# PROJECT REPORT

# ON

# **"USAGE OF M-WALLETS WITH REFERENCE TO ULHASNAGAR CITY"**

# A Project Submitted to

# University of Mumbai for Partial Completion of the Degree of

# **Masters in Commerce**

Under the Faculty of Commerce

BY

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# UNDER THE GUIDANCE OF ASST. PROF. VARSHA SAWLANI

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**UNIVERSITY OF MUMBAI** 

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# DECLARATION

I the undersigned <u>MR. AAVES SHAIKH</u> here by, declare that the work embodied in this project work titled "USAGE OF M-WALLETS WITH REFERENCE TO ULHASNAGAR CITY" forms my own contribution to the research work carried out under the guidance of <u>ASST. PROF. VARSHA SAWLANI</u> is a result of my own research work and has not been previously submitted to any other University for any other Degree / Diploma to this or any other University.

Wherever reference has been made to previous works of others, it has been clearly indicated as such and included in the bibliography.

AAVES S. SHAIKH

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To list who all have helped me is difficult because they are so numerous and the depth is so enormous.

I would like to acknowledge the following as being idealistic channels and fresh dimensions in the completion of this project.

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Lastly, I would like to thank each and every person who directly or indirectly helped me in the completion of the project especially **my Parents and Peers** who supported me throughout my project.

# **EXECUTIVE SUMMARY**

# • Chapter No.1: Introduction

In this chapter Selection and relevance of the problem, historical background of the problem, brief profile of the study area, definition/s of related aspects, characteristics, different concepts pertaining to the problem etc. can be incorporated by the learner.

# • Chapter No.2: Research Methodology

This chapter will include Objectives, Hypothesis, Scope of the study, limitations of the study, significance of the study, Selection of the problem, Sample size, Data collection, Tabulation of data, Techniques and tools to be used, etc. can be incorporated by the learner.

# • Chapter No.3: Literature Review

This chapter will provide information about studies done on the Respective issue. This would specify how the study undertaken is Relevant and contribute for value addition in information/knowledge/ application of study area which ultimately helps the learner to Undertake further study on same issue.

# • Chapter No.4: Data Analysis, Interpretation and Presentation

This chapter is the core part of the study. The analysis pertaining to collected data will be done by the learner. The application of selected tools or techniques will be used to arrive at findings. In this, table of information's, presentation of graphs etc. can be provided with interpretation by the learner.

# • Chapter No.5: Conclusions and Suggestions

In this chapter of project work, findings of work will be covered and suggestion will be enlisted to validate the objectives and hypotheses.

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# Abstract

The last decade has seen tremendous growth in use of internet and mobile phone in India. Increasing use of internet, mobile penetration and government initiative such as Digital India are acting as catalyst which leads to exponential growth in use of digital payment. Also, demonetization resulted in tremendous growth in digital payments. With the government initiative such as Digital India and increased use of mobile and internet are means to exponential growth in use of digital payment. This transformation towards digital payments benefits in more transparency in transactions which empowers the country's economy. In recent days many changes took place in the payment system like digital wallets, UPI and BHIM apps for smooth shift to digital payments. The objective of this project report is to study the positive impact that Digitization of payment system and use of mobile wallets. It also focuses on the analysis of the adoption level of these digital payment systems by customers. Primary data was collected from 100 respondents of S.I.C.E.S. College. The collected data through the questionnaire were analyzed by bar diagram, pie charts, and ANOVA.

Key Words: Digital payments, Demonetization, E-Payments, Online payments.

# **CHAPTER 1**



# **1.1 INTRODUCTION**

Mobile payments allow us to perform transactions for goods and services with a mobile device, such as mobile phones, smartphones, etc. These wireless communication technologies can be useful to us in a variety of ways like payments, ticketing and paying fees and fares electronically. Mobile wallet is one of the mobile payment instruments available that can be used for various financial transactions. In India, we have seen a significant change in the profile of Indian consumers. They are more attracted towards technology, better networked and using maximum resources available.

