

# “ELECTRONIC-WALLET: THE FUTURE OF CARDS”

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**ABSTRACT:** E-commerce in today’s business environment has the highest dependence on network infrastructure of banking. However, when the possibility of communicating with banking network is not provided, business activities suffer a lot. This paper proposes a new approach of Electronic Wallet which also known as Digital Wallet is based on mobile devices without the need to exchange physical money or communicate with banking network. The main idea behind this paper is to bring in a cheaper, more versatile and much more easily usable kind of a card so as to produce an alternative form of paying with virtual money so the user can visually and physically see how much they are spending. A digital wallet is a software component that allows a user to make an electronic payment in cash & hides the low level details of executing the payment protocol that is used to make the payment. It functions much like a physical wallet which helps in making electronic transactions quickly & securely. Not only in business world, but also in common life, it has made a significant place. This paper highlights how e-wallet can make our life easy & cashless if proper care is taken in using it. In India, there is much need to adopt it especially at this point of time when country is facing the problem of shortage of cash due to demonetisation. At this point of time, Indian citizens should adopt E- Wallet for solving the problem of lack of currency. So this study will focus on what is e-wallet, how it can be beneficial for us, how to make use of it & what care should be taken while using it & what steps are taken by the Indian govt to promote E-Wallet etc.

**Key Words:** E-wallet, Challenges, Government efforts

## I. INTRODUCTION

A couple of days ago, Indian government rendered almost 86 per cent of total cash in the country worthless. It discontinued the currency notes of Rs 500 and Rs 1000 with immediate effect and declared all the old such notes invalid. The move was aimed at curbing black money within the country. It was also an attempt to move the nation towards an economy

towards cashless society. E wallet is an encrypted storage medium holding credit card and other financial information that can be used to complete electronic transactions without re-entering the stored data at the time of the transaction. In India it’s getting popular day by day due to demonetization. Although e-Wallet still have some disadvantages in term of interoperability and standardization of security and formats but still E-Wallet is the best in transaction application compare to others.

## II. OBJECTIVES OF THE STUDY

The These paper attempts-

- To explore the knowledge about E-wallet.
- To explore the knowledge about the various kinds of E-wallet available & how to make use of it.
- To explore the knowledge about the various efforts done by government of India to promote E-wallet in India.

## III. RESEARCH METHODOLOGY

The data collected using secondary data sources like E-BOOKS, Digital India Official website, Paytm E-wallet Official website, E-news etc.

## IV. E-WALLET

E-wallet is just like a leather wallet as it does the same in terms of e-cash. An E-Wallet is any device or software which allows a user to store, manipulate and pay with various types of payment instruments such as electronic cash & credit cards; they make it unnecessary to retype credit card numbers & addresses each time a purchase is made. This can include purchasing items online with a computer or using a Smartphone to purchase something at a store. Most E-Wallets are software programs that run on user’s personal computer. An individual’s bank account can also be linked to digital wallet.

There are many different companies offering E-Wallets. A digital wallet has both a software & information component. The Software Component provides security & encryption for personal

information & for actual transaction. The Information Component is basically a database of user-input information. This information consists of shipping address, billing address, payment methods (including credit card numbers, expiry dates & security numbers) & other information. It can be-

A) *SERVER-SIDE ELECTRONIC WALLET*

Stores a customer's information on a remote server belonging to a particular merchant or wallet publisher. For example:-Yahoo Wallet.

B) *CLIENT-SIDE ELECTRONIC WALLET:*

Stores a consumer's information on his or her own computer.

