

“A STUDY TO UNDERSTAND THE FACTORS AFFECTING GROWTH OF SHOPPING THROUGH MOBILE COMMERCE IN AHMEDABAD CITY”

Dr. Sarika Srivastava
Assistant Professor
Graduate School of Management Studies
Gujarat Technological University
Ahmedabad, India
ap2_cgbs@gtu.edu.in

Dipanti Joshi
Assistant Professor
Sal Institute of Management
Gujarat Technological University
Ahmedabad, India
dipantijoshi@gmail.com

ABSTRACT

Mobile commerce or M- commerce is an upgradation for shopping online via wireless handheld devices such as smartphones and tablets with a view to transact online for buying various items, payment of bills, booking of tickets etc. In late 90's, the information of internet and e- commerce transformed the way of business and the manner consumer interacts with business. A live example of the same is the way spending of the advertisement has started to move from traditional offline media to online and digital media because marketers have observed huge future opportunity to come close with their potential audience. This paper is aimed at identifying the factors which have direct impact on growth M- commerce applications for the purpose of shopping. The focus is to understand the reasons which positively impact on expansion of M-commerce from the point of view of business players and consumers as well.

Keywords:M-Commerce, E-Commerce, Online Shopping,

1. OVERVIEW OF MOBILE COMMERCE

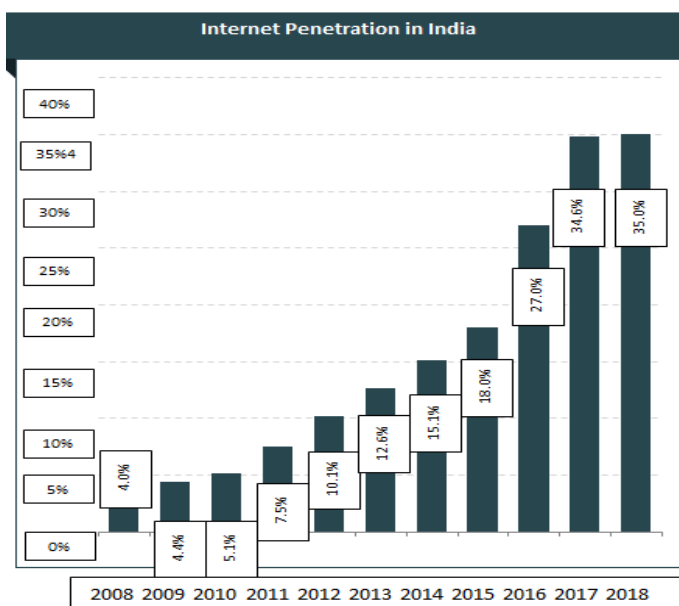
M- Commerce is transaction of goods and services with the help of wireless devices such as smart phones and PDA-Personal Digital Assistance.¹ The concept of mobile commerce is to enable different applications and services available in the internet to portable devices. M-commerce is basically extended version of E-commerce as it facilitates the user to access with portable devices like mobile phones, tablets etc. Traditionally buying and selling was a matter of physical presence, negotiating with the seller and getting it delivered in real time. Today it is more about convenience, variety and availability. M- Commerce particularly refers to the ability of the customers to propose value through virtual transactions allowing freedom of location- specificity and time- consumption.

Now a days, people have transferred over from the physical shopping to the mobile phones and the users have become mobile savvy in every aspect. They can get access of everything on smart phones which they want to do. From the applications of mobile phones they can access many facilities such as booking of movie tickets, booking of train or bus tickets, booking of table in a restaurant and much more than expected. So, smart phones have grabbed the latest desired shopping trends which every working individual can dream of.

¹<https://www.techopedia.com/definition/1540/mobile-e-commerce-m-commerce>

1.1 Internet Penetration in India

Fig. 1.1 Internet Penetration in India from 2008 to 2018



Source: <https://www.ibef.org/download/Ecommerce-March-2018>

Figure 1.1 shows increasing penetration of internet in India. From 2008 to 2018, the graph of penetration is rapidly increasing. Urban and rural India in both the cases, Analysis of ‘Daily Users’ suggests that younger generations are the most prolific and old age people usually avoid doing transactions online. Postal mails and voice call are being replaced by messages and social media. M-Commerce enables marketers to connect with the potential consumers and other business partners without establishing physical presence in the market or initiating various types of business models such as LensKart and TravelKhan.²

2. LITERATURE REVIEW

2.1 Chiang and Roy (2003) studied on consumer perception while shopping online via internet. The survey results depicted that consumers perceive online shopping more convenient rather than offline shopping. Online shopping was more preferred to avail vast variety and availability for searching rather than product experience.

