce, often known as m-commerce. The main aim of the study is Analysis on the Educational Qualification and Access to Mobile Internet. Data are collected by theoretical basis and the practical means such that the characteristics of a population can be inferred with known estimates of error. With the tools available in the time window offered, this study was able to provide a complete evaluation of the effect that mobile commerce had on Kanpur's customers.

Keywords: Educational, Qualification, Retail, Evaluation, Error

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INTRODUCTION

One of the most rapidly rising segments of e-commerce is retail sales, which are growing at a rate of up to 50% per year, thanks in part to mobile commerce, often known as m-commerce. M-commerce refers to the proliferation of mobile apps and services that may be accessed via the internet. Compared to traditional e-commerce, these makes use of cutting-edge tools, services, and business strategies. You no longer must carry a laptop or desktop computer about with you when you have a mobile phone that allows you to access the internet at any time and from anywhere. Personal devices are becoming increasingly commonplace for internet use as a result. For services that are time-sensitive, mobile commerce applications have taken off, appealing to individuals on the go by allowing chores to be completed more quickly.

More and more items and services are now available for purchase and sale through mobile commerce (m-commerce), which encompasses a wide range of activities such as online financial management, bill payment, and travel booking and information delivery. On the other hand, clients can use both Apple Pay and Android Pay to make purchases in stores or on mobile commerce apps without any issues whatsoever (Investopedia n.d.). Consumers typically begin their online purchasing searches using Google, email and other social media, which often leads them to mobile browsers on smartphones and other mobile devices social media sites have also seen an increase in mobile commerce, allowing users to make purchases of goods and services. Bottoms were introduced to

mobile platforms by Face book, Integra, and Pinterest in 2015 as "purchase" bottoms (Investopedia n.d.).

M-Commerce in India

E-commerce is the practice of conducting business over the internet utilizing a personal computer or laptop. E-commerce has many advantages, including round-the-clock availability, quickness of access, a broader assortment of goods and services, worldwide reach, and accessibility. All of this can be done in a matter of seconds on any of the many websites that are available to the general public. It is a form of E-commerce that is carried out on mobile devices over the internet. A mobile phone, tablet, or other wireless handheld device is used to purchase or sell goods and services, referred to as M Commerce (mobile commerce). The internet can be accessed without the requirement for a plug by using m-commerce. On-line transactions are carried out via mobile phones, mobile apps, and the internet.

Mobile phones can be carried and accessed at all times while preserving privacy. As a result, M Commerce's accessibility, mobility, flexibility, and reach ability allow customers to shop, search for various products, transfer funds, book tickets, and pay utility bills whenever and wherever they choose. There are a variety of M Commerce services available to mobile subscribers via various mobile applications and the internet, including mobile money transfer, mobile tickets, mobile vouchers, discounts, and loyalty cards, as well as location-based services and information.

LITERATURE REVIEW

Aida Licina (2018) Electronic commerce has grown significantly in recent years and now plays a larger role in daily life than it ever has before. Mobile commerce refers to the practise of purchasing and selling goods and services via the internet on a mobile device, which is referred to as electronic commerce. A device in the user's hand can now perform all the functions of a physical store, freeing them to shop online instead. As a research objective, this study sought to identify the elements that drive mobile commerce, and how essential each of these factors is to the client when doing mobile commerce. Using a quantitative method, this thesis sought to acquire insight into consumer behavior while shopping on a mobile phone, as well as to identify the most important usability characteristics from the perspective of the end user. The result was a self-assigned survey that drew in 200 people. Users' decisions on whether to engage in mobile commerce can be affected by a wide range of factors, according to the self-completion questionnaire. Results from a study show that most consumers still prefer to shop in physical locations, followed by online purchases using a computer. The small screen and input mechanisms on mobile phones where the primary reasons other ways were chosen before using the Smartphone to make a transaction. Most participants said they would cancel their order if usability issues like faults and slow site performance were not taken into account in the application, which supports previous research. Usability is a critical consideration in the creation of mobile applications and websites. Mobile commerce applications that are well-liked by customers can be developed with the help of the knowledge in this essay. Researching m-commerce is crucial since it will have a significant impact on business soon. It would be fascinating to investigate more elements that are important when creating m-commerce mobile applications in the future. M-commerce customers place a high value on security, and our research shows that this is a problem that warrants more investigation.

