

## International Journal of Research Publication and Reviews

Journal homepage: <a href="https://www.ijrpr.com">www.ijrpr.com</a> ISSN 2582-7421

# A UX-Design Study of Leading Digital Wallets: A Heuristic and Cognitive Approach Targeting Gen Z and Millennials in the Patna Region

# Neetu Singh<sup>a</sup>, Prashanth Kochuveetil Cherian<sup>b</sup>

<sup>a</sup>Student, National Institue of Fashion Technology, Bangalore <sup>b</sup>Associate Professor, National Institute of Fashion Technology, Bangalore

#### ABSTRACT

Digital wallet has gained momentum drastically in the last few years all over the world. But in India after demonetization in the year 2016 and covid-19 has accelerated the pace of its growth more likely. There are many digital wallets floating in the Indian economy but few wallets have always remained in the headlines. There can be various factor associated with the digital wallets for being its famous. The user's preference can vary according to their expectations. When financial aspects get connected with any application, it becomes more of a conscious and vigilant approach by users. Financial transactions are intimately bound with social interactions and woven into our everyday economic lives. The interaction design with application plays an important role for being preferred by the users.

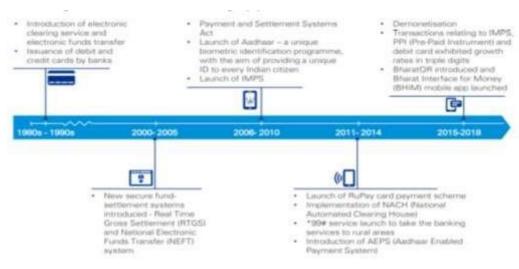
This paper deals with the study of user experience design of digital wallets with heuristic and cognitive approach. More importantly it tries to identify the factor for users' retention with a particular wallet.

To derive the conclusion, various mode of research methodology has been adopted. The research methods are qualitative and quantitative in nature. The idea is to arrive at the conclusion and not to derive the same. This paper covers the understanding of the user behavior for the preference of the digital wallet through questionnaire circulated through online survey and one on one interview. One of the major components of these survey is to have implicit understanding of the user's mind for preferring a particular digital wallet rather than explicit direct questions.

 $\textbf{Keywords} \hbox{: Digital wallets, User experience, Heuristic and Cognitive-design}$ 

## 1. Introduction

Digital wallet (electronic wallet) is a financial transaction application used for smart phone. (Manchanda, 2021)The phone has to linked with bank account or debit card details. It negates the pain of carrying the debit/credit card in the physical wallet everywhere. It's generally used for shopping, bill payment and transfer of money etc. Smart phones have become an inseparable part of people's life and is a convenient tool for making digitalized payments Before delving into the context of this research paper, it is important to understand the evolution of digital wallets and unified payment interface.



Pictorial Representation of Evolution of Digital Wallet Graph-1

(Fintech in India-Powering mobile payments, 2019)The digital wallet has got a significant push with the earlier innovation of many technologies like NEFT, IMPS, QR code, NFC and biometric device. In last two-decade, the introduction of electronic clearing services and plastic cards (debit and credit card has been proved as a stepping stone and laid the foundation of digital wallet. It helped in making the digital payment infrastructure easier. The change in payment landscape has accelerated over the last two decades with multiple factors redefining the traditional role of banks and India's payment landscape is growing faster than the global average.

Digital wallets seem to have huge scope in future as government e-payments adoption ranking of India is the second largest after China. (Kpmg, editor. "Fintech in India-Powering mobile payments." August 2019, p. 36.)

With expanding infiltration of portable cell phones, digital wallets have been anticipated to bring the next rational stride in transit to a cashless society. The financial services have witnessed a massive shift in the favour of digital. The shift has opened a plethora of opportunities around digital financial services. Payment business services have been at the forefront of this digital transformation. The transformation often attributed to a conglomerate of innovative headwinds that embody the existence of strong infrastructure, evolving clients, expectations, progressive government initiatives and technological advancements. A contributory collaboration atmosphere has been witnessed that is dynamism mobilizing digital adoption.

(Kpmg, editor. "Fintech in India-Powering mobile payments." August 2019, p. 36.)

It's important to understand the mechanism of digital wallet to get a deeper insight of the technology involved with it. A mobile payment channel requires high level of security and contain a helpful design that guides the user by means of careful communication, in order to make the user feel as comfortable using the new payment channel, as when using the traditional payment channels.

