

Trends in Digital Payments system in India-A Study on Google Pay, PhonePe and Paytm

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Abstract: The purpose of this study is to identify the present trend towards the adoption of digital payment in India and also to identify the reason for adoption of digital payment by people in India, also to find out the problems faced by people in making digital payments.

The digital payments began in the 1990's but the government of India encouraged digital payments after the announcement of demonetisation on 8th November 2016. Before this date there was less in number who used the digital payments and few did not use though they know due to lack of trust in the online transactions security and few others doesn't even know that there is one like this existed. It's main purpose is to reduce black money and corruption in India. By tremendous growth in use of internet, mobile phone in India and also government initiative such as digital India is the main reason in the growth of digital payment.

Index Terms: Digital Payments, Google Pay, Paytm, PhonePe

I. INTRODUCTION

Digital payment means transfer of money between the two bank accounts or mobile wallets in digital form. Developed economies have implemented cashless payment system primarily on credit cards many years back. In recent years, many of the countries have started using digital wallets and its continuously growing.

History of Digital payment

At the start of the net Digital Payments are linked, which may be traced back to ARPANET, it is developed by the US during the cold war and launched at the end of 1960's. In 1989, when Tim Berners Lee came up with the concept of webpages and sites that would be linked together by hyperlinks, then digital payments became a more realistic proposition. Here's how the electronic payment has advanced into the 21st century:

1983: An American cryptographer David Chaum, worked on creating digital cash by inventing "the blinding formula, which is an extension of the RSA algorithm which still used in the "web's encryption". This is the beginning of cryptocurrencies.

1998: PayPal was the first started as an online money transfer service. It was soon targeted by established financial institutions and banks, as well as ebay. Ebay acquired PayPal in 2002, owning it until 2015, when it spun off as a separate company.

1999: Ericsson and telnor mobil, mobile phones used to purchase movie tickets.

2003: 95 million cell phone users worldwide made purchase via mobile device.

2006: wallet365.com was India's first e-wallet launched in the year 2006 by Times group in association with YES bank.

2007: iPhone and Droid operating system are released.

2008: Bitcoin is invented.

2011: Google wallet is released.

2014: Launch of Apple pay, followed a year later by Android and Samsung Pay.

2017: The payment apps like Tez, paytm and BHIM have launched for providing better digital transactions.

According to Statista Global Consumer Survey (Primary research), analysis of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts:

- Total transaction value in the Digital Payments amounts to US\$69,168m
- Total transaction value is expected to show an annual growth rate from 2020-2024 of 19.5% resulting in the total amount of US\$141,256m by 2024.
- The users are 589.5m in 2020.
- China is leading with the total transaction value of US\$1,920,536m in 2020.

II. LITERATURE REVIEW

P.Manivannan (2013)

'Plastic money means less payment of cash checking system': In his research paper he said that use of plastic money is measure of a luxury credit card and the need. The plastic money and electronic payments are used by higher income people. This facility is not only for the people of urban areas but also for people in rural areas. However, with development of banking industry, fixed income groups also began using plastic money and electronic payments and especially credit cards.

Antwi, Hamza and Bavoh (2015)

'E-Payment is payer's transfer of money': He stated that digital payments are the payer's transfer of monetary claim on the party acceptable beneficially.

Nirmala.R.Sonu (2015)

'Analysis of use of plastic money': In his paper, he highlighted the advantage of use of plastic money. In this study he also highlighted the convenience of not carrying the cash and easy transactions which encourage the use of plastic money instead of real money. Additionally, the results of the study also stressed upon the paying or shopping by the plastic money. Therefore, it is easy to conclude that the population is ready to use plastic money at a greater level due to its high levels of ease and convenience.

FE Bureau(2017)

'According to RBI': Demonetization has increased the growth of paytm and Mobikwik which is a digital payment company.

III. INDUSTRY AND COMPANY PROFILE

INDUSTRY PROFILE

Digital payment system in India are witnessing growth with a compound annual growth rate(CAGR) of 12.7% in the number of non-cash transactions. The greater number of merchants adopted digital payments with close to 1.5 million digital payment acceptance locations in 2016-2017. The world digital payments market is expected to grow \$10.07 trillion by 2026.The Reserve Bank of India has predicted an outcome of 50% increase in mobile based transactions as per its '2021 Vision document'.

COMPANY PROFILE

Google Pay

Google is an American Multinational company that was founded in the year 1998 September 4th in Menlo park by Larry Page and Sergey Brin, headquartered in California. It is one of the big four technology companies, alongside Apple, Amazon, and Microsoft.Google pay is currently the number one in transaction value. Google pay digital payments transactions value is more than the total digital payment of Axis bank. Google pay initially released on September 11,2015(as Android Pay) and on January 8,2018(as Google pay).On September 18,2017 Google launched UPI based app Tez in India. Google presented its first digital payment app in 2017 founded on NPCI's UPI platform. It was originally branded as Tez then later it rebranded as Google pay. In the beginning itself the Google pay was hit by 8.5M installations. In the first 40days 30M transactions were performed. According to Sajith Sivananda(Managing director and business head) at Google pay, "the company's growth has tripled in terms of monthly active users and are at 67M monthly active users as of September 2019."

