# "A STUDY ON THE ROLE OF BANKS IN A DIGITAL WALLET THROUGH A MOBILE PAYMENT APP"

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#### **Abstract**

With the growth of the Internet and the ease with which people can use it, the trend toward digital payments has grown rapidly in recent years. Consumers are increasingly using mobile payment apps to make digital payments due to their easy Internet access. About 47% of India's population will have access to the internet by 2020, with 692 million people using it. After China, this number ranks second in the world. Due to globalization, a top business organization that keeps up with technological advancements is concentrating more on gratifying customers' requirements. Additionally, we have decided to scrutinize the consumer's attitude toward using mobile payment applications, particularly the factors that stimulate users to use mobile payment applications and information regarding factors that acted as barriers to their use. The population of the study comes from the state of Karnataka in India. According to our findings, respondent's professions in the demographic information field play no role at all in the decision-making process. Additionally, we conclude that elderly people are not interested in using mobile payment applications for digital payments, while students in education, both undergraduate and postgraduate are more fascinated in using mobile payment applications. Customers' attitudes toward mobile payment applications are also influenced by convenience, cash back and discounts, time savings, detailed records, reduced theft risk, tracking your spending, and creating a cashless economy, according to the research. The research also identifies a few obstacles that consumers face when using mobile payment applications, such as transaction fees, a lack of understanding of how to use them, the actuality that Digital Payments are not widely accepted, transparency, habit, and trust. This study is expected to assist India in devising successful strategies for increasing mobile payment application usage and civilizing consumer relations.

KEYWORDS: Civilizing, Digital Payments, Fascinated, Globalization, Gratifying, Scrutinize, Stimulate

## INTRODUCTION

The honorable Prime Minister of India announced on November 8, 2016, that two of India's highest denomination currency notes—500 rupee notes and 1000 rupee notes—would no longer be accepted as

legal tender. This decision resulted in the withdrawal of nearly 86% of the circulating currency. Other items one might find in a wallet, such as memberships aimed at a variety of goals, such as reducing black money, loyalty cards, travel cards, and memberships, were affected by this historical decision. The use of digital wallets has taken financing, controlling tax evasion, and a shift toward quite a leap since the last time they were used to eradicate counterfeit currency notes and combat terror a few years ago. In the cashless economy, digital wallets are now accepted as payment. A demonetization is a major option for many e-business players and the current driving force behind India's transition to a cashless economy.

Among all methods of online banking and card-based payment India is gradually moving toward the cashless economy, a convenient method of making digitalized payments, despite the clamor for demonetization and the inseparability of digital smart phones in everyday life and business. Online shopping and commerce are exploding in a nation like India, where electronic wallets have skyrocketed. The demonetization decision has given a new boost to infrastructure through the use of digital wallets and payment limits. Digital payments are already seeing an increase in use. Among many, they've become extremely accommodating to customers.

E-payments are the newest form of online payment, but the concept of a digital wallet is not new. The number of transactions made using e-wallets in Japan, the United States, Sweden, and South Korea has skyrocketed following the demonetization decision. Rolled out digital wallet solutions for mobile phones

# 1.1 WHAT IS A DIGITAL WALLET?

Digital Wallets are apps on your mobile device that store digital versions of your credit and debit cards, Phonepe, and Google Pay are examples of these apps.

Banking cards provide customers with greater control, convenience, and security than any other method of payment. Additionally, there is a tremendous amount of adaptability provided by the numerous credit, debit, and prepaid cards that are available. For secure payments, these cards provide two-factor authentication, such as a secure pin and otp. Card payment systems include visa and MasterCard, among others. People can buy things in stores, online, through mail-order catalogs, and over the phone with the help of payment cards. They make it easier for merchants and customers to conduct business by saving both time and money.

# BANKING CARDS (DEBIT / CREDIT / CASH / TRAVEL / OTHERS)

Banking cards provide customers with greater control, convenience, and security than other payment methods, as well as two-factor authentication.

# How to acquire it:

Open a new account, Provide kyc (know your customer) information, Apply for a debit or credit card, Get a pin.

