

A COMPARATIVE ANALYSIS OF TWO BIGGEST UPI PAYMENT APPS: BHIM AND GOOGLE PAY (TEZ)

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ABSTRACT

In last few years, India has taken a move towards the cashless economy where the payment is made through digital modes. The revolution in the Mobile and Internet has brought this drastic change in the country revolutionising the whole industry. A continuous increase in adoption of mobile payments and billing methods has witnessed leveraging on the wireless technologies in the country.

'Fintech' is used to provide digitalised transactions to its users to perform various business tasks in a secured way using internet based applications. Yet, the success of these application based systems depends on many other factors like; Ease of use, security option available, Features, etc.

This paper is an attempt to compare the two biggest Unified Payments Interface (UPI) apps BHIM and Google Pay (Tez) used by the customers. Both these applications are accepted almost equally in the market but still have some differences which the author has tried to cover in this study with the help of survey conducted in Mumbai region for their payment services and various factors influencing their decision while selecting these applications.

Key Words: Mobile payments, Cashless economy, Internet revolution, Wireless technologies, digitalised transactions.

1. INTRODUCTION

The evolution of technology brought an immense transformation in carrying out the various financial operations and procedures. Mobile banking and banking software are the best examples of these developments in financial technology leading to radical changes in various aspects of finances like; banking, investment, trading, crypto currency and many more.

The demonetisation in the country in 2016 and innovation of new technology like 'Fintech' was a biggest opportunity for E-Wallets to make their presence felt. Paytm, Mobikwik, Phonepe etc. entered in the market and started grabbing the market share by offering various services to their customers.

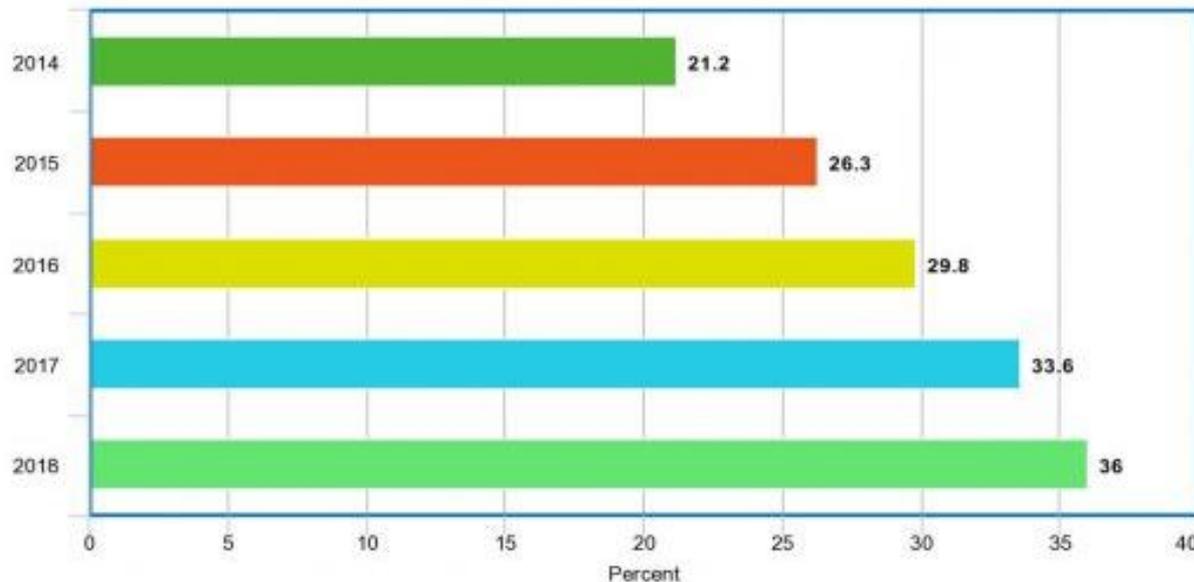
In April, 2016 a pilot survey was conducted by National Payments Corporation of India (NPCI) with 21 member banks and UPI a real-time payment system application was launched to facilitate transactions between different banks. This step was a dynamic change in facilitating the customers and financial institutions to make simple, easy and quick transactions.

