



# A Review of the Global Mobile Commerce Market in India

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## ABSTRACT

Mobile Commerce was first introduced in 1997, at the launch of the Global Mobile Commerce Forum by Kevin Duffey. Mobile Commerce has gained increasing acceptance amongst various sections of the society in previous years. The reasons for its growth can be attributed to technological and demographical developments that have influenced many aspects of the socio-cultural behavior in today's world. The growth of mobile commerce applications is remarkable and more consumers are transferring to mobile commerce to achieve better and fast transactions in India. Worldwide mobile commerce market in 2018 is expected to be \$800 billion. In US, 2015, over 950 million people accessed shopping websites via mobile apps alone. By 2017, the total number of apps to be downloaded worldwide might reach to 270 million leading to a revenue of approximately \$42 billion.

After the advent of mobile technology, the mobile penetration is expected to reach 1145 million in the year 2020, with 45% share of smart phones. Introduction of low cost smart phones, high speed internet services and free internet services is encouraging a large Indian population to adopt mobile commerce. Customer perception is a challenge for telecommunication companies. In the last few years, the mobile telecom market has witnessed a substantial growth and rapid changes globally, as well as in India. Customer satisfaction is a critical issue in the success of any business system. Many studies focused on usage of mobile commerce, but many problems faced in adoption of mobile device use were not studied in detail. There is no serious in-depth research carried out about the impact of mobile commerce in Chennai city. The main aim of this research is to validate the concepts of customer perception on impact of mobile commerce adoption and to ascertain the influence of demographic variables among the awareness, practice and adoption of mobile commerce services, changing customer attitude and the problems faced by the mobile device users.

## INTRODUCTION

Growth of Mobile devices has been one of the most important developments in the retail over the recent years. The mobile phone popularly known as a cell phone or simply cell has become our communications centre, our digital diary and entertainment gateway, primary source of all types of media consumption, our electronic wallet and our gateway to real-time information customised to all our needs. In the last few years there had been immense growth in wireless technology. This growth has changed people to do business through Mobile commerce. Failing to provide a mobile app might just be endangering the business itself, in the light of growing popularity of Mobile commerce.

The mobile revolution is sweeping India after the internet revolution. The new mobile devices are feature rich and user-friendly enabling even an illiterate person to handle the mobile transactions easily. The mobile service charges are the lowest in India, compared to the global market trend, enabling even low-income groups to afford a mobile phone.

According to co-founder of the online men's retailer J. Hilburn, "E-commerce and Mobile Commerce have dramatically changed the way brands reach customers, making it faster and easier for consumers to make purchases on the fly while avoiding the hassles of going to the store". Consumers are increasingly accessing the online world through mobile devices, so it is very important for the business people to use it as the business strategy with growing modern technology.

The concept of mobile commerce can be defined in various ways Mobile Commerce is a mixture of information and communication technology, mobile technology and internet. The following section provides the gist of what mobile commerce is all about.

Ovum defines mobile commerce as, "The core of mobile E-commerce is the use of a terminal (telephone, PDA, PC device, or custom terminal) and public mobile network (necessary but not sufficient) to access information and conduct transactions that result in the transfer of value in exchange for information, services or goods".

## Literature

1. **Nielson report (2013)**, in comparison to e-commerce, there is limited academic research available on mobile commerce. Academic studies in developing countries, especially in India are limited because mobile commerce is still in emergent stage and most consumers have not had the chance to use or adapt this technology to their routine life.
2. **Vendel et al., (2014)** is "a set of practices that enable organizations to communicate and engage with their audience interactively and relevantly through any mobile device or network."
3. **Gupta et al., (2014)** declared that mobile commerce is complex to adapt for Indians as it is at emerging level in India. Now Indian users have started using mobile commerce for web access, surfing & a few times shopping. They have also focused on how mobile commerce has evolved & developing in India along with some benefits and drawback of mobile commerce in India. The table below outlines different classification of mobile commerce. Also, it is estimated that 525 million worldwide consumers will purchase via mobile this year with global B2C commerce sales forecasted to top \$1.7 trillion and mobile commerce contributing roughly \$300 billion in sales.
4. **According to Retail Info Systems (RIS) and Cognizant's 2015** Shopper Survey was conducted in April of 2015, and involved 5,000 participants. The survey was balanced by age and income and conducted online.
5. **In Cognizant's 2015** Shopper Experience Study, it is found 77% of 18-24-year-olds purchase online using mobile devices at least monthly. BusinessInsider.com reports that 18-34 year olds spend nearly \$2,000 per year online. To further understand the demographics of online shoppers, an Experian study found that 55% of online shoppers in the U.S. live in households with incomes above \$75,000 (40% were in households earning \$100,000 and above). These numbers demonstrate the current and future value of online shoppers to retailers.
6. **Rajan et. al., (2016)** showed that variety of services, social influence, perceived usefulness, cost and perceived trust have significant influence on consumer's intention to adopt m-commerce. The only exception was perceived ease of use which observed statistically insignificant influence on adoption of m-commerce. The results obtained from SEM were employed as input to the neural network model and results showed that perceived usefulness, perceived trust and variety of services as most important predictors in adoption of m-commerce. IAMA and Indian marketing Research bureau (IMRB) study conducted in 2016 brings out that the e-commerce sector is estimated to reach Rs. 211005 crore by December 2016. It stated that online travel accounts for 61% of the e-commerce market.
7. **According to Raja Lahiri, Grant Thornton India (2016)**, "Given the growing digital payment eco-system and recent demonetization move by the Government, digital payments and associated mobile commerce players are expected to grow at a very fast pace which is likely to increase".

