

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Management



Bachelor Thesis

Indian customer perception of digital wallets.

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

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Business Administration

Thesis title

Indian customer perception of digital wallets

Objectives of thesis

The aim of this thesis is to assess the customer perception towards digital wallet, and to analyse the problems faced in the use of a digital wallet, and to identify the most significant factors influencing the customer in the adoption of a digital wallet.

Methodology

The literature review will be based on data collection from specialised publications, journals and other written or online sources.

The practical part of the thesis will be based on an analysis of the information gained from the survey. The survey will be conducted in India comprising those respondents who are using digital wallets.

The proposed extent of the thesis

approx 40 – 50 pages

Keywords

Consumer Behaviour, Digital Payments, Information Technology, Mobile Applications, Mobile Payments, Online Shopping, Purchase Decision

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DALIMUNTE I., MIRAJA B.A., PERSADA S.F., BELGIAWAN P.F., (2019), Comparing Generation Z's Behavior Intention in Using Digital Wallet for Online and In-store Transaction, in Journal of Applied Economic Sciences, Issue Year: XIV/2019, Issue No: 65, pp660-672,

Kotler P., Kartajaya H., Setiawan I.(2021), Marketing 5.0: Technology for Humanity, Wiley, UK., 224pp, ISBN-13 : 978-1119668510

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Declaration

I declare that I have worked on my bachelor thesis titled "Indian customer perception of digital wallets" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break any copyrights.

In Prague on date of submission

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Indian customer perception of digital wallets.

Abstract

This thesis focuses on customer's perception towards digital wallet in order to help digital wallet companies to provide better services to customers. The thesis examines customer's perception about digital wallets in India and it also identifies the impact of various factors such as privacy, security, usefulness, convenience and brand name on customer's adoption of digital wallets in India. Further, the thesis analyse the problems faced by customers in using digital wallets in India. This thesis is divided into two parts. The first part contains information about the definition of digital wallet, various mobile wallet technologies as well as the factors affecting the intension to use digital wallet in literature review. Here, the information is gathered from secondary resources like publications, journals, books, etc.

The second part of the thesis includes the analysis of primary data. A structured questionnaire is designed to collect the data from customers in order to understand their perception. India is the targeted country for collecting the primary data. The sample size is 120 respondents which are selected randomly. The analysis of collected data has been done by using SPSS Software. The data is analysed by using various statistical tools such as the hypothesis testing and one variable analysis etc. The findings and recommendations are provided in the thesis based on the analysis.

Keywords: digital wallets, customer's perception, digital India, benefits of digital wallet, disadvantage of using digital wallets, factors influencing use of digital wallets, digital payments, mobile payment

Title of Bachelor Thesis in Czech

Abstrakt

Tato práce se zaměřuje na vnímání digitální peněženky ze strany zákazníků s cílem pomoci společnostem zabývajícím se digitálními peněženkami poskytovat zákazníkům lepší služby. Práce zkoumá, jak zákazníci vnímají digitální peněženky v Indii, a také identifikuje dopad různých faktorů, jako je soukromí, bezpečnost, užitečnost, pohodlí a značka, na přijetí digitálních peněženek zákazníky v Indii. Dále práce analyzuje problémy, se kterými se potýkají zákazníci při používání digitálních peněženek v Indii. Tato práce je rozdělena do dvou částí. První část obsahuje informace o definici digitální peněženky, různých technologiích mobilních peněženek a také o faktorech ovlivňujících záměr používat digitální peněženku v přehledu literatury. Zde se informace shromažďují ze sekundárních zdrojů, jako jsou publikace, časopisy, knihy atd. Druhá část práce obsahuje analýzu primárních dat. Strukturovaný dotazník je navržen tak, aby shromažďoval data od zákazníků, aby porozuměl jejich vnímání. Cílovou zemí pro sběr primárních dat je Indie. Velikost vzorku je 120 respondentů, kteří jsou vybráni náhodně. Analýza shromážděných dat byla provedena pomocí softwaru SPSS. Data jsou analyzována pomocí různých statistických nástrojů, jako je testování hypotéz a analýza jedné proměnné atd. Na základě analýzy jsou v práci uvedeny poznatky a doporučení.

Klíčová slova:

digitální peněženky, vnímání zákazníků, digitální Indie, výhody digitální peněženky, nevýhoda používání digitálních peněženek, faktory ovlivňující používání digitálních peněženek, digitální platby, mobilní platby

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List of abbreviations

UTAUT - United theory of the adoption and use of technology

ICT – Information and communication technology

UPI – Unified Payment Interface

KYC – Know Your Customer

EMI – Equated Monthly Installment

MPS - Mobile Payment Systems

ToRA - Theory of Reasoned Action

NFC - Near Field Communication

TAM - Technology Acceptance Model

TR - Technology Readiness

PU – Perceived Usefulness

PEOU - Perceived Ease of Use

1 Introduction

In today's world, the smartphone has become an integral part of everyday life. As it has become less expensive, the number of smartphone users has increased remarkably. The number of smartphone users exceeded to 6378 million in 2021 and by forecast it will reach 7516 million by 2026 (Statista, 2021). Once smartphone production, many services are designed to use possible functions of Smartphones. Not only are smartphones used as communication devices, but also used as a communication tool, for entertainment tool, online access tool, and payment tool (Rajgopal, 2012) technically, mobile users these days can use their smartphones to make money transactions or payments using phone applications. Otherwise payment, people can also keep receipts, coupons, business cards, debts to their smartphones. When smartphones work like leather wallets, then it is called "Digital Wallet" or more commonly known as "Mobile Wallet".

Advanced Information and Communication Technology development has brought many benefits to the community and affected lives, attitudes and social events of the people. One of the most important things advances in social stability are the ability to get the most out of information (Fathian et al., 2009). Intelligent and pragmatic limits have been violated by IT as well provide an ideal environment for growth, creativity and a culturally viable business communities. Apart from using information technology, business activities are all new as well long-term jobs and jobs cannot be fixed. Many world programs (electronic trading and electronic banking) have continued to deal with this situation (Afsharpour et al., 2013). New technologies and global connectivity - especially Internet, internal and external networks (Taghizadeh and Shafigh 2013) now available used in the digital economy, in the retail and financial sectors online. A High quality e-commerce is one of the goals of all countries.

Pantea et al. (2018) examined the potential impact of the smart customer experience technology. Increasing customer use of smart technologies contributes to acceptance of their effect on employee procurement experience. The goal, in all countries, is to achieve the highest level of e-commerce. How e-commerce has led to the growth of international corporations. An electric business today is one of the most common topics. Over time, on the acceptance of e-commerce forums for business development, it is very important that the organization is in control recognition, honesty and trustworthiness of customers. Information technology and internet development is growing rapidly and is widely

regarded as the leading driver of expanded use in the e-commerce commercial services especially in India. E-commerce also offers new opportunities for shipping and general service delivery. In addition, e-commerce will do to improve and enhance the productivity of the organization (Kilan et al., 2017). You are using the Web software solutions for performing one or more Internet-based e-commerce tasks programs. These activities include data collection, communication, procurement and sale, distribution, customer delivery, delivery and payment adjustment among suppliers, suppliers and their customers. E-payment is one of the main pillars of e-commerce without which e-payment is also considered to be e-payment. Payment plans are very important to enforcing effective financial policies through financial transactions and their implications economic and financial activities around the world. In fact, the most important part of paying a card payment system plans. In addition to promoting the use of card acceptance, e payment service providers offer many other options that include acceptance receipt obligations, transaction authorization route requests and receipts consider another category of information works (Abili and Jafarnejad, 2014). Digital payment systems are considered to play the role of liquid exchange transmissions such as the most important financial infrastructure in the international economy. Digital building payment and payment infrastructure allows for significant amounts to be transferred to a short time between two or more financial institutions. That is, digital payments systems are important, especially when the currency exchange between midnight or more financial institutions are organized. Business and trade transactions are therefore required paid performance and marketing efficiently and effectively (Hakimi, 2010). Because Forty years ago since the introduction of e-payment, major technological changes, for one part, expand the e-payment system areas and, for the other part, are built social and business processes make it important to use such programs (Hakimi, 2009). Digital payment systems are an important part of the country's economy and finances infrastructure. Their efficient operation in the safest and most timely transfer of funds a significant impact on the overall functioning of the economic system.

The payment systems of each country are an important part of its economy, as a channel through which financial resources flow (Tennyson, 2014). Arrival and growth of the Internet and IT have led to dramatic changes in the way money is distributed. Many countries currently use a combination of electronic payment systems as well standard payment systems, including cash, checks, electronic payments and Online Trading

(Ifinedo, 2012; Golholami et al., 2010). Expenditure of cash and cash to paying for goods and services is increasingly dependent on the Internet for people as well companies. Various payment systems have been used by people to purchase products and services throughout history. Trading is one of the first ways; people take turns goods of other goods and services in exchange. Other common exchange products it was cattle, sheep and vegetables. Soon after, people started paying for grain, shells, coins gold (Rampton, 2016). The charging card was introduced in the early 20th century. In 1983 again, it was like that first suggested the concept of digital currency (Rampton, 2016), which marked the beginning of Electronic payment period. The first online purchase took place about 10 years later. Payment methods have been developed to respond to the growing need for ease of use, too both customer and seller payments have met this need in cashless terms (Dahlberg et al., 2015). Great credit card payments with credit and debit cards, online banking and debt payments. Recent applications for mobile payments and web payments have been available introduced (Rampton, 2016).

2 Objectives and Methodology

2.1 Objectives

The aim of this thesis is to assess the customer's perception towards digital wallet and to analyze the problems faced by customers in use of digital wallet and to identify the most significant factors influencing the customer in adoption of digital wallet.

2.2 Methodology

Methodology for the literature review will be based on data collection from specialized publications, websites, journals and other written or online sources. The practical part of the thesis will be based on the information gained from the survey.

The sample size for the study will be 120 respondents. The survey will be conducted in India for those respondents who are using digital wallets. The respondents can be both male and female who are having an age between 18 to 30 and they may have occupation such as student, businessman, homemaker, professional etc. The survey will be conducted through structured questionnaire. The first part of questionnaire will contain demographic questions such as gender, age, income and occupation. The second part of the questionnaire will include questions that in turn help in finding out factors affecting customer while using digital wallet.

The data collected from the survey will be used to assess customer's opinion towards usage of digital wallets. The data will be analyzed by using SPSS software. The one variable analysis will be done for each question. Beside this, two variable analysis will be carried out for meeting the objectives stated in the research. The hypothesis test will be done by performing Chi-Square and correlation.

The method of analysis and synthesis will be used to formulate the conclusion for thesis. The introduction about digital wallets, market growth and information about various digital wallets providing companies will be included in literary review of this thesis.