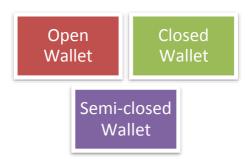
One needs to register with a digital wallet with all details, followed by linking of bank account or debit card details. The user can link more than one account with digital wallet Mobile wallets work by utilizing NFC (Near-Field Communications) empowered technology or QR code technology. They store the customer's payment information in an encoded format for security reasons. Some of the best digital wallet apps also let customers purchase goods within the app by offering coupons, discounts, and other loyalty cards or programs to keep users hooked.

A digital wallet works by communicating with terminals using different kinds of information transfer technology. However, most mobile wallets utilize NFC technology to serve the purpose.

(Digital wallet:Features,AdvantagesPopularity and many more, 2022)There are various reasons for digital wallet to get adopted by the users. The users are more concerned when it comes to the digital financial transactions. Digital wallets are more secured as its password protected. Moreover, it asks for password and makes sure that no other person makes the transaction through one's digital wallet. Another important thing is that it does need minimum balance requirement. It makes quick transaction with no additional charges. It's easy to operate from anywhere and everywhere. One need only smart phone, internet connection, digital app linked with bank account. More than one bank account also be linked to it. It performs multiple functions like shopping, paying various bills, transfer of money. Users can perform all sorts of transaction using a digital wallaby scanning the QR code at the point of sale or by adding a mobile number.

There are various types of digital wallet depending upon the types of business and the end users.

(Digital wallet:Features,AdvantagesPopularity and many more, 2022)Open wallet is issued by bank and is open for every type of transactions. It is used from cash withdrawal, shopping, basically used for in-store payment. It can be operated from anywhere in the world



Closed wallets are issued by the merchants and are used to store funds to complete the transaction with wallet's issuer. If the transaction is cancelled or refund is initiated due to some reason, the whole amount will be stored in that closed wallet and will not be used to make payments outside.

Semi closed wallet is used for transaction, shopping but the merchant must accept the contract or agreement with the issuer. It works in a limited coverage area. Paytm, Google pay and Phonepe come under semi-closed wallet.

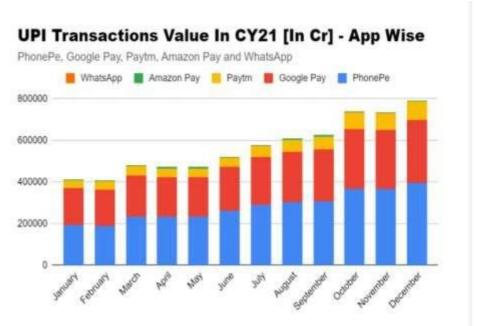
UPI and digital wallet often get misunderstood by the people (Unified Payment Interface) is a system where all banks come together on single platform, where transaction can directly happen between one bank to another. While digital wallet acts as intermediary between two bank accounts use virtual payment address (VPA) while digital wallet uses mobile number.

India has slowly transformed into an extremely dynamic mobile payments scheme with the assistance of progressive restrictive policies, superior technology infrastructure and increasing use of mobile transaction. (What is difference between UPI and digitwal wallet, 2020) From innovative new idea, mobile payments system unit perpetually making an attempt to reinvent themselves. The historically money-dominant market has responded

significantly well to introduction of mobile wallet. India is forefront of this payment transformation. The intersection of mobile technology and monetary services has paved the approach for exaggerated digital adoption. (E-wallets trends and future of digital payments, 2021)

UX design is the process of creating products that are practical and usable. According to Nielsen Norman Group, user experience encompasses all aspects of the end user's interaction with the company, its service and its product. (Babich, 2020)

The UX design of digital wallet plays a very significant role in terms of users' retention. When financial aspects get connected with technology, users become more vigilant as the UX process determines the point of view of the user on how the application feels. This led to the impact of establishing the relationship with the app. A product needs to be made keeping the users need in mind and their requirement. It should be user-centric that is usable, useful, desirable, findable and accessible.



Graph 2. A GRAPH OF ALL THREE LEADING DIGITAL WALLET

(Moore, 2020)The visual aesthetic of the product needs to be attractive and evoke positive emotion. In this way it establishes trust with the users. The core interaction of managing the digital asset -buying, owning and transacting are all enable by this incredibly complex price of technology. It is one that has to make the jump from easily adopters to the majority of the population.

After demonetization in 2016 and COVID-19, it seems every fintech company wants to join this bandwagon of offering these payment services.

