

# Study of mobile banking application usage in Various sectors of society

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**Abstract**— Abstract—Cashless transaction is growing fast in our society. There are various modes of cashless transactions. Mobile banking is one type of electronic banking. There are various mobile banking applications available in market. This study analyzed the views of people in various sectors of society towards those applications. We have collected almost 500 samples and parameters like age, cash limit, occupation etc considered for this study.

**Index Terms**— cashless transaction, mobile app, electronic banking, occupation, mobile banking, cash limit.

## 1 INTRODUCTION

**C**ASHLESS transaction is growing fast in our society. There are various ways for cashless transactions. It can be done through cards like debit card, credit cards or various other payment means. Various applications like Paytm, Mobikwik etc. applications can be used for cashless transactions on smart phones. Mobile applications are becoming easier for people for making payments due to the availability of internet. There are different banking methods which are used in various sector of our society. Different banking methods has different procedures depends on a method which people uses, that can be credit cards, debit cards, or ACH(automated clearing house) network for making transactions. It is an electronic payment method. Electronic payment can be done using credit card, debit card or electronic checks (e-checks). This method is generally used for online shopping on e-commerce website like Amazon. This method is called one-time customer-to-vendor payment. Another method is automatic bank-to-vendor payment, to use this method users bank should offer services called online bill payment. For this user have to login into banks web site, if they wish to make a bill payment, they have to enter a vendors information to whom user want to pay and that information will be authorized with bank for electronic transaction. This is a manual process for bill payment. Users can also pay bills automatically, for that user has to enter detail of bill, so every month on a same date that bill will get paid from the user's account automatically. NEFT or National Electronics Funds Transfer, RTGS or Real Time Gross Settlement, IMPS or Immediate Payment Service these are all the types of electronically transferring funds. There are various mobile applications which provide services of mobile banking. As Mobile banking applications is also a one method of banking like Paytm, Mobikwik, Ewallet etc. To use these mobile banking applications users have to enter their bank account details for transaction. It is not mandatory that users have to use same account every time for making payments by using these applications. But this facility is not available in net banking application. Users have to pay from same account for which net banking services is been activated from bank. Net banking is also method of online banking applications. This study is been done due to

the increasing usage of mobile banking applications in various sectors of society. As mobile banking provide various facilities to the customer, they can easily make online payments and it eliminates the usage of paper cash. Demonetization is also a reason behind for fast increasing usage of mobile banking application. Demonetization has switched the people from using paper cash to mobile banking. Initially, when there was no such online mobile banking facilities people use to visit to a bank for transferring money, depositing money, withdrawing money. And for transaction they used paper cash everywhere. Gradually with a time banking system started changing. After enhancement of technology bank started providing facilities for debit cards, credit cards, online banking etc. which came to into existence. But its facilities limit to some extent. People started using bank websites for doing online banking. Where customer have to login to use various services offered by bank on their website, like payment of insurance, bills, etc. and after that with the time of developing technology bank offered a service of net banking which user can use on their smartphones. From net banking user would able to do transactions like depositing money into account, online payment for bills, booking online tickets, checking account status etc. Debit cards, credit cards were started using for making payment for online payments or making electronically payments while swapping cards in a swap machine. After this, advancement of technology leads to various mobile banking applications like Paytm, Mobikwik, Freecharge, Ewallet, etc. Our research focuses on the study of various mobile banking applications which is used by different sectors of society. These various mobile banking applications have different features. In this paper this study is done to know

which applications are used more in a society and what are the variations in usage of these applications. For the study, we have done a survey to collect the information related to the usage of various mobile applications.

