

# Understanding consumer behavior towards online shopping through mobile apps in Nashik city: An Insight

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## Abstract

The technological development the retail sector is in the way of significant shift , mobile commerce or m-commerce is getting huge attention of researchers and industries and has become catchphrase in India. With the current development in wireless and mobile technologies, m-commerce is expected to change the business landscape. With increasing number of mobile subscribers, India is now second largest mobile cellular market, next to china only. Hence this creates huge opportunities for business players to step into this area.

Through primary and secondary data exploration is an attempt to outline the expansion of m-commerce in India, factors affecting growth and adoption and shift from e-commerce to mobile app shopping in Indian context. This paper also explains advantages and drawback of m-commerce to business players in India. This paper seeks to add knowledge on consumer buying behavior through mobile app by exploring consumer demographic profile and factors impacting in decision making process. This paper has important implications for marketers and researchers to get well into m-commerce literature.

**Keywords:** M-commerce, mobile app,e-commerce.

## 1. INTRODUCTION

Digitization has changed the way how companies do business. With the wide data and technology, digital form of business disrupting the current business model, products and services and also consumer experiences. It has changed the way how consumers accepts, communicate and search products and services. Many new companies are coming up with new technologies and giving tough fight to existing with innovative ideas. So, it has become important to existing traditional retailers to respond the digital challenge significantly. Customers can purchase anything right from mediclaim to small pen just by sitting at one place and placing order online without any difficulty of geographical and time zone boundaries. Easy internet access and navigation are important for adoption of e-commerce or online shopping. India has 390.9 million<sup>1</sup> people accessing internet through their smartphones, online commerce is fast growing with emergence of "App commerce". In 2017 ,India ranked second in terms of app downloads while china first and USA third. The rapid speed of broadband services along with launch of Reliance Jio, has contributed maximum to change in consumption pattern of

consumers. According to TRAI ,the average data usage per subscriber grew 25 times from 62 MB per month in 2014 to 1.6 GB per month in 2017<sup>2</sup>.

With the increase in smartphone users and mobile technology, the mobile applications (mobile apps) are becoming popular among public than websites. The people adopting m-commerce are those who have used internet on their desktops/laptops .Mobile friendly websites are becoming popular but mobile apps are becoming more significant as they analyze consumers better, communicate frequently with them and target specific product based on their previous browsing history. This great feature of mobile apps and convenience of buyers for using hem making e-commerce players to focus more on mobile marketing. In this context, Myntra was the first online website which had shut its website in 2014 and became only mobile app market. Mobile has played superior role in communication through its versatility and superiority. It has already lead the fixed phone in the world.

M-commerce means exchange of goods and services over the internet by the use of mobile phones, it refers to wireless online transactions used for conducting commerce of business through wireless device such mobile phone or tablet. M-commerce should not view as limitation to e-commerce, but should be view as successor to e-commerce, not as substitute to PCs ,but a new and powerful medium to communicate with customers<sup>4</sup>.M-commerce is also refer to as any transaction with monetary value through mobile communications network that means m-commerce is subset of e-commerce, including both business to consumer and business to business .M-commerce is very important ,as it extends access of internet beyond static PC or also television, as anytime, anyplace and anywhere context. It helps large pool of people to search information about services wherever they go<sup>5</sup>.