REVENUE	2016-2017	2017-2018	2018-2019
GOOGLE PAY	11cr	438.34cr	1119cr
PHONEPE	3.03cr	3.02cr	42.79cr
PAYTM	780.19cr	3314.8cr	3579.67cr

PhonePe

PhonePe is an Indian e-commerce payment system and digital wallet headquartered in Bangalore, India. It was founded in December 2015 by Sameer Nigam and Rahul Chari. It started in August 2016 and was partnered with yes bank to launch a unified payment interface (UPI) mobile based payment app. In 2018,the PhonePe became the fastest Indian payment app to get the 50 Million badges on the Google Play store. In 2017,it overtook BHIM to emerge as market leader in UPI transactions. In January 2018,PhonePe partnered with Freecharge. The users linked their Freecharge wallet to PhonePe app. They also entered partnership with jio and Airtel money. They also partnered with Redbus, Ola and Goibibo to launch micro apps.

Paytm

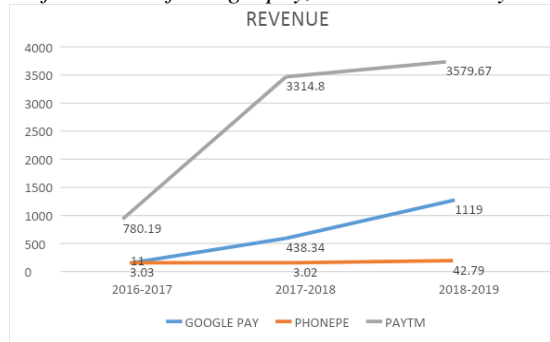
Paytm was founded in August 2010 by Vijay Shekhar Sharma with an initial investment of \$2 million. It started with prepaid recharge and DTH recharge. Later it added data card, postpaid mobile and landline bill payment in 2013.In January 2014, Paytm launched paytm wallet and Indian Railways. Uber added it as a payment option. It got into e-commerce with online deals and bus ticket bookings. In 2015, it launched bill payments such as water, gas, electricity, and metro recharge. In 2016,it launched movies, events and amusement park ticketing as well as flight bookings and paytm QR. Later in that year it launched Rail bookings and gift cards. In 2017,paytm became first payment app that crossed 100 million app download. The same year it launched Paytm Gold and Paytm Payments bank. In 2018,it started allowing merchants to accept paytm,

UPI and card payments directly into their bank accounts with 0% charge. It also launched 'Paytm for business' app which is now called 'business with paytm' app. The company launched two wealth management products i.e., Paytm gold savings plan and Gold Gifting. In May 2019, Paytm partnered with Citibank to launch credit cards.

IV. DATA ANALYSIS AND DATA INTERPRETATION

Table No.4.1. Revenue of Google pay, PhonePe and Paytm after demonetization

Graph No.4.1. Graphical representation of Revenue of Google pay, PhonePe and Paytm after demonetisation

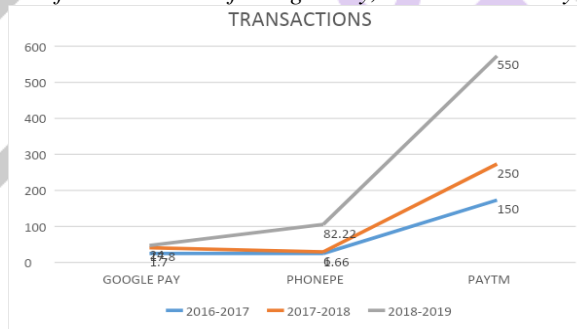


Interpretation: It is interpreted from the above graph no.4.13 shows revenue of paytm with 3579.67cr in 2018-2019 which is highest among the other E-Payments with 1119cr of Google pay and 42.79cr of paytm. It shows that paytm is leading in terms of generating revenue. This is because, in the initial stage of paytm includes bill payments, DTH services and online purchases. since then, paytm has evolved as a sophisticated mobile payment application. Google pay is quite close to paytm.