## What's necessary for the transaction?

Present Card physically or card details for online transaction at PoS terminal or online payment gateway. Provide PIN and OTP (One Time Password) received on registered mobile to complete online transaction

for merchant website. Assisted or self-service mode

#### **Cost of Transaction:**

NIL for customer transactions with merchants, Limits on ATM transactions and a yearly fee set by banks.

0.50% to 2.25 percent paid by the merchant Cash-out is charged to the customer for credit card transactions at 1% to 3.5% of the transaction value.

# UNSTRUCTURED SUPPLEMENTARY SERVICE DATA (USSD)

As of the 30th of November 2016, the 99# service was available in 12 different languages, including Hindi and English, and it is currently provided by 51 major banks as well as all gsm service providers.

# How to acquire it:

Must provide KYC (Know Your Customer) information to open a new account, Mobile no. should be linked to a bank account or credit card, Register for USSD/Mobile Banking, Get a MMID (Mobile Money Identifier), Get a MPIN (Mobile PIN).

Service Activation:

1-2 minutes

**Transaction Cost:** 

NIL by system

Rs. 0.50 charged to customer

## **Services Offered:**

Balance enquiry, Mini Statement, Funds transfer, MMID, A/c no, Aadhar, Know MMID, Change, Generate OTP, M-PIN

#### **Funds Transfer limit:**

- Rs 5,000/day
- Rs 50,000/annum

# **AADHAAR ENABLED PAYMENT SYSTEM (AEPS)**

AEPS is a bank-led model that uses Aadhar authentication to allow online interoperable financial transactions at PoS (Point of Sale / Micro ATM) through any bank's Business Correspondent (BC) or Bank Mitra.

# How to get it:

- Provide KYC (Know Your Customer) information to open a new account
- Aadhar Number should be linked with bank a/c

## What is required for Transaction?

MicroATM , Remember Aadhar , Give Bank name , Present self (Aadhar holder) with Bio-metrics (Finger and/or IRIS), Assisted mode

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#### **Services Offered:**

Balance Enquiry, Cash Withdrawal, Cash Deposit, Payment Transactions (C2B, C2G Transactions)

#### **Funds Transfer limit:**

- Banks define limit.
- No limit for RBI.

# UNIFIED PAYMENTS INTERFACE (UPI)

The Unified Payments Interface (UPI) is a system that combines several banking features, seamless fund routing, and merchant payments into a single hood by integrating multiple bank accounts into a single mobile application (of any participating bank). Additionally, it accommodates "Peer to Peer" collect requests, which can be scheduled and paid as needed. The UPI Apps for Android, Windows, and iOS are provided by each bank.

# How to get it:

Bank a/c, Mobile number should be linked with bank a/c, Smart Phone with internet facility, Debit Card for re-setting MPIN.

# **Activating the Service:**

Download the App for UPI , Do registration online on the App with a/c details , Create a virtual ID , Set MPIN, 5-7 minutes

# What's necessary for the transaction?

Smartphone with internet facility, Registered device only, Use registered MPIN, Self Service Mode

# **Operation Cost:**

NIL to customer by most Banks, Customer pays for data charges

#### Services accessible:

Balance Enquiry, Transaction History, Send / Pay Money, Virtual Address ,A/c no. & IFSC code, Virtual Address, Mobile no. and MMID, Aadhar (to be made functional), Collect Money, Virtual Address, Add bank account, Change / Set MPIN , Notifications , A/c Management

#### **Funds Transfer limit:**

1 lakhs / transaction

## MOBILE WALLETS

Digital wallets allow you to carry your money in a portable format on your phone or tablet. You can also use digital wallets to easily make payments online. In order to add money to your digital wallet, you must first have an account linked to it. E-wallets are available from most banks and some private businesses.

#### How to get it:

Option to open Zero KYC or Full KYC wallet, Option of Consumer vs. Merchant wallet, Mobile Number, An App to be downloaded in smart phone

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# **Activating the Service:**

- Load money (subject to regulatory limits) using internet banking or merchant locations
- Bank A/c, All Cards, Cash-In

# What's necessary for the transaction:

Smartphone or internet, Use MPIN, Self-service and/or Assisted mode

# **Operation Cost:**

- Customer pays for remittances to bank a/c @ 0.5%-2.5% of fixed fee.
- May pay for data charges in self-service mode.