In India, mobile payment services are growing significantly from the last few years, as it is convenient and easy to use. A mobile wallet technology is an innovative idea in the current scenario, it can be seen as a virtual wallet, which provides one the facility to make instant payments and also exchange transactions through smartphone. This advanced technology helps users to become more accessible with financial services and provides platform to various banking/ non-banking entities to enhance their business. Mobile wallet is showing effecting outcomes in emerging economies. In India, the use of mobile technology has increased significantly and users can access various financial services easily to sustain M-wallets applications. The Government of India has introduced various partnership models with IT companies, banks, retailers to increase acceptance and adoption of M-wallets among the users.

The mobile wallet generally refers to payment services operated under financial regulation and made through a mobile device. Instead of paying with cash, checks or credit cards, a consumer can use a mobile phone to pay for a wide range of products and services. M-wallet has become the most important contributor in the promotion of electronic transactions and without cash. A mobile wallet is the digital equivalent of a physical wallet in which we store cash and make payments. It is a prepaid electronic. account, which can be used

to make payments even without passing a card or using a paper currency. The appearance of the smartphone as a payment tool leads to the growth of mobile wallet transactions in the country. A mobile wallet application is a virtual wallet where customers can charge certain money in advance with any service provider, which can be used for several bill payments. While the main players are talking about a growing market share, many smaller ones are also Scope The primary objective of this study is to study Usage of Plastic Money and Virtual Wallet as Modes of Payments in and around Ulhasnagar City but the same would have relevance in other parts of the country. The following points exhibit the scope of the Study.

- The study is confined only to Credit Card, Debit Card and Virtual Wallet Services.
- The study has taken into account both users and non-users of such modern banking gadgets.
- The users and non- users are randomly surveyed.
- Geographically the study is in and around Ulhasnagar city. o entering the market.

#### **1.2 DEFINITION:**

Mobile payment (also referred to as mobile money, mobile money transfer, and mobile wallet) generally refer to payment services operated under financial regulation and performed from or via a mobile device. Instead of paying with cash, cheque, or credit cards, a consumer can use a mobile to pay for a wide range of services and digital or hard goods. Although the concept of using non-coin-based currency systems has a long history,[1] it is only in the 21st century that the technology to support such systems has become widely available.

# 1.3 HISTORY

Online payments began in the 1990s. The Stanford Federal Credit Union was the first institution to offer online banking services to customers in 1994. However, early online payment systems were not very user friendly, requiring specialised knowledge of data transfer protocol.

Early players in digital payment were Millicent and Ecash, which offered services that used micropayment systems and electronic alternatives to cash, such as e-money, tokens or digital cash.

The founding of e-commerce pioneer Amazon in 1994 provided further impetus to these early digital payments of mobile wallet.

## **1.4 PROCEDURE TO USE MOBILE WALLETS**

Step: 1. Download the mobile wallet application (Ex. Paytm, Googlepay, Jiomaney, Phonepe, Mobikwik, PayUmoney, Citrus, Oxigen)

**Step: 2.** Add your debit card or credit card information to the mobile wallet applications.

**Step: 3.** While you check the available participating traders, choose your card and access to the mobile wallet. If you are making an in-store consumption, just hold your mobile device at the terminal. The mobile wallet is providing service through several transaction processing methods. This includes, but not limited to:

- **Mobile based billing** The consumer mostly receives and send the payment through their mobile device providing the service (or same invoice).
- □ **SMS-based transactions** The payment transaction is instructed by banks and they send sms code with smart code.
- □ **Mobile online payments** Permits a consumer to send or receive the payment via the mobile application.
- □ Near-field communications (NFC) Type of consumer adopt a mobile app and

special hardware which is incorporated in to the mobile device to network with a payment-processing workstation.

# 1.5 FACTORS FOR THE GROWTH OF M-WALLETS

Factors affecting m-wallets growing importance and usage in the market can be listed as below. "The report points out that 77% of urban users and 92% of rural users consider mobile as the primary device for accessing the Internet, largely driven by availability and affordability of smartphones."