Table No.4.2. Transactions of Google pay, PhonePe and Paytm after demonetisation

TRANSACTIONS	2016-2017	2017-2018	2018-2019
GOOGLE PAY	1.7cr	17.8cr	24cr
PHONEPE	1.66cr	6cr	82.22cr
PAYTM	150cr	250cr	550cr

Graph No.4.2. Graphical representation of Transactions of Google Pay, PhonePe and Paytm after demonetisation

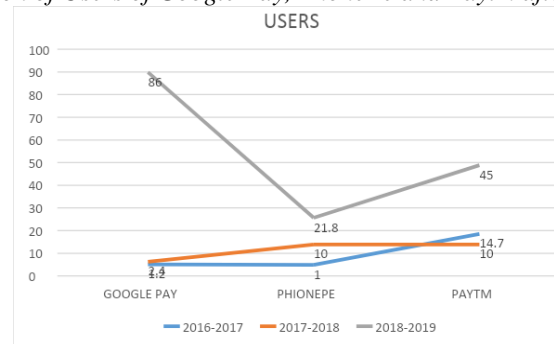


Interpretation: It is interpreted from the above graph no.4.14 shows the transactions of Google pay, PhonePe and Paytm where it is shown the increased in transactions every year after demonetization. The greater number of transactions are done by the Paytm users and increased upto 550cr in 2018-2019. The PhonePe stands in the second place with 82.22cr. In 2017-2018 Google pay is 17.8cr which is more than PhonePe with 6cr but in the 2018-2019 Google pay transactions has reduced and PhonePe transactions are increased. Google pay leads in terms of aggregate transaction values for payments (Google pay-55,000Cr, PhonePe-44,000Cr and Paytm-38,200Cr). Paytm is however has a higher market share than the competitors. There is a huge competition between google pay and paytm.

Table No.4.3. Users of Google pay, PhonePe and Paytm after demonetization

USERS	2016-2017	2017-2018	2018-2019
GOOGLE PAY	1.2cr	2.4cr	86cr
PHONEPE	1cr	10cr	21.8cr
PAYTM	14.7cr	10cr	45cr

Graph No.4.3. Graphical representation of Users of Google Pay, PhonePe and Paytm after demonetization



Interpretation: It is interpreted from the above graph no.4.15 that shows the users of Google pay, PhonePe and Paytm. There are a greater number of users in the Google pay with 86Cr in 2018-2019. Paytm stands second with 45Cr and PhonePe with least 21.8Cr. In 2017-2018 PhonePe and Paytm were similar in their number of users with 10Cr whereas, in 2016-2017 Google pay with 1.2Cr users and PhonePe with 1Cr almost equal in race but Paytm was in the lead with 14.7Cr.

V. FINDINGS, SUGGESTIONS AND CONCLUSION

Findings

1. After Demonetization there's rapid growth in the usage of Digital Payments. Many investors show interest to invest in Digital Payment industry as there is scope of expansion in India. Oxygen wallet was the first ever mobile wallet, but it couldn't get popularity like Google Pay, PhonePe and Paytm. Most of the mobiles have VPA such as Apple Pay, Samsung Pay, Google Pay, MI pay etc.
2. It is found that the highest revenue is generated from the Paytm with 44% compared to Google Pay revenue 71% and PhonePe revenue 88% in 2018-2019. The revenue of Paytm is high because of its cash backs, Paytm first card, pay credit card bills and bill payments that are done as many of the transactions took place.
3. The number of users is more in Google pay because of the scratch cards and occasional stamps that they offer to the users. In 2016-2017 Google pay with 1.2cr and PhonePe with 1cr were similar in number of users but with just 0.2cr difference. whereas Paytm was the highest and in 2018-2019 there was a change in users as a greater number of them are Google pay users with 86cr. In 2017-2018, PhonePe and Paytm are equal with 10cr.

Suggestions

- 1) To encourage public to go cashless and use different E-payment that are available. Still few of the shops, supermarket etc. are using swiping machine. It is suggested to use even the E-payment system which increases growth of revenue, transactions, and users of Google Pay, PhonePe and Paytm.
- 2) Rather than imposing additional charges, government should find out the ways to improve digital payments.
- 3) Each payment app such as Google Pay, PhonePe and Paytm should have Debit card with the scanning facility in the card. so that will be easy for the people who doesn't use smart phones.
- 4) Google Pay, PhonePe and Paytm could use card facility to make more useful for the non-smart phone users and this way it increases the transactions.
- 5) Google Pay, PhonePe and Paytm should come together and take initiative to educate the rural areas that are benefit by using E-payment system.

Conclusion

One of the technological innovations in banking, finance and commerce is the E-payment. India is gradually transitioning from cash to cashless economy. The whole country is now using E-payment service that is time saving and reduce black money. There are not many people who use cash. Even a small amount is being scanned and transferred. so, it's a cashless economy.

The study shows what are the trends that are being used by most of the people and what are the revenue, number of transactions made and number of users of Google Pay, PhonePe and Paytm. The greater number of people are using their cards and wallets instead of cash. This may show the rise in digital payments more and more in future. As of now i.e.2020 year, due to the Corona pandemic there is digital payment volume decline in airlines, tourism, hotels, e-commerce, entertainment etc. However, there is increased adoption during lockdown which includes grocery stores, recharges, utility/bill payments etc.

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