## 2 RELATED WORKS

2 Different research study on cashless payments which creates impact on demonetization, country's economic development is already going on. There are various alternative research paper and studies done on mobile banking

application in different aspects. In [1] the Mobile banking: proposition of an integrated adoption intention framework is the research done in Brazil to know the adoption intention of mobile banking technology in Brazil. Proposed solution for an individual how they do their utilities payment using online application and also why people found that particular application saves their time than other method for making payments is identified in [2]. Cashless payments survey is an online form having some questions related to cashless payment on which individual's response is collected for survey in [3]. In [6] the effect of trust level on mobile banking satisfaction: a multi-group analysis of information system success instruments is a study done by Namho Chung and Soon Jae Kwon which focuses a trust whether mobile banking influence the relationship between customer satisfaction and the system quality, information presentation and information quality. This study is to find how this type of services like system quality, information presentation and information quality of mobile banking by trust will influence the customer satisfaction. Implications and positioning of mobile banking services in different market is examined in [7]. This examined the future of mobile banking in market. Because technology mobile phones and internet usage has increased in last decade and mobile banking is the first commercial transaction application on wireless devices. A study done to analyze the customer needs and expectations from mobile applications and banking views so that requirements can be identified of a customer is described in [8]. This study had identified the reasons for the failure of application and the opportunities for the upcoming mobile banking applications. In our paper we study the usage and expectations of different sectors of application users using a survey.

### 3 MOBILE BANKING APPLICATIONS IN INDIA

We have identified some of the cashless payment methods done using debit/credit card, Ewallet etc and their requirements for using such modes for payment and the details are given below:

1) DEBIT / CREDIT CARD: Suitable for: Online/offline merchant sale. Transaction limit: Set by card issuer Details required: Card number CVV Expiry date Cost: Debit cards: Up to 0.75% for transactions up to Rs. 2,000; up to 1% for transactions above Rs. 2,000. Credit cards: around 2.5% per transaction.

2) E-WALLET: Suitable for: Small-ticket transactions. Transaction limit: Rs. 20,000 per month (Rs. 1 lakh for KYC compliant wallet holders) Details required: Login ID Cost: Only if you transfer money from your wallet into your bank account. Below we have described features of various features of available banking applications in our society.

3) BHIM: A mobile banking application. This application is developed for making retail payments. This application is supported by only android phones or android users can only use this app. This app support adhar card for making payments which require fingerprint impression but yet it is not started

working. But if you have signed up for UPI-based (UPI is

a payment system which facilitates the fund transfer between two bank accounts. You are not required to give bank account details for the fund transfer through the UPI payment system) payments on your bank account, which is also linked to your mobile phone number, you'll be able to use the BHIM app to carry out digital transactions. BHIM is not like another mobile Ewallet. As every BHIM users need to be linked with their bank account for making payment. Another app like Paytm and Mobikwik does not required to link with bank account for making payment. In those app one have limited amount of money in their wallet, which you can send only to someone who is using the same wallet.

4) PAYTM: Paytm can be accessed through its website and is also available on all the phone platforms as an application. Paytm is the most widely used way of offline digital transaction, which means it's easy to find local stores where Paytm payment is accepted. Paytm offers the widest range of options where it can be used. The money stored in Paytm Wallet can be used for sending money, purchases, cab rides and much more. Paytm has disable transfer to bank feature on its app and website, which means you can't send the money in your wallet back to your bank account.

5) MOBIKWIK: Mobikwik is another option available to Indians when it comes to cashless transaction. It also started as prepaid recharge website; it works closely similar to Paytm. However, the places and the services where you can use Mobikwik are fewer. Mobikwik allows bus and train bookings but not flights. Mobikwik Lite offers smooth functioning even on slow internet. It doesn't require a smartphone. Mobikwik has limited reach compared to Paytm.

6) FREECHARGE: Freecharge also works and offers services more or less similar to Paytm and Mobikwik. The app is available on Android OS and Windows mobile platforms. While the Freecharge payment is not accepted on major services like Uber and Ola, it offers some interesting features like "split bill", which allows you to split the amount to be paid among your friends. Freecharge also offers for prepaid, postpaid, DTH, metro recharge and utility bill payment for various services. It also offers redemption

### 4 RESEARCH METHODOLOGY

To collect information for this survey, we have created Google Forms and forwarded to our friends and relatives. We have done online survey with the help of Google Forms where the questions are uploaded and their response has been taken into Google Sheet. We have created Google form for questions which are related to personal information, app based questions for use of mobile applications. Then we have linked this Google form with Google sheet to store responses which we have got from the responders. Once responder submits the