## 2. GROWTH OF INTERNET IN INDIA

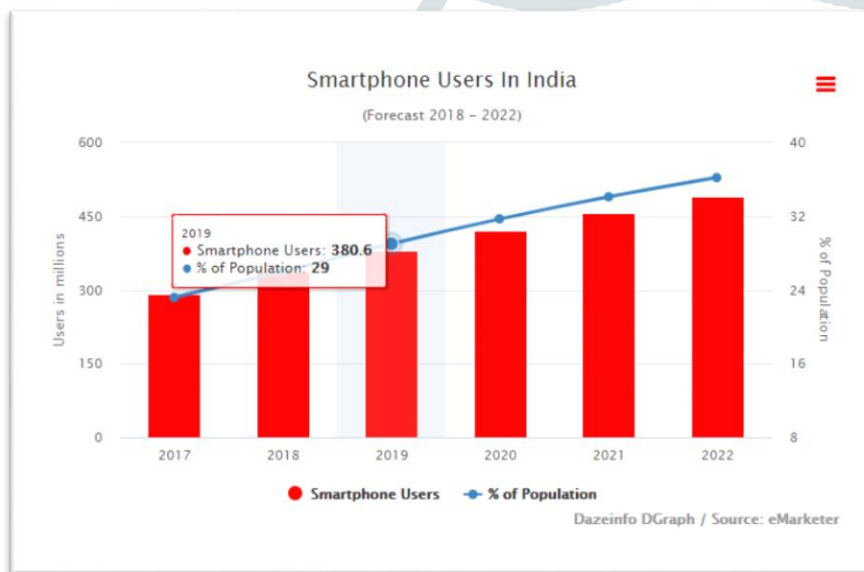
During mid 1990s unorganized outlets grown up to organized specialty stores with emergence of e-tailing and forming Omni channel combination of brick and mortar store and e-tailing. India's retail industry has grown due to increasing internet access, Smartphone usage and acceptance of digital wallets. The retail sector in India is emerging as one of the largest sectors in the economy. Online retail is expected to be at par with physical store in the next five years. India is expected to become the world's fastest growing e-commerce market ,influenced by huge investment in the sector and rapid increase in the internet users. VSNL introduced first internet service in India in 1995,it took almost two decades for India to reach first 100 million users, however next 100 million users were added in next 3 years. The Indian E-commerce market is expected to grow to US\$ 200 billion by 2027 from US\$ 38.5 billion in 2017<sup>8</sup>. Internet penetration in India grew from 4 percent in 2007 to 46.13 percent in 2018.Urban India with the estimated population of 444 million in 2011 by census ,already had 390.91 million people accessing internet. Rural India with estimated population of 906 million as per 2011 census has 213.30 million internet users in 2018<sup>6</sup>.Total number of internet users in 2019 is 560 million with 40.9 percent penetration<sup>11</sup>. One of fastest growing segment of e-commerce is online retail.

Online shoppers in India are expected to reach 220 million by 2025<sup>6</sup>. The increase of mobile devices combined with internet access via affordable broadband solutions and mobile data is a key factor for driving the tremendous growth of E-commerce sector in India.

## 2.1 SMARTPHONE PENETRATION

The rapid change in technology and high speed internet has led to massive growth in number of Smartphone users in India. The extraordinary demand for Smartphone in India has made India as second largest Smartphone market in India. The number of Smartphone users in India is expected grow by 15.6% to reach 337 million in 2018<sup>8</sup>.

**Figure 1**



The Smartphone have become more affordable and falling data prices have helped Internet to reach more number of people. The 4G subscribers in India are expected to rise to 432 million by 2020<sup>8</sup>. Retail m-commerce sale is expected to rise from \$20.6 billion in 2018 to \$40.5 billion in 2021<sup>12</sup>. Smartphone is making place of choice for shopping even among rural consumers.

## 3. REVIEW OF LITERATURE

The retail shopping experience is being developed phenomenally. A decade ago e-commerce developed, but nowadays consumers are demanding more convenience through mobile shopping. Mobile shopping happens when consumer purchase any product or service over their internet enabled device (smartphone, tablet etc).

Lu & Su (2009) used a revised TAM model to understand the factors affecting purchase intention on mobile shopping websites. They discovered that anxiety has a negative effect on intention to use, whereas enjoyment, usefulness and compatibility have a positive effect on consumers behavioral intention<sup>15</sup>. Beigne (2005), examine the impact of gender, age, internet experience as user and as a buyer on consumer buying behavior in Spain, it

has been found that young generation of both genders with previous internet experience are likely to adopt mobile based shopping<sup>16</sup>.Parag(2018) extended research on mobile app,the author stated that retailer should understand consumer requirement for product, develop new and improved mobile app that will influence buyer at each stage of decision making process especially while they are in store<sup>17</sup>.Sujata Deshmukh(2013) explained that m-commerce applications is having broad reach and mobility, also stated that m-commerce industry is not yet developed enough as compared to m-commerce market in developed countries, reasons might be political, social, cultural factors; also some of the growth factors are easy connectivity, personalization factors, mobility ,broad reach ,author also stated that m-commerce is shining in India with the development of 4G and 5G technologies<sup>18</sup>.Madhavi(2016) analyzed online shopping through app, explained that mobile apps cannot completely replace website shopping through desktop as it provides good graphical resolution, companies should focus on mobile friendly websites with best use of resources available on Smartphone like screen size, location, Companies should use both websites and apps to target consumers, and develop appropriate strategies to balanced app and website shopping<sup>19</sup>.