3 Literature Review

3.1 Definition of digital wallet

Back in history, a mobile wallet was created from a concept called –Digital Wallet. It dates back to 1996 when the founder of Digital Wallet, Sam Pitroda, who applied for a patent in the United States. —He said the digital wallet would have a crystal liquid display and not much is larger than a standard plastic bank card, which is better to touch easily screen and a simple user interface that allows the user to flip through the digital wallet in the same way you are investigating a leather wallet. (Pitroda S., Desai M., 2010)

To date, there is no definition of the term —Mobile Wallet. written by certain scholars. In Non-Confidential GSMA White Paper, mobile wallet is defined as —a software application on a portable handset that operates such as digital container for payment cards, tickets, loyalty cards, receipts, vouchers and other items that can be found in a regular bag. The mobile wallet enables the user to manage a wider portfolio of NFC mobile [Near Field Communication Resources] from many different companies (GSMA, 2012).

In other words, a mobile wallet is —built where your smartphone works as cash skin: can have digital coupons, digital currency (transaction), digital currency cards, digital receipts ... etc. all on your smartphone. That means, you install an app developed by other companies such as Google Inc., Apple Inc. or PayPal on your phone, and use those apps to pay directly products purchased (online / offline).

Electronic-Wallet is digital wallet (also known as E-wallet) that allows users to make electronic commerce transactions faster again safely. 1 very useful electronic wallets always online customers find money in their pockets, Palm-sized PCs, hand-held, and desktop. They offer security, a simple, and portable online shopping tool. As real bag; E- wallet stores information on cards. Like Username, password, URL and more are customized cards with symbols, colors, and other platforms, pictures. E-wallets can be divided into four parts: open wallets, Semi-closed wallets, Closed wallets. In order to simplifies the process of ordering a credit card, many companies are available to introduce electronic wallet services (M.Nandhini & K.Girija, 2019).

A digital wallet is a software-based system that allows a person to make e-transactions. By using a digital wallet, e-transactions can be easily done using computers, tablets or smartphones. The Individual bank account accounts are linked to their digital wallet. Digital wallets are not only used online purchases but also user verification. A digital

wallet can store complete user information including details, transaction history and personal information. They can be used in combination with others mobile payment systems (Akhila Pai H., 2018).

3.2 Types of digital wallet

According to the Reserve Bank of India, there are four types of digital wallets currently in use in India. These are:

- 1. Open Wallet:** An open wallet enables users to withdraw money from an ATM or bank, transfer money and make purchases goods and services. M-pesa by Vodafone is a great example of an open wallet. This service can be accessed only if introduced by the bank.
- 2. Semi-Open Wallet:** Semi - an open wallet that allows you to purchase goods and services for a fee wallet but withdrawing or redeeming it is not possible. Eg. Airtel Money is a dual fund retailers have a contract with Airtel.
- 3. Closed Wallet:** Closed bag only deals with one merchant. Used to purchase goods and services with only one dealer. Withdrawal is not possible. The money left in the purse can be used for the future transaction with the same vendor. Eg. Book show, Makemytrip.
- 4. Semi-Closed Wallet:** A semi- closed wallet allows us to purchase goods and services with listed retailers in listed places. Withdrawals or redemption are not possible in a closed fund Eg. Paytm (T. Praiseye & Dr. Florence John, 2018).

3.3 Advantages of digital wallets

The advantages of digital wallets are as follows (Akhila Pai H., 2018):

- A person's wallet can be snatched, misplaced or taken out of pocket, but a mobile wallet cannot be, though there is an opportunity for someone to steal someone's cell phone.
- If the bill is Rs 199 / - or Rs 235 / -, a person will not have to rush to ask for a change. Digital wallet allows one-tap payment.
- One requirement for not always filling out card numbers and passwords, they can link their credit cards, debits bank cards and accounts and pay quickly without any hassle to enter details each time.
- When a person pays with a credit card or debit card, the person discloses their privacy banking data on the seller's site or in its establishment, may lead to

unnecessary security issues but with using E-wallet, a person can restrict the disclosure of personal data.

- Major rewards for types of discounts and fees.

3.4 Disadvantages of a digital wallets

The disadvantages of digital wallets are as follows (Akhila Pai H., 2018):

- Digital wallets can only be used with a smart phone and a fast internet connection.
- In addition to the internet connection, security is a major problem.
- Dismal Battery backup of smart phones one can never be sure whether the phone will alive for one tap payment.
- Digital Wallet users will not receive any monetary interest that is available in digital wallets.
- It is always dangerous if you lose your cell phone because most wallets do not require an additional level of the authenticity of making a transaction.

3.5 Emergence of digital payment in electronic commerce

E-commerce is becoming increasingly important as a global customer, vendors and suppliers make transactions tailored to the current needs of the business within the context of a global business. The state of global business is growing competition, as well as customer demand for goods and services is also very high (Cheung, C. M., & Lee, M. K. 2005). In these cases, the needs of e-commerce and popularity it is becoming more and more pronounced. In the case of electronic commerce, the type of an industry used to buy and sell products and services through electronic systems such as such as the Internet or other computer networks (Sauer 2000). Contributed to e-commerce development in promoting Internet, email, mobile devices, social media and smartphones. In terms of its accessibility, e- Commerce is defined as e-traders, instead than any other type of business transaction (Zhou, 2008), for example, the exchange is dealing with faces or direct conversations. Integration of technology, including data (eg electronic data exchange, e-mail), data collection (eg identical information, electronic newsletter) and automated data collection, e.g. the barcode will be provided with a technical view (Zhou, 2008).

The growth of e-commerce has and significantly changed the life of the customer. On the Internet, customers can find faster products to visit a body shop by visiting a website by

comparing stores, which can reduce travel time and customer costs. Therefore, online shopping is very easy to buy sales, promotions, discounts and group transactions there are traditional partners. Increasing competition between organizations is creating increased competition within the e-commerce industry, meaning organizations can has given customers huge discounts (Coulson, 1999). As Internet skills expand and continue to be used, online trading will no doubt have a major impact the national economy and the type of sector. Given global internet access, these new e-markets have rapidly grown into a global product that will lead the Internet and electronic commerce to advance the world integration process. In its basic form, e-commerce contains any internet in practice. This usually means transferring goods, services or information. The Internet is just the latest phase in ICT, which has made information more accessible, faster compact, less expensive to eat, and easier to analyze properly. Due to the cost of technology is usually lower, access to the Internet is usually more easily accessible than any other electrical or IT communications means earlier. While using electronics communication methods (e.g. email systems) is not a new way to communicate again exchange of goods and services, today's e-commerce system works better because uses the best Internet quality (Van et al., 2001). E-commerce depends in good communication and information exchange. Most e-commerce communication is transmitted electronically. Therefore, the capture and use of details throughout the distribution process are made digital communication.

Throughout the recent decades, various studies have focused on the effect of users 'trust' adoption of new payment systems. Several researchers, including Mobile Payment Systems (MPS), have learned the result of confidence in the implementation of new payment systems by customers. For example, Xin et al. (2013) reported confidence is important in users 'intention to use MPS. Cao et al.(2016) stated that visible self-esteem is very important among all things affects users' decision to use MPS. However, given the importance of confidence in the adoption of MPS, some authors have suggested that self- esteem contributes to the adoption of MPS in conjunction with other factors. For example, Killian and Kabanda (2017) emphasized that confidence, risk and common use are factors that an important influence on South Africa's middle class citizens' travel goals payments. Lwoga and Lwoga (2017) stated that awareness, reliability and usefulness of payment services are predicted to provide ease of use.

3.6 Mobile wallet technologies

Direct carrier billing

This has been a traditional practice for decades. —It's also called direct operator billing or mobile content billing, allowing users to make purchases with their calls from merchants without entering credit card data (PCMag). For example, TYS (Turun Ylioppilaskyläsäätiö) is The Student Village Turku Foundation based in Turku, Finland. They offer a laundry service all eligible employers. Washers and dryers in the laundry are paid for by using mobile payment. Payment is approximately 1.6 € and will be charged directly in your billing file (or take it out directly from the phone's balance). If you have a prepaid telephone service, you need to have at least 15 € - 20 € left phone, depending on the mobile operator, activation (TYS).

QR and bar codes

—QR codes are bar square that enables more cloud-based advertising and payment applications (Webster, 2012). We can see an example of QR code in picture 1. The verification code you can select can be required for security purposes.

NFC

NFC is a dictionary of Near Field Communication. Any devices installed this technology can communicate and share information as well data within a few inches (GSMA, 2012). Activation, both devices need to have NFC (Webster, 2012).

Cloud-based solution

A cloud-based solution is also known as cloud computing which is defined as —a an all-in-one, simple, and desired network access model in shared pool of configurable computer resources (e.g., networks, servers, storage, applications, and services) that can be provided immediately too issued with minimal management effort or communication by service providers (Peter Mell, Timothy Grance, 2011). For example, PayPal tries to allow its users to do so transactions simply by typing their mobile phone number and physical PIN code POS (Webster, 2012).

3.7 The Technology Acceptance Model (TAM)

In 1960, two vendors, Fishbein, developed the Theory of Reasoned Action (ToRA) and was extended by Fishbein & Ajzen, which deals with the determination of individual behavior. In this model, moral purpose is identified as an additional cause of behavior. Any purpose engaging in certain behaviors is shaped by attitudes and the practice of humility. Fishbein & Ajzen's work is an influential thought whose use can only be seen in the field of social psychology but also in customer communication and behavior.

In the field of technology, understanding the complexities of human behavior is empowered inventors to predict user behavior in relation to technology products. In 1986, Fred Davis has published the Technology Acceptance Model (TAM), based on ToRA. TAM is one of the best known extensions in the study of learning adoption and application of new technologies (Aydin & Buznar, 2016). In this model, the user's motivation to avoid or adopt new information technology the product was determined for the purpose of using the product, and that function described as two useful features (PU) and ease of use (PEU) (Aydin and Buznar, 2016).

However, Mathieson et al. (2001) pointed out that the predictive capacity of TAM is limited, because apart from PU and PEU, there are other important things also codes of Conduct. For example, the standard ToRA procedure was not in TAM. Begconizing the limit, researchers added other elements to the classic, namely led to the expansion as TAM2, TAM3, United theory of the adoption and use of technology (UTAUT). These types maintain the simplicity of the TAM base and improve prediction and interpretation of technological adoption (Mathieson et al., 2001).

This concept harmonizes with the TAM extension and the ideas created by Nguyen & Pham (2016). In other words, intensive research will become commonplace and built on a foundation of Nguyen & Pham's thoughts. The Nguyen & Pham study published in 57th edition of the Journal of Science: Ho Chi Minh City Open City. Their lesson analyzes factors affecting the purpose of using commercial mobile service Citizens of Giang. The research model is shown in Figure 1.

According to research model given by Nguyen & Pham, research features include perceived usefulness and perceived ease of use, social influence, perceived credibility, perceived costs, variety of services and perceived mobility.

