# A Study on Adoption of Digital Payment through Mobile Payment Application with Reference to Gujarat State

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## ABSTRACT

The trend of digital payments has been increased rapidly in recent years with the development of the Internet and due to the easy accessibility of Internet usage. Easy access to the Internet has driven consumers to use mobile payment applications for digital payment. India has internet users base about 546.5 million as of 2020 about 40% of the population. This number is the second largest in the world behind China. A maximum business organization running with the technological changes, due to globalization they are focusing more on meeting the needs of the consumers. We have also decided to study the consumer's attitude towards usage of mobile payment applications, especially the factors influencing the user for using mobile payment applications, and information about factors which played a role as barriers during usage of the mobile payment application. The population of the study is selected from the Gujarat state of the country. The sample size is 100 and we have used a convenient sampling method for the study. Our findings indicate that in the demographic information profession of the respondents not at all important in the decision-making process, whereas it is also concluded that elderly people are not at all attracted to use mobile payment applications for digital payments and education, undergraduate and postgraduates are more attracted towards mobile payment application. The research has also found that factors such as saves time, cashback and discounts, convenience, detailed records, reduced theft risk, track your spendings, and creating a cashless economy influence consumer's attitudes towards mobile payment applications. The research also indicates some factors as barriers to the consumers towards mobile payment applications such as transaction charges, don't know how to use, Digital Payments are not accepted everywhere, transparency, habit, and trust. It is expected that this study will help in India to plan successful strategies for increasing the use of mobile payment applications and they can build better relations with consumers.

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**KEYWORDS:** Digital Payment, Mobile Payment Application, UPI, Cashless Economy

# 1. INTRODUCTION

Mobile payment may be a mode of payment using mobile phones. Instead of using methods like cash, cheque, and MasterCard, a customer can use a mobile to transfer money or to buy goods and services. In India, mobile payment service is only for bank-led customers wishing to avail themselves of this service will need to register with banks that provide this service. Currently, this service is being offered by several major banks and is predicted to grow further. Mobile Payment Forum of India (MPFI) is that the umbrella organization which is responsible for deploying mobile payments in India.

# 1.1. IMPS

On November 22, 2010, NPCI launched cash Services (IMPS) to supply a moment, 24-hour×7, interbank electronic fund transfer service through mobile phones. IMPS facilitates users to use mobile phones as a medium for accessing their bank accounts and securely put high interbank fund transfers with prompt confirmation features.

The basic aim of IMPS is to also enable micropayments on low-end mobile devices that support only voice and text, in addition to higher-end phones which could support web browsing or Java application capabilities. A one that has subscribed to a mobile payment service should be ready to send money to the other person who has subscribed also. This should be independent of the mobile network and the bank to which either of the persons belongs. This is mentioned as interoperability and maybe a key concern for any major technology to achieve success.

# 1.2. MMID

The Mobile Money Identifier (MMID) is the key identifying detail of a user participating during a transaction. MMID may be a seven-digit number given to a customer upon registration with a bank for the service. In the seven digits of the MMID are four digits wont to identify the bank of the user and three digits wont to identify the account of the user.

A mobile number and the MMID will uniquely identify a customer's account with the respective bank. The design of the MMID allows customers to work multiple checking accounts linked to one mobile number; each bank account has its own MMID. Additionally, since the MMID of the payee must be entered alongside the payee's mobile number, it serves to scale back the likelihood of an erroneous transaction when the payer inadvertently enters an incorrect mobile number.

The MMID isn't intended to be a secret – it's simply an identifier and it doesn't divulge any sensitive information about the customer. For example, a merchant will advertise his mobile number and MMID publicly to receive payments from the customers.

## 1.3. UPI

India has taken a serious step towards achieving a cashless economy with the arrival of the Unified Payment Interface (UPI). The new payment model allows you to use your smartphones as a virtual open-end credit. It has also made possible the sending and receiving of cash instant.

## 1.4. What is UPI?

UPI may be a single platform that merges various banking services and features under one umbrella. A UPI ID and PIN are enough to send and receive money. Real-time bank-tobank payments are often made employing a mobile number or virtual payment address (UPI ID).

## 1.5. Who initiated UPI?

UPI is an initiative taken by the National Payments Corporation of India (NPCI) together with the Reserve Bank of India and the Indian Banks Association (IBA). NCPI is that the firm that handles RuPay payments infrastructure, i.e. similar to Visa and MasterCard. It allows different banks to interconnect and transfer funds. Immediate Payments Service (IMPS) is additionally an initiative of NCPI. UPI is considered as the advanced version of IMPS.

# 1.6. What is UPI ID and PIN?

A UPI ID may be a unique identification for a checking account that will be wont to send and receive funds. UPI PIN is a 4-digit personal identification number that must be entered to authorize the transfer of money via UPI. The PIN can be chosen by the account holder.