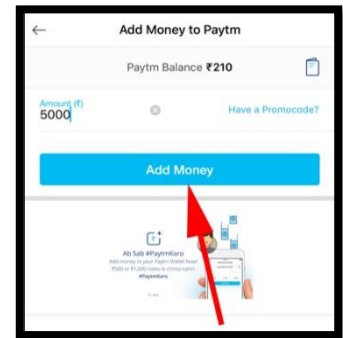
V. **EXAMPLES OF E-WALLET**

- A) **PAYTM:** Paytm, launched in 2010, is currently the largest mobile wallet app in India. With payments via Paytm being accepted almost everywhere. From paying mobile bills to buying movie tickets, there's almost nothing you can't do with Paytm.
- B) **AIRTEL MONEY:** With the Airtel Money app, users can easily recharge prepaid accounts or pay postpaid bills. You can also shop online if your digital wallet has cash loaded in it. It's also extremely safe as every transaction or payment you make requires a secret 4-digit m-Pin.
- C) **CITI MASTERPASS:** Citi Master Pass, a free digital wallet, helps make checking out while online shopping a speedier process. Once you've stored all your payment and shipping details in your Citi Wallet, simply click on the Master Pass button and it will take care of the rest.
- D) **CITRUS PAY:** Citrus Pay, one of the top e-wallets in India, it offers a Citrus wallet for customers as well as payment solutions to businesses. With a strong base of 800 million customers, it has definitely earned its spot as one of the best mobile wallets in India.
- E) **EZETAP:** Ezetap, a Bangalore based digital payment solution founded in 2011, offers business owners solutions to accept card payments via electronic devices. It also sends customers e-receipts through an SMS or email.
- F) **FREECHARGE:** Free charge, one of the most famous names right now when it comes to digital payment in India, has been known to target the youth in all their promotions. With equivalent amount of coupons given for every recharge you make, it's a great option to save while paying your bills online.

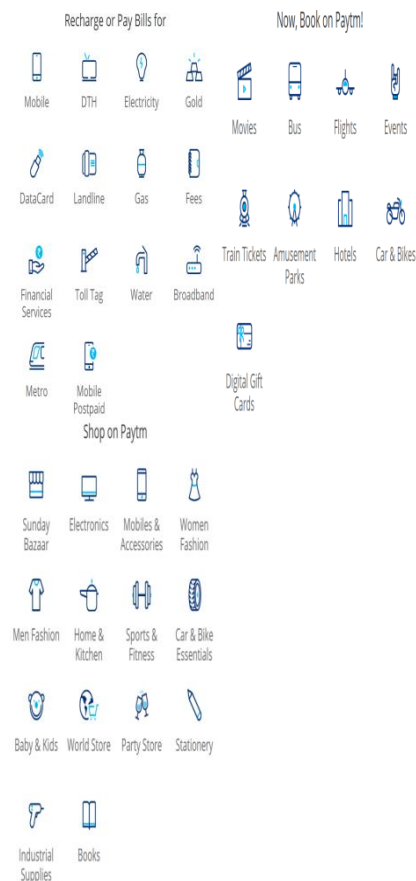
- G) **HDFC PAYZAPP:** HDFC PayZapp, making digital payment in India simplified with one click payments, is one of the top online wallets in India. Users can easily compare flight and hotel tickets and even buy music or pay bills with the app.
- H) **ICICI Pockets:** While you might find a Pocket card redundant, considering you're opting for an e-wallet app to avoid using a card, they do have a pretty neat wallet app. Its VISA powered and can be used on any Indian website, or to transfer money to email ids, WhatsApp contacts, and also just tap and pay your friends easily.
- I) **JIOMONEY:** JioMoney, launched recently in 2016 by Jio, is a digital payment app. With JioMoney, one can receive great discounts and offers. Users can also bookmark their frequently visited retailers so shopping can be made quicker than usual.
- J) **JUSPAY:** JusPay Safe is a payment browser with over 650+ transactions in a day. They offer a browser with which users can make payments quickly via cards with 2 clicks.
- K) **LIME:** LIME, launched by AXIS in 2015, was the first mobile app in India to integrate wallets, shopping, payments, and banking. Apart from the usual features like making payments, they also let you analyze what you spend.
- L) **MOBIKWIK:** Mobikwik is a Gurgaon based e-wallet payment system in India that helps its users store their money. It was founded in 2009 by Bipin Singh and Upasana Taku, this digital wallet enables users to recharge, pay bills, and make third-party purchases with one tap.
- M) **MOMOEXPRESS:** MomoeXpress, a Bangalore based digital wallet in India, claims to have the fastest checkout system. Though they're only available in Bangalore, they have a wide range of solutions they offer to residents on the city. From paying for your rickshaw ride to salons & spas, there are over 3000 outlets available at your disposal.
- N) **MONEYMOBILE:** MoneyOnMobile, authorized by the Reserve Bank of India, enables users to buy goods, products, and services from registered merchants. It's a multilingual app that reaches remote areas of the country to millions of users making online payments available to a wide population.
- O) **MSWIPE:** Mswipe, the first mobile point-of-sales solution in India was founded in 2012. They don't exactly offer an app, but they do provide a machine that can be attached to your mobile device to accept card payments.