Bharat Interface for Money (BHIM): This application was launched by Government of India on 30th December, 2016. It was developed by National Payments Corporation of India (NPCI) as UPI payments app helping users in their fast, simple, easy and quick transactions and to make the nation a digitally empowered society and bring in Financial Inclusion in the economy. These Unified Payments interface (UPI) and Bharat Interface for money (BHIM) were the revolutionary products in the payment system of the country. BHIM creates a unique digital identity to help customers for cashless transactions through bank account, mobile number, and QR code. After its launch in 2016, BHIM app has been actively accepted by 102 partnering banks and been downloaded over 36 million times¹.

Google Pay: It was previously Google's launched by biggest search giant Google in September 2017 as NPCI's UPI platform. The name is changed and now it's known as Google Pay with new features added to it increase more popularity. Those who use Google pay mobile app can send and receive money easily. Money payment can also be received by someone who is not on Google pay and no fee is charged for this service offered by Google pay. Using this application, customers can also do a lot of other things like online shopping, mobile recharge, etc.

India with its huge population base of 191 million people after china with 224 million has a great market opportunity for Fintech companies to tap the market. The number of mobile phone users is continuously increasing in the country. The following graph -1 is the clear picture of the mobile phone users in last five years.is shown in the following chart:

Chart-1
Percentage of Mobile Phone users with Smart phones



The number of smartphone users have been on a constant rise in last few years crediting the cheap and affordable smartphones that surfaced on the market along with affordable data plans. The number which was 199 million in 2015 went up to 378 million in 2018 and users are now ever-more reliable on their smartphones for services, including financial services.

1.1 OBJECTIVES

- To compare the services offered by the two biggest UPI apps BHIM and Google pay (Tez).
- To find out the various factors influencing in selecting the apps by the customers in Mumbai.

1.2 RESEARCH METHODOLOGY AND DATA SAMPLE

The study is based on both primary as well as secondary data. The primary data is collected using questionnaire method and secondary data is collected from websites, Journals, etc. The various factors used to find out the influence on the customers are: Ease of use (Interface), Features, Speed, Security, etc.

The respondents for the survey were selected through random sampling method by sending questionnaire to 150 persons and only 141 responded. So, the analysis is done on the basis of response from 141 respondents. The analysis is totally dependent on the information provided by the respondents. Charts and graphs are used for analysing the data from the questionnaire.

1. An article on 27th September, 2019 in Tomorrow makers.

1.3 SCOPE OF THE STUDY

A comparative study is conducted for the two biggest UPI based payment apps of the country BHIM and Google Pay (Tez). The study tries to highlight various factors that influence customers while selecting these apps for their transactions. The study is sufficient to find out the various factors influencing the customers and selecting the apps.

2. LITERATURE REVIEW

Vidya, Rajan and MdShafique (2019) tried to compare digital wallets to contribute to the design of e-wallets focusing on their security aspects along with their working procedures. **SiddhantGurung (2018)** says that Fintech is growing very fast in the country but in spite of its rapid growth it is at nascent stage in the financial sector and a collaboration with other traditional financial institutions will provide a new direction. Fintech will help the banking industry in regaining its lost footing and will make it a dynamic sector. **Svetlana Saksonova& Irina KuzminaMerlino (2017)** evaluated fintech's development in Latvia and compared with Europe by identifying financial services using innovative technologies offered by fintech companies. **Kim, Choi, Park and Yeon (2016)** focused on adoption of fintech in Korea

and said that convenience and usefulness are influential variables for its usage. **VijaiAazhvar (2019)** tried to find out the opportunities and challenges in the fintech Industry and how beneficial are these fintech services in reducing operational costs and user friendly system will change the habits and behaviour of the financial sector. **Al-hakim (2019)** in their paper elaborated the explosive developments in technology and their role in the financial industry in general and banking sector in particular. **JaruneeWonglimpiyarat (2017)** explored the Fintech and its dynamic transitions in the banking industry. **Inna Romānova, Marina Kudinska (2016)** found that Fintech is an integral part of the banking system. **Alla, Igor, Dyba, Yurii, Yevhenia (2018)** discussed the fintech platforms with the EU standards compliance for SMEs to support their innovativeness and improving their access to finance and financial processes. **Kim, Tae Kyung, Choi, Hoe Ryeon, Lee, Hong Chul (2016)** say that Fintech industry is growing very fast and despite its rapid growth very few studies are done on Fintech technologies as a detailed technologies.