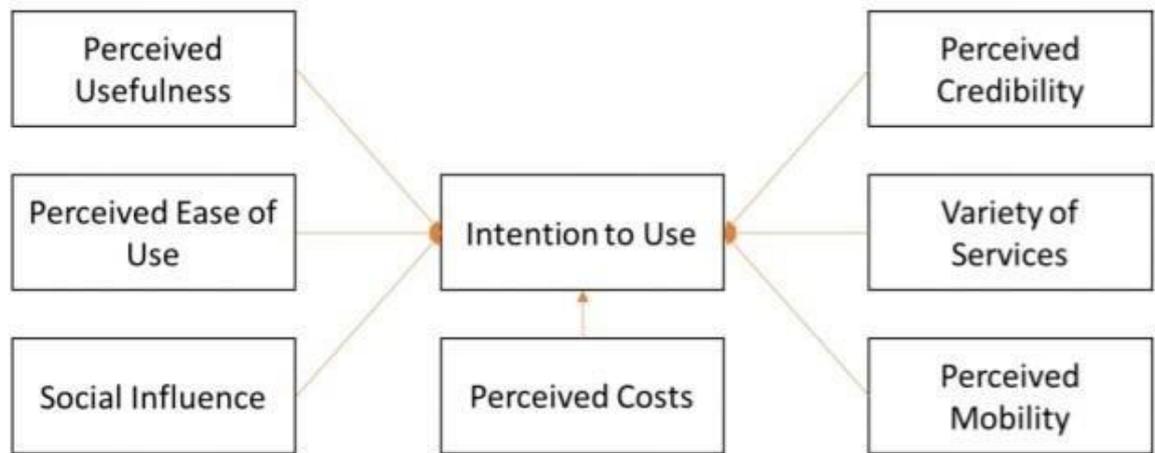


Figure 1: The Technology Acceptance Model (TAM)
Source: (Nugen & Pham, 2014)

3.7.1 Perceived Usefulness (PU)

Physical use refers to —the degree to which one believes performance will work best through a particular system (Davis 1989). According to Tandon et al. (2017), man relied on his psychological examination that a the technological product, in this case, the mobile wallet, will enhance his / her to work, to decide whether you intend to use it or not. The feature is an important predictor of technological acceptance. Found in previous studies that benefit comes with saving time and speed (Nguyen & Pham, 2016; Tandon et al., 2017; Aydin and Burnaz, 2016).

3.7.2 Perceived Ease of Use (PEOU)

Physical usefulness is defined as —the degree to which one believes that the use of a certain system has no effort (Davis, 1989). The second key feature the obvious in the technology adoption model. Davis also explained that users you may want to get used to the new system if it seems easy to use. Dai & Palvia by Nguyen & Pham (2014) has made the same statement of usability again the readability of the mobile marketing service is very important, however users have technology or technology — they have no knowledge. In the context of this concept, the wallet payment service will be easy to use as a current payment method for users who are beginning to consider switching to their future operations fund.

Tandon et al. (2017) suggested that the features of ease of use include:

- An easy-to-use structure, a technical product interface;
- User and product hard work experience in the early stages;
- Speed to acquire the required features;
- Ease of set of required actions and speed of navigation and making a purchase.

- User control while using a technology product.

3.7.3 Social Influence

The concept of social influence is derived from the ToRA of Ajzen and Fishbein (1980), understood as man's view of the social pressure of involvement or non-involvement of the chestl. Personal opinion is influenced by a person or group of trust such as family members, friends, co-worker, celebrities and mass communication methods. Vietnam as a collective society, where people they are groups, and they emphasize strong relationships and loyalty (Hofstede).

Loyalty means showing strong and lasting support for the group, the individual. In other words, a person prioritizes the kindness, interest and opinions of his or her group, relatives or friends over him. The implication of this cultural practice in this sense is that Vietnam's intention to use a portable purse will increase if it is closed encourage or pursue them. Dai & Palvia by Nguyen & Pham (2014) also found that out social influence has an impact on Chinese and Malaysian customers, who also participate collection culture.

3.7.4 Perceived Credibility (PCr)

Zhao & Kurnia (2014) described perceived loyalty (or perceived trust) as —the Customer willingness to take risks to meet their needs based on what is expected of the service provider. In other words, if the service provider is able to give customers the impression that their details, payment guarantees, the code of conduct is safe and secure, their customers have greater confidence in using the app to meet their needs. Used the notion of visible honesty said that honesty has a positive effect on the purpose of customer service. It was investigated whether loyalty was related to that security and privacy. Both of these aspects are the most troubling among Vietnamese, like Bui & Pham (2012), in their study; found that data confidentiality Defense in Vietnam remained modest. For that reason, it is considered that building the reliability of the e-wallet is important to influence the purpose of customer use.

3.7.5 Perceived Costs (PC)

Luarn & Lin (2005) by Nguyen (2013) defined costs that are recognized as costs Each person believes he or she must pay to use a technology product. Can be transaction costs, monthly or annual service provider fees, mobile device costs, mobile data system. During the Nguyen & Pham study, the impact of costs was found to be insignificant, Kurnia & Zhao (2014) pointed out that more money will do makes customers rethink whether or not

they use a mobile payment method Participants in the Pham and Bui investigation said the mobile commerce products were almost identical expensive compared to their financial capacity. Respondents also said unspecified data charges also serve as a barrier to mobile app usage.

3.7.6 Mobility

Kalinic & Marinkovic (2015) defines travel as being able to access a service again do financial transactions anytime and anywhere, or on the go. Mobile The commercial service is obviously designed for a range of mobile devices, and data transmission is terminated via wireless internet access such as Wifi or data. This gives users the opportunity to be independent of time and space, thus allowing for it sending and sending time-sensitive payment information, the amount of which depends on its timely use (Wang & Li, 2011). This emphasizes that when users, they are using a mobile phone wallet, we can start and complete a transaction from anywhere, as long as we have it network connectivity with their nearby mobile devices, they will be encouraged continue to use this payment method in the future.

3.7.7 Variety of services

The hypothesis of various services aims to test whether it is more food or not payment services in mobile wallet create a positive customer attitude towards to use it. Nguyen & Pham (2014) pointed out that Vietnamese customers were absent satisfied with the current mobile trading services. Vietnam is open they encounter new services, at the same time, they do not hesitate to delete services are not their needs or expectations (Appota, 2018). Measured that a Vietnam average downloads 5 programs every month, and subtract 3 applications at the same time.

In an effort to attract users to the mobile wallet, Vietnamese wallet providers do not simply deposit the wallet digitally. Today, e-wallets provide more than just storage fees and general payment services, they offer specific payment products such as paying for movie / plane tickets, aid bills, credit card, reminding friends to return, to separate debts. Recently, during a traditional Vietnamese holiday, e-wallets are like Momo and ZaloPay have allowed users to exchange fortune on their platforms.

3.7.8 Behavioral Intension

As mentioned above, intentional behavior is a close cause of behavior. Behavior the purpose is understood to be —an opportunity for personal independence to participate in given behavior|(Fishbein & Ajzen, 1975). The bigger the target, the more it is possible that

the behavior is performed. Ajzen, in his research on Theory of Planned Behavior in 1991, it continued to be recognized that the purpose of morality reflects a person's level of self-esteem he is willing to go, and the effort he plans to make, to do the character. Nguyen & Pham's research suggested seven factors that could influence construction of the moral purpose of receiving a mobile wallet.

3.8 Factors affecting the intension to use E-wallets

Intension of Use

Yi and Hwang (2003) predict web-based use the information system will be most affected by independent operation, enjoyment, learning objectives and acceptance of technology.

Perceived usefulness

Davis (1989) was a pioneer in technology development acceptance model that helped predict the purpose use helps to recreate the information system again information Technology. Jaruwachirathanakul et al. (2005) means that usable visuals have been able to promote web banking acceptance by Thai customers.

Ease of Use

(Churchill 1991) suggested that it is always easy too it is desirable to do tasks that require less time to perform has been done since people organized jobs in chronological order as they please.

Security/ Privacy confidence

The prosperity of the people to embrace and implement new technologies to find domestic and legal purposes jobs are called technology readiness (TR). The average person is very sensitive to family and work activities that require security and privacy (Parasuraman and Colby, 2005).

Social Influence

Adopting new technologies and phone updates survival in the current world of competition, and exploitation modern technology for day-to-day operations is affected social influence (Venkatesh, 2000). Sudeep (2007) states that the installation of advanced technology is social impact on users as they feel connected to the modern the earth.

Trustworthiness

Kim et al (2001) (Kini and Choobineh, (1998) do things to trust as an important factor affecting customers 'willingness to go shopping online. Pavlou et al., (2003) it means creativity and trust fitness plays an important role to gain the acceptance of any technology

by its users. The users need reassurance that information related to Personal issues do not have to be disclosed to anyone at in the wrong way (Culnan and Armstrong, 1999). (Eriksson et al, 2005) stated that trust has a positive effect on PU and PEOU of TAM. The situation with regard to online banking is most affected by PU and PEOU (Chiou and Shen, 2012).

3.9 Major Providers of digital wallet Services in India

1. Google Pay (formerly known as Tez) - As part of its Google ecosystem they have upgraded their user domains very quickly, without being too late. It is currently the No.1 digital wallet in India. With Google Pay you can send money to friends, pay bills and shop online, update your phone - all via UPI and directly from your bank account. Since Google Pay works with your existing bank account, it means that your money is safe in your bank account. No need to worry about reloading wallets and you do not need to create an additional KYC (Know your customer) - required for all other applications. You can also get debit cards and other rewards, with direct refunds transferred to your bank account. Now you can refill your mobile or monthly bills. Since the introduction of the UPI (Unified Payments Interface), wallets have been answered when users select an account to transfer an account via UPI. Installation number: 100,000,000+ (100 Million or 10 crore) on Android Play Store

2. PhonePe (earlier part of Flipkart) - PhonePe started in 2015 and in just 4 years has managed to cross the 100 million download mark. From UPI payments to recharges, transfers to online payments, you can do everything on PhonePe. It contains an excellent interface and is one of the safest and fastest online payment experience in India. Installation number: 100,000,000+ (100 Million or 10 crore) on Android Play Store

3. Dhani - The Dhani App is part of the Indiabulls group and has many features. It doesn't have the same wallet as other apps, but it can be integrated with the Dan SuperSaver Card. Dan also has a reward and loyalty program for Dan customers where customers can play and earn cash to pay for mobile reloads, EMI (Equated Monthly Installment) payments, Insurance, and Dan's new products. This can be combined with Dhani Super Saver Rupay (visual and virtual card) which ensures a 5% refund of all card purchases and is completely free in the first month. Installation number: 20,000,000+ (20 Million or 2 crore) on Android Play Store and iOS

4 BHIM Axis Pay - BHIM Axis Pay is a UPI banking system that allows you to transfer money instantly to anyone who uses your smartphone. Perform online recharges in your pre-paid set-top boxes directly from the app. Installation number: 1,000,000+ (1 Million or 0.1 crore) on Android Play Store

5. PayTM - PayTM is one of the largest trading platforms in India, offering its customers a digital wallet to save money and make instant payments. Launched in 2010, PayTM operates a slightly closed model and has a mobile market, where a customer can upload money and pay for merchants who have contact with the company. Originally it was the No.1 digital fund in India before the UPI was introduced. In addition to conducting e-commerce transactions, the PayTM wallet can be used to pay, transfer and receive services from merchants from the tourism, entertainment and retail industry. They also have UPI enabled payments now. Installation number: 100 Million (or 10 crores) in the Android Play Store.