This may not be a digital wallet app but it does support going cashless.

- P) **OLA MONEY:** Ola Money, launched in 2015, is a digital wallet in India offered by Ola. While it's majorly being used to make payments for Ola cab rides, making cashless traveling a dream come true, it can also be used to buy groceries or flight tickets and much more.
- Q) **OXIGEN:** Oxigen, a FinTech company founded in July 2004, is one of the major providers of digital payment in India. Along with making online purchases and paying bills, you can also send gift cards to your dear ones.
- R) **PAYMATE:** PayMate, founded in 2006 by Ajay Adiseshann, launched PayPOS in 2012, an app for small business owners to receive payments conveniently via debit cards and credit cards and also process electronic transactions.
- S) **PAY U MONEY:** PayUmoney, a part of PayU India, is a free payment gateway solution for merchants to collect payments from customers via debit/credit cards or net banking, and more. They also offer SMS and email invoicing for merchants that do not have a website.
- T) **STATE BANK BUDDY:** State Bank Buddy, a product of State Bank of India, is an online wallet in India that's available in 13 languages. Users (non SBI account holders too) can send money via Face book, or to other bank accounts, book hotels or movie tickets and much more.



## VIII. PAYTM SERVICES



So in this way we can say that Paytm provide various kind of services to its users like recharge, bill payment, movie ticket, flight, bus, hotels, events, train ticket booking, etc.....

## VI. SUPPORTED PLATFORMS

E-wallet is supported on the following platforms-

- A. Windows® PC running windows 7, Vista or XP.
- B. Apple® iphone®, ipad™ and iPod® touch, 3.0 & higher.
  - 1) RIM® Blackberry® 4.2 & higher
  - 2) Windows mobile® 6 & windows mobile 6.1 & 6.5 classic, standard( non- touch)
  - 3) Professional (touch) windows mobile 6.5 devices are also known as window phones.

## VII. PAYTM E-WALLET

Create Account on Paytm    Add Money to Paytm E-Wallet

## IX. BENEFITS OF E-WALLET

- A. **Ease of use:** It's very convenient & easy to use.
- B. **Save time:** In it there is no need to cash balancing & reduces queuing time as it's three times faster than cash.

- C. No cash means: It reduces the all headaches & worries about handling cash correctly.
- D. No need to cash up: When the final transaction is complete, you are done. There is no need to cash up & use the saved time for other task.
- E. One plastic card for variety of facilities: In many cases it's possible to use one plastic card for variety of facility based uses such as access control, car parking entry etc.
- F. Vending with no worries: There is always available vending with no worries about coin jams or foreign coins.
- G. Promote paperless money transaction: It lays emphasis on paperless money transaction which saves paper.
- H. Reduce risk: It reduces risk as it involves security features.
- I. Greater flexibility: No money changes hands at point of sale. This gives you greater flexibility with how you deploy your catering staff.
- J. Avail discounts & refunds: Any refunds & discounts can only be enabled by management password control.
- K. No risk of theft loss: Cashless tills can be left unsupervised during quiet times. There is no risk of theft or accidental losses of money.
- L. Coordination: There is coordination of all paid for facilities.

