

The Digital Leap: The rise of Digital wallets and E-bank payment system

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Abstract - The emerging landscape of commerce has another robust movement in the payment system in India, introduced by the National payments corporation of India (NPCI) UPI payment, neo banking, digital wallets and e-banking applications, are rapidly conquering the market, with consumers opting for mobile friendly applications other payment medium have seen a incline downwards. The study investigates the channels of awareness for these innovative applications, usage patterns, consumer perception relating to its simplicity and user adaptability and the merchant's acceptance. The study assesses the dominance in the payment system, the preferences, and the barriers of the digital leap of digital wallets and e-banking applications

Key Words: Digital wallets, G-Pay, PhonePe, Paytm, Amazon Pay, NEFT, IMPS, RTGS

1.INTRODUCTION

The conventional means of conducting transactions with cash and lose money have been replaced by technological innovations. At the present time, mobile phones have smartly and digitally taken over the functions of checks, credit, and debit cards, etc. The financial technologies (Fintech) used in banking sector has been the catalyst for introduction of various innovations such as digital wallets based on unified payment system and the several modes of digital payments through e-banking applications

1.1 Digital Wallets

A financial transaction application that works on mobile devices is known as a digital wallet. The Users passwords and payment information are securely stored and it replaces your cards while shopping, these programs let the user pay using the mobile device.

- Users can easily and swiftly make payments online with digital wallets.
- With digital wallets, opening and maintaining a bank account is no longer dependent upon actual banks and businesses. As an outcome, they connect people and companies in remote locations.
- Before using a digital wallet, a user must add funds from a connected bank account.
- Digital wallets can be used for a variety of transactions, including sending money to friends and family that live overseas.

- Bill payments, paying power bills, and booking gas cylinders, buying train/flight tickets, recharging mobile devices are some of the available services.
- Trading and checking the balance of cryptocurrencies both require a digital wallet.

Due to the many advantages that digital wallets provide, they have become sufficiently popular.

- Security- Password safety and biometric validation are offered for digital wallets.
- Absence of a minimum monthly balance- Users are free to add any amount of money they require.
- Fast & Convenient- Quick and easy transactions are made possible through uncomplicatedness and usability.
- Multiple Transactions-It can be utilised for a variety of operations, such as adding a mobile number, scanning a QR code, paying bills, and completing online purchases.
- 24/7 customer support- Chatbots are used in digital wallet apps to enable 24/7 communication.
- Rewards- Transactions done through digital wallets offers numerous cashbacks and discounts.

There are three different kinds of digital wallets:

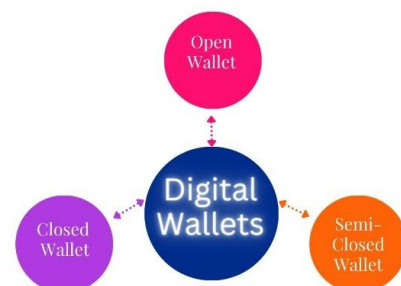


Fig -1: Kinds of Digital Wallets Source: Primary

Closed Wallet:

- A closed wallet is a type of payment system that enables users to conduct transactions via an app or website.

- Companies frequently produce these wallets for their clients to utilise.
- Users who utilise closed wallets are limited to carrying out transactions with the wallet's issuer using the funds they have on hand.
- The wallets collect the funds from cancellations, returns, or refunds.
- Users cannot make payments to parties other than the wallet's issuer using closed wallets.
- An illustration of a closed wallet is Amazon Pay.

Semi-closed Wallet:

- Users can conduct transactions at the businesses and locations indicated in a semi-closed wallet.
- These wallets have a restricted service area; thus, they may only be used at enterprises that accept the contract or agreement of the wallet's issuer.
- To accept payments using mobile wallets, retailers must engage into contracts or agreements with the issuers.

Open Wallet:

- Open wallets, provided by banks, enable users to conduct any kind of transaction.
- Users can transfer funds with ease through open wallets, which provide freedom.
- Payments can be made both online and offline.
- Transactions can be made using open wallets from any location in the world provided the sender and recipient both have accounts on the same application.

Some of the examples of wallets in the digital age are as follows

Google Pay: With the Google Pay app, users can make purchases on any app or website using debit or credit card information saved to their Google Accounts, Google Play, Chrome, YouTube, Android phones, and watches.

Paytm: One of the most well-known payment apps is leading the way by enabling users to make payments via UPI and digital wallets that are quicker, wiser, and safer.