3. COMPARISON OF BHIM AND GOOGLE PAY (TEZ)

BHIM and Google pay both are UPI apps and have a clean and simple user interface. Most of the features in both apps are similar due to being an UPI app. The uniqueness in their features makes them useful as compared to other payment apps in the country. Both these apps are good if we consider the speed of the apps but both have different security mechanisms. Google pay (Tez) has Google shield and uses Google pin whereas BHIM app uses passcode.

3.1 Features of BHIM

- BHIM app has QR code –based scan- and- pay option
- It Provides all transaction history.
- Own QR code and UPI PIN can be generated.
- As a security measure, the login expires after 90 seconds of inactivity to minimise fraudulent use of account.
- As long as mobile number is the same, BHIM does not get affected by handset changes or number porting to a different operator.
- This app helps and supports reporting of customer complaints to the bank.
- It has both English and Hindi languages to boost financial inclusion.
- This app can be used by an individual or businesses for various transactions.

3.2 Use of BHIM app by Consumers:

- To send money at no cost.
- To Scan and pay for purchases, using QR code at shop.
- To pay online for shopping by clicking on 'Pay by UPI'.
- Check account balance and transaction history.

3.3 Use of BHIM app by Businesses:

- Receive payments directly and seamlessly into their bank accounts at no cost.
- Display of the QR code or send it (via digital medium) to enable payments by customers.

3.4 Benefits of BHIM

- It helps to go cashless and helps build a digital India.
- All payments and receivables can be consolidated in a single app.
- It helps in receiving and transferring money directly to bank accounts in real -time.
- Once VPA is created with Mobile number or name; no longer customers have to share account details.
- Its two- factor authentication ensures transactions are safe and secure.
- It is independent of bank working hours so transactions can be made 24x7 all around the year.

Google Pay (Tez)

3.5 Features

- Google pay uses QR system to send and receive money by creating one-time code.
- This app helps customers to make payments for various utility bills like electricity, gas, water, taxes, premiums etc.
- Google pay has tied up with various leading brands like; Zerodha, Redbus, Tatasky, Goibibo, etc. and payment can be done for landline, mobile, and broadband.

- A new feature called multiple payment options is a very unique feature of this app used by customers.
- Recipients’ bank details and IFSC code is required to send money through this app.
- All old transactions and history can also be seen.
- To attract more customers, this app uses various cash back and reward offers. Inmaking electricity bill payment assured cash back of Rs 50, referring to friends aboutthe app assures cash back of Rs 51 are offered to the customers apart from otherbenefits.
- To help eligible customers for loan, this app has also tied up with ICICI Bank, HDFC Bank and Kotak Bank and customers can directly receive loan offers on this app.

**TABLE-1
BHIM Vs Google Pay (Tez)**

BHIM	Google Pay (Tez)
<ul style="list-style-type: none"> • Government of India supported app 	<ul style="list-style-type: none"> • App made by Google
<ul style="list-style-type: none"> • Supports offline payments 	<ul style="list-style-type: none"> • Has a cash mode which requires no personal info to send payments
<ul style="list-style-type: none"> • Very simple UI; easier than Tez 	<ul style="list-style-type: none"> • Good and useful UI
<ul style="list-style-type: none"> • Provides referral bonus and merchant cashbacks but it is a limited period offer 	<ul style="list-style-type: none"> • Provides rewards and referrals bonus by partnering with vendors
<ul style="list-style-type: none"> • Supports Aadhaar based payment 	<ul style="list-style-type: none"> • Not based on Aadhaar
<ul style="list-style-type: none"> • Supports 14 languages 	<ul style="list-style-type: none"> • Supports 8 languages and trying to increase more.
<ul style="list-style-type: none"> • Daily transfer is restricted to Rs 20,000 for a single transaction and cumulative value of transactions in a 24-hour period is limited to Rs 40,000. 	<ul style="list-style-type: none"> • Daily transfer is up toRs 1,00,000
<ul style="list-style-type: none"> • BHIM being Govt app fraudulent activity are minimised and has privacy perspective. 	<ul style="list-style-type: none"> • Special security mechanism called Tez shield