Amongst the most popular digital wallets app in India, Gpay, Phonepe and Paytm have always remained in the headline. (Phonepe vs Paytm vs Googlepay: Which digital payment app should you use, 2021).

All these apps Gpay, Phonepe, and Paytm are more or less the same in offering the services with UPI enabled methods. However, both Paytm and Phonepe offers wallet services that let users store money for prepaid payment. On the other hand, Gpay offers no wallet service and money continue to get deducted from the bank. Amongst all the three digital wallets, Gpay offers cleanest user interface (UI) and this could be matters of perspective. Inspite of giving fewer services, its popularity can be seen with its usage among the consumer. (Phonepe vs Paytm vs Googlepay:Which digital payment app should you use, 2021)

These three apps are neck-at-neck when it comes to digital payments. All three offer the basic service like payment, transfer, electricity bill payment, water bill payment and booking flight or train. Phone pay and Paytm offer additional services like mutual fund payment and health insurance. But Gpay has less service to offer, recently it tied with SBI for health insurance. Despite people preference towards Gpay can be seen more because of its clean interface which fulfils the hick's law of heuristic approach.

Banking and payment industry, however, are very specific because they require more of the end-users' attention than, for example, social media apps. In the era where banks and fintech's are looking to become digital-first, UX and UI should become one of the top priorities, Currently, banks have the infrastructure and a huge customer base for implementing good user experience and interface for that matter. However, the traditional ones are burdened by a product-centered thinking legacy, but customers seek experiences along with the products. UX will be the major success factor for financial brands, and technology is the key driver. (Gavran, 2019) (Babich, 2020)

Investing in customer experience is a holistic approach to strengthening a brand. UX is the process that determines the point of view of the user on how the application feels. This has a lot of impact on establishing the impression of a business organization. An excellent user experience (UX) signifies that

the digital product is easy and intuitive. A good UI should have a consistent theme from screen to screen, which includes graphics and animations, uniform layout, and ease of use. Consistency on every screen builds credibility and keeps users from getting confused.

In Tier 2 city and beyond, the demand of digital wallet is on faster rate than the tier 1 city. According to Phonpe small town India is adopting digital payments way faster than metros and tier-I cities, that records nearly 80% of its total transactions (including financial services) from tier-II, -III, -IV cities and beyond. (Bureau, 2021).

The rise of digital wallet can be imagined by the sensational news, when a beggar from Bettiah, Bihar was seen asking for alms through QR code hanging around his neck.



Digital Beggar uses Phonepe QR code around his neck for alms Pic credit: ndtv.com

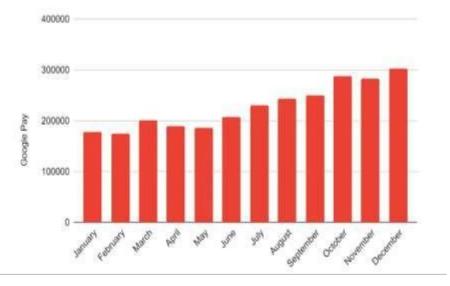
#### Google Pay

In May 2011, Google announced its mobile payment service google wallet, an initiative to extend its advertising business to the offline world. Google teamed up with the handset vendor Samsung which provided the first android mobile phone (Nexus) that was compatible with wallet.

In 2017, Google launched Tez (now google pay) in India, their main goal was to create Simple payment app to replace cash. In last three years, Google worked continuously to improve the features of the app. They tried new technologies like audio QR CODE(AQR) which has audio frequencies to communicate with nearby device to enable payments and later moved on to using traditional QR code.

Gpay has a very clear interface as user find it easy to make decisions when they have less choice and complexity. According to Hick's law it says "the time it takes you make a decision, increases with the number and complexity of choice".

But in the process of making a clean interface, it has missed adding a few navigations button. A product that 67 million monthly active users does not have a search button on its home screen. They missed adding some very basic features that could have enhanced the user -experience by several fold. (Mundhra, 2022)



Graph-3 GPAY TRANSACTION VALUE (CY 2021)

#### Paytm

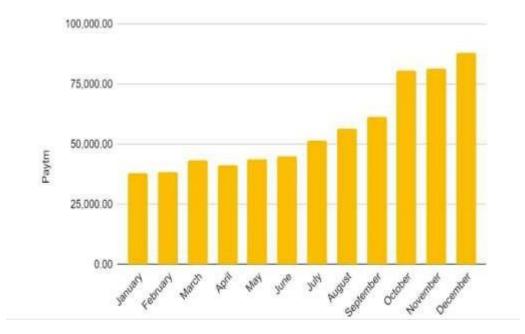
In the year 2010, Paytm was founded in August 2010 by Vijay Shekhar Suman in Noida, Delhi NCR.