Apple Pay: Users of iPhones, iPads, and Apple watches get exclusive access to the streamlined Apple Pay digital software. Users can conduct transactions for both in-person and online purchases.

PayPal One Touch: The standard services provided by PayPal are enhanced with the PayPal One Touch™ app. By allowing users to skip the login screen and do away with the need to input passwords, it enables them to make payments or transfer funds more quickly. The mobile wallet app for PayPal can be used on a tablet, laptop, or desktop as well.

1.2 Bank transfers

The term "e-banking" refers to the procedure of using electronic sources to instantly transfer money from one bank account to another. This process is also referred to as "electronic fund transfer" (EFT). Computer banking and mobile banking are both included in the term "e-banking." E-banking is a part of e-commerce, which also comprises e-finance, e-money, and other electronic financial services and products. The banks are offering payment services on behalf of their customers. E-banking comes in a variety of formats, including Internet banking, ATMs, debit cards, and credit cards. E-banking can be used anywhere, at any time, and does not necessitate the physical movement of money. Simple and practical for everyday banking transactions. As a result of the speed, reliability, and convenience that this option offers, people are also adopting bank transfers as a mode of payment more frequently.

Benefits of banks transfer

-Reliable and safe- Due to the established identification verification involved with the transaction process, bank transfers are regarded as a safe and secure mode of payment.

- Convenient- enables for quick and simple money transfers at the touch of a button without physically visiting the bank.

-Fast - Provide for quick and simple money transfers.

-Affordable- It is simple and free to send money in minutes to friends and relatives.

-Customer friendly- digital channels delivering various financial products and services in a lucid form

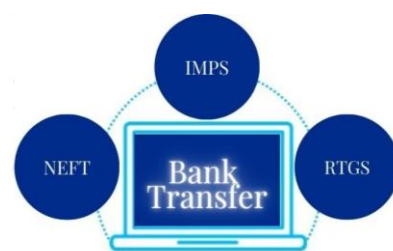


Fig -2: Kinds of Bank transfer *Source: Primary*

Ways to transfer funds

National Electronic Funds Transfer (NEFT)

To meet the needs of one-to-one basis transfers, the (NEFT) protected system was launched. The NEFT system enables near real-time fund transfers and offers batch settlements on an hourly time slot basis. The system offers capabilities including accepting cash for initial transactions, starting transfer requests without any higher or lower amount restrictions, facilitating one-way transfers to 15 Recipients,

receiving verification of the date and time of credit to the beneficiaries' accounts, etc. To any Indian bank that supports NEFT, money can be sent using this mechanism on an individual basis.

Immediate payment service (IMPS)

A real-time electronic cash transfer technique called Immediate Payment Service (IMPS) allows money to be credited to the beneficiary account right away. All 365 days of the year, including Weekends and other bank holidays, IMPS transfers are available on a real-time basis. Interbank remittances can be started via IMPS using a variety of means, including mobile banking, online banking, Text, ATMs, etc. This service is accessible every day and night. The Reserve Bank of India (RBI) and the National Payments Corporation of India (NPCI) are both responsible for managing the IMPS service (RBI).

Real Time Gross Settlement System (RTGS)

Real Time Gross Settlement, sometimes known as RTGS, is a technique of sending money that allows for instantaneous transfers of funds. With the help of this online payment method, the recipient of the funds given by the sender can receive them as soon as the payment processing transaction is started. Gross Settlement in this context refers to the individual processing of transactions rather than batch processing. The lowest amount that may be sent using RTGS is Rs. 2 lakhs, and it is frequently used for transactions with higher dollar amounts.

2. RESEARCH METHODOLOGY

2.1 Objectives

- 1- To assess the medium of awareness among the customers regarding digital wallets
- 2- To compare the usage of digital wallets and E-bank transfers

2.2 Scope

In this study, the payment services provided by banks online and digital wallets were explored and examined, as well as customer awareness of these services for e-commerce and other financial activities online and offline in Hyderabad-Telangana, India. Furthermore, this study aims to determine variables that affect how user's engagement with digital wallets and bank transfers for e-commerce and other financial operations.

2.3 Data Collection

To comprehend the level of awareness of digital wallets and usage of digital wallets and banks electronic payment system, the study aims to determine the customers preference towards their trustworthy digital payment system.

Primary data is collection in form of a survey questionnaire; The questionnaire contains 12 closed ended questions which was collected from people from varied background and age groups across Hyderabad- Telangana. The questionnaire contains the distinct demographics, the common payment option utilized, medium of awareness relating to digital wallets, simplicity, widely accepted methodology of payment system, value bargains, the favourable mode of payment. The survey was collected from 103 people in the city of Hyderabad- Telangana, India.