More efficient hygiene routines: There is an more efficient hygiene routine

#### X. CHALLENGES BEFORE E-WALLET IN INDIA

- A. Majority still lacks a card: The magic in a cashless economy happens with a card, or rather cards. There are credit and debit cards. Around 60 per cent of Indians still don't have a debit card, let alone a credit card. This makes cashless economy a pipe-dream, at least for now.
- B. Poor internet: Good connectivity is important for a cashless economy. Sadly, the good connectivity, whether you see it before Jio's time or after the Jio dream, which remains a dream for now, is not all that common in India. That creates problems. You can't have a cashless economy powered by 2G connections.
- C. No data privacy laws: One big problem with India's adoption is its lack of policy framework. And when it comes to policy, one glaring area that government is ignoring is the data protection and privacy laws. People also fear that their transaction details will

leak in public or that if they do e-transactions people may misuse the data that they are giving to companies. To allay all these fears government needs bring in a privacy law and tell people that their e-transactions are as personal and discreet as their cash transaction.

- D. Cyber security issues: Again the blame lies with the government policy and an overall lack of effort from banks etc for this. The majority of banks here still use Windows XP in their ATMs. Windows XP is nearly 15 year old operating system, which doesn't even get security patches anymore. And they use old software and poorly configured network in their offices. All of this needs fixing.
- E. Currency dominated economy: High level of cash circulation in India. Cash in circulation amounts to around 13% of India's GDP.
- F. Transactions are mainly in cash: Nearly 95% of transactions take place in cash. Large size of informal/unorganised sector entities and workers prefer cash based transactions. They don't have required digital and fintech literacy.
- G. ATM use is mainly for cash withdrawals and not for settling online transactions: There is large number of ATM cards including around 21 crore Rupaya cards. But nearly 92% of ATM cards are used for cash withdrawals. Only low level of digital payment using ATM cards. Multiple holding of cards in urban and semi-urban areas show low rural penetration.
- H. Limited availability of Point of Sale terminals and poor transaction culture in POS: According to RBI, there are 1.44 million POS terminals installed by various banks across locations at the end of July 2016. But most of them remain in urban/ semi-urban areas.
- I. Mobile internet penetration remains weak in rural India: For settling transactions digitally, internet connection is needed. But in India, there is poor connectivity in rural areas. In addition to this, a lower literacy level in poor and rural parts of the country, make it problematic to push the use of plastic money on a wider scale.

#### XI. GOVERNMENT EFFORTS TO PROMOTE E-WALLET IN INDIA

The government of India took the following steps to promote the use of e-wallet as well as making the Indian economy cashless economy-

- A. BHIM App Launched: BHIM: "Bharat Interface for Money" App is named for D.

