

A STUDY ON CONSUMER'S PERCEPTION TOWARDS ADOPTION OF M-PAYMENT SYSTEMS IN CHENNAI CITY DURING COVID-19 OUTBREAK

P. Anisha^{1*}

*(Research scholar, Department of commerce, Loyola College, Chennai.)
anishapeter1415@gmail.com ,*

²Dr. M. Gautaman

*²(Head of the Department, Department of Sociology, Loyola College, Chennai.)
gautam@loyolacollege.edu ,*

³A.Albin Vimal Raj

*³(Research scholar, Department of commerce, Loyola College, Chennai.)
albinvimal@gmail.com ,*

⁴Dr. J. Justin Rayappa

*⁴(Assistant Professor, Department of commerce, Loyola college, Chennai.)
profrayappa@gmail.com ,*

ABSTRACT

The technological upgradation has evolved the banking sector to rank the top in case of best service-based industries. E-Payment systems adopted by the banking sector for many kinds of payment or transactions have framed a positive opportune for the customers. M-payment systems were being widely adopted by the general public for various factors being the key reasons to make transactions in seconds. It is found that mobile-payment systems are one among the prominent core banking solutions which has altered the payment system from cashless transactions and card less transactions. It has been widely accepted especially during the COVID-19 pandemic crisis which has put the world in a pathetic situation, where the people were forced to stay at home. The Adoption of E-banking and M-payment has raised more than 51% despite being a pandemic condition, resulting to cross about 253.2 crores amount of transactions (M.Radhika et.al (2020)). This payment systems can be used by linking credit card, debit card and internet banking credentials in the required platform from your mobile device. Mobile-wallets are high on trend and are highly accepted by the customers for any kind of bill payments and amount transfers from one to another in the fast-developing economy in just clicks. This study focuses on studying the awareness level along with identifying the level of satisfaction and problems faced by the customers with regards to m-payment system adopted by the customers of Chennai city. Statistical tools like ANOVA, correlation, Chi Square were used to find the significant relation between different variables. The study helps to read the customers attitude towards the m-payment system on the whole especially during the COVID-19 Crisis.

KEYWORDS: M-payment system, M-wallet, E-banking, Mobile Banking, Core banking Solutions.

INTRODUCTION

M-payments has become the most essential and has advanced functionalities for which a mobile device is used, in the current technically advanced world. Payment systems adopted are reformed from time to time due to tremendous advancements and economic development. Initially the Barter system was followed where people used to buy goods and in return pay back with some other goods with the same worth. Later point of time the currency notes came into

existence where payments were made by cash. Any purchase was done with the help of cash which was easy to calculate and pay for the worth of that commodity. The technological evolution in the world paved way for card transactions which overshadowed the cash transactions. The contriving design of the card facilities like debit card, credit card minimized the usage of cash. The technical improvement happened mainly due to the advancement in information and communication sector along

with the artificial intelligence which takes the world to its next level. The banking sector evolved to be the best in the case of service-based industries due to changes and growth and advancements that happened in the monetary aspect. On focusing on the banking sector more specifically, e-banking started to rule the world where everything in the world is connected with money. The banking sector stepped forward to focus more on the electronic banking system among which mobile banking was highly accepted by the customers. The mobile banking systems made a prodigious remark on the payment system by bringing into reality the cashless and card less transactions. The mobile payment services are to function by abiding all the financial regulations of the country with the help of a mobile device. Every organization in the business world are upgraded according to technological developments along with taking into account the banking norms for monetary undertakings.

Mobile payment systems at today's scenario had been the finest, effortless and trouble-free mode to make any huge or small amount of transaction. The mobile payment techies operate in a well systematic manner with all safety protocols about the transactions along with maintaining the secrecy of the details of the dealer or the customer. Any customer to avail the benefit of m-payment systems has to furnish the leverage information about the customer regarding the account information, address, mobile number, card details etc., along with the security PIN (personal identification number) to implement the transaction.