In the May 2017, it became India's first payment to cross over 10 crore app downloads. Post demonetization, two words that came to every Indian's mind while paying for shopping were "Paytm karo". Paytm has transformed the payment technology in India and it has brought about a paradigm shift in India's retail industry. Paytm is one of the largest companies in India in terms of market share, capitalization and revenue generation.

It was just the determination and hard work and prior experience of Vijay Shekhar Suman that had made Paytm what it is today. Till Feb 2018, Paytm's share in the e-payment companies market stands at 30 %. Paytm is now looking forward to explore new opportunities. By the end 2020, Paytm plans to make entry into the loan market and disburse loans of small natures to approximately 500 million people. Paytm also plans to expand its payment bank network and convert it into physical banking facilities in next few years.

According to sources, the payment banks is also planning to launch a chap app with sophisticated features to give WhatsApp run for their money. Startup such as Shifu and near in what were acquired by Paytm will be used to strengthen and offline presence of the company.

Paytm has achieved unparalleled success in the last couple of years as it has bagged quite recognition across the world for its work in empowering people adopting to digital-to-digital payments.



Graph 4 PAYTM TRANSACTION VALUE (CY 2021) GRAPH 4

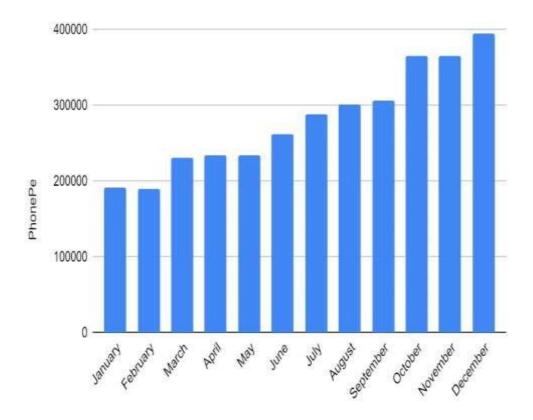
## Phonepe

Phonepe is an Indian E-Commerce Payment System & Digital Wallet company and its headquarters is in Bangalore. It was started by ex-flipkart employee Sameer Nigam and Rahul Char.

In December 2015, digital payment company PhonePe was founded in over 11 language. The mobile app of PhonePe went live in August 2016 and it was the first digital payment app that had started UPI (Unified Payments Interface) in India.

This app allows its user to perform various function like payment, phone recharge, DTH payments, electricity bill, gas and other bill payments. Furthermore, PhonePe is one of the most common UPI app that is approved by a majority of Indian merchants which allow users to book, order food, buy things and more.

Phonepe launched a POS machine that is now seen in almost every shop and Kirana store in India. People can use the POS system to make payments. PhonePe gives you the benefit of Wallet so that you can make your payment very fast. You can add multiple bank accounts with your PhonePe accounts and all of the bank accounts can be easily managed by PhonePe. PhonePe rewards its users with a scratch card after making a transaction. PhonePe also offers UPI payments which are also a Secure Payment System. PhonePe gives various payment options to its users which means you don't need to pay with your bank account or debit/credit card. You can make payment with any card with PhonePe. PhonePe has good Customer Support so that if you face any kind of problem, you will get the best solution at the earliest.



BREAK UP OF UPI TRANSACTION VALUE (CY 2021 Graph - 5

## Objective

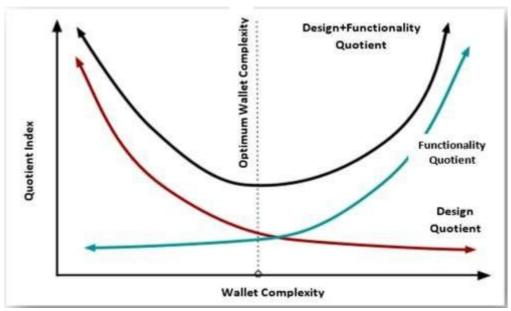
- To study UI design of the wallets and analyse the interface experience keeping UX Laws.
- To study the reason for preference for a particular wallet among the users