#### 4. OBJECTIVES

1. Overview mobile app based shopping
2. To understand profile of mobile app shopper
3. To analyze factor preferences for purchases through mobile apps

##### 4.1 Research Methodology

**Population and sample size:** the population of this study includes 200 mobile app based shoppers in Nashik who know how to search on internet.

**Data Collection:** The current study tries to understand the preferences of factors on shopping intention through m-commerce particularly mobile app. Relying on existing literature; variables were considered and offered to respondents in form of a close ended questionnaire to mark their responses on a five point likert scale. Primary data was collected by using a questionnaire from traditional buyers in Nashik. Secondary data was collected from articles in journals and books related to traditional shopping. The convenience sampling technique was used to identify people having prior experience of internet. Analysis is based on the responses obtained and the observation of the researcher.

**Survey Instrument:** A structured questionnaire was developed by using a five point rating scale ranging from *Not at all important to Extremely important* with regards to factors influencing consumers buying decision.

**Statistical Tools:** Weighted average method, this method is used to know the preferences for the factors where the weights affected are 1 to 5 from Not at all important to extremely important respectively.

**Scope of the study:** This research is important to mobile app base shoppers or retailers as it highlights the factors important in purchasing through mobile apps in context of a city – in this case, Nashik city. Respondents mainly Smartphone users, internet users and m-commerce users who use mobile apps for most of their transactions come under this study.

**Limitation:** This study was limited to Nashik city. The analysis is based on the response given by respondents.

## 5. FACTORS IMPACTING GROWTH OF M-COMMERCE IN INDIA

In the year 2016, demonetization has changed the scenario of payment in India. It has contributed a great amount in establishing cashless India along with this there are few more factors impacting growth of M-commerce.

- **Easily available affordable Smartphone's:** Local vendors such as Micromax, Lava, Karbon are making low cost affordable mobile devices and also with cheap data plans. Also other mobile vendors such as Redmi, Lenovo, Samsung are also producing affordable low budget Smartphone's with 4G services. Consumers in all areas including rural also using these devices for search and shop online. This is significant element for m-commerce growth. The Smartphone user base in India is expected to reach 1.1 billion till year 2024, and mobile subscriptions expected to grow from 610 million in 2018 to 1.25 billion by 2024<sup>9</sup>.
- **Inexpensive Mobile Internet :** The mobile internet packs are nowadays available at cheap rate unlike previously only affluent people could afford it. 4G, 3G services available at cheap rates from different internet providers and maximum people can afford it. Major network providers such as Vodafone, Airtel, Reliance jio bringing new schemes to attract maximum customers.
- **Growing Internet Population :** India stands second behind China and before US in terms of Internet users with 560 million users in 2019 with 40.9 percent penetration<sup>11</sup>. This signifies the potential of internet use in India and as this number increases potential for m-commerce industry also increases.
- **Easy to use:** Smartphone's, tablets has given freedom to consumer to do lots of things on their mobile like booking tickets, playing games, bill payments, online food ordering, making hotel reservations, surfing for required information etc at anytime and anywhere. In India new generation young population is 54 percent who like fast action and processing, m-commerce making them to easily access all task with ease.
- **Growth of Mobile apps:** With the rise in internet users and affordable Smartphone's, users are showing keen interest in mobile app categories. In 2018 consumers downloaded 194 billion mobile apps on their devices up from 143.7 billion in 2016<sup>13</sup>. Thus increase in app downloads for many product categories boosting the growth of m-commerce in India.
- **Wide reach, fast connectivity:** Mobile commerce has reached almost all areas in India. The penetration is much more than radio, television and computer. People in rural areas have smartphone as first touch point to access internet. Features such as GPRS (General Packet radio service) in mobile devices provides good

connectivity of people across various regions and also provides range of services across. Geographical location can be identified with this location and helping m-commerce companies to target specific product to specific group of persons. Apps are making it easier for user to compare real prices of product online also when they are in market.