## **Services Offered:**

Balance Enquiry , Passbook/ Transaction history , Add money , Bank A/c , All Cards , Cash-In , Accept Money , Pay money , Another wallet (mobile no.) with same provider , Pay merchant , Bar Code reader , Manage Profile , Notifications

## **Funds Transfer limit:**

#### For Users

- No KYC Rs 20,000/ month (revised from Rs 10,000 to current till 30th Dec. 2016)
- Full KYC Rs 1,00,000/- month

# For Merchants

- Self-Declared Rs 50,000/ month
- With KYC Rs 1,00,000/- month

## 1.7 BANKS PRE-PAID CARDS

A card that can be used to pay for things is called a prepaid card. You purchase a card with money on it. Then, you can spend up to that amount with the card. Prepaid debit cards and stored-value cards are other names for prepaid cards.

# How to get it:

Provide full KYC (Know Your Customer) information to open new account , Apply for Wallet/ Pre-paid Card , Get a MPIN / PIN

#### **Service Activation:**

- Load money (subject to regulatory limits) using branch, or internet banking
- Bank A/c, All Cards, 1-2 days for card, 5-7 minutes for wallet

# What is required for Transaction?

Smartphone or internet, Use MPIN, Self-service and/or Assisted mode

# **Operation Cost:**

On loading the pre-paid card, Customer may pay service charges for transaction or fixed fee, upfront + each transaction, Loading wallets is mostly free, Merchant is charged fee 0.50% to 2.50%, Cash out is charged to customer as fixed fee or 1% to 2.5% of value of transaction. Only from Cards

## **Services Offered:**

Balance Enquiry, Passbook/Transaction history, Add money, Bank A/c, All Cards, Accept Money, Pay money, a new wallet (mobile no.) with same provider, Pay merchant, Bar Code reader, Cash-Out (Cash withdrawal)

#### **Funds Transfer limit:**

#### For Users

• Rs 1,00,000/- for Users

#### For Merchants

- Self-Declared Rs 50,000/ month
- With KYC Rs 1,00,000/- month

# **POINT OF SALE (POS)**

The place where sales are made is called a point of sale (PoS). PoS can be a market, a city, or a mall on a macro level. A PoS is, on a micro level, the area where a customer completes a transaction, like a checkout counter. It is also referred to as a point of sale.

Physical PoS

# **Necessary conditions for service initiation:**

Handheld Device with card and /or bio-metric reader, Merchant Bank a/c, Internet connectivity GPRS/Landline

#### **Service Activation:**

Paper work with Bank for merchant bank a/c , Deposit certain amount , Collect device , Configuration and training to operator

# What is required for Transaction?

Any Card, Resident for bio-metric authentication (AEPS), Assisted Mode

# **Funds Transfer limit:**

No limit for regulator

Merchant's Bank and payee Bank may set limit based on its own discretion

# Service Available from no. of operators:

Source RBI – Aug'16

14.62 lakhs, Interoperable

Mobile PoS

# **Necessary conditions for service initiation:**

Smartphone, App from bank, Integrated or external card and /or bio-metric reader, Reader connects using jack or Bluetooth, Internet connectivity 2G/3G/4G, or Wi-Fi, QR code and Bar code reader

# **Service Activation:**

Merchant Bank a/c, Download App, Register device and/or mobile with merchant bank a/c and bank, May require training or readable instructions

# What is required for Transaction?

Any Card , Resident for bio-metric auth (AEPS) for registered devices , Wallet account , Scanner for reading QR Code and Bar Code , Self-service and/or Assisted mode

#### **Funds Transfer limit:**

- No limit for regulator
- Merchant's Bank and payee Bank may set limit based on its own discretion
- Virtual PoS

## **Necessary conditions for service initiation:**

Smartphone and /or Web browser , Internet connectivity 2G/3G/4G, or Wi-Fi or landline , E-payment gateway , Virtual A/c for transactions , May need QR code

## **Service Activation:**

- Merchant Bank a/c with some merchant credentials
- In case of OR code for pull transactions
- May require ability to identify or authenticate user for service delivery

# What is required for Transaction?

Any Card, Wallet Account, Scanner for reading QR Code and Bar Code

## **Funds Transfer limit:**

- No limit for regulator
- Merchant's Bank and payee Bank may set limit based on its own discretion

## 1.9 INTERNET BANKING

Internet banking, also known as e-banking, virtual banking, or online banking, is an electronic payment system that enables customers of a bank or other financial institution to carry out a variety of financial transactions through the website of the financial institution.