Factors influencing in selecting an app

There are variousfactors used by customers for selecting a payment app for use. Some of the influencing factors are discussed in this study. These factors are: ease of use of the apps, the features of the apps, their speed for transactions, security feature of the apps, etc.

4. DATA ANALYSIS

Total 150 respondents were sent the questionnaire and 141 responded so, the study is analysed with the information provided by 141 respondents.

**TABLE-2
Profile of respondents**

Profile of Respondents	(141 number)	
Gender	Number	%
Male	96	68.09
Female	45	31.91
Age		
18-29	104	74
30-40	25	17.73
41-55	8	5.67
Above 55	3	2.12

Education		
High School	6	4.25
Graduation	34	24.11
Post-graduation	86	60.99
Phd& above	14	9.92
Occupation		
Student	103	73
Service	17	12.05
Business	10	7.09
Housewives	7	4.96
others	3	2.13

Table number -1 is a profile of the respondents selected for the study. The male respondents are more in number than the female respondents. The age group of 18-29 has maximum number of respondents with 104. Qualification wise Post-graduation respondents are more in numbers with 86 with a percent of 60.99. Students are more in the study to respond the questionnaire with 73% and 103 numbers.

CHART-2

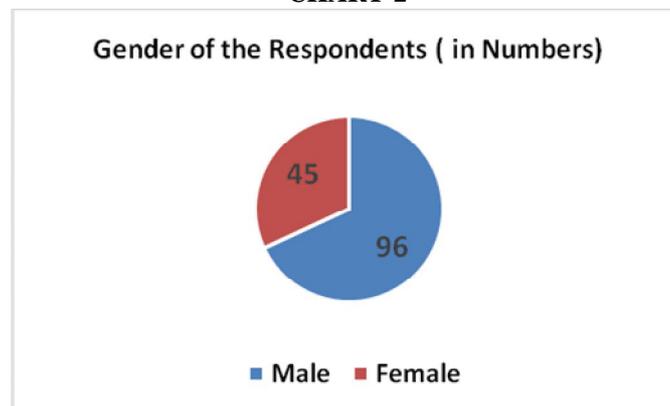
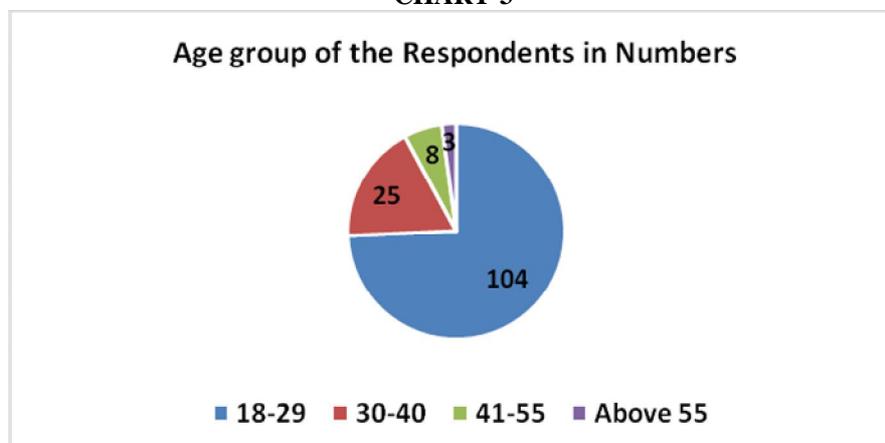