- **All time access:** The main advantage of online shopping mode is people can access services 24\*7 except delivery. Customer can buy anything in the world without touching or sales man enquiry, if he/she has internet connection .
- **Development of mobile payments:** Buyers can choose any method of payment while doing online transactions. Several payment methods such as cash on delivery, credit/debit card, net-banking ,EMI are already established in market. After cash on delivery, mobile payment are becoming alternative method of payment .Mobile wallet has become favorite choice of payment among most of youths in India. After demonetization e-wallet has developed tremendously. It has been observed that out of total internet users in India 73.9 million people using mobile wallets<sup>14</sup>

## 6. MAJOR M-COMMERCE APPLICATIONS IN INDIA

M-commerce is witnessing steady growth in online industry. Whether it is travel industry or healthcare, education everyone trying to develop apps for better customer engagement.

Mobile category	Major applications	Clients
Travel and ticket	Travelling Industry	Tour operators, ticket sales
Online shopping	Retail Industry	Online retailers
Education	Mobile classrooms and labs	Schools and training centers ,eg-BYJUs
Entertainment	Game/Music/Video downloads	Entertainment Industry
Healthcare	Accessing and updating patient records, online medicine	Hospitals, patients eg Netmeds
Traffic	Directions and traffic advisories	Transportation industries
Mobile banking	Online payments, bills	Customers
Inventory tracking and dispatching	Product packing and dispatching	Delivery services and transportation

Source: Respondents collected information

## 7. BENEFITS AND LIMITATIONS OF MOBILE COMMERCE

With the cheap and easy available internet plans and Smartphone's mobile commerce is growing tremendously in India. As a result there exists benefits and limitations to mobile app which is developed by majority of e-commerce players to get maximum customer engagement.

### 7.1. Benefits of m-commerce

- **Easy to carry:** Mobile phones are very easy to carry anywhere ,it helps buyers to search and buy any product at anytime without going to shop or accessing computer/laptop.
- **User friendly :** E-commerce companies are developing websites and apps which are easy for user to search for particular product without any hurdle.
- **GPRS tracking:** Companies are targeting customers based on their locations using push ads and influence them to purchase product.
- **Low internet data:** Mobile device use less internet data compare to computer and also takes less time to search which in case of computer it requires time to download website.

### 7.2. Limitations of mobile commerce

- **Language barrier:** In India most of people are not very good at English language, so it makes difficult for them to purchase any product through mobile apps or websites.
- **Connectivity issues:** Even though e-commerce and m-commerce is growing fast ,still there are issues of connectivity on internet connections from customers, especially from rural areas. When the user is travelling, the connectivity gets down and signal also fades which may affect transactions. Even this drains battery of mobile and affects data rate and quality of service of m-commerce which affect consumer purchase.
- **Low graphic presentation :** In case of mobile commerce,products and offers are not clearly visible as compare to desktop/laptop. It may be distracting for old age or middle age people as they do not get proper view of product ,youngsters are ok with it.
- **Limited mobile memory:** In case of mobile apps ,Smartphone cannot store apps beyond inbuilt memory. This makes buyers to delete the apps once they purchase product. Thus customer retentions is difficult in this situation for companies. Also, online retailers continuously push notifications and emails to customers to download their apps, this may irritate customer and companies can lose potential buyer.
- **Security:** In case of website ,buyer has to login every time before purchase ,but in case of app buyer information is stored .If the phone is stolen or lost or hack it may damage personal information of customer also affect future consumer purchase.