6. Mobikwik - MobiKwik is an independent mobile payment network that is said to connect 25 million users with 50,000 merchants and more. This mobile wallet allows its users to add money using debit, credit card, bank net money and the collection department, which can be used for refinement, debt repayment and market purchases. Due to the growing demand for utilities, MobiKwik has also recently met with smaller and smaller restaurants, restaurants and other offline retailers. Another unique feature they have is their cost tracker that allows you to set a budget for your expenses on all payment instruments and uses your SMS data to analyze and control spending. Installation number: 10,000,000+ (10 Million or 1 crore) on Android Play Store

7. Yono by SBI - This mobile wallet app was introduced by State Bank of India to allow users to transfer money to other users and bank accounts, pay bills, refill, book movies, hotels, shop and travel. This low-cost paid close-up fund offers its services in 13 languages and is also available to non-SBI customers. This app also allows its customers to set appropriate reminders, transfer transfers and view a small statement of tasks performed. Installation number: 10,000,000+ (10 Million or 1 crore) on Android Play Store

8. ICICI Pockets - ICICI Pockets is a digital bank that provides a wallet paid to its customers. It offers the opportunity to use any bank account in India to fund your paid wallet and pay for transactions. With Pockets, one can transfer money, exchange, book tickets, send gifts and share expenses with friends. This wallet uses a virtual VISA card that enables its users to create any website or mobile app in India and offer special deals or

packages from compatible products. Installation number: 5,000,000+ (5 Million or 0.5 crore) on Android Play Store.

3.10 World market

Future Market Research identifies Alibaba Group Holding Ltd. (China), Apple, Inc. (U.S.), Citrus Payment Solutions (India), Google, Inc. (U.S.), MasterCard (U.S.), Oxigen Services India Pvt. Ltd (India), PayPal Holdings (USA), Samsung Electronics Inc. (South Korea), and Visa (USA) as major retailers in the global E-wallet market.

Most E-wallet services like paytm and free billing function by using mobile phone apps. Regardless of the traditional payment process, E wallet is based on encryption software that incorporates an analog wallet during a money transaction. In addition, E-Wallet allows you to store multiple credit card numbers and bank account numbers in a safe place and eliminates the need to enter account information during a transaction. When a user is registered and creates an E-Wallet profile, access will be made to make payments faster and with less typing.

In the latest trend, the NFC chip-enabled smartphone is expected to hit the market as most smartphone manufacturers equip phones with NFC (Near field communication). Placing a smart phone within four inches of a payment pad or touching a small student will enhance your wallet or pass payment confirmation letter.

In addition, according to industrial development, in July 2017, Axis Bank acquired a free e-commerce Company offering digital services. Paytm, on the other hand, is being restructured with a number of funds to increase e-wallet transactions. Citrus payments are received by Naspers-owned PayU with \$ 130M to increase its operations in India. Endless opportunities in this field invite many players to invest in the E-wallet market.

Geographically, North America followed by Europe formed some of the largest regions that contributed to market growth. Asia pacific, Japan, China and India go to countries with no money. There is a high potential for e-wallet growth due to the increase in smartphone acquisition in the region. In India, after demon possession, online payment transfers have skyrocketed. The government supports a moneyless country and a digital world and such programs will boost the growth of the e-wallet market. Paytm saw a 4.7% increase over the past three months. The free toll doubles the number of users who send to create demons and move a small amount of money. All countries around the world support

online wallet payments that will help track every type of transaction and reduce black money transactions.

The trend of mobile devices is global and irreversible. These devices are becoming more and more present in our lives and their discovery is growing much faster than previously expected. Improvements in the supply of these devices and the increasing use of them have changed our approach. This trend has been determined in a very special way by the emergence and subsequent evolution of smartphones as they have the potential to add ever-evolving apps that solve tasks that have been in need of huge time investment.

In this new era when mobile devices become the center of daily activities, many of the existing services that used to function well before the existence of these resources will come to an end, with all major changes affecting social norms (TicWeb, 2016). In the same way, other services will emerge and develop in a more organized and intelligent way.

Following this trend, the mobile market in recent years has led lenders, banks and technology companies to direct themselves to the mobile market to find payment solutions in the future. Financial technology is currently growing rapidly. The FinTech industry, which brings together all financial services companies that use the latest technology to provide new financial products and services, is currently producing millions of euros with a direct impact on the financial and technology industry. This value and financial strength is one of the reasons why the industry is able to transform traditional business practices into almost all financial services and services: banking, insurance, transfers and payments, market provision, investment management, deposits and loans, cash acquisition, etc.

3.11 Indian Market

As shopping patterns continue to emerge thanks to Covid 19, even mobile and digital wallets in India have also emerged. As UPI made payments seamless, mobile wallets and digital payment systems overcame credit card usage and gradually began to incorporate traditional payment methods. India is slowly opening its way to a society without money, from those heavy body wallets to tangible wallets; we change at a critical speed. The withdrawal of money by the Indian government also put pressure on the funds, and since then, the customer base of these funds has been steadily increasing. Prior to demon possession, cash transactions were about 95% of jobs, 85% of people were still paid in cash, and about 70% of customers voted ‘_Cash on delivery’ as the preferred payment method.

India has seen a dramatic increase in the number of digital wallet users. The nation is moving slowly towards becoming a moneyless economy. Digital Wallet or Mobile Wallet (e-wallet) simplifies your life by helping you make transactions faster and easier. In November 2016, while India was announcing all its currency notes as illegal tenders, an illegal street vendor had no choice but to accept payments on e-wallets. Paytm, which was a growing product at the time, went from 125 million users to 185 million users in less than a month and made India the center of all e-wallet business practices.

Since then, domestic and foreign e-wallet products have never looked back. India and China account for 70% of the world's 2.1 billion e-wallet users. The massive adoption of digital finance should not surprise Asia; a region that is already leading a travel game. A densely populated continent brings great business opportunities to attract millions of users. After new trends begin to emerge, e-wallet service providers have a list of predictable trends and synchronization.

This is one of the major obstacles to the widespread adoption of e-wallets. Retailers in many parts of Asia, especially those in small towns are reluctant to move forward with traditional processes. Excluding developing countries like Singapore, China, or India, most others have shown an increase in laziness in consumption. 28% of surveyed merchants accept payments on e-wallets which is behind credit cards (35%). However, the willingness to try new payment channels exists; an opportunity to come from e-wallet service providers.

3.12 Market growth

The mobile market is expected to reach \$ 255 billion by 2025 at the CAGR of 15.2% for the year 2020-2025. Increased use of technology in financial transactions and the rise of various commerce platforms are expected to accelerate the market for mobile wallets during forecasting. In 2018, according to a report provided by the Government of India, India has more than 15 wallet or e-wallet companies of which 14 are mobile wallet companies based in India. Digital payments in India see a steady growth with a combined annual growth rate of 12.7% in the value of non-cash transactions. Similarly, Chinese mobile wallets are growing at a rate of 22% with a total transaction total of \$ 41.1 trillion in 2018.

Asia Pacific has dominated the mobile wallet market with a market share of 58.45% due to an increase in the number of commerce platforms including Flipkart and Alibaba, efforts and good government policies to promote the use of digital payment channels.

NFC technology is estimated to grow in CAGR by more than 29% during forecasts that are easily credited for its easy use and advanced security options as it enables Smartphones to exchange data and operate as a payment device.

The Mobile Wallet Market Report predicts that size is driven by efficiency and cost by reducing processing costs across all vertical vertices.

Major players working in the mobile wallet market include Apple, PayPal, Samsung, JP Morgan Chase, Amazon, Tencent, Google, Ant Financial, One97 Communications Limited, Vodafone, Skrill, American Express, Sprint Corporation, Well Fargo, Mastercard, Visa, Initial Data, and AT&T.

NFC (Near field communication) technology is estimated to grow in CAGR by more than 17.56% during the forecast period. The growing adoption of non-contact payment solutions and the integration of NFC layers into smart devices drives market growth. The popularity of NFC mobile payments is compounded by its ease of use and advanced security options. It enables Smartphones to exchange data and act as a secure payment device and stores customer credit card details and allows the user to pay at NFC POS terminals via smartphones.

NFC mobile payments also help retailers access operating cost benefits such as reduced revenue processing and successful customer engagement. Companies are expanding NFC technology in their mobile payment solutions to allow for faster and easier payments. For example, in 2018 Apple partnered with Brazilian bank Itau Unibanco and introduced payment systems that work with NFC. Similarly, many Android and Microsoft-Windows smartphones have also used NFC technology to facilitate untended payments. All these technological advances will create demand in the market.

The slightly closed cell grows with a very high CAGR of 14.56% during the weather as this bag requires less transaction details. Technology players like Uber, Ola, Flipkart, MakeMyTrip, Paytm and Amazon are focused on investing in a closed fund to provide an integrated banking experience to their customers. Companies use their technical history to provide new products to their users. For example Amazon has invested \$ 33.5 million in its closed-ended Amazon Pay fund to increase attractiveness of Amazon Pay with a refund purchase on its site. Similarly, Flipkart has announced a \$ 77 million grant to its payment

partner Fonepe to increase its performance. All of these investments and investments will enhance the demand for a closed fund there by creating opportunities for mobile funds. In 2018, Asia Pacific controlled the mobile share market share of approximately 58.45% of the total market in 2018. The APAC economy is heavily influenced by countries such as China and India. In these countries, the market is driven by a growing number of commerce platforms including Flipkart and Alibaba, good government programs as well. For example in India, the government's act of demon possession in November 2016 created a huge demand for money in a mobile fund in India with a growth rate of 53.5%. Similarly in China 49.6% of the country's population is using mobile phones and it will rise to 60.5% by 2023. Similarly, smartphone penetration worldwide is increasing rapidly. Nearly 50 percent of mobile users worldwide had a smart device by 2018. Increased smartphone use and technological advances in connectivity infrastructure will create the desired mobile wallets in the region.

4 Practical Part

It becomes essential to understand the customer's perception about digital wallet as it will help the digital wallet companies not only in providing better services to customers but also in increasing their customer base.

For this study, the primary data is collected to understand the customer's perception towards digital wallet. The data is collected by conducting survey using structured questionnaire which was shared randomly among respondents. Approximately 120 respondents were participated in the survey. To understand the customer's perception about digital wallet, the study is limited to single country namely India. The sample size of 120 respondents from country is randomly selected for analysis.

Data collected from the survey has been analyzed using SPSS software. One variable analysis was performed for each question. Apart from this, Hypothesis testing has been done by using Chi-Square and Correlation method.

The analysis was used to form the conclusion of the thesis. Introduction to digital wallets, market growth and information about the various digital wallets provided by companies was included in the Literature review of this thesis.

The objectives of this thesis is to assess the customer's perception towards digital wallet and to analyze the problems faced by customer in use of digital wallet and to identify the most significant factors influencing the customer in adoption of digital wallet. The demographic factors such as age, gender, occupation are analysed for meeting the objectives stated in the thesis. Beside this, various factors such as privacy, security, convenience, usefulness, charges and brand name etc. have been considered for fulfilling the objectives of the thesis.

If the company could successfully accomplish long-term relationship with its customers, it could simply gain trust over its customers which could a major success factor. Hence, the digital wallet companies need to understand the customer's perception in order to establish long-term relationships with its customers. Thus, this thesis is aimed to study customer's perception towards digital wallet.