TABLE I  
 SURVEY DETAILS

Question	Yes	No	Maybe
Is Security is provided by your specific App?	80%	10%	10%
Is Transferability is provided by your specific App?	80%	10%	10%
Is Divisibility is provided by your specific App?	60%	10%	30%
Is Your app is User friendly?	70%	10%	20%
Do you feel cashless transactions is more secure?	80%	0%	20%
Do You Use OTP frequently?	70%	30%	0%
Do you see 'HTTPS' before any transaction over web?	60%	30%	10%
Do you use Password manager App?	10%	90%	0%
Do you use Third- party app for digital payment which is not securer?	10%	90%	0%
Do you feel people should switch to cashless transactions?	70%	20%	10%
Do you feel cashless transactions will be profitable to individual?	80%	10%	10%
Do you feel use of cashless transactions would be more beneficial than using physical cash?	80%	10%	10%

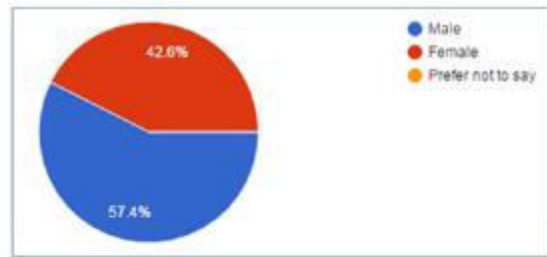


Fig. 1. Gender

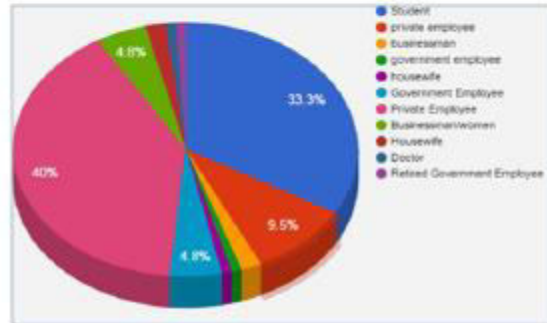


Fig. 2. Occupation

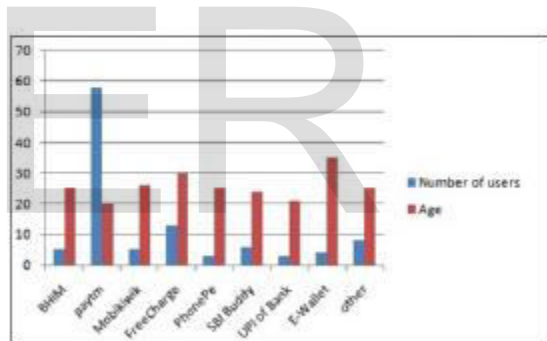


Fig. 3. Age vs No of Users

form then all questions and their answers gets automatically store in Google sheet. By using this Google forms and Google sheets we have collected responses and analyzed large amount of data. All this process was dynamic so research process got fast and efficient. We analyzed data based on these responses. This survey helped us to collect the information about the usage of mobile banking applications from various sectors of our society and collected data based on their usage, age and other parameters. Results has been analyzed on the basis of age groups and also respondent belongs to different sector, such as students, private employees, businessmen/women, housewives, government employee etc and who all uses these applications for mobile banking. This form also contain many questions related to the services offered by the banking applications that they use. Number of individuals has responded for this online survey. This research identifies the scenario on usage of various online banking applications in various sectors of society. In this survey form there are number of questions for which individual has to choose one option from YES/NO or MAYBE. The table number 1 Survey Details shows the questions and answers of our survey the gender wise support for this survey.

## 5 RESULTS AND ANALYSIS

This section describes about the results this survey has come up with. Considering every aspect, this analysis is based on the preferences of the users for a particular option in survey. Figure 1 shows the percentage of contributions male and female had made for this survey. This means 42.6% female and 57.4% male had responded to the survey. This chart shows

Figure 2 shows the contribution of individuals based on their occupation. In this research we received data from individual belongs to various occupation; those are student, government employee, private employee, businessmen/women, worker, housewives etc.

Figure 3 analyzes the age wise number of users for a particular mobile banking application. On X-axis various mobile banking applications is been represented and on Y-axis numbers of users is represented for the particular application. Where one bar represents range of users and another bar represents the average of age limit for a particular application. From this analysis we identify that Paytm has maximum users.