## 8. DATA ANALYSIS AND DISCUSSION

### A) Demographic profile of respondents

		<b>Number</b>	<b>%</b>
Age	15-20 years	34	17%
	21-30 years	120	60%
	31-40 years	35	18%
	41 and above	11	6%
Gender	Male	146	73%
	Female	54	27%
Occupation	Student	76	38%
	Housewife	20	10%
	Working-businessman-Self employed	21	11%
	Working professional-salaried	83	42%
	Retired	0	0%
Marital Status	Married	67	34%
	Unmarried/Single	133	67%
Annual Income	1.Less than Rs 5 lakhs (2-5 Lakhs)	65	33%
	2.Rs 5 Lakhs - Rs 10 Lakhs	14	7%
	3.Rs 10 Lakhs and above	1	1%
	4.None of the above	95	48%
	5.Less than Rs 2 Lakhs	25	13%
Education	1.Schooling	37	19%
	2.Graduate	64	32%
	3.Post graduate	73	37%
	4.Professional Degree	26	13%

**Source: Compilation of primary data**

From the above table it has been observed that majority of respondent(60 %) are young people belong to age group of 21-30 years; 42 percent respondents are working salaried people and 38 percent students category; 67 percent of the respondents unmarried and 34 percent married; 73 percent of the



respondents male and 27 percent females; 48 percent of the respondents with no income which includes housewife and students, 33 percent respondents had income Rs.2-5 lakhs; 37 percent of the respondents.

#### b) Factors influencing in decision to purchase goods through mobile apps

**Table no-2**

Sr No	Parameters	Weighted average	Rank
1	Privacy protection is important	4.38	1
2	payment process is secured	4.05	4
3	Process is time saving	4.09	2
4	Easy to use	4.06	3
5	Convenient shopping method	4.05	4
6	Enjoys shopping	3.95	9
7	Company reputation, brand is important	3.81	11
8	Previous experience with mobile app	3.67	14
9	Can't Touch and feel before purchase	3.69	13
10	Online shopping saves money	4.02	6
11	Product variety is available	4.01	7
12	Better promotion schemes available	3.96	8
13	Long delivery time and extra charges	3.33	16
14	Replacement is easy	3.74	12
15	Customer service is prompt	3.58	15
16	clear information about product is available	3.82	10

**Source: Primary data**

From the above table it has been observed that privacy protection is most preferred factor for app through shopping, process is time saving is second important factor ,app is easy to use and ranked third , app also provides convenience for shopping, also payment process is secured at it provide OTP(one time password) for final transaction which allows security is ranked 4th, Online shopping saves money also in case of app through shopping it has observed that there are different discounts for app users which influence app downloads is ranked 6th,in online shopping there are many varieties of product available under one roof and also better promotion schemes available ranked 8th which is also major motivating factor for shopping, respondents stated that they enjoys shopping and also clear information of the product is available; in online company reputation, brand is important and also some respondents stated that replacement is sometimes easy depending on the app

from which they have purchased; the distracting factor is buyers can't touch and feel the product personally is ranked 13th, previous experience of app is also important if the buyer felt that app is not properly showing all items or getting hanged every time they he/she will not purchase again from that; customer service is not prompt which makes them irritating for purchase; long delivery time and charges also keeps them away from shopping online.

## 9. FINDINGS AND CONCLUSION

It has been observed that the ease of communication ,24/7 availability of shop ,easy to use has made popularity of m-commerce in India. With the continuously growing mobile market and reduced data tariff m-commerce is growing tremendously will also change business scenario in India. Currently most of the companies are moving to app only market place by understanding the current and future growth in the numbers of Smartphone users and time spent by them on internet. Mobile can't replace websites completely rather they can act as complement to websites to give customers a good experience.

This research work was an attempt to explore the factors that may affect the buying through mobile apps in Nashik. The results revealed that the people are adapting mobile apps for shopping with some important factors Viz-process is secured, time saving, easy to use, convenient, online shopping saves money, varieties of products available easily. Young unmarried generation including students and working professional who are graduates and postgraduate respondents and also working professional with income 2-5 lakh preferred app through shopping. Respondents also stated that delivery of product and deliver extra charges are sometimes concerns for them to not adopt app based shopping. In conclusion this study had collected useful information on consumer behaviour in the perspective of mobile app through shopping. Since previous studies on mobile shopping in general and more on m-commerce in general. Companies should also concentrate on developing mobile friendly websites which will best resources available on mobile phones like GPRS, screen size, QR code.

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