- BR Ambedkar. This app was launched by Prime Minister Narendra Modi for digital transaction. It can be used on every kind of phone without internet connectivity. It also supports USSD payments, which works even on basic phones.
- B. No Excise Duty: Nil excise duty on POS Devices and all goods for manufacture of POS Devices.
- C. Incentive Measures: To promote digital payments through use of credit/debit cards and mobile phone applications/e-wallets etc, the Central Government announced a package of incentives and measures which are as under-
- ★ Banks and Prepaid Payment Instrument (PPI) not to levy any charges on customers for transactions up to 1000/- made through Immediate Payment Service (IMPS), USSD-based \*99# and Unified Payment Interface (UPI) systems from 1st January 2017 to 31st March 2017.
  - ★ For card payments, transactions up to 1000/-, MDR capped at 0.25% and transactions above 1000/- and up to 2000/-, MDR capped at 0.5% from 1st January 2017 to 31st March 2017.
  - ★ Benefit of lower rate of Income Tax on digital turnover (from 8% to 6%) for small businesses under Section 44AD of Income Tax Act, 1961
  - ★ Public Sector Banks (PSBs) not to charge fees for transactions settled on Immediate Payment Service (IMPS) and Unified Payments Interface (UPI) in excess of rates charged for National Electronic Funds Transfer (NEFT) for transactions above Rs. 1000/-, with service tax being charged at actual; For Unstructured Supplementary Service Data (USSD) transactions above Rs. 1000/-, a further discount of Fifty Paise up to 31.03.2017.
  - ★ Oil Marketing Companies, viz IndianOil, BPCL & HPCL are now offering an upfront discount of 5/- on every LPG refill to all LPG customers who will book and pay for their LPG cylinders online.
- D. 14444 Toll-Free Helpline for Digital Payments Launched
- E. Lucky GrahakYojana and Digi-धन VyaparYojana:
- F. DigiShala : Educational TV Channel for Digital Payments on DD Free Dish
- G. Digital Finance for Rural India: Its Creating Awareness and Access through Common Service Centres (CSCs)
- H. Vittiya Saksharta Abhiyan (Visaka): Its run by Ministry of Human Resource Development (MHRD)
- I. Promoting digital transactions for Railways: for promoting digital transactions for railways following steps taken-
- ★ Indian Railways to install 10,000 Point of Sale (POS) machines to promote cashless transactions using debit/credit cards. State Bank of India has been mandated to install 10,000 POS machines at various locations.
  - ★ From 1st January 2017, passengers paying digitally for their monthly or seasonal tickets for suburban trains will receive a 0.5% discount.
  - ★ Free accidental insurance cover of up to ₹10 lakh will be provided to the same.
  - ★ Customers choosing to pay digitally will also receive 5% discount on railway services; these services include catering, accommodation, retiring rooms etc.
    - A. Promoting digital transactions for Fuel: Declared a 0.75% discount for filling petrol and diesel (at Central Government Petroleum PSUs) on using credit/debit cards, e-wallets and mobile wallets.
    - B. Digital payment of salary: Central Cabinet passed an ordinance today to enable disbursement of salaries to government employees and daily wagers via cheques and electronic modes. The ordinance was passed pursuant to an amendment to the 'Payment of Wages Act'. The government has clarified that there is no ban on paying wages in cash. This move is intended to encourage the private sector to move towards a cashless-economy.
    - C. No more POS transaction fees for small merchants: SBI Merchants with an annual turnover of less than 20 lakh rupees will be exempt from paying POS transaction fees.
    - D. Efforts for reducing the prices of Smart Phone: As the government encourages cashless transactions, smart phones are being considered as the main players of the 'Digital India' initiative. The government's efforts of pricing smart phones as low as 2,000 rupees was taken up by two domestic phone manufacturers - Karbonn and Intex.
    - E. Restrict cash withdrawals through PAN Cards: According to reports, the government is expected to announce

for quoting the PAN Card number for cash transactions may be reduced from 50,000/- to 30,000/-.

## XII. CONCLUSION

Finance minister Arun Jaitley explained that out of 14 lakh railways tickets purchased everyday, 58% are bought online. Incentives offered are expected to shift another 20% passengers to digital payment methods. According to Arun Jaitley, in the one month since demonetization, digital transactions at state-owned petrol pumps doubled from 20% to 40%. So on the basis of these facts we can say that India slowly & slowly going towards cashless economy with the help of E-wallet. But we cannot deny this fact also that there are security issues regarding digital payment & privacy & also poor connectivity. Although government of India has done various efforts but there is much more need to improve. So the government of India should do efforts towards solving these

problems. By doing so India can move fast towards cashless society which is the need of today's time. Because it's the need of hour to adopt E-wallet & make the Indian economy cashless.

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