2.2 Jonna Jarvelainen (2007) examined in her empirical study “Online Purchase Intentions: An Empirical Testing of a Multiple-Theory Model” in Finland that there are many online information seekers who choose to stop the shopping process just before the finishing point of the transaction. The study focused on security and confidentiality issues. The finding of this study demonstrated that trust worthiness and usefulness as well as ease of the use of the system are essential for online transactions.

2.3 Krzysztof Kapera (2012) examined in his study that over the past several years, the world has made enormous progress in the development of digital technologies. People use mobile devices for many reasons starting with communicating with each other, taking pictures, listening to music, playing games and many others new tools which cannot be expected in earlier days. The growing penetration rate of mobile phones with internet connectivity gives companies an opportunity to affect consumers in a different way. Hence, more and more businesses choose to use this tool to carry out marketing functions.

²<https://www.ibef.org/download/Ecommerce-March-2018>

3. RESEARCH METHODOLOGY

3.1 Research Objectives

- i. To understand the growth drivers of M- commerce in India. To identify the factors affecting expansion of shopping with the help of M- commerce applications in Ahmedabad city.
- ii. To identify the factors affecting expansion of shopping with the help of M- commerce applications in Ahmedabad city.

3.2 Data collection Methods

The data for the purpose of the study consists of primary and secondary data. The secondary data have been collected from various available resources. The data sources include review of literature available in research papers published in various journals, books, authenticated websites and published reports by various agencies. Primary data was collected with the help of survey method. Well defined questionnaire was used as a research instrument. The questionnaire was randomly administered on professionals that include doctors, CA/CS, lawyers, academicians and engineers. Finally data received from 159 respondents working in Ahmedabad city has been used for further research. Data was collected only from those respondents who had done shopping in last six months with the help of mobile commerce.

4. DATA ANALYSIS

4.1 Growth Drivers of M-Commerce:

4.1.1 Increasing awareness³:

- **Demographic factors:** Due to the increasing awareness of internet over the years, large numbers of people are attracted to E- Commerce and M- Commerce. Be a supplier, investor and buyer people are being shifted to use online mode of selling and buying of the products. People are becoming more techno friendly due to various factors like time saving, convenience, offers etc. Numbers of online users are expected to increase by 175 million within 2020. Online technocrats are the pillars of Indian online shopping industry. In India men are more techno friendly than women due to demographic and cultural factors.
- **Regional Factors:** Contribution of cities such as Mumbai, Bangalore, and New Delhi with their overpopulation is responsible for major part of online shopping in India. Tier II and III cities contributes 60% snap deal's purchase. Regions with less population also have generated a huge proportion of online sales. Flipkart also surveyed that there was sharp increase in branded products because of the usage of online shopping from tier 2 and tier 3 Indian towns.
- **Generation:** Youngsters with the age group of 25 to 34 years are the most active online shoppers who use online applications regularly. Many people who fall in the category of 35 plus years also buy products online every year. The reason is that they are the earning members of the family and generally remain busy in their profession. However, youngsters are still at number one position in using M-Commerce applications.
- **Convenience:** An effective and impactful driving force is discount that gives a comfortable facility of avoidance of location to purchase any product. Accessibility and availability of applications give

³<https://www.ibef.org/download/Ecommerce-March-2018.pdf>

<https://www.ibef.org/download/Ecommerce-March-2018/mcommercegrowthdrivers>

customers a chance to choose from ample of options. Chat bots and personal assistant applications have made transactions user-friendly. Consumers can get vast number of products and brands from various distributors and sellers at one place under one roof of application and they can find the latest fashionable trends from different countries without the limits of geography and spending money on travel and roaming around the world.

- **No Language Barrier:** Search Engines and E retailers provide us the facility to have web content in our comfortable language. Hindi web content has increased by 155% in 2015, whereas the same content has grown by 300% via mobile internet searching. To cover maximum benefit Make my trip and Snapdeal launched their applications in many regional domestic languages including Hindi in the year 2014. Online business providers observe this as an emerging opportunity segment that can be one of the growth factors in increasing usage of mobile applications in India. This facility works as an backbone for those who prefer transactions in their mother tongue rather than in English.
- **Cashless Transactions:** In recent years more than 140 million debit cards have been added in India. It has been observed that debit card usage has increased at point of sale billing counter by 86 percent during the same tenure. The data is sufficient to understand the comfortability people are having while using debit or credit cards rather than ATM withdrawals. Many retailers insist on making payments via cards rather than cash on high value transactions. In fact they also provide higher discounts and cash backs on particular card payments. To overcome the problem of availability of ATM machines, the card payment is the most feasible option an e-retailer can provide. Digital payments are the masters of game changer in the field of E- Commerce and M- commerce as well. The mindset of cash on delivery will be changed in near future as per Mr Sachin Bansal, Executive Chairman of Flipkart. According to a report from Google and BCG, due to increased usage of internet by emerging new users of internet and women, digital payments and transactions in India is expectedly increase to more than double to cross the number of US\$ 100 billion within the year 2020.