## 2. Literature Review

(Mia Oslen)The paper tries to understand the utility of the digital wallets in today's digital era in terms of functionality or the number of features vs the design aspect of the user interface of the digital wallet. The idea of the paper is not to propose a solution which presents a "perfect" digital wallet for all. Instead, it is a part of the ongoing endeavor and efforts to customize and continuously improve upon the combination of features and design for different focus groups and demographics across the social structure. The choice of method for this study was driven by the research problem, which is the identification of digital wallet properties with focus on the interaction between the user and the artifact. The focus on human-computer interaction leads to issues that are complex and grounded in multiple disciplines. Consequently, questions frequently arise that have a thin or no theoretical background, and exploring these, is where Design Science Research – exploring by building – proves useful. The paper also depicts the research methodology which includes:

- Selection of various user groups
- Segregation of the research through a phased approach i.e. suggestion, development, evaluation and conclusion phases.
- Applying the methodology on the selected user focus groups
- · Understanding the design parameters based on the research methodology and superimposing with practical relevance

The paper in a very subtle way concludes that functionality parameters and the design aspect for a particular digital wallet are counter-intuitive in nature as depicted by the plot shown below. Also, it is very difficult to capture the requirements of all the user groups in one standard digital wallet which is end all for everyone. Additionally, the various user groups depending on their specific requirements lie at various points on the plot shown below.



Design vs Functionality Graph -6

In this section it emerged that functional and design properties of m-wallets are somewhat different to those of mobile payment. (Hedman, Jonas, and Ravi Vatrapu. Edited by Mia Oslen.)

On the other hand, those who understood the concept of m-wallet right away had many questions, especially concerning security and other aspects of mobile payments that are still uncertain. Security issues are one aspect that needs to be further explored and not only in the case of m-wallet but also for mobile shopping. Further, designing for security issues might be in conflict with other usability goals such as efficiency and learnability. The user tests also revealed that it is of great importance when testing an innovative product to ask the study participants to ignore the questions of whether they would use it, as this showed to affect a couple of the tests. Another observation showing that some participants did not quite grasp the idea was made when some of them suggested that the digital wallet should hold the possibility of reading text messages and checking Facebook, as they would not want to be without it. Along the way, it was therefore decided to explain to the study participants that they still had all the other functions on the mobile phone, and that the m-wallet was just another function or just like another mobile app. Moreover, the user tests did inform further questions that had not been originally planned and which might not have been asked to all the participants. For example, if a participant proposed an idea that had not been proposed before, the participants in the subsequent tests were asked about this proposal, in order to have their opinion.

Internet users are increasing at rapid pace day by day around the world. So wants of the the users in terms of making payment has modified eventually. Paying money by cash is diminishing slowly where digital wallet is creating waves now. E-wallet has become a good potential within e-commerce market and people have shown interest towards it (Subramaniam, 2020).

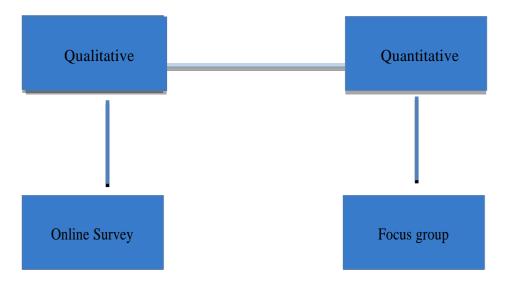
E-wallet is rising immensely due to the convenience of E-wallet or payment in this busy era. Notwithstanding technological advancement, many customers often prefer cash in hand to the traditional way because they think that cash in hand is more safety than E-wallet. This is the viewpoint of the old generation relative to that of the young generation, just like others, everything has its pros and cons. We need to make the right choices as wise users and have the awareness of the E-wallet that we use (Subramaniam, 2020)

There has been rapid rise in the growth of mobile technology throughout the world. In Indian perspective, it provides benefits to both customers and service providers. First to the customer (demand) side, it represents an opportunity for financial inclusion among a population that is under served by traditional banking services. On the service provider (supply) side, it opens up possibilities for financial institutions to deliver a great diversity of services at low cost to a large customer base of the poorest sections of society and people living in remote areas. This paper identifies the active factors that influence people's intention to use mobile wallet in India. (Subramaniam, 2020)