The result for this question Which Cashless/Digital Transaction App You use? of a survey form is displayed in Figure 4. Based on this survey Paytm is the app which is used more than compare with other apps for making cashless payment. 50.9% of the individual prefer to Paytm and rests of them include others. Since Paytm freecharge is in a huge demand, most of the people found Paytm is to use and also Paytm application includes all the utility payment option

which is not included in other app. Like in mobikwik one cannot book their flight tickets. Paytm provide various offers for every transaction

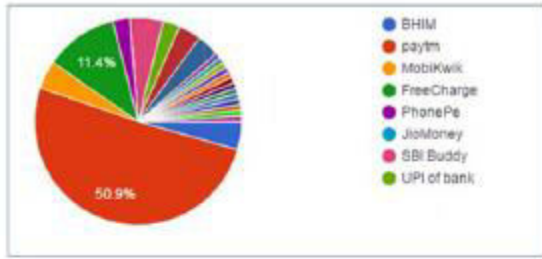


Fig. 4. Application Uses

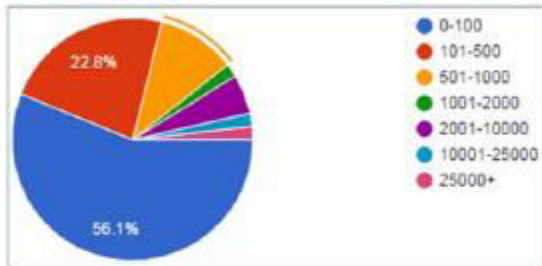


Fig. 5. Daily transfer of money

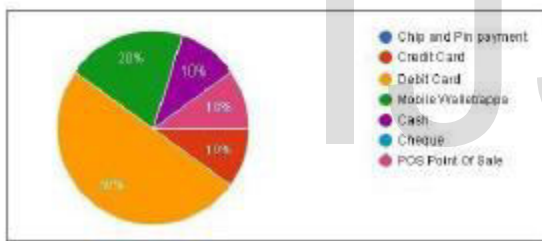


Fig. 6. Best option for making payments

Here one can have money in their wallet and can use later. They get some percent of cash back offer with promo code, which is used later for making use of wallet money. Other apps lack in somewhat features compared with Paytm, so people prefer Paytm than other apps. Users of Paytm are more than any other app. After freechargemobikwik and BHIM comes in demand. The answers for this question Daily Transfer of money you do with above app? of the survey form is displayed in Figure 5. When user selects a particular option for the app they use, this question answers the amount of transaction people do daily using the app and maximum individual has chosen first option i.e. 0-100. The result for this question Best option you feel to make payments? of the survey form is displayed in a Figure 6. This analysis option individual found more suitable for making cashless payment. According to research it visualizes that debit credit card is opted by 50% of the responders. But after some time mobile wallet/apps can compete to debit card payments. From the various mobile banking applications we have identified and analyzed, Paytm has maximum users from various sector of society. After Paytm, Freecharge has demand in a society. Based on the analy-

sis we can assume that BHIM and Mobikwik is having equal number of users. So user of these two applications will be increasing soon in the near future. It is also analyzed that, people uses these online banking application for making small transaction as maximum response for transaction amount limit from this survey is received for 0-100 and after that 100-500. From this we study we analyzed that people uses this application more often for small amount of transactions. For large amount of transaction still users prefer different cashless payment modes like debit cards/credit cards, net banking which support electronic payment or we can say online transaction instead of using these applications. 50% percent of people have answered that the Debit Cards is best option for making cashless payments. From the comparative study it is identified that Paytm application offer maximum services than any other application. As Paytm have all the options for making cashless payment and other applications limit to some extent. This is the reason Paytm has maximum users.

## 6 CONCLUSION

We have done a survey, to identify the usage of mobile banking applications in various sectors of society. The parameters we have considered are age, frequency of usage, occupation and data transfer limit. Almost 500 responses we have collected for our study. From this study we have identified that for different mobile banking applications maximum users are private employees and then students. It is also identified that Paytm has maximum users then Freecharge. In this study we have only analyze about the usage of mobile banking applications in various sectors of our society based on only few parameters. We are planning to extend our study by including the security and privacy policies of the application

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