4.1.2 Government Initiatives:

- The Government has taken various initiatives since 2014 namely Skill India, Digital India, Make in India, Start-up India. The effective and timely management of these initiatives will support M-commerce growth in our country.
- In The Union budget of 2018-2019, government has funded Rs 8000 cr. to the project of Bharat Net with a view to provide internet via broadband to the panchayats of 150000 villages. The target is to connect more than 250000 gram panchayats by the year to provide more accessibility for the rural India. The government has also planned to set up 500,000 public Wi-Fi hotspots for providing broadband service to 50 million people of villages. It has also allocated Rs. 3073 cr. for the project of Digital India in 2018-19.⁴
- Mr. Arun Jaitely - Finance Minister has suggested different parameters to fasten India's payment mode of transactions for the improvement of cashless economy. This also includes ban on transactions of cash over Rs.300000 and tax incentives to promote cashless infrastructure as to increase more and more Aadhar based payments.
- As the BHIM application have launched, it will boost the digital payments in the country. So far 12.5 million people have adopted BHIM application which is a good number. Along with the same there will be launching of two new schemes such as Referral Bonus Scheme for personal and cash back offers for merchants. Other than BHIM , many application provide payment services for buyers and sellers of India like Paytm, Freecharge etc.⁵

⁵<https://www.mygov.in/task/10-initiatives-digital-india/>

- All the banks and companies have been instructed by Reserve bank of India to cover-up all the KYCs- Know Your Customer with view to integrate it with mobile wallets and Unified Payment Interface (UPI) by the end of year 2018.⁶
- The Indian government has also rewarded worth around Rs. 153 cr. to 1 million customers for the early acceptance and usage of mobile digital payments to encourage them in further usage under the Lucky GrahakYojana and Digi- Dhan Vyapar Yojana.
- An E-commerce portal has also been launched by Indian government named Trifed and M- commerce application named Tribes India which will help 55000 tribal skilled people to show their talent and earn money as well.⁷

4.1.3 Investments:

An online B2B, Business to Business, marketplace has been launched by Amazon to enable small and domestic enterprises to buy and sell the products on an online common platform. Metro Cash and Carry, Germany-based, B2B retail store chain is observing an emerging opportunity to start E- Commerce and M-Commerce solutions for B2B business in India by the end of 2018. Power2SME, one of the largest B2B online marketplaces in India providing raw materials to small scale enterprises has grown to US\$36 million from investors capital, Accel Partners and others in September 2017, which will be used towards technology, sales, marketing and geographic expansion.

Increasing FDI inflows, domestic investments, support from key industrial players is helping in the growth of e- commerce. By judging the benefits of entering in to the mobile commerce platforms have increased the investment patterns of supply chain industry. The products being offered to such platforms are usually purchased directly and sell it to the end users directly as well. This would reduce the overall cost of product and increase in the profit of mobile commerce developers. A record break of US\$ 9.6 billion has happened from venture capital firms between the month of January and September 2017, which doubled the amount of raised capital during the same period of 2016.

The first six months of 2017 recorded 26 start-up funding deals of value US\$ 100 million and above, aggregating to US\$ 7.7 billion and responsible for 68 per cent of investments during the period.

Table No. 1: Investments in Mobile Commerce Application-2017

Investor company	Funding	(US\$ m)
Flipkart	Soft bank	2,500
Big Basket	Ali baba Group Holding Ltd, Sands capital venture, International Finance corporation, Abraaj Capital	300

Source: <https://www.ibef.org/download/Ecommerce-March-2018>

4.2 To identify the factors affecting expansion of shopping through M- commerce

To satisfy the above mentioned objective, researchers identified the factors which have high Impact on the perception of shopping among consumers via M-commerce.

⁶<http://digitalindia.gov.in/content/recent-e-governance-initiatives>

⁷<http://www.digitalindia.gov.in/di-initiatives>

Table No. 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.674	
Bartlett's Test of Sphericity	Approx. Chi-Square	670.885
	Df	120
	Sig.	.000

The KMO analysis measures the sampling adequacy (which determines if the responses given with the sample are adequate or not) must be in near value to 0.5 for a genuine factor analysis process.