Online financial transactions include the following:

# **National Electronic Fund Transfer (NEFT)**

National Electronic Fund Transfer (NEFT) National Electronic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer.

## **Real Time Gross Settlement (RTGS)**

RTGS is defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). Primarily meant for large value transactions.

The RTGS service for customer's transactions is available to banks from 9.00 hours to 16.30 hours on week days and from 9.00 hours to 14:00 hours on Saturdays for settlement at the RBI end.

# **Electronic Clearing System (ECS)**

ECS is an alternative method for effecting payment transactions in respect of the utility-bill-payments such as telephone bills, electricity bills, insurance premium, card payments and loan repayments, etc.,

# **Immediate Payment Service (IMPS)**

IMPS provide a mobile-phone-based, instant interbank electronic fund transfer service 24 hours a day, 7 days a week.

In addition to being safe and cost-effective from a financial and non-financial standpoint, IMPS is a powerful tool for instantly transferring funds between Indian banks via mobile, internet, and ATM.

#### MOBILE BANKING

Mobile banking enables customers to conduct financial transactions remotely from a mobile device. For Android, Windows, and iOS mobile platforms, each bank offers its own mobile banking application.

## MICRO ATMS

Micro ATM is a device that will enable Business Correspondents (BCs) to conduct instant transactions through low cost devices connected to banks across the country. Customers will need to authenticate their identity and withdraw or put money into their bank accounts from the cash drawer of the BC. The basic transaction types are Deposit, Withdrawal, Fund transfer and Balance enquiry.

# LITERATURE REVIEW:

Gokhan Aydin, Sebnem Burnaz (2016) The study was conducted in a large developing nation by one of the leading global market research firms, the current study on mobile wallet adoption serves as a useful reference point. The study uses well-established scales to provide comparable findings in addition to testing relevant theories and models in the context of mobile payments and contributing to the theoretical understanding of consumer attitudes toward mobile payments. Similar studies have not yet been conducted on a comparable scale in Turkey, and similar studies in other developing nations are also in short supply.

C. Vijai (2019) The research study stated that the advantages of wallet money included the ease of transaction, secured profile, and ease of application management, concluding that business sectors like banking, retail, and hospitality, among others. are using mobile payment methods like wallet money and contactless and remote

payment in the business-to-business and customer-to-customer sectors.

## RESEARCH METHODOLOGY

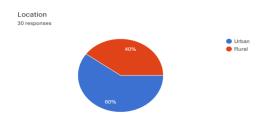
## **OBJECTIVE:**

- To investigate the idea of cash-less society, Digital economy and economy without cash.
- To look at how the economy has changed between before and after demonetization.
- To evaluate the cashless economy's cost-benefit analysis
- To scrutinize the issues with electronic wallets
- To determine whether E-wallets are preferred to use or not to use

#### **DATA COLLECTION**

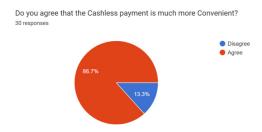
In this study, both primary and secondary data were collected. The primary data were Collected with the help of a questionnaire. The secondary data were used to support the study.

## DATA ANALYSIS AND INTERPRETATION



60% are from urban background

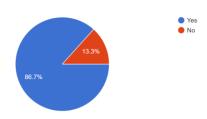
40% are from rural background



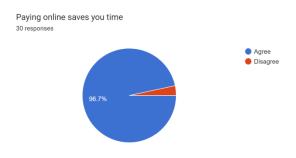
13.3 % responders agrees

86.7% responders disagrees

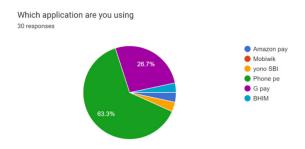
There are more promos and vouchers that can be used on online transactions