8. **Mathew et. al., (2016)** studied the mobile data and the privacy concerns of customer like concerns, collection, control, awareness, trust, unauthorized use and location tracking. He recommended the advertisers to rely on Mobile data duly acknowledging and addressing the privacy concerns held by mobile users. Global Mobile commerce makes up 34% of all e-commerce transactions around the world and is expected to increase 50-60% in 2017 that is more than double as compared to entire e-commerce, according to [www.impingesolutions.com](http://www.impingesolutions.com)
9. **According to Euromonitor (2017)**, International and Retail Asia Mobile commerce accounts for over 50 percent of total digital commerce in China, Indonesia and South Korea. It is expected to reach US \$795 billion by 2021.
10. **Jen-Jie Hew, (2017)** evaluated the current development and trends of researches on mobile commerce and its applications through bibliometric analysis. This study serves as a forerunner in using bibliometric analysis to evaluate researches on mobile commerce and its applications, and expected to benefit researchers in the area of mobile commerce, by identifying potential research directions. Survey conducted by Gartner Inc., reveals that by 2017, U.S customers' mobile engagement behaviour will drive mobile commerce revenue to 50% of U.S digital commerce revenue. Mobile commerce will account for 24.4 % of overall ecommerce revenues by end of 2017.
11. **Francisco et. al., (2018)** uses a meta-analytic approach to review the acceptance of mobile services and analyse the relationships between technology Acceptance Model variables and consumer acceptance of mobile services. The authors searched all available academic computer databases to get a deeper understanding of this topic and uncover the most significant drivers of mobile application acceptance by consumers.

### Research Gap

By examining the previous studies, I had found that those studies are limited to one particular time period and the return will differ based on different time periods. In this study I have taken the data of past 5 years i.e.,2015-2020 that are not considered in the previous study and by taking the data of different IPOs that are listed in NSE particularly.

### Objectives of the Study

The specific objectives of the study are

- To study the socio-economic and demographic variables among mobile commerce service users in Chennai.
- To identify the level of awareness of mobile commerce service users.
- To examine the use of mobile commerce services. To study the factors influencing the adoption of Mobile commerce services among users.
- To identify the consumer attitude towards Mobile commerce.
- To analyze the level of satisfaction of mobile commerce applications.
- To study the problems of mobile commerce applications.
- To suggest a few measures to improve in Mobile commerce services.

## Hypotheses

- There is no association between income of the respondents and the type of connection.
- There is no association between income of the respondents and the money spent on mobile usage.
- There is no association between network provider and the reliability of network. There is no association between education of the respondents and the access to internet using mobile.
- There is no association between distance of bank and the payments using mobile.
- There is no significant difference between the utilization of Mobile commerce services based on the occupational groups.
- There is no significant difference between the utilization of Mobile commerce services based on the location of the respondents. Factorization of 35 statements into different factors. A relationship exists between the factors influencing the adoption of mobile commerce services.
- There is no significant relationship between security and financial transactions using Mobile commerce application.
- There is no significant difference between the attitude of the respondents towards Mobile commerce based on the age groups of the respondents.
- There is no significant difference between the gender and the attitude of the respondents towards mobile commerce.
- There is no significant difference between the satisfaction level of the respondents towards Mobile commerce application based on the age groups of the respondents.
- There is no significant difference between the marital status and the satisfaction level of the respondents towards mobile commerce application.
- There is no significant relationship between the problems in using Mobile commerce application and the education of the respondents.

## Limitations of the Study

- This study is restricted to Chennai metropolitan city only.
- The behaviour of the people belonging to rest of Tamil Nadu may not be alike. Perception of the people is dynamic in nature and may change over period of time, change in Government policy, Regulations etc.,
- During the year 2012-2016. This study cannot be generalized, due to rapid changes in technology,
- Customer preferences, Government rules etc.

## IV. Research Methodology

- The data for the study is mainly collected from NSE website. The analysis is based on the company listed in NSE during the years 2015-2017. The secondary data was collected from various sources available like website wherever necessary. The study is mainly analytical in nature.

## Analysis of Data

The data collected from both the sources were scrutinised, edited and tabulated. The data collected from 720 respondents have been explored in this study. Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is 0.884. This suggests that the sample size is adequate to conduct factor analysis. The Bartlett's Test of Sphericity value is also significant.