- According to a report, there is a raise of 76% in the smartphone shipments between 2010 and 2015. Even after 2015 with the raising competition of smartphone manufacturers which in turn made smartphones cheaper and affordable for Indian population.
- Latest Internet revolution by Jio and growing competition between data providers is also making the data cheaper and easily accessible by rural people in India.
- Growing number of smartphones and availability of internet to the masses would increase the market for e-commerce and hence for m-wallets.
- A couple of initiatives such as UPI and ease of regulations for m-wallet companies by the Indian Government to encourage cashless transactions are also benefiting the mwallet companies to grow their market and hence revenues. People are also understanding the importance of cashless economy, thanks to the publicity by the government and many NGO's, are moving towards cashless and hence opting the services of m-wallets
- Ease of use and convenience of m-wallets is also increasing the market of m-wallets. You can pay for goods and services with just a tap. Nothing is simpler than this in the current market. Users should be carrying either cards or cash earlier and now they can make payments using their smartphone which they anyways have it with them. Users can also transfer the money from the wallets back into their accounts after a simple KYC formality.
- Discounts/ Cashback/ Offers—Indian buyers are always inclined to offers or cashback or discounts. This has been a strategy for most of the e-commerce of even the physical stores some time to woo the Indian buyers. M-wallets are filled with these offers and cashback. PayTM gained all this traction because of their Cashback in the initial days which has been their strategy even now. There are many other m-wallet companies which provide cashback on their wallet usage. These offers or cashback which will not

be available when making payments via a card or cash will definitely encourage users to go for m-wallets while paying for goods and services.

# 1.6 FEATURES OF USING M-WALLETS

## 1. Instant Payments Between Wallets

Instant payment means the money transfer between the payer wallet and the payee wallet happens within seconds, instead of within hours or business days.

## 2. Bill Payments

This is one of the critical mobile wallet features because people today prefer to pay every bill online - utilities, mortgages, loans, rent, tuition, to name a few.

As digital cash is here, mobile wallets are becoming an important part of daily life and they should be able to provide an effortless bill payments solution - be it a prepaid or post paid payment service.

## 3. Security

When you provide mobile financial services, security comes first. Money transactions have to be safe and secure from end to end.

Mobile wallets can be secured with plenty of robust technologies, such as point-topoint encryption, tokenization, passwords, biometrics, out-of-band authentication, one-time password (OTP) via SMS, security questions.

## 4. Rewards, Coupons, Discounts

The power of coupons and rewards is well-known among marketers and sales teams. Mobile wallets are an ideal environment to provide deal-seeking consumers with these benefits in a relevant context.

Therefore, features that allow the easy creation and managing of coupons, discounts, tickets, loyalty points, etc. are key for a digital wallet solution. Moreover, they can help your mobile wallet app stands out in the market

# 5. Cash In/ Out at Bank Branch or ATM

Holders of mobile wallets can make an ATM cash withdrawal without using a

physical credit card. They can also choose to withdraw cash from an agent/branch bank When it comes to ATMs, NFC technology is used - the same contactless technology that lets users pay by tapping their smartphone against a POS terminal.

#### 6. Loan Origination

Loan origination is one of the mobile wallet features that meet the growing demand for convenient, real-time banking.

The loan origination process via a smartphone needs to be mobile-friendly, fast, and automated as much as possible.

## 7. Portability:

You can make your mobile application more portable by allowing the users to easily add money and make transactions. According to the top mobile app development agencies, this is the prime reason why users are frequently using e-wallet apps these days.

#### 8. Backup Facility:

Designing an m-wallet which automatically takes backup of the files employed in every operation is also a great idea. After all, it will help the app to store all the essential information provided by the user for future preferences.

# **1.7 OBJECTIVES OF USING M-WALLETS:**

- Follow-on sales where the mobile web payment can lead back to a store or to other goods the consumer may like. These pages have a URL and can be bookmarked making it easy to re-visit or share.
- > High customer satisfaction from quick and predictable payments.
- > Ease of use from a familiar set of online payment pages.
- Mobile network operators already have a billing relationship with consumers, the payment will be added to their bill.
- Provides instantaneous payment.
- > Protects payment details and consumer identity.

- Better conversion rates.
- > Reduced customer support costs for merchants.