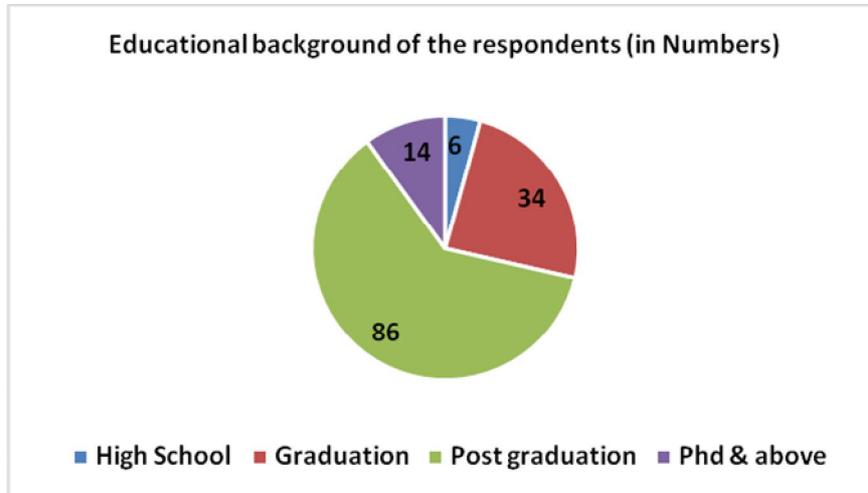
Chart-2 is the respondents' gender details 31.91% are females and rest all i.e., 68.09% are males in the study. Out of 141 respondents 96 are male and 45 are female respondents.

CHART-3



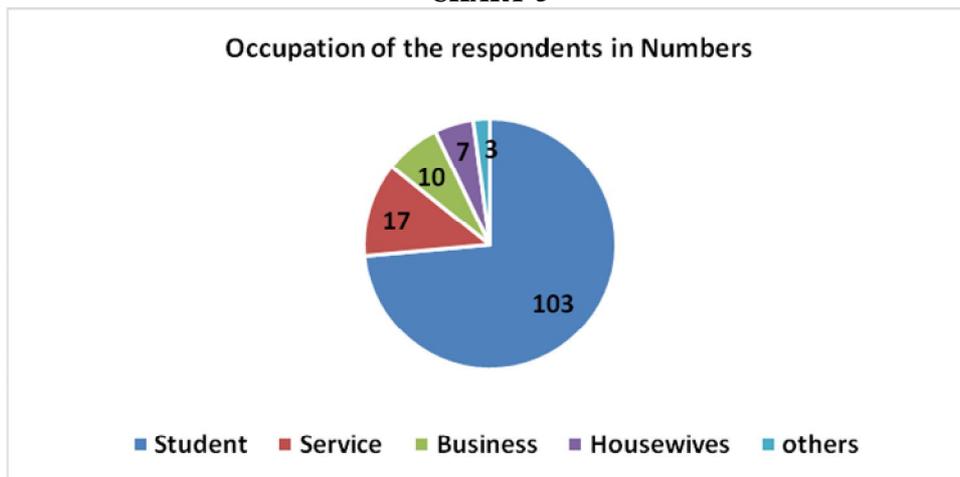
The above chart is about the age group of the respondents in the study. 74% belong to the age group of 18-29 followed by 30-40 age group with 17.73% (25 in numbers) and 5.67% is between 41-55. The above 55 are 2% i.e., only 3 in numbers.