Further, the processed data were analysed using statistical package for social sciences (IBM SPSS 20). The following statistical tools were used in the study to deduce the results about data variables:

t-test was applied to ascertain the nature of responses about the causes of and its impacts

- Factor Analysis has been used to identify the factors of causes o Karl Pearson's Co-efficient of Correlation was computed to explore the parametric relationship among the various factors of and consequences
- One way Analysis of Variance (ANOVA) has been used to ascertain the significant relationship between a model was developed using Analysis of Moment Structure (AMOS). This model includes Ease of use, Security, Purpose, Bottlenecks, Financial aspects, and Benefits (Perception Impact). These factors are taken as observed variables (variables measured are confirmed as factors).

## Findings

- It is observed that majority (75.40%) of the respondents have two to four family members. More than half of them belong to the nuclear family.
- Students and employed respondents have invariably adopted Mobile commerce.
- Almost 64 % of the respondents' monthly income is less than Rupees
- It is found that Android type of Smartphone is used most in the market followed by windows type.
- It is observed that majority of Chennai customers are using a pre-paid type of connection from the service provider.
- During the study period, it is found that more than half of the respondents' network provider is Airtel and about 23% of the respondents are using BSNL.
- It is found that majority (43.10%) of the respondents spend less than Rs.300 per month for mobile. 34.40% of their monthly usage is between Rs.300- Rs.500.
- More than half of the respondents have used mobile money transactions in fuel station, user-friendliness, commercial places, Bank, ATM andPostal/Station.
- It is observed that 82.20% of the respondents are willing to recommend their family and relatives to use mobile commerce services.
- It is found that there is a significant association between the income of the respondents and the type of connection. It infers that based on the income, the respondents has chosen their type of connection. Higher the income. Respondents prefer post-paid connection. Majority of the respondents (54%) have pre-paid connection; their income is comparatively lesser than the other respondents who have a post-paid connection.
- It is concluded that the money spent on mobile usage, is significantly associated with the income of the respondents. Almost half of the respondents spent less on mobile usage since their income is low.

## Recommendations

Based on the observations and findings of the study, the following recommendations are made to improve mobile commerce eco-system for the service provider and policy changes are given below:

- Majority of Chennai customers are using a pre-paid type of connection and Android type of Smartphone. Any Business promotion shall target prepaid customers in android platform so that the reach is the maximum instantly and bring positive results.
- It is evident from the study that the parameters such as speed, user friendliness, easy to use and compatibility are major influencing factor for the adoption of mobile commerce services. Future mobile app will be successful if the above criterion is duly addressed.
- Security, safety and reliability are another important determinant which is the cause of concerns for Chennai customers. Addressing the security related threats in all aspects will add more mobile utility and pave the way for customer value addition.
- Easy to use (convenience) plays a pivotal role for mobile commerce adoption. It is recommended that for success of a new business model for mobile commerce adoption, convenience (different form) is the main critical determining factor. Corresponding mobile interfaces need to be modified in order to suit the requirements of new business landscape.

- What's App, Navigation and Shopping usages are more in the South Chennai. It is recommended to service provider to focus on location based services (e.g. directions for travelling, information about of the nearest store, etc.,) exclusively for South Chennai.
- Due to dynamic and ever changing business environment the tele- communication sector in India has to evolve refined model to suit new policy measures and regulatory mechanism which will certainly make customer delight and improve service satisfaction by assessing the periodical survey.
- In order to improve mobile commerce adoption, a meticulous risk mitigation strategy and careful plan is recommended to address the security risk emanating from financial transactions such as fraud, failed transactions etc., from time to time.
- It is recommended to standardise different solutions for mobile commerce and several industry standards for authentication, which exists due to market based competition, voluntary cooperation and coercive regulation.
- Mobile commerce has to be brought in to the legal framework protecting interests of customer against system failure like connectivity, phishing, failed transactions, malicious entities to deny service, collect confidential information and disseminate false information, loss or theft of mobile devices, payment authentication etc.,

## Conclusions

Mobile commerce has attracted the attention of both practitioners and academics. In particular, research activities on mobile commerce have increased significantly after 2000. The transition from traditional model of commerce to e-commerce and now to mobile commerce was led by the retail segment. Industry sources indicate that digital commerce accounts for a fraction of the total sales of retail industry. This indicates there is a huge potential for mobile commerce, which is yet to fully explore the segments, especially finance, health, entertainment and on-demand services. Mobile commerce is the future trend as technology continues to progress and new systems are being created, mobile commerce is on a rapid rise. Today more people are constantly on the go and the ability to conduct businesses in the palm of your hand wherever you go is definitely on higher demand. There has not been much research on the relationship between culture and mobile commerce. There is no doubt that mobile commerce will burgeon in the future.

It is important to highlight that this research was conducted with the resources accessible within the time frame provided for a detailed assessment of the customer perception on impact of Mobile commerce in Chennai. Mobile application and mobile commerce continue to expand. Over one billion people use smartphones to go online every day and mobile shopping is trending as never before. Success will rely on honing efforts to address customer centric experiences, narrowing the focus to the most valuable programs and selecting the right technology strategy that will enable service provider's internal teams to deliver optimized experiences scalable.

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