#### **1.8 ADVANTAGES OF USING M-WALLETS:**

Following are some other advantages of making transactions through m-wallets:

#### 1. Security:

Security is the biggest feature of mobile wallet technology. It does not require your card number, CVV, pin number, or mobile number. It is independent of such information and that is why it cannot be manipulated or hacked. Every bank pays a hefty amount of money to its different clients every year because of debit/credit card fraud and it costs too much for banks to maintain the privacy of its client information.

#### 2. Secrecy of data

Mobile wallets have been accepted by the users as they don't save your data for further use and remain just a platform to make your transactions. When apple launched its wallet it said that it does not know that what did you purchase or paid. Your transaction is between you, your vendor and your bank. It was a pretty impressive statement with a business point of view as the customer feels safe using such wallets.

#### 3. Better user experience

Apart from security, these mobile wallets emphasize on user experience so that user could easily follow the steps and make the payment. Many mobile wallets support layered protection means from conducting the transaction user has to input a security password or a 4-digit pin information into it.

#### 4. Lighter pockets

Using a single mobile wallet user can save multiple credit/debit/bank account's information in it. So, it gives you an opportunity to travel with lighter pockets and lesser tension to carry cash and cards.

#### 5. Time saving

Whenever we go shopping and pay with our debit and credit cards, vendor inputs the card details in the machine and till then we wait standing. Mobile wallet has saved us this time as we need not wait to make our payment through it.

#### 6. Rewards

Many times, there are cash-back or discount rewards for people who use a mobile

wallet to purchase some stuff or paying the bills. These rewards are also one of the coolest features of mobile wallets.

#### **1.9 CHALLENGES/ROADBLOCKS FOR ADOPTION OF M-WALLETS**

#### 1. Mobile wallets are not universal

A majority of the people don't use smartphones, in that too many people don't have an Internet connection and those who have Internet connection merely a handful of people use mobile wallets. So, we can say that only a small number of people use the mobile wallet as a payment option and depend heavily on cash and cards to make the transaction. Basically, mobile wallets have been limited to urban areas only where people are much aware of such technologies.

## 2. Internet Connectivity

Internet connectivity remains a bigger problem for a great number of people. If you are going to a hill station which does not have enough mobile towers to support the signal then Internet speed would be quite slow to perform a transaction. Many developing countries to don't have a decent infrastructure to support a proper Internet connection to a large number of people.

#### 3. No mobile no wallet

If your mobile has been lost then mobile wallet is also lost and you will have to wait till you don't purchase a new mobile, download the mobile wallet app and insert all your information again.

#### 4. Device failure

Smartphones are known for their hardware and software problems. If there is not enough storage on mobile then the user could not download the app, lower battery problems exists too, software compatibility always remains, etc. These device failures limit the use of mobile wallets

#### 5. Investment

It requires the quite large capital amount to start a mobile wallet business. There will be cost required for the development of the app and its implementation. Later there would be a requirement for hardware and network support for the smooth functioning of the app.

#### 6. Compatibility issue

Mobile wallets are quite new technology in the scene and many people are still skeptical about its usage and we will have to wait a little more to see mobile wallet becoming the primary payment option among the masses.

## 1.10 GROWTH OPPORTUNITIES FOR M-WALLETS

- Making m-wallets available for basic/ feature phone users. USSD (Unstructured Supplementary Service Data) could be an option for m-wallet companies to get the system to the masses who are still on feature phones. M-wallet companies like SpeedPay have started steps towards that and sooner the services are available the better would be for m-wallet companies.
- The introduction of UPI and Aadhar pay by Government of India is an advantage of m-wallets. Harnessing the power of these services to enable interoperable wallets would definitely help the companies gain more customers. The government has also made the policies simpler to get more players into the competition hence benefiting the people.
- New players entering the market cab help their existing customers of their business to
  use m-wallets. In the case of Snapdeal acquiring Freecharge, all the Snapdeal users
  automatically tend to start using Freecharge if they are already not signed up to it. It
  could be special offers when paid by Freecharge or cashback people will start using mwallets. Similarly, Flipkart money started by Flipkart to counter Snapdeal's Freecharge
  acquisition and many other e-commerce companies launching their wallets or tying up
  with other wallet companies will ultimately increase the usage of m-wallets
- To counter Credit card usage, m-wallets should also allow credit options to the customers. Previously some telecom operators used to give credit balance to the users which would be taken back on next recharge. This was a revelation in the industry and after Airtel starting this offer mostly all the other companies followed it. Considering the mindset of Indians, probably having plans to include short-term credits would definitely help the growth of m-wallets. Many wallet companies have started tying up with banks and NBFC's to get this concept to life and some companies like MobiKwik have already started as a pilot project.