Maria Cristina Enache (2016) Mobile commerce, often known as m-commerce, is the practice of conducting online transactions through mobile devices. Mobile commerce uses wireless networks to connect cell phones, portable devices like Blackberries, and personal computers to the Internet. In addition to stock trading, pricing comparisons, banking, and travel reservations, mobile users are able to undertake other transactions once they are connected. This paper focuses on m-commerce—the use of the Internet and the World Wide Web to conduct business via mobile devices. In a more formal sense, we're interested in commercial transactions that are made possible through the use of digital technology. Our working definition of m-commerce includes all of these components. All transactions that are made possible through the use of digital technology are referred to as digitally enabled transactions. In most cases, this refers to transactions that take place online. Value (e.g., cash) is exchanged across organizational or individual boundaries in exchange for goods and

services in the commercial sector. To comprehend the limits of ecommerce, it is necessary to understand the exchange of value. There can be no commerce if there is no exchange of value.

Madhurima Khosla (2017) The Indian economy's e-commerce sector is one of the fastest-growing. Despite its rapid expansion, India's e-commerce sector has lagged those of many other developed and growing nations, partly because of the country's small population of internet users. AT Kearney, a multinational management consultancy firm conducted a survey in 2015 that found only 39 million internet shoppers in India, a miniscule proportion of the country's 1.2 billion residents. However, as the internet and mobile devices become more widespread in India, a favorable environment is emerging for the growth of e-commerce in the country. An unprecedented digital transformation is underway in the United States. Reduced data plan and data card/USB dongle rates, along with the introduction of 4G services, have all helped to lower the cost of owning a reliable internet connection. Increases in the availability of low-cost smart phones and internet access in remote areas will help bridge the gap between potential online shoppers and actual purchasers. The country's demographic dividend appears to have a positive effect on the growth of ecommerce as well. It is difficult for e-commerce companies to survive in a rapidly changing environment, especially with the fierce rivalry that exists in the field. The onus is then on the businesses to constantly adapt and develop while providing a rich and seamless experience rich in information to ensure consumer loyalty. Researchers in this study set out to learn more about how e-commerce has evolved in India and how they expect it to continue to grow in the future. As defined by the MIT Sloan Management Review, "e-commerce is the use of digital information processing technology for business transactions to create, modify, and redefine relationships for the generation of value between or among businesses"

Dr. Sunil Batra (2013) this paper expands the scope of mobile commerce research in India. In this section, the Indian M-commerce industry's challenges are laid forth. As time and technology progress, so do businesses and their strategies. Businesses used to base their growth plans on a small geographic area. This is changing due to the rapid development of Internet and communications technology. It is relatively new to India's m-commerce scene. 9 percent of Indians use smart phones to quickly consume content such as games, videos, songs and entertainment on their smart devices and this leads to constant growth in the mobile advertising and app industries. The m Commerce market in India, on the other hand, has not yet evolved enough to be compared to the industrialized countries' m Commerce markets. Some political, social, economic, and cultural differences explain some of the discrepancy, but given the current rate of expansion, more discrepancy is likely in the future. Beginning in the

early 1990s, E-commerce (electronic commerce) has added greater value to a variety of enterprises and academic institutions; as a result, customers are shifting their purchasing habits from offline to online. The latter method is the most straightforward, most convenient, and least expensive. Advances in wireless technology since the year 2000 have transformed the way businesses operate and provided new benefits and conveniences for everyone who uses them. M-commerce, or Mobile Commerce, is the name given to this cutting-edge technology. The term "m-commerce" refers to the practice of conducting business using mobile devices. All e-commerce transactions are included in the advanced version of e-commerce, which is mobile commerce, but subscribers are given more flexibility and convenience. M-commerce is becoming increasingly important in the eyes of the telecommunications industry as well as the business community.