Existing research work in the area is examined to understand the earlier studies carried out; it aids as a secondary source of data.

The data collected is organised using Microsoft excel representing the data collected. Descriptive analysis is used to assess the medium of awareness and Chi-square test is used to compare and assess the usability, simplicity, and accessibility with retailers; it has been done in statistical package for social sciences (SPSS) software.

3. REVIEW OF LITERATURE

Bhawna Mukaria 2021

The study highlights the various payment and money transfer methods users are offered on the market. It illustrates how the development of digital payment methods, notably with the use of smartphones, has improved people's lives and made them more convenient, especially during the COVID-19 period.

Ankita Khothari- 2021

The study examines the significance of eWallets in India's digital transformation, users' perceptions of adoption, and hurdles to eWallet use among users and nonusers in the city of Udaipur, the study infers the Indian Banking industry may change because of the "Digital India Programme"

M Mohana Priya 2021

The study showcases the rise of digital and mobile payments and its enhanced effects of retailer's relationship with their customers. It studies the pattern of transformation how merchants engage and reward their customers, benefits and convenience of cashless payments, its accessibility and swift form of payment method. The study analyses the perception and impact of digital wallet on the retailers in the city of Chennai.

K.Vinitha 2019

The study appraises the satisfaction of Internet Banking, Mobile Banking, Mobile wallet and card payment system users in Chennai, the study is descriptive in nature, and the sample technique utilised is non-probability sampling. The study has implications for banks, website developers, and e-

payment application developers in understanding the needs of e-payment system users through the lens of technological advancements and in casting out an e-payment system that can be used without fear of hacking and by providing digitally safe and secured digital banking.

Gayathiry. D 2019

The study aims to determine the variables that motivate clients to use M-Wallet payment services. It assesses the level of client satisfaction with M-Wallet payment service providers' services. The study determines the challenges that customers have while using the M-Wallet payment service.

Radhika. R 2017

The study evaluates the technological innovations in payment system, between buyer and seller and between banks, it showcases the different phases of payment system in India due to the development of information technology in banking sector.

Jubair T 2017

The Study investigates the extent to which self-service banking technology and digital payment systems have grown and spread in India, it inspects the customer awareness, usage, and factors influencing the use of self-service banking tools, examines the quality of services offered by selected commercial banks in Kerala using self-service banking instruments, evaluate the effectiveness of consumers' security practises when using self-service banking tools.

Varsha & Thulasiram 2016

The study determines buyer behaviour in relation to the use of electronic wallet services. Because of technology advancements, the manner of making payments has been digitalized; the study seeks to determine the level of acceptance among customers. The primary goal of this research is to determine the familiarity of mobile wallet services and the factors that drive buyers to use E-wallet services. The survey revealed that clients see electronic wallets, which are considered a high-tech platform for monetary transactions, as reliable and comfortable. The report reveals that while electronic wallet service providers are primarily targeted at young people, other age groups of respondents should be concerned.

Kalyani 2016

The study carried out an experimental investigation for paperless electronic financial transactions, paying particular attention to electronic wallets. The study aims to examine how much younger generations are aware of the new payment method. Since most goods and services are now available online thanks to technology improvements, clients may make electronic payments for them. The study's

findings indicate that because digital wallets are directly related to online commerce and financial institutions and service providers are prospering, they are growing in popularity in the modern world. The primary service that clients use is typically to pay their bills.

G. Anbalagan 2015

The study examines pioneering system of banking and it is a positive influence on the economy and it has enormous social consequences. The study shows the benefits and drawbacks of cutting-edge banking techniques. The study instigates banks and other economic performers to revolutionize their banking services. It upsurges customer's understanding of electronic banking.

Yamuna et al. 2015

The study reviewed the specific applications of Paytm and pay U money to evaluate the requirements of Generation Y customers for methods of electronic payment. The study further illustrates how the new digital payment method affects customers and the challenges they encounter while working with it. the study states that mobile applications have a stronger growth rate for online payment awareness. And due to their enhanced features and improved security, Paytm and Pay u money have largely supplanted traditional and other e-banking. It also concludes that Pay tm and Pay u Money's payment systems are somewhat simpler than those of other digital payment systems.