Age -

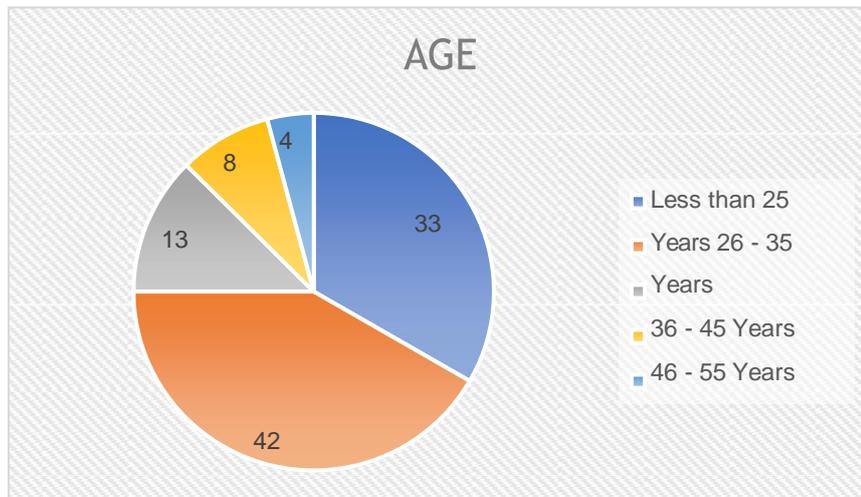


Figure 2: Age

Source: (Primary data, chart prepared by the author)

Interpretation - The 42% respondents are from the age group of 26 - 35 years and 33% respondents are from less than 25 years. This data includes different age groups for the study.

Gender -

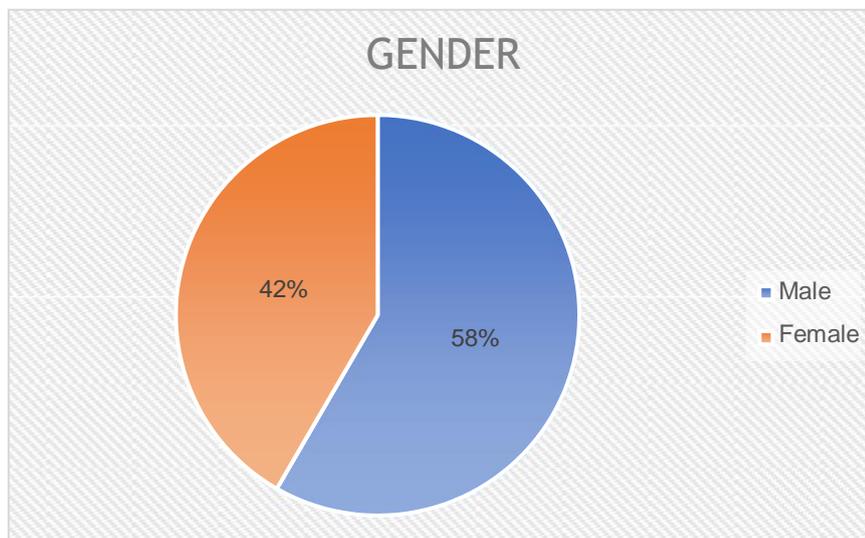


Figure 3: Gender

Source: (Primary data, chart prepared by the author)

Interpretation - The male & female ratio for the study is about 58% - 42% to understand the dimensions from the perspectives of both the genders.

Education -

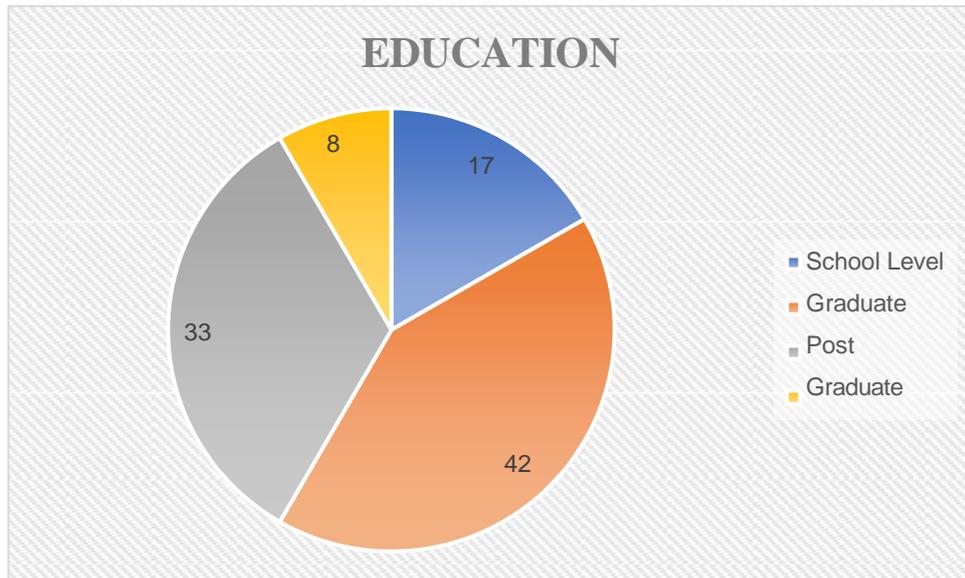


Figure 4: Education

Source: (Primary data, chart prepared by the author)

Interpretation - The majority of respondents like 42% are graduated and 33% are post graduated. This shows the minimum education level to understand & use the mobile wallets.

Occupation -

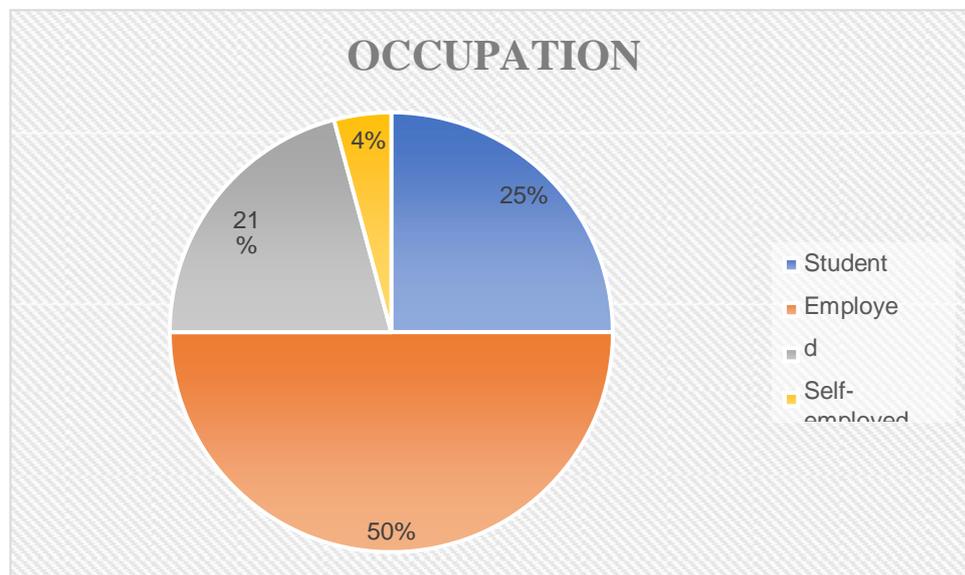


Figure 5: Occupation

Source: (Primary data, chart prepared by the author)

Interpretation - The 50% of respondents are employed and some company and other 25% respondents are students till now.

Monthly Income -

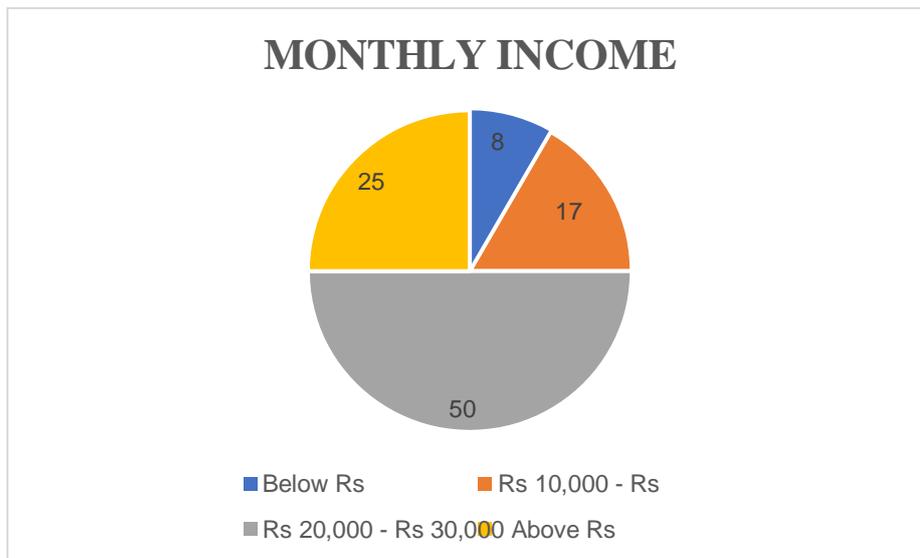


Figure 6: Monthly income

Source: (Primary data, chart prepared by the author)

Interpretation - The average monthly income of 50% respondents is between Rs 20,000 - Rs 30,000 and monthly income of other 25% respondents is above Rs 30,000, this shows the income level to use the mobile wallets.

Preferred Mode of Online Payment -

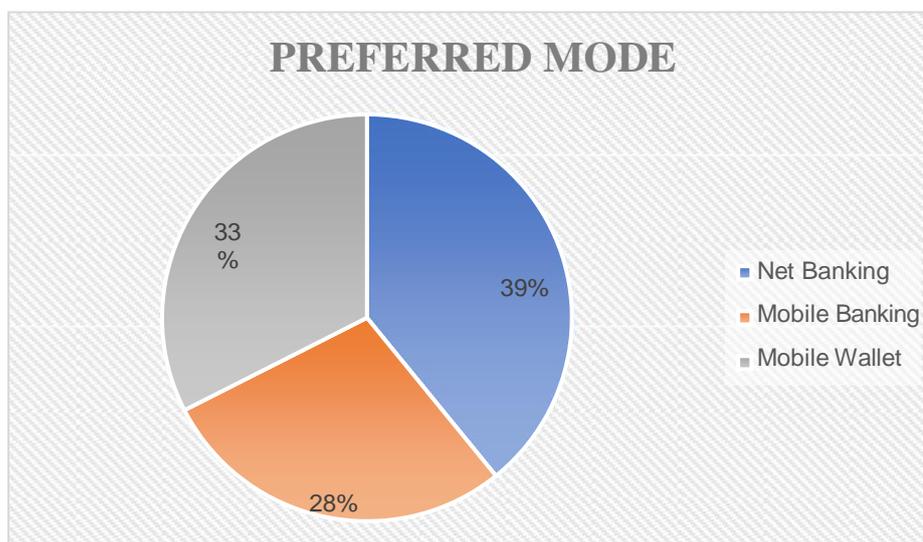


Figure 7: Preferred mode

Source: (Primary data, chart prepared by the author)

Interpretation - The most preferred mode for online payment is net banking for majority of 39% respondents as that can be from anywhere through the click on mobile or laptop both.