Dr. Sachin Gupta (2014) the goal of this study is to discover the elements that influence the adoption of M-commerce in the United Kingdom. In India, M-commerce has grown at a phenomenal rate. A growing number of consumers are making the switch to mobile commerce in order to benefit from the convenience and speed of transactions in the market. M-commerce is a multifaceted and ever-evolving industry. In India, m-commerce is still at a relatively early stage of development. With each passing day, India's mobile penetration, mobile technology, and networking continue to advance at an incredible rate. Mobile phones may now be used for a wide range of activities, including browsing the internet, communicating with friends, and more. This study examines the factors that influence the use of mobile commerce. The theoretical contribution of this work is to explain the "Hows M-commerce is emerging in India and to find obvious contexts and assistive mechanisms. The term "e-commerce" is commonly used to refer to online transactions. E-retailing is a subset of E-commerce, which encompasses a wide range of online business activities. The use of the most recent web technologies in accordance with the policies of the company is discussed when dealing with digitally / Internet-enabled business transactions between organizations and individuals. Business-to-business trading and internal processes used by organizations to support purchasing, selling, hiring, planning, and other operations are also included in electronic commerce. E-commerce is simply defined as the buying, selling, and renting of a certain product or service via the internet. It's termed M-commerce since e-commerce activities are carried out using a mobile device, such as a cell phone, which is why it's named M-commerce in the first place. When a transaction is carried out through a Wi-Fi or mobile network, it is referred to as "m-commerce."

METHODOLOGY

Sampling Design

Data are collected by theoretical basis and the practical means such that the characteristics of a population can be inferred with known estimates of error. The succeeding paragraphs highlight about the sampling design adopted by this research.

Selection of Sampling Area

Kanpur is India's fourth-largest city by population. Kanpur has one of the highest rates of Mobile Commerce acceptance and utilization everywhere, as indicated by the constant construction of new warehouses and delivery facilities. Residents have come from all around Uttar Pradesh and the rest of India, making it a true cross section of the country's population. The city of Kanpur was chosen for this study because it has a diverse population and may therefore be utilized to draw relevant conclusions about consumer perceptions of the impact of mobile retail.

RESULTS

Descriptive Analysis

In this study the descriptive analysis is used in exploring the following domains:

Table No. 4.1 Demographic Profile of the Respondents

Occupation	Student	246	34.10
	Housewife	28	3.90
	Self employed	210	29.20
	Employed	232	32.20
	Retired	4	0.60
Monthly Income	Less than Rs.15000	309	42.90
	15001-30000	158	21.90
	30001-40000	103	14.40
	Above 40000	150	20.80
Family Size	2-4 members	543	75.40
	5-6 members	143	19.90
	More than 6 members	34	4.70
Family Type	Joint Family	328	45.60
	Nuclear Family	392	54.40

Inferential Analysis

It is based on the independent variable and the dependent variables. This analysis helps to identify the various degrees of relationships among the variables in the study. The outcome of the inferential analysis can be generalized to the whole population to test the hypothesis. The following tools are used:

Hypothesis 1: Type of connection depends on the income of the respondents

Null Hypothesis (H₀): There is no significant association between income of the respondents and the type of connection

Alternate Hypothesis (H₁): There is significant association between income of the respondents and the type of connection.

Table 4.2 Cross-Tabulation for type of Connection and Income of the Respondents

		Type of connection		Total	
		Post paid	Prepaid		
Monthly Income	Less than Rs.15000	113	196	309	
		36.6%	63.4%	100%	
	Rs.15001 –30000	58	100	158	
		36.7%	63.3%	100%	
	Rs.30001 –40000	51	52	103	
		49.5%	50.5%	100%	
	Above Rs.40000	113	37	150	
		75.3%	24.7%	100%	
	Total	335	385	720	
		46.5%	53.5%	100%	
			100%	100%	100%

Table No. 4.3 applies Chi-square test to find out whether there is a significant association between the income of the respondents and type of connection.