# 1.7. How does UPI work?

UPI has made the cash transfer process tons easier. You do not have to remember the receiver's account number, account type, IFSC, and bank name. Instead, you can do the money transfer only by knowing their Aadhaar number, mobile phone number registered with the bank account, or UPI ID. You can find out UPI ID on one among the apps that support UPI service. Mostly, the UPI ID begins together with your mobile number followed by '@' symbol and ends with the app you're using. For example, if your mobile number is 90xxxxx60 and if you are using the Paytm app, the UPI ID can be '90xxxxx60@paytm'. The ID is often found out by providing the small print of your checking account on the app. The app will send an OTP to your registered mobile number to make sure that you are an authorized person. Once you enter the OTP, you will be prompted to create a PIN for the UPI ID. Upon completing the registration, you'll choose any mobile number from your contacts and send

money. You can also request for funds from anyone on your contacts list.

## 1.8. What are the feature and benefits of using UPI?

- Online payments are simplified.
- Buy your hailing services, food delivery services, and shopping sites with UPI payments for fast fund transfer.
- Pay at the nearest restaurants, grocery stores, and departmental stores online.
- Rent, mobile recharge, and utility bill payments are often done online instantly.

## 1.9. Is it secure?

UPI transactions use a highly secure encryption format that is not easy to tamper. NPCI's IMPS network handles about Rs.8,000 crore worth transactions a day. This is expected to increase with UPI technology. It uses a two-factor authentication method, almost like OTP, for verifying every transaction. In UPI, OTP is replaced by UPI PIN.

## 2. LITERATURE REVIEW

Kawal Kapoor et. al. (2015) in their research of examining the role of three sets of innovation attributes for determining adoption of the interbank mobile payment service in their study they undertook the fifteen hypotheses for testing and validation to learn about the influence of fifteen different innovation attributes on the users' adoption intention and adoption of the IMPS application Eleven of these fifteen were supported, while four hypotheses were rendered not supportive, relative advantage, compatibility, complexity, trialability, voluntariness, result demonstrability, social approval, cost, and communicability significantly predicted users' intention of using IMPS; cost and behavioral intention significantly predicted the adoption of IMPS; lastly, observability, image, visibility, and riskiness were found to be the insignificant adoption attributes for IMPS for this study they use a primary data through a survey.

Rakhi Thakur et. al. (2013) in their research of customer usage intention of mobile commerce in India have found that Perceived usefulness, perceived ease of use and social influence are found to be significant dimensions of technology adoption readiness to use mobile commerce while facilitating conditions were not found to be significant. The results also indicate perceived credibility risk defined by security risk and privacy risk is significantly associated with behavioral intention in negative relation, which indicates that security and privacy concerns are important in deterring customers from using mobile commerce For the study, a research model was developed based on constructs from the technology acceptance model and innovation resistance theory and a literature review on research related to usage intention of similar technologies which was then empirically tested using the second-generation statistical technique of SEM.

**Dr. Hem Shweta Rathore** (2016) in the study of the adoption of digital wallet by the consumer has found that Digital wallets are quickly becoming a mainstream mode of online payment shoppers are adopting digital wallet at an incredibly rapid pace largely due to convenience and ease of use tech-savvy shoppers are increasingly demanding seamless omnichannel retail experience and looking for a solution that delivers this for this she uses a primary data collected with the help of questionnaire responded by 132

people out of 150 Aladdin o et. al. (2018) in the study of from physical to digital: investigating consumer behavior of switching to a mobile wallet has also found that perceived usefulness and perceived ease of use are effective factors into consumer attitude toward switching while the perceived risk pull down the level of this effect they attain this conclusion after collecting primary data with the help of 140 surveys emailed to UNIKL business school's staff, 98 questionnaires are fully returned and able to use.

**Brijesh Sivananthan** (2019) in his study of the adoption of the digital payment system in the era of demonetization in India that the behavioral intention (BI) to use and innovation resistance (IR) affect the usage of digital payment systems. The relation between BI to use digital payment systems and the AU of digital payment systems is moderated by the stickiness to cash payments A total of 766 sample respondents were surveyed using a pre-tested questionnaire. The empirical validation of the framework and analysis was done using partial least squares (PLS)structural equation modeling (SEM) technique.

**Ms. Smita Mahesh Pachare** (2016) in her research on Demonetization: Unpacking the digital wallet has found that Demonetization leads to the beginning of the end of the battle for digital wallets & its providers. Merchants, consumers, and the market ready for mass adoption of digital wallets with the help of secondary data.