Parmar 2015

The study adopted a comparative methodology to examine the various forms of online payment systems. The study's primary finding is that most consumers choose cash on delivery (COD) for purchases made online because the risk is lower and debit cards make it simple to make payments. Since they are aware of the conveniences given by online shopping, consumers also prefer to use credit cards to make payments. Consumers were unaware of mobile wallet as an online payment option. The study also reveals that today's internet shoppers prefer net banking. It is concluded that young people make up most of the consumers who use various payment methods.

Kaur & Pathak 2015

The purpose of this research was to explain how electronic payments are used in India. It also tries to comprehend the various payment methods that clients employ. Electronic payment systems are one of the ways to trade money in a world of electronic commerce using plastic cards. According to the survey, digital payments give customers the freedom to pay for expenses like taxes, fees, recharges, fines, and purchasing at unusual places. Even though there are many different electronic payment systems, their features are not greatly different. The commercial viability of e-commerce payment systems depends on their usability, industry

consensus, cost, consumer preference, authentication, accessibility, and dependability, authorization, public policy, and non-refundability. The author suggests taking a user's fingerprint for each transaction as a security measure that digital wallet providers should consider.

Tella & Abdulmumin 2015

The study centred on the consumers' happiness using online payment at the university of Ilorin, Nigeria, it examined the variables affecting that level of customer satisfaction. The study's findings indicate that the individuals who responded are happy with the wage e-payment method. However, other people feel less contented because it is hard to define the issues that arise while using an e-payment system. The report concludes by pointing out that service providers should consider security when playing a significant role in digital payments.

Salodkar et al. 2015

The study highlighted the use of electronic wallets, their deployment, and their significance moving forward. The goal of the project is to design a new architecture that enables consumers to send money quickly and securely. The study investigates the functionality, value, and potential of a digital wallet in the future. The study concludes that providers of services and banks should focus on the pliability and safety of the transactions while considering future technological developments and the needs of the customer. Users of e-wallets will have the freedom to shop and make payments whenever they want.

Aparna et al. 2015

This study investigates the use of electronic wallets in India and its various forms. A thorough investigation of the similarities between 12 different types of electronic payments, including apple pay, google wallet, etc., was done. According to the report, Indians will soon take advantage of digital wallets more frequently as the nation strives to become a technologically advanced one. Less technical understanding, widespread internet accessibility challenges, and security concerns were identified as the main barriers to the use of digital wallets. The study concluded that enhanced security provided by digital wallets can help control hacker scams in offline payments.

Sultana & Kumar 2015

The study explored consumers preference for cash along with various payment options over plastic money as well as the reasons why they do. Additionally, it indicates promotional actions be conducted to encourage the use of electronic payment. Because carrying cash can be risky, people find it easier to utilise plastic cards to make purchases. As a result, payment methods in stores can now include both cash and non-cash transactions. The findings

showed that most users completed their purchases in physical stores and thought that paying with cash was simple. Respondents with greater levels of education and money tend to use plastic cards more frequently. According to the study's concluding statement, socio-demographic characteristics significantly influenced payment behaviour.

Padashetty & Kishore 2013

The study carried out a qualitative investigation on the acceptability of mobile payment systems by customers. The study's objectives were to examine customer usage patterns and willingness to adopt mobile payments as well as the variables affecting market growth or decline in m-payment adoption. Payments via mobile devices is one of the many applications that are related to mobile telephony along with m-advertising and entertainment services.

Upadhayaya 2012

The study presented an empirical foundation for technological advancement within digital commerce and primarily addressed payment via electronic wallet. When traditional payment methods like cash, checks, cards, etc. are used instead of e-commerce, various problems arise. The study discusses the many payment methods, including debit cards, mobile devices, and others, as well as the advantages of the technology involved. There various kinds of security that are commonly employed for online payment security, including SET (secure electronic transaction), which denotes a more challenging security system dependent on digital documents, and SSL (secure socket layer), which denotes confidence stuck between an online merchant and customer. The study's significant finding indicates that the mobile wallet is best because it is practical, easy to use, and secure. The report concludes by pointing out that the supplier has implemented I-pay out methods for security and safety purposes to please customers.

Ravi. C. S, Kundan Basavaraj 2012

The study was done in Shivamogga district, on banking services, The primary tasks were to look at people's borrowing and depositing habits as well as to evaluate banking services among the general population with a focus on villages in the Shivamogga district. The survey also examined how well the public understood the many services that the government had made accessible to them via commercial banks, cooperative banks, and main land development banks. Utilising empirical data from stratification and area sampling, which included more than 80 homes in the vicinity of the villages of Shivamogga district, the study of people's banking habits was conducted.