(Yadav, 2017)In Indian perspective, the technology of digital wallet provides benefits to each type of users and as well as the service providers. Firstly, from the user's perspective, it provides financial inclusion among that is underserved by traditional banking services. On the service side, it opens up possibilities for financial institutions to deliver a great diversity of service at low price to an outsized customer's base. This paper identifies the active factors that influence people's intention to use mobile wallet

(Yadav, 2017)Adoption of mobile wallet in India is still at infant stage. So, in order to make it a success, Government of India and other stakeholders are making efforts to encourage its customers to use mobile wallet. In the present study, efforts were made to check the effectiveness of the factors that has been explored in the previous studies. Only one significant factor i.e., perceived usefulness has been identified, that dynamically influence the future intention of customers to adopt mobile wallet. Further, it has also been observed that perceived usefulness positively influences the intention to adopt mobile wallet. As usefulness of mobile wallet perceived by customers is positively related to mobile wallet adoption, banks and other stakeholders should publicize the multifarious benefits of the digital method of payment to a large extent, which would result into increase in subscription of mobile wallet service.

## 3. Research Methodology



The research method is basically a technique that is used by the researcher for performing different activities during investigation. The selection of an appropriate research method is very much essential as it has significant influence on the outcome.

The method was both qualitative and quantitative in nature.

Qualitative research aims at discovering the underlying motives and desires using online surveys. A structured questionnaire was designed and distributed to a group of 35 different users of digital wallet across Patna region to gather information about their view and experience of their preferred digital wallet. The respondents are selected by using convenient sampling techniques The questionnaire was framed keeping UX-laws in mind both heuristic and cognitive biased. The total number of 16, closed ended questionnaire were distributed. For analysis purpose percentage, one-way Annova method was used.

## DATA COLLECTION

- Online survey
- 2. Focus group

## a. Online survey

Interview Date	15 <sup>th</sup> April 2022- 20 <sup>th</sup> April 2022
Sample Demographics	Gen z and Millennials of the Patna region
Sample Size	36 Respondent
Types of Questions	Structured and closed ended
Number of Question	16

Table -1

Total number of respondents were 36 who took the online survey in the region Patna. The questions were framed keeping the UX laws (heuristic and cognitive bias)

#### Objective

- 1. To know the types of digital wallet preferred by the users.
- 2. To study the reason for the preference for a specific wallet.
- 3. To study UI design and to know how closely the interface/experience has been designed keeping laws in mind.

4. To study the pain points of their chosen digital wallet.

#### Procedure

Questionnaire were created on google form, keeping in mind the basic task done by users through digital wallets.

Questionnaire were related to the user experience of the digital wallet and the parameters will be on the basis of UX laws like (heuristic and cognitive approach)

HEURISTICS LAWS	COGNITIVE LAWS
Aesthetic -Usability Effect	Peak end rule
Fitts laws	Serial position effect
Goal gradient law	Vons Restoriff effect
Hicks law	Zaigernik effect
Jakob law	
Miller's law	
Parkinson law	

#### DATA ANALYSIS

The data was categorized in the following areas of problem

- Cognitive load
- Aesthetic usability
- Number of clicks
- User patience

More than half of the surveyors are using Gpay as the primary digital wallet. Based on the survey, Gpay lead the others, digital wallet providers, by a small margin in terms of features and functionality. As expected, the overall experience of the Gpay is also in line with the features and function but margin is higher. Most of the surveyors have either give a rating of 4 or 5 to Gpay.

With PhonePe and Paytm not lagging far behind. The overall experience of digital wallet is a combination of functionality as well as the design quotient of the digital wallet. It can be concluded that the design features of Gpay supersede the same for the other digital providers.

#### Focus group

Sample size of this group was of 10 people. The reason to target these populations is to have an unbiased opinion about the specific wallet as the people chosen for this focus group will use that specific DW (digital wallet) for the first time.

This is to observe their first-hand experience which is more towards real experience of the digital wallet. This will help in understanding the clarity of the interface and usability of the app.

The users were asked to install the digital wallet which they have not used before. The next step was to register and linking the app to bank account details. Their phone was kept on screen recording mode and in the end the time was captured for each given task.