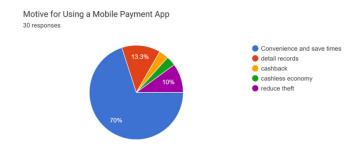
# 13.3 % says no 86.7% says yes



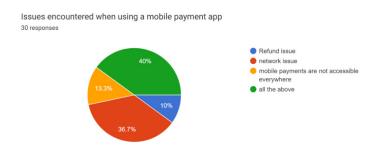
96.7 % responders agrees 3.3% responders disagrees



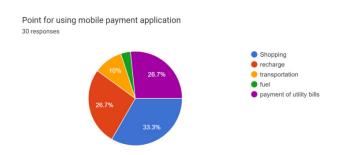
- 63.3 % responders using Phonepe
- 26.7 % responders using Gpay
- 3.3% responder's using BHIM
- 3.3% responder's using yono app
- 3.3% responder's using Amazon pay
- 3.3% responder's using Mobiwik



70 % responders opted Convenience and save times 13.3 % responders opted detail records 3.3% responder's opted cash back 3.3% responder's opted you app cashless economy 10% responder's opted Amazon pay reduce theft



10 % responders say Refund issue 36.7 % responders say network issue 13.3% responder's say mobile payments are not accessible everywhere 40% responder's selected all the above

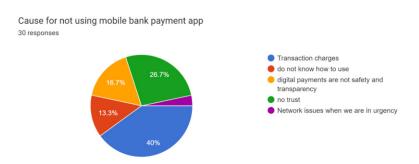


10 % responders use Shopping

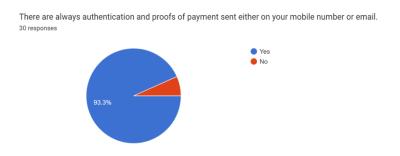
26.7 % responders use recharge

10% responder's use transportation Page | 75

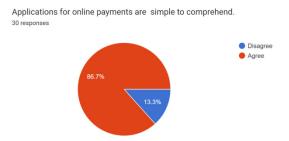
- 3.3% responder's use fuel
- 26.7 % responders use payment of utility bills



- 40% responders say Transaction charges
- 13.3% responders say do not know how to use
- 16.7% responder's say digital payments are not safety and transparency
- 26.7% responder's say no trust
- 3.3% responder's say network issues when they are in urgent

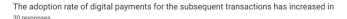


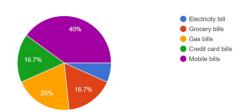
- 93.3% responders opted yes
- 6.3% responders opted no



86.7% responders agrees

13.3% responders disagree





6.7 % responders use Electricity bill

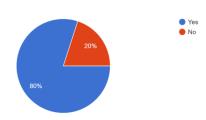
16.7 % responders use Grocery bills

20% responder's use Gas bills

16.7 % responder's use Credit card bills

40 % responders use Mobile bill

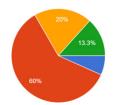
Do you intend to continue making use of digital payment methods?



80% responders opted yes

20% responders opted no

How does COVID-19 affect the use of digital payment methods? 30 responses



More cash, less digital payments
 More digital, less cash payments
 Only digital, no cash payments

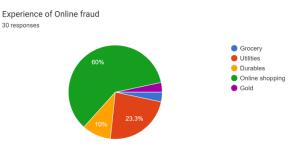
Same as before COVID-19

6.7 % responders use more cash, less digital payments

60 % responders use more digital, less cash payments

20% responder's use only digital, no cash payments

13.3 % responder's use same as before COVID-19



60% responders opted for online shopping

23.3% responders opted for Utilities

10% responders opted for Durables

3.3% responders opted for Grocery

3.3% responders opted for Gold

## FINDINGS AND CONCLUSION:

A study was made to find out what people will think about mobile payment applications. Some of the findings are:

A lot of people are using mobile payment applications because they like the benefits they offer (such as getting cash back or discounts), they find them convenient. More people will be happy with mobile payment applications. They think they're less likely to be stolen. Some barriers to using mobile payment applications more broadly, like people not knowing how to use them, Network issues, also being worried about fees/charges on the services render

We can draw the conclusion that, despite the fact that a cashless society is still not possible, we have begun the gradual but steady transition in that direction. We might realize that the paradigm shift has come full circle in the coming decades.

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