Akhila Pai H. (2018) in their study of consumer perception toward digital wallet has found that the study was accomplished to explore consumer awareness, perceptions, and willingness to use digital wallets. Specifically, the study explored awareness, usage, the likelihood of using arch smartphones for completing the monetary transactions. With the increased penetration of internet connectivity and smartphones has led to an increase in the number of digital wallet users. Digital-wallet is getting trendier and trendier among the consumers. As per the findings of the study, digital-wallet is getting popularity among young lots such as students and employees. The study witnessed that Paytm is leading among the other wallet providers. When a user is making an online payment via digital-wallets, the respondents are affected by various assorted factors. One of the main obstacles is security issues, due to which the users get anxious about his or her confidential information which may get disclosed. Therefore the digital-wallet providers need to understand and meet the user's trust and expectations. Digital-wallets are growing in INDIA as the consumers are relying upon the digital lifestyle to make things convenient and faster and the consumers are embracing digital-wallet with open arms, the data is obtained from both primary and secondary sources. The primary data is collected using the questionnaire method, which has been created using Google Forms and distributed among internet and social media users in Banwal Taluk. Whereas, the secondary data is collected from newspapers, magazines, websites, etc.

## 3. RESEARCH METHODOLOGY

# 3.1. Objective of research

- To examine how socio-demographic factors affect user attitude towards Mobile Payment Applications.
- To investigate the factors that played a role of barrier to the user's attitude towards Mobile Payment Applications.

## 3.2. Sample method

Respondents were selected from different states of the country. This study was conducted by convenience sampling methods. The data for the Study was gathered through a structured questionnaire. There were 100 respondents in this research study.

## 3.3. Data collection and data analyze

A total of 100 users from various corners of India filled the Questionnaire created with the help of Google forms. Various questions are asked to them to analyze their perception towards the use of Mobile Payment Application

## 4. RESULT AND DISCUSSION

#### 4.1. Demographic Factors of Respondents



87%

NO.



information of 100 respondents. We can see in the first diagram the gender ratio of the respondents which is equally proportioned. On the other hand, if we go through to the next diagram which shows the age of the respondents. As per the diagram, 15% of respondents are between 16 - 20 years, 66% are between 21 - 25 years, 12% are between 26 - 30 years, 3% are between 31 - 35 years and 2% are between 36 - 40 years remaining 2% are between 41 - 45 years. The other diagram shows the marital status of respondents. As per the Diagram, 87% are unmarried remaining 13% are married. The other diagram shows the location of respondents. As per the Diagram, 67% are living in urban remaining 33% are living in rural. The other diagram shows the occupation of respondents. As per diagram 2% of the respondents are Government employees, 18% of all the respondents are Private Firm employees, the other 4% are business persons, 59% of respondents are student, 8% among all of these respondents are professional, the remaining 9% respondents are self-employed. The next

Out of 100 respondents, 30 are not using mobile payment applications. The reasons are responsible for not using this service are transaction charges, don't know how to use, Digital Payments are not accepted everywhere, transparency, habit, and trust.



Out of 70 respondents who are using the mobile payment applications, 49 respondents are preferring Google Pay, 42 respondents are using PayTm, 39 respondents are using Phone Pe, 26 respondents are comfortable with BHIM, and remaining 33 respondents are preferring MobiKwik, Amazon Pay, HDFC PayZapp, My Airtel.



Respondents are mostly using PayTm and Phone Pe followed by Google Pay and they are not much preferring YONO by SBI, MobiKwik, Amazon Pay.



As per the given above data, it is clearly understood that for what purpose respondents are using mobile payment applications.



According to the responses maximum respondents are using mobile payment applications because of the reasons like saves time, cashback and discounts, convenience, detailed records, reduced theft risk, track your spendings, and creating a cashless economy.



Out of 70 respondents who are using the mobile payment applications, 48 respondents are having network issue, 27 respondents are having an issue like amount deducted from the account but not credited to receiver's account, 20 respondents are having refund issue, 2 respondents are facing the problem that mobile payments are not accessible everywhere.

# 5. FINDINGS AND CONCLUSION

An attempt was made by the researchers to study the present status of the mobile payment application's usage. 100 respondents from Gujarat. Opinion from these respondents was collected with the help of a well-structured questionnaire. With the help of Data analysis and interpretation, findings were drawn by researchers. With the help of findings following conclusion was drawn by researchers. Due to the revolution in the telecommunication sector number of users of the internet are increased in India in recent time and consumers are using the internet for

mobile payment applications but still, some portion of the population is not using mobile payment applications. Respondents are preferring mobile payments due to various motives like cashback & discounts, convenience, saves times, detailed records of spending, and reduced theft risk, and creating a cashless economy. Some barriers behind the usage of mobile payment applications on a large scale like they don't know how to use, worried about transaction charges, don't have trust. Majority of respondents lies between the age of 21 years to 25 years and profession of respondents not playing any important role in the decision-making process. The income of the majority of respondents lies below 1 lakh. If we grow through the overall satisfaction the majority of respondents satisfied with the mobile payment application.

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