On focusing on the adoption of the m-payment systems among the customers of Chennai city during the COVID-19 crisis is comparatively large on noticing the number of users before the pandemic. The COVID-19 pandemic was nothing but the outbreak of a deadly virus which is easily communicable which would eventually lead to many health issues or even death. The general public were protected under many law and strict orders to be followed among which few were the lockdown being announced, the people were not allowed to step out of their home unless it was absolutely necessary. This COVID-19 spread was a huge threat for the people. This made the whole world turn towards the digital and technical platform. All the sectors like be it the education institutions, IT sector etc everything started to work from home connecting digitally. In this

case, the banking sector was in no way exceptional. People were put in a situation to live life in a digital planet to connect with each other and earn their living. The paper has covered the awareness level of the customers about the m-payments services which are available and are provided by the banks. The services, benefits and charges vary for different banks and payment apps used for transactions. The study revealed that mostly all the customers of all age groups were aware of the various payment systems that are available. Irrespective of age and gender mostly everyone has started to utilize all the benefits and pleasure of m-payment systems. Pandemic has also been a key reason for such maximum adoption of m-banking technologies. The study also focused on the level of satisfaction that were gained by the customers about mobile payments. Which revealed that the customer was satisfied with the m-payments as it is transparent and are easy to use and access the efficient service in just clicks. The customers are highly satisfied with the multifarious options that are available for a secured transaction. Lastly the problems faced by the customers while using the m-payment systems were discussed on which the study listed the issues like network problem and server errors were found to be most problematic for a transaction. Overall, the study concentrated on the all the aspects of the mobile payment system which was adopted by the customers of Chennai city.

REVIEW OF LITERATURE

Kang, (2018) made a study on the mobile payment systems which was found to be the most convenient payment method because of the enormous growth in the IT sector in the track of Fintech payment services. The technical advancement has led to easy use of modern payment systems with simple secret code and biometric authentication which are enabled to the mobile device for any financial transaction. The paper made a clear comparative study between the currently existing m-payment service with mobile fintech services. The study focused on the characteristics of the fintech service providers with regard to payments like OS maker etc along with current mobile payment services which are highly used like android pay and apple pay etc., To end the study the researcher focused on the challenges and issues like

security, privacy, integrity etc for development of mobile fintech payment systems and services.

Mona Sinha et.al (2018) examined the two concepts namely, technology readiness and the adoption readiness of the Indian consumers towards mobile payments. The researchers also found that the various developments and self-service facilities and technologies used by the banking sector have been a positive driving force towards digital payments. The researchers stated that mobile payment advancements through technologies have chances to address the social and economic challenges faced by India in the mere future.

Sriram K.V. et al (2018) conducted an empirical study on consumer adoption towards mobile payment applications. The study listed certain factors which drove the consumer towards the mobile payment mode, the factors were as follows: pervasiveness, offers and cashback services, usefulness and user friendliness. The study found that age has an impact on mobile payment adoption, specifically mentioning teenagers were found to be the aggressive users when compared to the old people. The researchers also threw some insights for improving awareness and adoption of mobile payment systems in India.

Ahmad Aadhil and Sowmya, G.L (2020) made a study on digital payments, in which they focused on the UPI systems and mobile wallets such as G.pay, Paytm, Mobi Kwik etc. The researchers found a high level of willingness towards adoption of digital payment systems because their choice has been influenced by various factors like speed in transaction, the safety and security features etc. Despite these, few more influences like the peer influence, Visual influence, Applications features also acted as energy to pull towards these payment systems. At the end the researchers identified certain problems faced by the consumers to provide some key points to remember for the application makers.

Yuewen Liu .et, al (2020) planned out two studies which would help them to examine the consumer behavior towards cash payment and mobile payment. On which one study was to find out which mode of payment are they willing to pay and the other study was about the speed of payment among the two modes. The results however indicated that mobile payment was opted for willingness to pay/ receive except than the payment when money was a gift. Also,

the study disclosed that the consumers found mobile payment to be the fastest and less time consuming for any transaction. The study was concluded by providing suggestions on payment methods.

Shuting Yang (2021) explored that mobile payment gained its popularity among the consumers because of the evolution in the smartphone application services. The researcher found mobile payment to be used by consumers of all age group among which consumers from age category between 18 -24 to do the maximum consumption at the same time they were found to repay credit fee because of the credit loans taken by them. The study concluded by stating that consumers should be conscious on the consumption pattern and should control their excessive consumption.

STATEMENT OF PROBLEM

Pandemic has collapsed the world in all means, especially economically. The way of living had to see new dimensions among which one such dimension is the mode of payment that is from cash to mobile bond. This new face of life paved a colossal opportunity for the technologies to put on view its supreme advancements in the banking sector. The study assisted the researcher to analyse the reach of these advancements among the consumers by evaluating the level of satisfaction along with the discrepancies faced by the Indian consumer in Chennai city. The COVID19 has put the consumers in the situation to get updated and adopted to the technologies driven world. The study helps to get a clear better picture of the m-payment adoption status and provides insights for the potential future developments.