Factors Affecting Selection of Mobile Wallet -

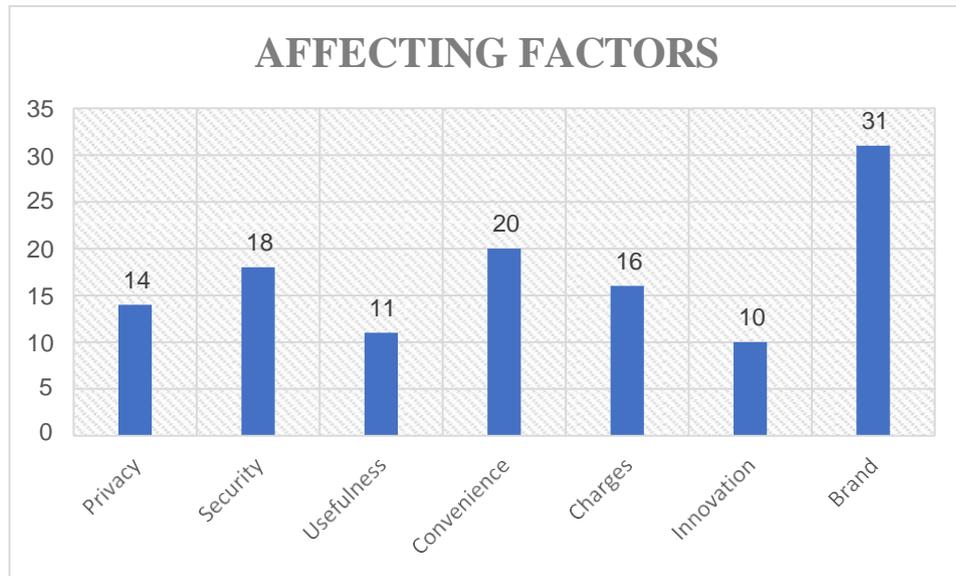


Figure 8: Affecting factors

Source: (Primary data, chart prepared by the author)

Interpretation - The more than 25% respondent's states that major factor to choose the current mobile wallet is brand name associated with the same.

Major Advantages –

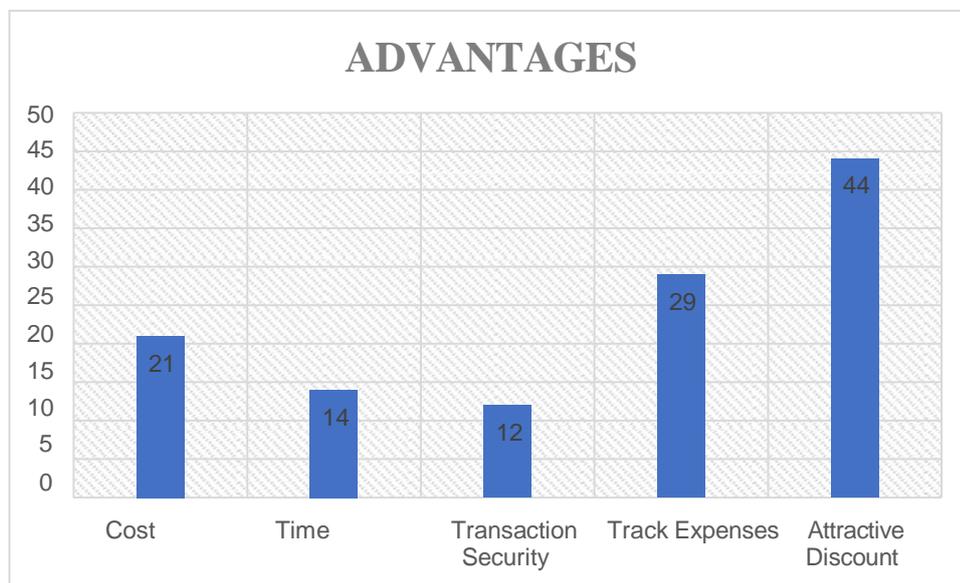


Figure 9: Major advantages

Source: (Primary data, chart prepared by the author)

Interpretation - The major advantage from the mobile wallet is attractive discount offers that comes for the promotions and that can be used for different available goods or services.

Major Disadvantages -

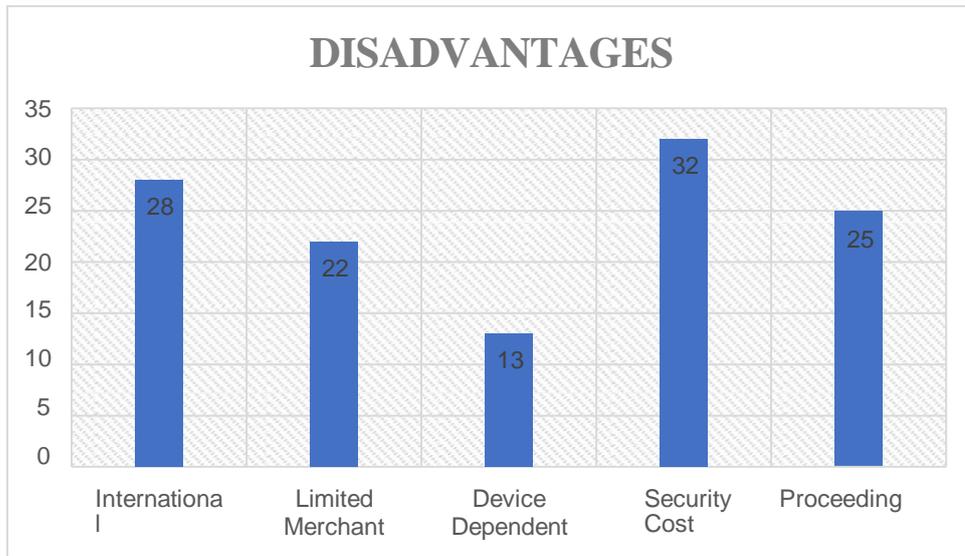


Figure 10: Major disadvantages

Source: (Primary data, chart prepared by the author)

Interpretation - The major disadvantage is security concern from the mobile wallet as regular scam & cheating news is not able to rescue the trust of respondents.

Customer Opinion –

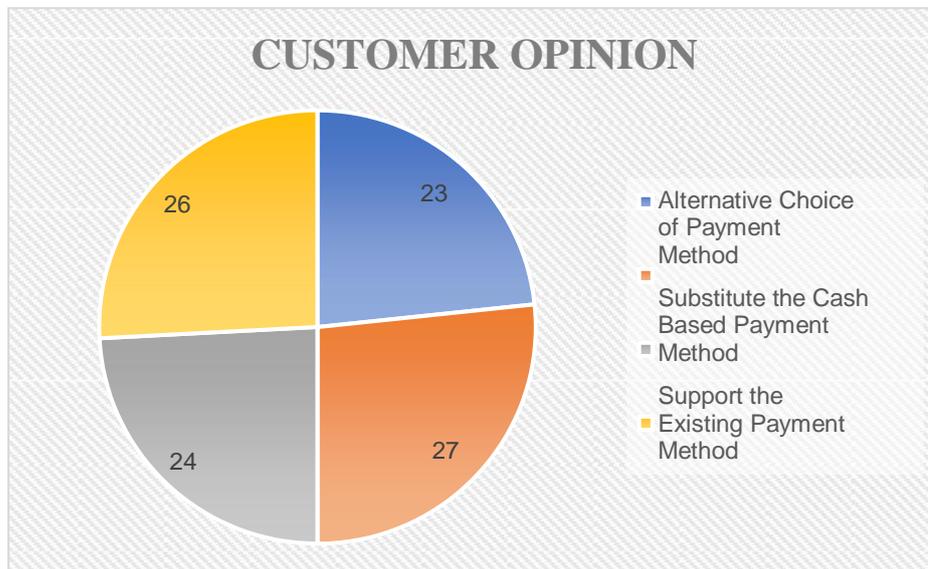


Figure 11: Customer opinion

Source: (Primary data, chart prepared by the author)

Interpretation - The customer opinion has a lot of diversity as all the factors has agree ratio of around 25% but the mobile wallet being substitute for cash based payment method has highest votes as in future perspective this is much more reliable payment option.

Acceptance Level -

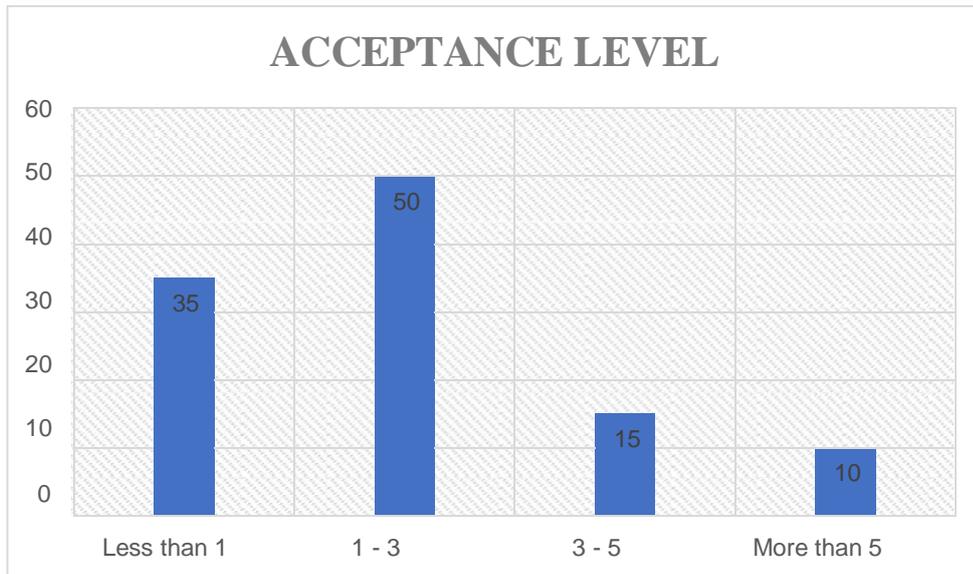


Figure 12: Acceptance level

Source: (Primary data, chart prepared by the author)

Interpretation - The acceptance level of respondents has been increased in last 1 - 3 years due to offers and other reflecting factors.

Current Mobile Wallet -

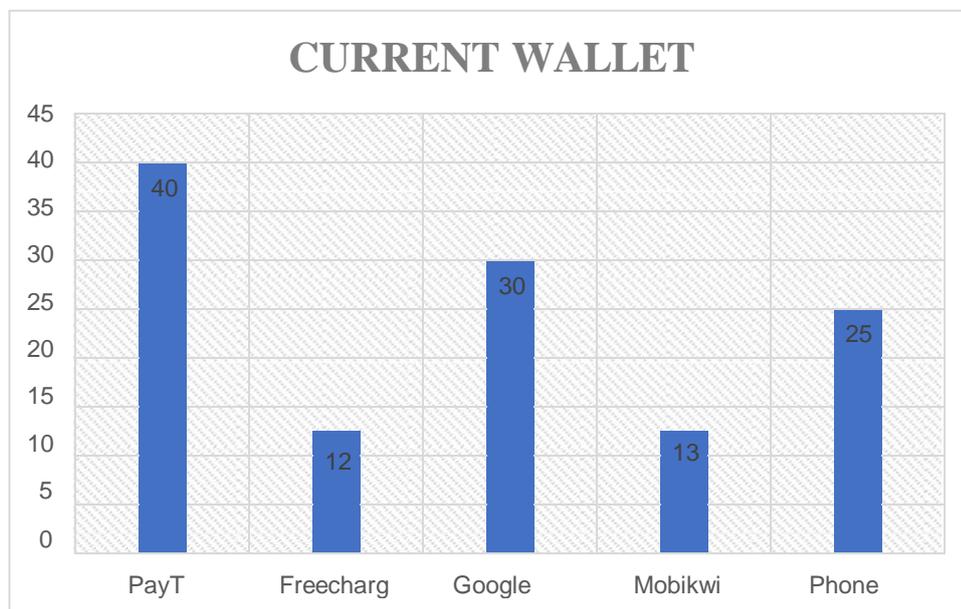


Figure 13: Current wallet

Source: (Primary data, chart prepared by the author)

Interpretation - The Paytm has more number of respondents but Google Pay & PhonePe is also coming in the market to make the impact.