Kaiser (1974) suggested the value 0.5 (value for KMO) as minimum (barely accepted), values between 0.7-0.8 can be accepted, and values above 0.9 are very much sufficient to take in to consideration. Looking at the table below, the KMO measure is 0.674, which is close of 0.7 and therefore can be accepted. The data suggests that factor analysis was done.

Table No. 3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.167	26.043	26.043	4.167	26.043	26.043	2.326	14.535	14.535
2	1.621	10.132	36.176	1.621	10.132	36.176	2.153	13.455	27.991
3	1.403	8.770	44.945	1.403	8.770	44.945	2.152	13.448	41.439
4	1.260	7.874	52.819	1.260	7.874	52.819	1.543	9.647	51.086
5	1.149	7.184	60.003	1.149	7.184	60.003	1.427	8.917	60.003
6	.985	6.154	66.156						
7	.946	5.911	72.068						
8	.817	5.106	77.173						
9	.722	4.514	81.688						
10	.605	3.782	85.470						
11	.520	3.250	88.720						
12	.485	3.033	91.752						
13	.425	2.659	94.411						
14	.369	2.304	96.714						
15	.328	2.050	98.765						
16	.198	1.235	100.000						

These constructs represent the perception of mobile commerce application, in which there were sixteen questions. After doing KMO test, researchers have done variance analysis the table of which is mentioned below. The table of variance represents that with the five factors, 60% impact on perception of mobile commerce application.

Table 2.3 Component Matrix^a

	Component				
	1	2	3	4	5
Wireless device is more user friendly equipment		.671			
Customers can easily access shopping sites through applications			.643		
Stable and strong transmission of mobile data				.821	
Mobile commerce applications have Adequate search option	.608				
Detailed Product assortment helps in shopping					
Cash on delivery is safer payment option			.840		

All Debit /Credit Cards are acceptable in most of the application					.779
Process of exchange is easy			.664		
Refund policies are less ambiguous	.609				
Less concerns of breach of security		.615			
Transfer of money via Mobile phones is safe	.800				
Assured delivery verification is to be done	.710				

Above table suggests that out of sixteen, eleven factors have major impact on the shopping preference via mobile commerce applications. These questions have more than 60% impact on the perception of mobile commerce applications. Looking at the table researchers came to know that four factors belong to factor 1 (adequate search option, less ambiguous refund policy, less ambiguous transfer of money, assured delivery verification) with the impact factor value above 0.6 (.608, .609, .800, .710 respectively). Factor 2 includes two factors (user-friendliness, less concerns of breach of security) with the value above 0.6 (.671 and .615 respectively). Factor 3 has three factors (easy accessibility, cash on delivery, easy exchange process) with values above 0.643 (.643, .840, .664 respectively). Factor 4 has one factor (transmission of network) with impact value 0.821 and the fifth factor also has one factor (acceptability of debit and credit cards) with the impact value 0.779. According to analysis the most influential factor is cash on delivery that has maximum impact on perception of using mobile commerce applications by consumers.

FINDINGS:

While investigating secondary data, researchers came across with the factors that are driving forces of M-commerce usage. Basically there are three major driving forces- Increasing awareness amongst consumers, Government initiatives and Investments in M-commerce market. Increasing initiatives of government leads to more financial benefits of M-commerce players as well as consumers. With the use of primary data, researchers have done factor analysis to identify the important factors that have influence on perception of mobile commerce application. From the analysis, eleven factors were identified which have major impact on perception of mobile commerce application. The factors can be listed as user-friendliness, accessibility, transmission of network, adequate search option, easy money transfer, cash on delivery, acceptability of debit and credit card, easy process of exchange, less ambiguous refund policies, less concerns of breach of security, safety and delivery verification. To increase the growth of mobile commerce in market, the e-retailers have to consider these factors. By working on these factors and improving them, e-retailers can grow in the Indian market.

CONCLUSION:

From findings of the paper, researchers have identified factors that have direct and huge impact on the usage of M-commerce. This data can be useful to M-commerce players and all those business players who wish to go for an application based business strategy in near future. Researchers have also identified the obstacles in using m-commerce and from the data it was found that computer literacy should be enhanced in order to get real benefit of M-commerce. More free Wi-Fi zones should be created to overcome accessibility issues while purchasing products online. Applications must be designed in such user-friendly way so that everyone can understand it very easily. To overcome the issue of safety, M-commerce players should provide more privacy safety options and cash on delivery payment mode. Many people find exchange and refund policies ambiguous, so to cope up this challenge market players should make easy to understand and quick exchange and return policies. Similar research can be extended to other cities of the country to generalize the findings.

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