SIGNIFICANCE OF THE STUDY

The research paper would provide new perspectives about m-payments which is one the most important elements in core banking solutions. Through this research article the financial institutions and the application developers would understand the factors that are accepted and satisfied by the consumers according to their age and educational qualification. The result of the study would list out the issues faced by the consumers with regard to m-payment and suggestions to fix it in order to enhance this mode of payment. The consumers could also gain knowledge about the benefits of m-payment.

OBJECTIVES OF THE STUDY

1. To study the significant impact of education on awareness of various mobile payment systems.
2. To study the most satisfying factors among the m-payment services.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.330	1	.330	6.089	.015
Residual	5.310	98	.054		
Total	5.640	99			

- a. Dependent Variable: Are you aware of Mobile payment system?
- b. Predictors: (Constant), Educational Qualification

1. To Access the strength of the relationship between age and problems faced in m-payment.
2. To identify the most preferred payment application for m-payment users
3. To study whether there are any significant association between the income of the respondents and their usage of mobile wallet.

.842	34
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In this study, the alpha coefficient for 34 items is .842, which intends to say that there is relatively high internal consistency, and it is acceptable as the reliability coefficient is more than .70 for social science research.

Objective 1 : To study the significant impact of education on awareness of various mobile payment systems.

H₀ : There is no significant impact of education on awareness of various mobile payment systems.

H₁ : There is significant impact of education on awareness of various mobile payment systems.

Interpretation: The significant value 0.15 is less than .05 which is significant at 5% level of significance. This intends to say that the null hypothesis is rejected and alternate hypothesis is accepted. Therefore, there is significant impact of education on awareness of various mobile payment systems. The study revealed that awareness level depended on the educational qualification of the consumer, were people with more educational qualification were aware of mostly all the mobile payment systems available by finding it more user friendly and transparent for any transaction.

Objective 2 : To study the most satisfying factors among the m-payment services.

METHODOLOGY OF THE STUDY

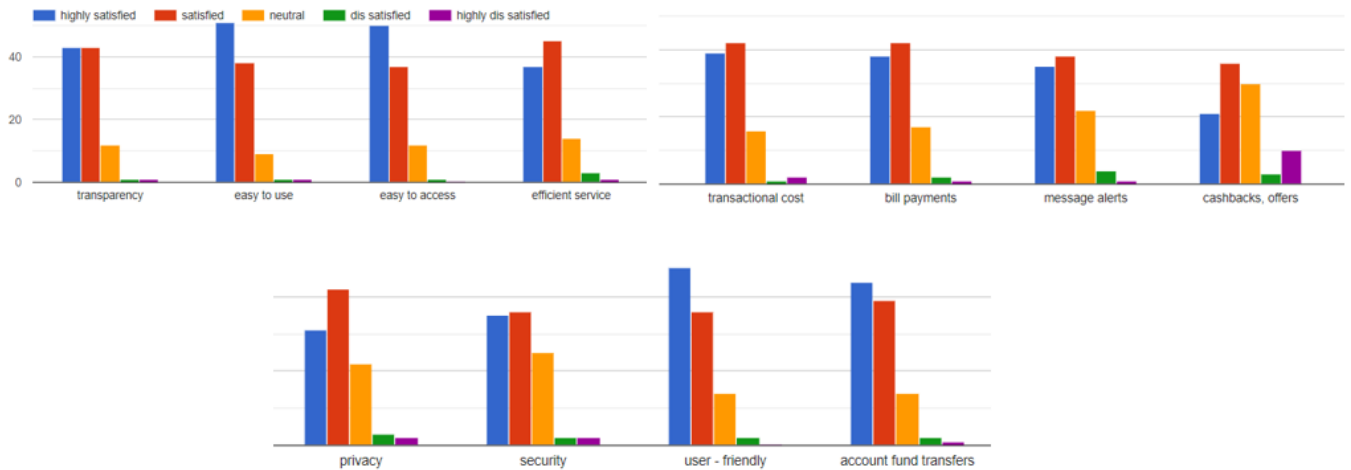
The study included both the qualitative and quantitative research methodologies to attain the objectives of the study. The primary data was collected by framing a structured questionnaire and arranging an interview schedule with the consumers who use m-payment generally. Many articles, journals and magazines were reviewed to gain the secondary data needed for the study. Simple random technique was used to collect the data. Analysis was made by using SPSS (statistical package for the social science) software. Statistical tools like pie chart, bar diagram, chi square test, ANOVA, correlation analysis was done to analyse and interpret the results. The tools and techniques were used accordingly to gain the results for the study.