Monthly Transactions -

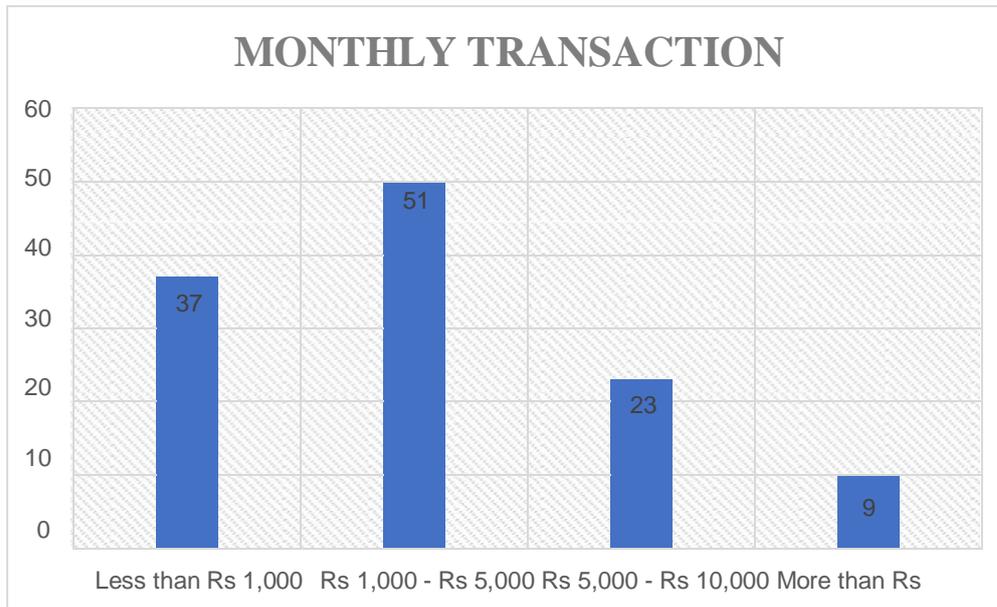


Figure 14: Monthly transaction

Source: (Primary data, chart prepared by the author)

Interpretation - The respondents are tending to spend between Rs 1,000 - 5,000 per month through their digital wallets as per their usages.

Recommend Others Current Mobile Wallet -



Figure 15: Recommend others

Source: (Primary data, chart prepared by the author)

Interpretation - The 47% respondents are moderate and 40% respondents are ready to recommend their current mobile wallet to others and that shows high level of loyalty.

Hypothesis testing

H0 - There is no relation between Age & Online Payment Mode.

H1 - There is a relation between Age & Online Payment Mode.

Table 1: Age * Preferred Mode cross tabulation

Table 1 - Age * Preferred_Mode Crosstabulation					
		Preferred_Mode			Total
		Net Banking	Mobile Banking	Mobile Wallet	
Age	Less than 25 Years	15	13	12	40
	26 - 35 Years	21	14	15	50
	36 - 45 Years	6	4	5	15
	46 - 55 Years	3	1	6	10
	More than 55 Years	2	2	1	5
Total		47	34	39	120

Source: (Primary data, chart prepared by the author)

Table 2: Chi-Square test

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.781 ^a	8	.781
Likelihood Ratio	4.730	8	.786
Linear-by-Linear Association	.321	1	.571
N of Valid Cases	120		

Source: (Primary data, chart prepared by the author)

- ✓ H0 = Accepted - The Chi-Square Value is more than 0.05 thus no relation between Age & Online Payment Mode.

H0 - There is no relation between Occupation & Mobile Wallet Acceptance.

H1 - There is a relation between Occupation & Mobile Wallet Acceptance.

Table 3: Occupation * Acceptance Level cross tabulation

Table 2 - Occupation * Acceptance_Level Crosstabulation						
Count						
		Acceptance_Level				Total
		Less than 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years	
Occupation	Student	7	9	10	4	30
	Employed	10	15	18	17	60
	Self-employed	7	5	7	6	25
	Homemaker	1	1	0	3	5
Total		25	30	35	30	120

Source: (Primary data, chart prepared by the author)

Table 4: Chi-Square tests

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.831 ^a	9	.551
Likelihood Ratio	8.888	9	.448
Linear-by-Linear Association	.747	1	.387
N of Valid Cases	120		

a. 4 cells (□□.□%) have expected count less than 5. The minimum expected count is 1.04.

Source: (Primary data, chart prepared by the author)

H0 = Accepted - The Chi-Square Value is more than 0.05 thus no relation between Occupation & Mobile Wallet Acceptance.

H0 - There is no significance between Income & Wallet Transactions.

H1 - There is significance between Income & Wallet Transactions.

Table 5: Monthly Income * Monthly Transactions cross tabulation

Table 3 - Monthly_Income * Monthly_Transactions Crosstabulation						
Count						
		Monthly_Transactions				Total
		Less than Rs 1,000	Rs 1,000 - Rs 5,000	Rs 5,000 - Rs 10,000	More than Rs 10,000	
Monthly_Income	Below Rs 10,000	4	2	3	1	10
	Rs 10,000 - Rs 20,000	0	4	9	7	20
	Rs 20,000 - Rs 30,000	11	18	12	19	60
	Above Rs 30,000	7	7	9	7	30
Total		22	31	33	34	120

Source: (Primary data, chart prepared by the author)

Table 6: Chi-Square tests

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.053 ^a	9	.000
Likelihood Ratio	16.198	9	.063
Linear-by-Linear Association	.056	1	.813
N of Valid Cases	120		

a. 5 cells (□□.□%) have expected count less than 5. The minimum expected count is 1.83.

Source: (Primary data, chart prepared by the author)

- ✓ H0 = Rejected - The Chi-Square Value is less than 0.05 thus relation between Income & Wallet Transactions.

5 Results and Discussion

The 42% respondents are from the age group of 26 - 35 years and 33% respondents are from less than 25 years. This data includes different age groups for the study. The male & female ratio for the study is about 58% - 42% to understand the dimensions from the perspectives of both the genders. The majority of respondents like 42% are graduated and 33% are post graduated. This shows the minimum education level to understand & use the mobile wallets. The 50% of respondents are employed and some company and other 25% respondents are students till now.

The most preferred mode for online payment is net banking for majority of 39% respondents as that can be from anywhere through the click on mobile or laptop both. The more than 25% respondents states that major factor to choose the current mobile wallet is brand name associated with the same as the trust comes with long journey of brand in the market.

The major advantage from the mobile wallet is attractive discount offers that comes for the promotions and that can be used for different available goods or services. The major disadvantage is security concern from the mobile wallet as regular scam & cheating news is not able to rescue the trust of respondents. The customer opinion has a lot of diversity as all the factors has agree ratio of around 25% but the mobile wallet being substitute for cash based payment method has highest votes as in future perspective this is much more reliable payment option. The acceptance level of respondents has been increased in last 1 - 3 years due to offers and other reflecting factors.

The PayTm has more number of respondents but Google Pay & PhonePe is also coming in the market to make the impact. The respondents are tend to spend between Rs 1,000 - 5,000 per month through their digital wallets as per their usages. The 47% respondents are moderate and 40% respondents are ready to recommend their current mobile wallet to others and that shows high level of loyalty.

The Chi-Square Value is more than 0.05 thus no relation between Age & Online Payment Mode. The Chi-Square Value is less than 0.05 thus relation between Gender & Online Payment Mode. The Chi-Square Value is less than 0.05 thus no relation between Education & Online Payment Mode.

The Chi-Square Value is more than 0.05 thus no relation between Occupation & Mobile Wallet Acceptance. The Chi-Square Value is less than 0.05 thus relation between Gender & Online Payment Mode. The Chi-Square Value is less than 0.05 thus relation between Income & Wallet Transactions. Most of the respondents are using digital wallet as their payment options. Most of the users of digital wallet use Paytm for their payment option. The numbers of male users of digital wallet are more but the difference between the male and female users is very less. Maximum users of digital wallet belong to the age group of 18-22 years. Majority of the users belong to the urban area.

Most of the respondents disagree there is no problem with safety and security for transactions. Most of the respondents agree that mobile data is one of the constraints to use digital wallet for payments. Most of the respondents agree that the digital wallet companies ask irrelevant information of the customers. Most of the respondents agree that the digital wallet companies won't reimburse money in time. Most of the respondents agree that the digital wallet companies fail to showcase trust. It is clear that mobile wallet will alter the other modes of online payment in future. The users of mobile wallet are much satisfied on its usage. Factors like brand loyalty, convenience of shopping plays an important role in adoption of mobile wallet. Security and safety of funds plays a challenging factor for the users.

6 Conclusion

The mobile wallet plays an important role in the lives of ordinary people as the changing lifestyle promotes easier digital access and faster access. In the future the mobile wallet will be visible in all areas of the business as it includes additional value-added services that continue with the payment support function only. In addition, experts believe that mobile wallets will soon become the latest marketing channel. They seem to contribute significantly to the customer shopping experience which increases their tendency to buy more and more with a good experience.

In the case of India, a digital wallet was a great way to travel without money and make your lives easier without money. It was the right solution for most users even though it was not well achieved in all fields. These days we have apps for everything. Digital funds such as Paytm and Free charge have been offering their digital platform for the past few years, and have for a long time been promoting a thriving economy. But in the current situation due to lack of funds people are facing payment problems. It was a time for making new decisions and overcoming the situation through other means. Mobile wallet is very important in the global business sector such as banks, customers and companies. it also earns them money.

Today, mobile wallets have become an integral part of the normal life of India. However, there are still many people who do not know about this technology or are afraid to accept this new concept. In the study it is clear that the majority of respondents face problems such as companies asking for non-essential information, mandatory relevant data, refunds and failure to track customer payment details when customers have a problem. It is suggested that digital wallet companies may offer the option to use apps without mobile data and have a good tracking system until the customer knows that their payment has been made and has a deadline for a refund.

Mobile wallet payment is a major platform for new technology that promotes financial institutions in India through mobile technology and helps to grow their customers and their use. Security issues are tightened and reduced will automatically increase the acceptance of a mobile wallet. Recently, everyone has a smart phone but there is a need to inform and accept about mobile wallet services that are free, highly secure, private, secure and convenient without any hassle and distractions.