CHART-4



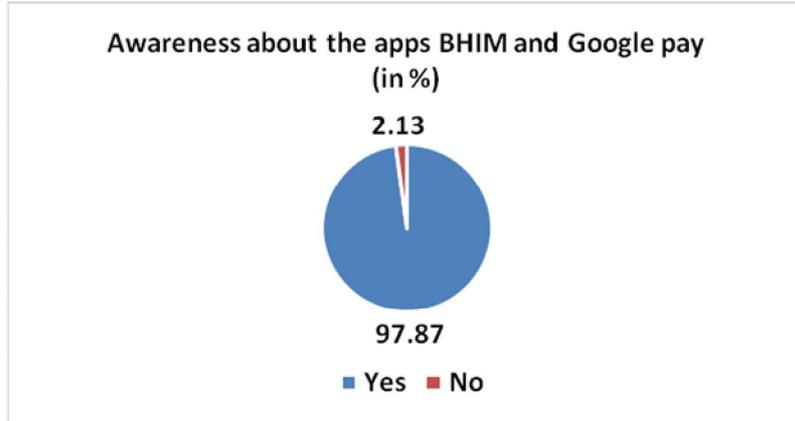
The chart no-4 represents the educational background of the respondents. 60.99% respondents (86 in Number) are post graduate, 24.11% have graduation degree with 34 in number and 9.92% are with Ph.D.(14 respondents) and remaining 4% have studied till high school.

CHART-5



In the study maximum number of respondents are students whom we consider the current tech savvy generation and use mobile apps for their transactions with 103 numbers. It is 73% as compared to the service people with 12.05%, Business 7.09%, Housewives comprising of 4.96% in the study and others with 2.13%.

CHART-6



This chart is an indication that almost all the respondents in the study are aware of these two payment apps showing that people are aware of the new technology innovations taking place in the country except 2.13% of the respondents i.e., 3 numbers who were not using the apps and are not much aware about these two apps. The study showed that they are housewives.

CHART-7

Do you use any of these mobile payment apps BHIM or Google?

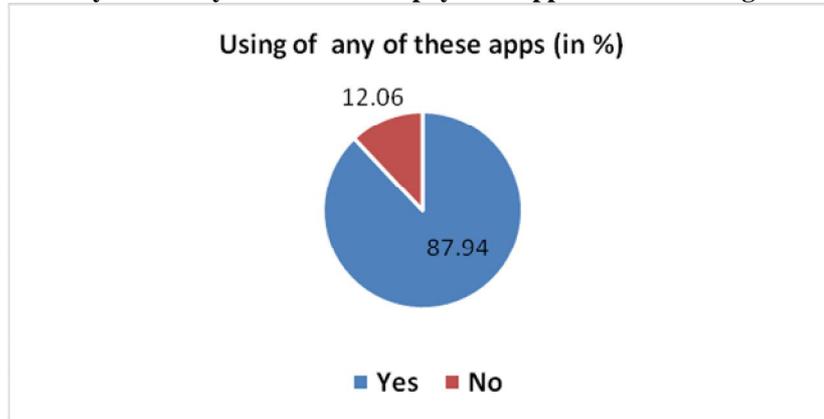


Chart-7 is interpretation that 87.94 % of the respondents use mobile payment apps for their transactions and only 12.06 % respondents don't use any of these apps for any payment purposes but they are aware of these two apps. They feel that they are not tech savvy and not comfortable in using any of these apps.

Which mobile app you prefer BHIM or Google Pay?