DATA ANALYSIS AND INTERPRETATION

The reliability test was run for the study to find the Cronbach's Alpha value.

Reliability Statistics

Cronbach's Alpha	N of Items
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Interpretation: The study was helpful to find out the factors which stood as a satisfying element for the consumers to prefer m-payment systems. The researcher found the consumers to be highly satisfied as they felt the applications to be user friendly and easy to access for account fund transfers. The factor in which the consumers were satisfied is that transparency in the transactions and the instant easy making of

bill payments along with the privacy and security features.

Objective 3 : To Access the strength of the relationship between age and problems faced in m-payment.

H₀ : There is no statistical relationship between age and problems faced in m-payment.

H₁ : There is statistical relationship between age and problems faced in m-payment.

Correlations

		Age	delay in OTP generation	delay about transaction through SMS	internet problem	server error	security issues	heavy transaction charges	lack of knowledge
Kendall's tau_b	Correlation Coefficient	1.000	.119	.113	.225*	.254**	.063	.081	.100
	Sig. (2-tailed)		.215	.238	.019	.008	.513	.397	.297
	N	100	100	100	100	100	100	100	100

*. Correlation is significant at the 0.05 level (2-tailed)

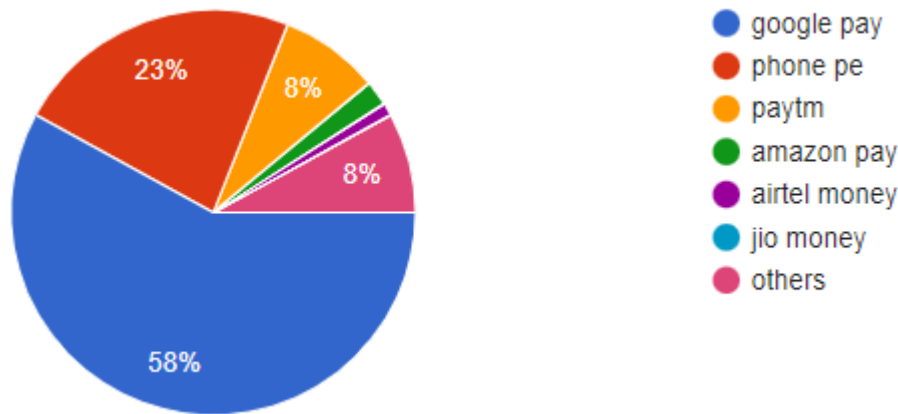
** . Correlation is significant at the 0.01 level (2-tailed)

Interpretation: The significant value for internet problem is .019 which is less than 0.05 level of significance and the significant value for server error is .008 which is lesser than .01 level of significance. This shows that there is null hypothesis is rejected and alternate hypothesis is accepted in both the cases resulting that there is statistical relation

between age and problems faced in m-payment.

The major problems faced are the internet problems as because of the tower issues the connectivity has been an issue. Also consumers face server problems 404 error (page not found) due to heavy traffic or change in page URL. These were found to the major challenges for the consumers in m-payment systems.

Objective 4 : To identify the most preferred payment application for m-payment users



Interpretation: The researcher tried to savvy the most preferred m-payment applications that are essential for the world at large for banking activities. The study tracked down Google pay and Phone Pe to be the applications to hold the top two most preferred mobile applications or UPI (unified payment interface). Consumers found many benefits and specifications that would fulfil various needs like bill payments,

account transfers, recharge options, coupons and cashbacks etc.

Objective 5: To study whether there are any significant association between the income of the respondents and their usage of mobile wallet.

H₀: There is no significant association between income and usage of mobile wallet

H₁: There is significant association between income and usage of mobile wallet

monthly income * usage of mobile wallet? Crosstabulation

		Have you used mobile wallet?		Total	
		yes	no		
monthly income	upto Rs.20,000	Count	32	8	40
	Rs 20,001 - Rs 40,000	Count	20	7	27
	Rs 40,001 - Rs 60,000	Count	12	3	15
	Above Rs 60,000	Count	15	3	18
Total		Count	79	21	100

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.632 ^a	3	.889
Likelihood Ratio	.624	3	.891

Linear-by-Linear Association	.081	1	.775
N of Valid Cases	100		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.15.

Interpretation: The significant value .889 which is much greater than 0.05 level of significance. Which means the null hypothesis

is accepted and the alternate hypothesis is rejected. Therefore, there is no significant association between monthly income and the usage of mobile wallets. All consumers with different financial standards have accepted, adopted and are satisfied with the mobile-payment systems. The study clearly showed that people of all income group use m-payment for various activities on a daily basis to a large extent.