Table 4.3 Chi-square for Type of Connection and Income of the Respondents

	Value	df	P-value
Pearson Chi-Square	68.835	3	0.000**

** denotes 1% level of significance

Chi-square test helps to understand the association between two variables. It also shows how association changes from one variable to another.

i. Chi-square analysis is used to see whether the respondents' income correlates significantly with the kind of link. Null hypothesis rejected, and alternative hypothesis accepted, with a P value less than 0.01, which is significant at 1% significance level. As a result, there is a strong correlation between respondents' income and the sort of relationship they have. The respondents' choice of connection is depending on their income, according to this study. Respondents who earn more prefer post-paid service.

There are more people with pre-paid connections, which means their income is lower than those with post-paid connections, which is what we found out.

To test the hypothesis that "there is no correlation between the income of respondents and the kind of connection," the study was conducted. No significant correlation was found between the respondents' income and the sort of relationship they had.

Hypothesis 2: Income of the respondents has a bearing on the money spent on mobile usage

Null Hypothesis (H₀): There is no association between income of the respondents and the money spent on mobile usage

Alternate Hypothesis (H₁): There is association between income of the respondents and the money spent on mobile usage

Table 4.4 Cross-Tabulation for Income and Money Spent on Mobile Usage

		Money spent on mobile usage					Total	
		Less than 300	301 – 500	501 – 700	701 – 1000	Above 1000		
Monthly Income	Less than 15000	173	94	19	13	10	309	
		56%	30.4%	6.1%	4.2%	3.2%	100%	
	15001 – 30000	56	66	16	10	10	158	
		35.4%	41.8%	10.1%	6.3%	6.3%	100%	
	30001 – 40000	25	49	12	11	6	103	
		24.3%	47.6%	11.7%	10.7%	5.8%	100%	
	Above 40000	56	39	24	13	18	150	
		37.3%	26%	16%	8.7%	12%	100%	
	Total	310	248	71	47	44	720	
		43.1%	34.4%	9.9%	6.5%	6.1%	100%	
			100%	100%	100%	100%	100%	100%

Table 4.5 Chi-square for Income and Money Spent on Mobile Usage

	Value	df	P-Value
Pearson Chi-Square	65.328	12	0.000**

** denotes 1% level of significance

- i. Chi-square analysis is used to investigate the correlation between respondents' income and their mobile use expenditures. A p-value less than 0.01 suggests that respondents' mobile-usage costs are strongly linked to their household incomes. H₁: There is a link between respondents' incomes and their mobile use expenditures is recognized
- ii. Almost half of the respondents (56 percent) spent less on mobile usage since their incomes were lower.

Hypothesis 3: Reliability of network is associated with the network provider

Null Hypothesis (H₀): There is no significant association between network provider and the reliability of network

Alternate Hypothesis (H₁): There is significant association between network provider and the reliability of network

Table 4.6 Cross-Tabulation for Network Provider and Reliability of Network

		Reliability of Network					Total
		Never	Rarely	Sometimes	Often	Always	
Network Provider	Airtel	51	53	64	95	108	371
		13.7	14.3%	17.3%	25.6%	29.1%	100%
	BSNL	36	29	31	32	36	164
		22%	17.7%	18.9%	19.5%	22%	100%
	Idea	1	6	16	12	6	41
		2.4%	14.6%	39%	29.3%	14.6%	100%
	Reliance	0	2	1	8	2	13
		0%	15.4%	7.7%	61.5%	15.4%	100%
	Tata	2	5	8	7	7	29
6.9%		17.2%	27.6%	24.1%	24.1%	100%	
Vodafone	4	15	13	27	16	75	
	5.3%	20%	17.3%	36%	21.3%	100%	
Others	0	2	6	9	10	27	
	0%	7.4%	22.2%	33.3%	37%	100%	
Total		94	112	139	190	185	720
		13.1	15.6%	19.3%	26.4%	25.7%	100%

Table 4.7 Chi-Square for Network Provider and Reliability of Network

	Value	df	P-value
Pearson Chi-Square	56.858	24	0.000**

** denotes 1% level of significance

Chi-square analysis is used to see whether the network provider has any influence on the network's dependability. Because the p-value was less than 0.01, the null hypothesis was rejected. As a result, the quality of the network and the quality of the network provider are linked. There is a clear majority of respondents who utilize Airtel based on the results of this cross-tabulation.