CHART-8

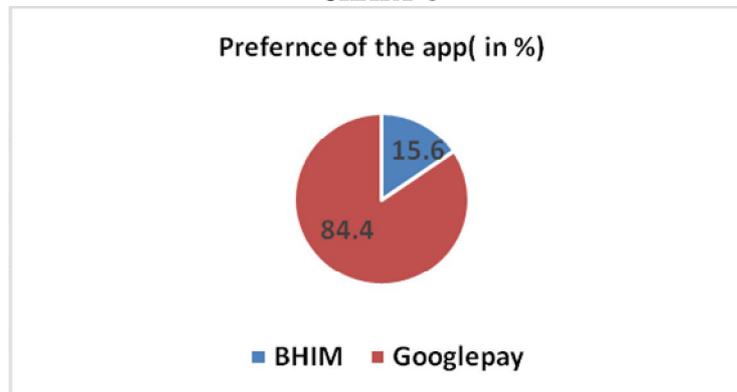
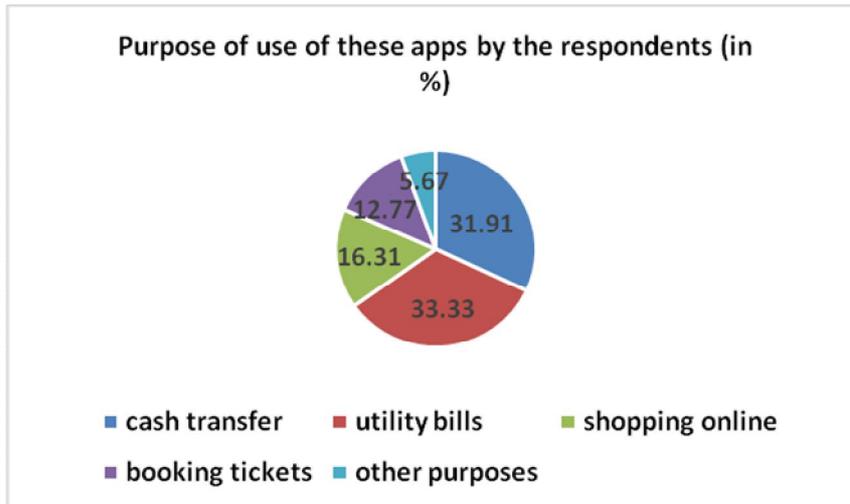


Chart number -8 is a clear indication that majority of respondents i.e., 84.4% use Google pay (Tez) as compared to only 15.6% of BHIM app. The respondents are in view that BHIM being a government app might not be easy in use and comfortable and may create problem while using. So they prefer Googelpay.

For what purpose you use these apps?

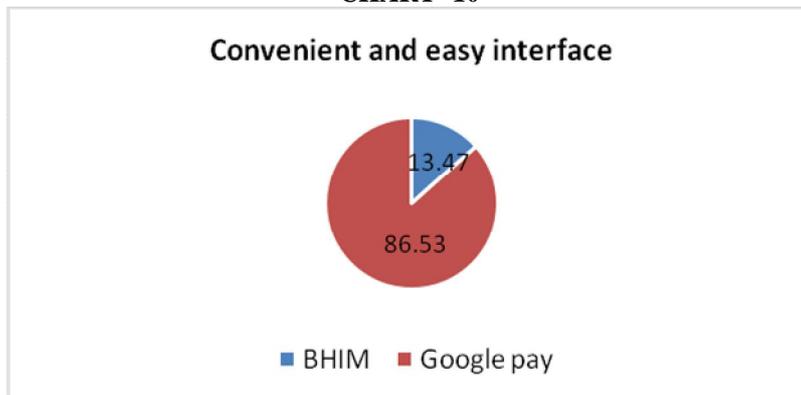
CHART-9



The above chart is clear indication that majority of the respondents use these apps for cash transfer and utility payments purposes. 33.33% use for utility bill payment purposes and 31.91% use for cash transfer. 16.31 % respondents say they use these apps for online shopping, 12.77% use for booking tickets and 5.67% use for other purposes.

How do you rate these apps in terms of easy interface and convenience level?

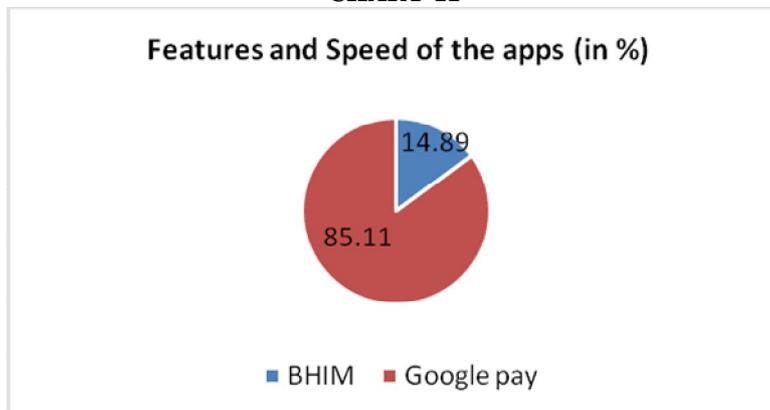
CHART -10



As for the easy interface and convenience level respondents using these apps selected Google pay 86.53% and BHIM app only 13.47% i.e., only 19 respondents said BHIM app is convenient and easy interface. The reason could be that very few respondents use BHIM app and are not aware of its convenience level.