Bhide, M.G. Jalan, Bimal 2002

The study was undertaken on the issue of corporate governance in banks and how financial technology will cause

an essential shift to the way banks operate. They would be able to improve their internal operations and offer better client service because of it. Technology will dismantle all barriers and promote international banking. To fully reap the rewards of the changes in technology and business processes, banks would need to engage in substantial Business Process Re- Engineering and address issues like good organizational architecture, customer-centric operation model, utilise technology to derive economies of scale and how to produce cost efficiencies.

Sheri S. R. Mittal 2001

The study specified the need for ongoing evaluation of the many laws connected to banking and commerce arising due to the revolutions around e-banking. The setting up of the multidisciplinary high level standing committee for legal interpretations and reviewing the technological and legal requirements of E-banking uninterruptedly and recommending appropriate measures when essential. Encourage banks to innovate and, when appropriate or required, develop new practises and customs to supplement the banking regulations that are periodically in effect will be crucial in such future and continuing considerations. Banks have historically been at the forefront of utilising technology to enhance their offerings, capabilities, and effectiveness. The usage of the internet by banks as a means of getting instructions and providing clients with their goods and services is on the rise.

Talwar, S.P 1999

The study has states that the introduction of ATMs has altered how bank branches cash counters. For routine banking tasks including cash deposits, withdrawals, check collections, balance inquiries, etc., customers are no longer required to visit branches. New "convenience banking" options have been made possible through e-banking and internet banking. Bank transaction costs have decreased due to internet banking as comparted to branch banking.

4. RESEARCH ANALYSIS

Table -1:

Medium of Awareness	
Mean	2
Standard Error	0.105078
Median	2
Mode	1
Standard Deviation	1.066422
Sample Variance	1.137255
Kurtosis	0.833018
Skewness	1.038722

Range	4
Minimum	1
Maximum	5
Sum	206
Count	103

Source: primary

The awareness medium of digital wallets is evaluated through descriptive analysis carried out using Microsoft excel. The analysis exhibits the mean that is the average response for the medium of introduction of digital wallets to be through friends, median the central tendency or the middle value is internet & friends , meaning half of the respondents about 51.5 from the total 103 have either selected internet or friends as the sources of awareness of digital wallets, and mode represents the most frequent channel of awareness' selected by the respondents which is internet. The internet stands out as the most popular channel of awareness with television and bill boards being least popular.

Table -2:

Comparison between digital wallets and E-bank transfer

Usage

Value	Observed N	Expected N	Residual
Cash	7	25.75	-18.75
Debit Card	2	25.75	-23.75
Digital Wallet	64	25.75	38.25
E-banking	30	25.75	4.25
Total	103		

Simple

Value	Observed N	Expected N	Residual
Digital wallets (ex-G-Pay,PhonePe,Paytm,AmazonPay)	91	51.50	39.50
E-Banking(IMPS/NEFT/RTGS)	12	51.50	-39.50
Total	103		

used_by_retailers

Value	Observed N	Expected N	Residual
Digital Wallet(G-pay,PhonePay,Paytm,AmazonPay)	91	51.50	39.50
E-Banking(IMPS/NEFT/RTGS)	12	51.50	-39.50
Total	103		

Test Statistics

	Chi-square	df	Asymp. Sig.
Usage	93.08	3	.000
Simple	60.59	1	.000
used_by_retailers	60.59	1	.000

Source: primary

The above data is relating to the comparison between digital wallets and E-bank transfer based on the usage on the parameter of simplicity and availability with retailers. Chi-square test has been conducted through SPSS software; data have been sorted in MS-excel. Digital wallets is the most preferred method of payment used being 64 with e-banking following with an observed 30 being secondary to digital wallets, digital wallets being simpler and readily available with retailers with most respondents giving strong representation with only few respondents choosing e-banking as simple and used by retailers. The analysis exhibits superior performance by digital wallets when compared with e-banking transfers.

5. CONCLUSIONS

The large positive response towards digital wallets shows it outperforming the banks transfers. Digital wallets have a user-friendly payment system assisted by QR scans making it quick to adopt as compared to lengthy banks transfer processes like POS integration and retailer preferences etc. It seems to be evident that digital wallets have rapidly gained popularity as a form of payment, with many customers already preferring them to credit cards/Debit cards and e-banking. Businesses can profit from accepting digital payments while safeguarding their earnings from fraud by carefully handling digital wallet orders. Digital wallets triumphs e-banking transfer in the mobile first market in India.

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