As a result, the alternative hypothesis (H₁) that the network provider has a considerable impact on network dependability is accepted.

For the second study purpose, "to determine the degree of awareness of mobile commerce service consumers," the following hypothesis 4 is proposed.

Hypothesis 4: Educational qualification of the respondents influences the access to internet using mobile.

Null Hypothesis (H₀): There is no association between educational qualification of the respondents and the access to internet using mobile.

Alternate Hypothesis (H₁): There is an association between educational qualification of the respondents and the access to the internet using mobile.

Table 4.8 Cross-Tabulation for Educational Qualification and Access to Mobile Internet

		Educational Qualification					Total
		School	Diploma	Graduate	Post graduate	Others	
Access to Internet Using Mobile	Never	11	18	40	7	2	78
		14.1%	23.1%	51.3%	9%	2.6%	100%
	Rarely	17	23	37	11	0	88
		19.3%	26.1%	42%	12.5%	0%	100%
	Sometimes	11	31	53	17	1	113
		9.7%	27.4%	46.9%	15%	0.9%	100%
Often	12	39	85	26	2	164	
	7.3%	23.8%	51.8%	15.9%	1.2%	100%	
Always	18	67	155	37	0	277	
	6.5%	24.2%	56%	13.4%	0%	100%	
Total		69	178	370	98	5	720
		9.6%	24.7%	51.4%	13.6%	0.7%	100%

Table 4.9 Chi-Square for Educational Qualification and Access to Mobile Internet

	Value	df	p-Value
Pearson Chi-Square	26.922	16	0.042*

* denotes 5% level of significance

In this study, we are interested in whether the respondents' educational level has an impact on their ability to access the internet through their mobile devices. The p-value was determined to be less than 0.05, hence the alternative hypothesis that there is a correlation between educational level and mobile internet access is accepted.

ii. Graduates are more likely than the general population to use their mobile devices to access the internet at all times (56 percent). Only 6.5 percent of those with a high school education access the internet through their mobile devices, according to a new survey. Higher-educated people are more comfortable utilizing their mobile devices to access the internet, according to one study.

As a result, the alternative hypothesis (H₁) that the respondents' educational level is significantly associated with their use of mobile internet is accepted.

Hypothesis 5: Occupation of the respondents influences the utilization of mobile commerce services.

Null Hypothesis (H₀): There is no significant difference in mean awareness of utilization of Mobile commerce services based on the occupational groups.

Alternate Hypothesis (H₁): There is significant difference in mean awareness of utilization of Mobile commerce services based on the occupational groups.

Table 4.10 Occupation and Utilisation of Mobile Commerce Services

Utilisation	Occupation	N	Mean	Std. Deviation
Internet	Student	246	4.03	1.323
	Housewife	28	2.64	1.367
	Self	210	3.40	1.338
	Employed	232	3.69	1.390
	Retired	4	2.50	1.000
	Total	720	3.67	1.388
	Entertainment	Student	246	4.09
Housewife		28	3.07	1.245
Self		210	3.71	1.307
Employed		232	3.57	1.409
Retired		4	2.00	.816
Total		720	3.76	1.336

Message (Whats App / Hike)	Student	246	3.90	1.487
	Housewife	28	2.93	1.331
	Self	210	3.27	1.344
	Employed	232	3.40	1.543
	Retired	4	2.50	1.915
	Total	720	3.51	1.489
Video Calling (Skype /Viber/IMO)	Student	246	3.02	1.530
	Housewife	28	2.93	1.274
	Self	210	3.27	1.371
	Employed	232	2.96	1.519
	Retired	4	2.00	.816
	Total	720	3.07	1.474
Shopping (eBay/Amazon/Myntra/Snapdeal)	Student	246	3.04	1.505
	Housewife	28	3.04	1.138
	Self	210	2.74	1.455
	Employed	232	2.91	1.446
	Retired	4	3.00	1.826
	Total	720	2.91	1.462