Interview Date	2nd-9th April 2022
Sample Demographics	Gen z and Millennials
Sample Size	10 Respondents
Types of Questions	Structured and Unstructured
Number of Question	5

Table -3

## 4. RESEARCH FINDINGS

		Survey Quest	tions			
Users	Digital Wallet	Q1	Q2	Q3	Q4	Q5
USEIS	installed	Time of Resp	onse (sec)			
User 1	Gpay	50	20	29	49	
User 4	Gpay	30	15	29	35	
User 7	Gpay	45	28	34	50	
User 2	Paytm	44	48	29	55	
User 6	Paytm	56	49	36	40	
User 8	Paytm	50	39	34	50	
User 9	Paytm	49	44	39	62	
User 3	Phonepe	70	60	45	66	al
User 5	Phonepe	55	51	41	51	goric
User 10	Phonepe	63	53	44	55	Catergorical

Table - 4

10 interviews were conducted in order to record the response time to the first 4 questions. The last question was categorical in nature and thus the response time does not exist in this case. The 10 interviewees are distributed across the 3 major digital wallets. Gpay, Paytm and PhonePe as shown in the above tables. The following steps were adopted in analyze the response time results:

The mean time of response was calculated for a particular wallet for each of the 3 digital wallets for each of the survey questions. The plot below shows the mean time of response for the same:

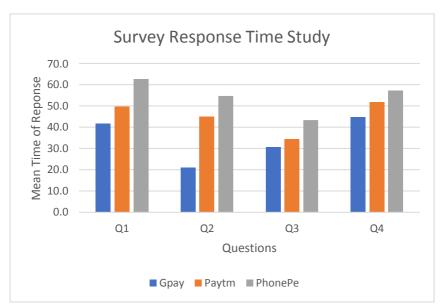


Table -6

The plot above and table below shows the Gpay response time was slightly better than the response times pertaining to Paytm and PhonePe

	Time elapsed f	or transactions and v	alidations
	Top digital wallets		
Transactions & Validations	Gpay	Paytm	PhonePe
Q1	41.7	49.8	62.7
Q2	21.0	45.0	54.7

Q3	30.7	34.5	43.3
Q4	44.7	51.8	57.3

Table -7

Secondly, the mean time of response for the each of the mobile wallet (sample) across the questions is calculated followed by the calculation of the mean of the sample means as shown in the table below

Mean for each sample	34.50	45.25	54.50
Mean of the sample means	44.75		

Table-8

Thirdly, the sum of squares between (SS between) and sum of squares within (SS within) is calculated as shown in the table below

	105.06	0.25	95.06
SS between		801.5	
	351.67	178.13	199.44
SS within		729.24	

Table -9

Fourthly, these sources of variations are compared in order to calculate the F-ratio as shown in the table below.

Source of Variation	SS	df	MS	F-ratio
Between Sample	801.5	2	400.75	4.045020
Within Sample	729.24	9	81.02623	4.945929

Table-10

Fifthly, the null and alternate hypothesis is defined as follows:

H0 (Null Hypothesis)	Time elapsed for transactions and validations does not depend on the wallet type
Ha (Alternate Hypothesis)	Time elapsed for transactions and validations depends on the wallet type

Table-11

Sixthly, the calculated F-ratio is compared to the F-ratio from the table (4.26)

Calculated F> F-ratio from the F table

Thus, the null hypothesis is rejected.

This in turn means that response time elapsed depends on the wallet type. And thus, based on the response time results, Gpay seems to be slightly better than other e-wallets.

## Overall Findings from the Primary Research (Online survey and Focus Group)

• Digital wallet is mainly famous for making the online payment. For that QR (Quick Response code becomes an essential feature which should be given important than the other button. It should be different and unique which makes it more distinguishable from the rest of the button.

According to Von Restoriff effect which is also known as isolation effect predicts that when multiple similar objects are present, the one that differs from the rest is most likely to be remembered or noticeable. Time elapsed depends on the type of wallet.

- Search button is an important feature which makes the users save his time and able to explore by him if he/she gets stuck anywhere. It makes UX-process smoother.
- Checking balance after every transaction is obvious habits for most of the users. Keeping its importance in consideration, it should be kept in the first page. Users spend most of the time searching for this button in Gpay wallet which one has to scroll down to find it.
- (Suneja, 2020), Tier 2 city is going to be hub for digital wallet in the next five years

#### 5. Conclusions

Digital wallet has become a inseparable part among the population. This technology has brought a shift in the user's mind and behaviors towards the acceptance of digital wallet. Now every fintech company want to enter into bandwagon of digital wallet. There are many digital wallets floating in the economy. But every users have their own interest or inclinations towards a specific digital wallet. There can be many reasons for a digital wallet to get preferred by users but one of the most important reasons in user experience design. The design and functionality quotient goes hand in hand. But imbalance in between the quotient affect the different set of users.