The features and speed of the payment apps BHIM and Google pay

CHART-11



The respondents are happy and satisfied with the features and speed of the apps with 85.11% supporting Google Pay (Tez) as compared to 14.89% of BHIM. It is understood that very few people are using BHIM app and that is the reason respondents have supported Google pay as it is used by majority of the respondents.

Security of the apps

CHART-12

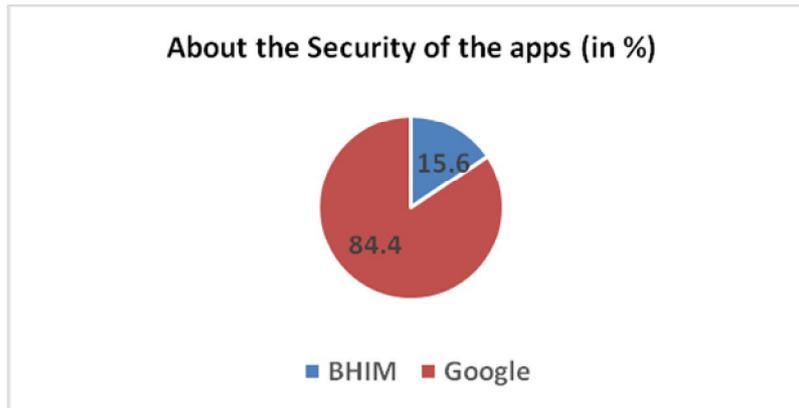


Chart no -12 shows that as far as security is concerned respondents think that Google pay is safer than BHIM app with 84.4% of the respondents supporting Google pay as compared to 15.6% of the BHIM app. It was difficult for the users to say about the security of the BHIM app as they are not using BHIM app.

FINDINGS

- The study finds that 97.87% of the respondents are aware of BHIM and Google pay (tez) apps and 87.94% of the respondents' use these mobile payment apps. The study shows that majority of the respondents are using Google pay app as compared to BHIM app.
- The purpose for using these apps are for bills payment, cash transfer, booking tickets, online shopping, etc.
- Majority of the respondents say Google app is very convenient and easy to use and has good features and speed. The users of BHIM app are very less during the study but those who are using BHIM app are satisfied with its features as it is directly linked to their bank account so makes it easy for them to make payment and transfer money.
- As far as security is concerned respondents using Google pay and BHIM app feel that both the apps are safe.

SUGGESTION OF STUDY

1. Awareness about the BHIM app with its features and security should be done aggressively.
2. The trust of the people in using BHIM app is very important and for that speed and security of the app should be good.
3. Various media can be used to promote the apps.
4. BHIM should also use various offers to attract more customers like other payment apps do.
5. Issues like privacy and misuse should be handled carefully so that people can trust these apps specially BHIM.
6. Linking of Aadhar card with the payment app should not be mandatory

CONCLUSION

In a world of technology Fintech apps has lots of growth potential and opportunities in the country as the number of smart phone users and internet users is growing every year. The study reveals that almost all are aware of these two apps and using these and other apps for their payment and other purposes for their transactions. The study found that both these apps are user friendly and have almost same features but Google pay and other apps provide different offers which is not there in BHIM app.

Majority of the respondents in the study are using Google pay and very much aware about the features and other services of Google pay whereas there were very few respondents who has BHIM app and using it. Those who are using BHIM app are very much satisfied with the app and others are using Google app and have not shown any interest in knowing about the BHIM app.

Various studies revealed that the transactions in BHIM has declined in recent times and the reason is the competition of various payment apps in the market with various features and offers. But still the country has huge market for these companies to grow as there are many people who aren't adopting digital payment because they are not tech savvy and they think that using an app for the payment is more difficult than paying cash.

"Lethargy is the father of innovation, and something we ought to cherish"Unknown

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