FINDINGS OF THE STUDY

- On studying the significant impact of education on awareness of various mobile payment systems. The study intends to say that there is significant impact of education on awareness of various mobile payment systems. The study revealed the educational qualifications of the consumer has effect on the awareness level about the mobile payment systems. Which means to say that people with more educational qualification were aware of mostly all the mobile payment systems available by finding it more user friendly and transparent for any transaction.
- On analysing the most satisfying factors among the various m-payment services. The researcher found the consumers to be highly satisfied as they felt the applications to be user friendly and easy to access for account fund transfers. The factor in which the consumers were satisfied is transparency in the transactions and instant easy making of bill payments along with privacy and security features.
- To Access the strength of the relationship between age and problems faced in m-payment. The major problems faced are the internet problems as because of the tower issues the connectivity has been an issue. Also, consumers face server problems 404 error (page not found) due to heavy traffic or change in page URL. These were found to be the major challenges for the consumers in m-payment systems.
- To identify the most preferred payment application for m-payment users. The study tracked down Google pay and Phone Pe to be the applications to hold the top two most preferred mobile applications or UPI (unified payment interface). Consumers found many benefits and specifications that would fulfil various

needs like bill payments, account transfers, recharge options, coupons and cashbacks etc.

- To study whether there are any significant association between the income of the respondents and their usage of mobile wallet. All consumers with different financial standards have accepted, adopted and are satisfied about the mobile-payment systems. The study clearly showed that people of all income group use m-payment for various activities at daily basis to a large extent.

ANCILLARY FINDINGS

In this study, majority of 94% of the respondents were aware of all the mobile payments systems that are in existence. Around 79% of the respondents had the habit of adding money in mobile wallet for making payments

- On studying the time span of using mobile banking operations, the researcher found 46% of the respondents to be mobile banking users for below 3 years, 31% of the respondents used for 3-5 years and finally 23% of the respondents were using more than 5 years.
- On analysing the source that made the consumers know about m-payment were friends and relatives by 53%, digital advertisements by 33%, print media and bank staff by 7%. The respondents were mostly aware of all the m-payment services available.
- The researcher on analysing the kind of applications preferred by the consumers. 72% of the respondents prefer payment applications with a unified payment interface like G.Pay, Phone Pe, Paytm etc. And 28% of the respondents prefer the bank's own application for making any transactions.
- In this study, the most satisfying factors on using mobile payment were its user friendliness, ease to access, transparency, privacy, security, instant account transfers etc.
- On studying the issues or problems faced by the respondents on m-payment were sometimes delay in OTP generation, and rarely internet problems due to tower issues and server error.

SUGGESTIONS

- The bank staff and the application makers should programme the applications feasible, uncomplicated and intelligible with the best serviceable outcome.
- Since the consumers were found less satisfied with the cashback offers and the transactional cost. The banks and the payments systems should provide the cashback offers that are very much worth, applicable and access-able easily. Also, if the transaction cost is reduced, there would be many numbers of users.
- The bankers should provide extra attention to the problems like delay in OTP generation and server error and provide better solutions to such queries.

LIMITATIONS

- The study has covered the consumers residing in Chennai city. A similar study can be done in different city or in India at large.
- The study has focused on only one aspect of core banking solutions that is m-payment systems. But various other solutions can be studied and also be compared to find out the most preferred core banking solutions.
- The study was conducted during Covid - 19 pandemic. Whereas a study can be done by dividing consumers' perception about m-payment from pre and post pandemic situations.

CONCLUSIONS

From the above studies, the researcher would conclude that the general public irrespective of their educational qualification and income level were put in a situation to accept and adopt the m-payment systems during the COVID-19 crisis due to the curfew announced by the government. On experiencing the different mobile payment systems most of the consumers are comfortable and found it user friendly without much complications. The factors like privacy and security were found to be highly maintained which would gain people's trust towards mobile payments. Payment applications were used more by the consumers than the bank's own application. The unified payments interface was at the leading edge to elevate the mobile payment systems to the next level. Applications

like google pay and phone pe were found to be the maximum preferred UPI payment applications. The study also paid attention to find the problems faced by the consumers among which the consumers found an issue with delay in OTP generation at times of making any payment or adding money in the wallet. Followed by, network issue and server problem were also listed by some consumers as a problem they face while using mobile banking or mobile payment systems. M-payment systems are an indispensable factor among the core banking solutions. Therefore, this study would help the consumers and the application makers to understand the pros and cons and upgrade the m-payment systems.

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