In this paper the researcher tries to find reason for user retention for particular wallet and vice versa by doing qualitative and quantitative research among a population by using convenient sampling technique.

The result of the research shows that time elapsed depend on the type of wallet.

Where time consumed by the users depend UX-design of the digital wallet.

#### References

Alcantara, A. M. (2021, February 23). Google redesign digital wallet tries to make payments feel more personal. Retrieved from www.wsj.com: https://www.wsj.com/articles/googles-redesigned-digital-wallet-tries-to-make-payments-feel-more-personal-11614117172

 $Babich, N. \ (2020, November \ 24). \ What \ you \ should \ know \ about \ User-Experience \ design. \ Retrieved \ from \ www.adobe.com: \\ https://xd.adobe.com/ideas/career-tips/what-is-ux-design/?msclkid=9ae145f1cf6f11ec8793b03597a041da$ 

Bureau, F. e. (2021, september 3). Tier-II & beyond cities adopting digital payments way faster than Metros and tier-I: PhonePe. Retrieved from www.financialexpress.com: https://www.financialexpress.com/industry/tier-ii-beyond-cities-adopting-digital-payments-way-faster-than-metros-and-tier-i-phonepe/2322929/

Digital wallet:Features,AdvantagesPopularity and many more. (2022, February 1). Retrieved from www.paytm.com: https://paytm.com/blog/payments/mobile-wallet/digital-wallets-features-advantages-popularity-and-more/

E-wallets trends and future of digital payments. (2021, November 19). Retrieved from www.emozentech.com: https://www.emizentech.com/blog/e-wallet-trends-future-of-digital-payments.html

Fintech in India-Powering mobile payments. (2019, August). p. 36.

Gavran, M. (2019, February 19). The importance of good UX-UI in banking and payments. Retrieved from www.nets.eu: https://www.nets.eu/perspectives/Pages/The-importance-of-good-UX-UI-in-banking-and-payments.aspx

List of e-wallet companies in India. (n.d.). Retrieved from www.pmjandhanyojna.com.

Manchanda, A. (2021, May 11). Building a popular mobile wallet app:7 essentials features. Retrieved from www.netsolutions.com: https://www.netsolutions.com/insights/essential-features-for-building-popular-mobile-wallet-app/#what-is-a-mobile-wallet-app-and-how-does-it-work

Mia Oslen, R. K. (n.d.). E- wallet properties. (M. Oslen, Ed.) International Conference on Mobile Business (ICMB 2011), Como, Italy,

Mitra, S. C. (n.d.). A study consumer adoption intention for digital wallet in India. International Journal on Customer Relations.

Moore, K. (2020, July 31). How to improve mobile UX with digital wallet. Retrieved from www.cxl.com: https://cxl.com/blog/digital-wallets/

Mundhra, L. (2022, Janauary 28). Phonepe and googlepay led UTI txn with total 83% market share in 2021. Retrieved from www.inc42.com: https://inc42.com/buzz/phonepe-google-pay-led-upi-txn-with-total-83-market-share-in-2021/

Phonepe vs Paytm vs Googlepay:Which digital payment app should you use. (2021, October 28). Retrieved from www.news18.com: https://www.news18.com/news/tech/paytm-vs-phonepe-vs-google-pay-which-digital-payment-app-should-you-use-4373702.html

Subramaniam, R. K. (2020). The impact of e-wallet on current generations. Journal of Advanced Research in Dynamical and Control Systems.

Suneja, R. (2020, January 14). How Tier 2 and Tier 3 cities are set to lead the FinTech space in the next 5 years. Retrieved from www.economictimes.indiatimes.com: https://economictimes.indiatimes.com/news/economy/indicators/how-tier-2-and-tier-3-cities-are-set-to-lead-the-fintech-space-in-the-next-5-years/articleshow/72381571.cms?from=mdr

Sunny, A. G. (n.d.). Developing a reserch model for mobile wallet adoption and usage. journals.sagepub.com/home/ksm.

What is difference between UPI and digitwal wallet. (2020, November 23). Retrieved from www.economictimes.indiatimes.com: https://economictimes.indiatimes.com/wealth/spend/what-is-the-difference-between-upi-and-digital-wallets/articleshow/79336677.cms?utm\_source=contentofinterest&utm\_medium=text&utm\_campaign=cppst

Yadav, P. (2017). Active determinants for adoption of digital wallet. n i-manager's Journal on Management.