M-wallets quickly became the standard online payment mode. Customers are embracing cell phone wallets at an astonishing rate, largely because of their ease of use and convenience. Especially Tech-savvy professional buyers, looking for the Omni channel, a seamless marketing experience more and more and looking for a solution that brings this. It can be concluded that there will be a significant increase in the adoption of a mobile fund in the coming years.

7 References

- 6D Model of Hofstede of Vietnam. Available at: <https://www.hofstede-insights.com/country/vietnam/>
- Afsharpour, M., & Pahlevani, M. (2013). review and prioritization of payment tools and equipment of e-banking using Analytical Hierarchy Process (AHP). Seventh National Conference and the First International Conference of Ecommerce and Economy, Tehran.
- Akhila Pai H. (2018). Study on customer perception towards digital wallets. *International Journal of Research and Analytical Reviews*, Volume no. 5, Issue 3, pp. no. 385-391.
- Aydin, G. & Burnaz, S. (2016). Adoption of Mobile Payment Systems: A Study on Mobile Wallet. *Journal of Business, Economics and Finance*, Vol 5 Issue 1. doi: 10.17261/Pressacademia.2016116555.
- Cao, T. K., Dang, P. L., & Nguyen, H. A. (2016). Predicting customer intention to use mobile payment services: Empirical evidence from Vietnam. *International Journal of Marketing Studies*, 8(1), 117- 124.
- Chen, X., & Li, S. (2016). Understanding continuance intention of mobile payment services: an empirical study. *Journal of Computer Information Systems*, 57(4), 287-298.
- Cheung, C. M., & Lee, M. K. (2005). Customer satisfaction with internet shopping: a research framework and propositions for future research. In *Proceedings of the 7th international conference on Electronic commerce* (pp. 327-334).
- Chiou, J.S. and Shen, C.C., The antecedents of online financial service adoption: the impact of physical banking services on internet banking acceptance, *Behaviour & Information Technology*, 31(9), 2012, pp859-871.
- Churchill, G.A. *Marketing Research: Methodological Foundation*, 5th Edition, Dryden Press, New York, 1991.
- Coulson, A. (1999). —Electronic Commerce: the ever Evolving Online Marketplacel. *IEEE Communications Magazine*, 37(9), 58-60.
- Culnan, M.J. and Armstrong, P.K., Information privacy, procedural fairness and Impersonal trust: an empirical investigation, *Organization Science*, 10(1), 1999, pp104- 115.
- Davis, F.D, Perceived usefulness, perceived ease of use, and user acceptance of information technology, *MIS Quarterly*, 13(3), 1989, pp319-340
- Eriksson, K., Kerem, K. and Nilsson, D, Customer acceptance of internet banking in Estonia, *International Journal of Bank Marketing*, 23(2), 2005, pp200-216.
- Fathian, M., Shafiea, M., & Shahrستاني, M. (2009). The impact of e-banking implementation

in increasing customer satisfaction. *International Journal of Business Information Systems*, 3(1), 148-179.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley. Available at: <http://people.umass.edu/aizen/f&a1975.html>

Gao, L., & Waechter, K. A. (2015). Examining the role of initial trust in user adoption of mobile payment services: an empirical investigation. *Information Systems Frontiers*, 19(3), 525-548.

GSMA. (2012). *The Mobile Wallet Version 1.0*. GSM Association.

Guide to Digital Wallets: Advantages and Disadvantages / SCAND Blog. (n.d.). SCAND. <https://scand.com/company/blog/digital-wallet-benefits-and-disadvantages/>

Jaruwachirathanakul, B. and Fink, D., Internet banking adoption strategies for a developing country: the case of Thailand, *Internet Research*, 15(3), 2005, pp295-311.

Kalinic, Z. & Marinkovic, V. (2016). *Information System and e-Business Management* 14: 367. <https://doi.org/10.1007/s10257-015-0287-2>

Killian, D., & Kabanda, S. (2017). Mobile payments in South Africa: middle income earners' perspective. In *Proceedings of the Twenty First Pacific Asia Conference on Information Systems*, (p. 53).

Killian, D., & Kabanda, S. (2017). Mobile payments in South Africa: middle income earners' perspective. In *Proceedings of the Twenty First Pacific Asia Conference on Information Systems*, (p. 53).

Kim, D.-J., Braynov, S.D., Rao, H.R. and Song, Y., A B-to-C trust model for online exchanges, *Proceedings of the Seventh Americas Conference in Information Systems*, Boston, MA, 2001, August 2-5.

Kini, A. and Choobineh, J., Trust in electronic commerce: definition and theoretical considerations, *Proceedings of the 31st Hawaii International Conference on System Science*, IEEE, 4, 1998, pp51-61.

Lwoga, E. T., & Lwoga, N. B. (2017). User acceptance of mobile payment: the effects of user-centric security, system characteristics and gender. *The Electronic Journal of Information Systems in Developing Countries*, 81(1), 1-24.

M. Nandini & K. Girija (2019). Customer Perception Regards E-wallets. *International Journal of Recent Technology and Engineering (IJRTE)*, Volume no. 8, Issue 4.

Mathieson, K., Peacock, E., & Chin, W. (2001). Extending the Technology Acceptance Model: The Influence of Perceived User Resources. *DATA BASE*. 32. 86-112.

Nguyen, T., O. & Pham, T., U. 2016. Các Yếu Tố Ảnh Hưởng Đến Ý Định Sử Dụng Dịch Vụ Thương Mại Di Động Của Người Tiêu Dùng Tỉnh An Giang. *Journal of Science: Ho Chi Minh City Open University*. Vol 57, Issue 1.

Parasuraman, A., Zeithaml, V.A. and Malhotra, A., E-S-QUAL: a multiple-item scale for assessing electronic service quality, *Journal of Service Research*, 7(3), 2005, pp213-33.

Pavlou, P.A., Customer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model, *International Journal of Electronic Commerce*,7(3), 2003, pp69-103.

PCMag. (n.d.). Definition of Direct Carrier Billing. Retrieved November 2014, from PC: <http://www.pcmag.com/encyclopedia/term/63496/direct-carrier-billing>

Peter Mell, Timothy Grance. (2011). The NIST Definition of Cloud Computing. *Computer Security*, 2. Retrieved from <http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf>

Pitroda S., Desai M. (2010). The March of Mobile Money - The Future of Lifestyle Management. *The Mobile Wallet*, 127-155.

Rajgopal, K. (2012). McKinsey on Payments. *Payments wave, commerce ocean: The arrival of the mobile wallet*, 38-46.

Rampton, J. (2016) The evolution of the mobile payment. <https://techcrunch.com/2016/06/17/the-evolution-of-the-mobile-payment/>

Statista. (2020, August 20). *Number of Smartphone Users Worldwide 2014-2020 | Statista*. Statista; Statista. <https://www.statista.com/statistics/330695/number-of-smartphone-users-worldwide/>

Sudeep, S., Internet banking and customer acceptance: the Indian scenario, PhD thesis, Cochin University of Science and Technology, 2007.

T. Praiseye and Dr. Florence John (2018). A study on customer preference towards mobile wallet. *International Journal of Creative Research and Analytical Reviews*, volume 5, Issue 3, ISSN 2348-1269.

Taghizadeh, H., & Sepehri, A. (2013). Reasons of public reluctance to use e-banking card (Case Study: customers of Mellat bank). *Economics and Business*, 79-88.

Tandon, U., Kiran, R. & Sah, A. (2017). Analyzing Customer Satisfaction: Users Perspective Towards Online Shopping. *Nankai Business Review International*, Vol. 8 Issue: 3, pp.266-288, <https://doi.org/10.1108/NBRI-04-2016-0012>

Tennyson, O., & Mercy, O.E. (2014), E-payment system and its sustainable development in the Nigerian economy. *European Journal of Business and Management*, 6 (8), 48-56.

TYS. (n.d.). Saunas and Laundries. Retrieved November 2014, from The Student Village Foundation of Turku: <http://www.tys.fi/en/saunas-and-laundries>

Venkatesh, V., Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model, *Information System Research*, 11(4), 2000, pp342-365.

Wang, W., T. & Li, H., M. (2012) "Factors influencing mobile services adoption: a brand-equity perspective", *Internet Research*, Vol. 22 Issue: 2, pp.142-179, <https://doi.org/10.1108/10662241211214548>

Webster, K. L. (2012). How to make it in mobile commerce. Retrieved from Chapter Four: Digital Wallets.

Xin, H., Techatassanasoontorn, A. A., & Tan, F. B. (2013). Exploring the influence of trust on mobile payment adoption. *Pacific Asia Conference on Information Systems*, 143 (pp. 1-17).

Yan, H., & Yang, Z. (2015). Examining mobile payment user adoption from the perspective of trust. *International Journal of u-and e-Service, Science and Technology*, 8(1), 117-130.

Yi, M. and Hwang, Y., Systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model, *International Journal of Human-Computer Studies*, 59, 2003, pp431-449.

Zhao, Y. & Kurnia, S. (2014). Exploring Mobile Payment Adoption in China. *Pacific Asia Conference on Information System (PACIS) 2014 Proceedings*. 232. Available at: <http://aisel.aisnet.org/pacis2014/232>

Zhou, T. (2014). An empirical examination of initial trust in mobile payment. *Wireless personal communications*, 77(2), 1519-1531.

8 Appendix

Digital wallet survey

1. Age -

Less than 25 Years

26 - 35 Years

36 - 45 Years

46 - 55 Years

More than 55 Years

Required

2. Gender -

Male

Female

Required

3. Education -

School Level

Graduate

Post Graduate

Professional

Required

4. Occupation -

Student

Employed

Self-employed

Housewife

Unemployed

Retired

Other (please specify)

Required

5. Monthly Income -

Below Rs 10,000

Rs 10,000 - Rs 20,000

Rs 20,000 - Rs 30,000

Above Rs 30,000

Required

6. Preferred Mode of Online Payment -

Net Banking

Mobile Banking

Mobile Wallet

Required

7. Factors affecting Selection of Mobile Wallet -

Privacy

Security

Usefulness

Convenience

Charges

Innovation

Brand

Required

8. Major Advantage of Digital Wallet -

Cost Factor

Time Saving

Transaction Security

Track Expenses

Attractive Discounts

Other

Required

9. Major Disadvantages of Digital Wallets -

International Restrictions

Limited Merchants

Device Dependents

Security Concerns

Proceeding Costs

Other

Required

10. Customer Opinion on Digital Wallet Usage -

Alternative Choice of Payment Method

Substitute the Cash Based Payment Method

Support the Existing Payment Method

Not Necessary Payment Method

Required

11. Acceptance of Mobile Wallet -

Less than 1 Year

1 - 3 Years

3 - 5 Years

More than 5 Yeaes

Required

12. Currently Used Mobile Wallet -

PayTm

Freecharge

JioMoney

Mobikwik

Airtel Money

Required

13. Mobile Wallet Monthly Transactions -

Less than Rs 1,000

Rs 1,000 - Rs 5,000

Rs 5,000 - Rs 10,000

More than Rs 10,000

Required

14. Likely to Recommend Current Mobile Wallet -



High



Moderate



Low

Required