Utilisation	Occupation	N	Mean	Std. Deviation
Ola/Uber	Student	246	2.33	1.438
	Housewife	28	3.00	1.089
	Self	210	2.96	1.434
	Employed	232	2.84	1.490
	Retired	4	3.00	1.826
	Total	720	2.71	1.467
Navigation (GPS)	Student	246	2.48	1.399
	Housewife	28	2.43	.997
	Self	210	2.53	1.471
	Employed	232	2.72	1.538
	Retired	4	2.50	1.915

Sodexo	Total	720	2.57	1.456
	Student	246	1.91	1.229
	Housewife	28	2.43	.997
	Self	210	2.62	1.489
	Employed	232	2.28	1.505
	Retired	4	1.75	.500
	Total	720	2.26	1.417
Virtual Money (Paytm Wallet/mPesa)	Student	246	2.93	1.502
	Housewife	28	2.96	1.170
	Self	210	3.22	1.534
	Employed	232	3.16	1.566
	Retired	4	3.25	1.500
	Total	720	3.09	1.522

The observed variance in a particular variable is partitioned into components attributable to different sources of variation in ANOVA. It provides a statistical test of whether the means of several groups are equal.

CONCLUSION

With the tools available in the time window offered, this study was able to provide a complete evaluation of the effect that mobile commerce had on Kanpur's customers. There is still a lot of room for growth in mobile apps and mobile commerce. Almost one billion people use smartphones every day to access the internet, and mobile commerce is booming like never before. Focusing on customer-centric experiences, restricting the emphasis to the most value initiatives, and adopting the correct technological approach will be critical to achieving success in the long run.

REFERENCE

1. Aida Licina (2018) "Usability in M-commerce - Critical factors to consider when adapting m-commerce"
2. Maria Cristina Enache (2016) "Mobile Commerce" International Conference "Risk in Contemporary Economy" ISSN-L 2067-0532 ISSN online 2344-5386
3. Madhurima Khosla (2017) "Growth of E-commerce in India: An Analytical Review of Literature" IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 6. Ver. I (June 2017), PP 91-95 www.iosrjournals.org
4. Batra, D. S., & Juneja, D. (2013, February). M-Commerce in India: Emerging Issues. International Journal of Advanced Research in IT and Engineering, 2(2), 54-65.
5. Gupta, D. S., & Vyas, M. (2014, April). Benefits and Drawbacks of M-Commerce in India: A Review. IJARCC, 3(4), 6327,6328,6329.

6. Chawla, N., Kumar, B. E-Commerce and Consumer Protection in India: The Emerging Trend. *J Bus Ethics* (2021). <https://doi.org/10.1007/s10551-021-04884-3>
7. Amin, Muslim & Rezaei, Sajad & Abolghasemi, Maryam. (2014). User satisfaction with mobile websites: the impact of perceived usefulness (PU), perceived ease of use (PEOU) and trust. *Nankai Business Review International*. 5. 258 - 274. 10.1108/NBRI-01-2014-0005.
8. FELIX T.S. CHAN and CHONG, A.Y. (2013) "Analysis of the determinants of consumers' m-commerce usage activities", *Online Information Review*, vol. 37, no. 3, pp. 443-461.
9. Abner, I. P., Samuel, U. E., Jack, A. E., & Kanu, C. (2019). Current and Potential Users Adoption of Mobile Payment Technology in Nigeria System, 6, 21. *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277-3878, Volume-8 Issue-4.
10. Alqatan, S., Mohamad-Noor, N.M., Man, M. and Mohamad, R. (2019) An empirical study on factors affecting the acceptance of M-commerce application among small and medium-sized tourism enterprises by integrating TTF with TAM, *Int. J. Business Information Systems*, Vol. 31, No. 1.106–135

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