- PayTM is able to be the leading m-wallet company because of its tie-ups with merchants and other e-commerce companies. The number of merchants accepting your wallet would definitely be a question for the customer when he is signing up for the wallet services.
- Increasing the interoperability of the wallets and having social media power the transactions would help the growth of wallets. Imagine if could be able to send my Facebook friend some money or pay a store which I am already following on Facebook via a wallet application, that would be a game changer. QR Code's and simple OTP's are helping the payments simple but there is a growth option in the shape of Social Media.

## **1.11 TYPES OF M-WALLETS:**

There are many types of digital wallets in India. The types are: open, semi- open, closed and semi-closed.

- Open mobile wallets: These types of mobile wallets are generally issued by banks.
   One can purchase goods and services, transfer money and also withdraw money through these mobile wallets.
- □ Semi-open mobile wallet: A semi-open wallet allows users to buy and purchase goods but not withdraw funds. In this type of wallet, one has to load money and use the same for any type of purchase.
- Semi-closed mobile wallets: These types of wallets allow consumers to make merchant payments. The mobile wallet company usually ties up with certain specified merchants.
- □ **Closed wallets:** In these types of wallets a certain specific amount of money is locked with the company. There is also no scope for withdrawal.

# **1.12 HOW DOES A MOBILE WALLET WORK?**

A common question that needs to be addressed is: **how can I send money to my mobile wallet**? Once you are done installing a **mobile wallet** app, all you need to do is transfer money through an agent, net banking or a debit/credit card into your app wallet. The mobile wallet company sends your money to an escrow account, ensuring they do not exert complete authority on your money. Whenever you make a transaction from your mobile wallet, a message is sent to the respective merchant regarding the payment. Once the merchant immediately honors the payment, the money is transferred from your wallet to bank.



#### **1.13 DIFFERENCE BETWEEN DIGITAL WALLET**

# & MOBLIE WALLETS

Mobile wallets	Digital wallets
Mobile wallets are	Consumers using digital
payment apps housed	wallets, may or may not
on mobile devices,	interact with them on their
like smartphones	smartphones.
and wearables.	
Consumers mostly	Consumers mostly use a
use a mobile wallet	digital wallet for online
for in-person	shopping or purchases.
transactions.	
Some of the most	Some of the most popular
popular mobile	digital wallets are Paytm,
wallets are Apple pay,	Paypal etc.
Samsung pay etc.	

## **1.14 STATEMENT OF THE RESEARCH PROBLEM**

M-Wallet is defined as virtual cashless service which can replace hard cash notes. For purchasing anything, the people do not have to rush to ATMs or banks to withdraw cash, rather transaction can be done there and then in a fraction of seconds. It has become an upcoming way of purchasing goods and services without any physical movement of cash. The main objective of m-wallets is to make quick transactions thereby discouraging people to make use of use cash. This boom is the after effects of Demonetization. But there is still a lack of trust for digital payments. There are those that don't yet feel safe using this as they don't trust the internet and the perceived security risks. So, this research is an attempt to know the number of people using m-wallet in the area of Ulhasnagar.

# 1.15 BRIEF PROFILE OF THE STUDY AREA

Ulhasnagar is a city located in the Thane district of Maharashtra state in Konkan division, located about 55 km from Chhatrapati Shivaji Maharaj Terminus railway station. This city is part of Mumbai Metropolitan Region managed by MMRDA. It had an estimated population of 506,098 at the 2011 Census. Ulhasnagar is a municipal town and the headquarters of the Tahsil bearing the same name. It is a railway station on the Mumbai-Pune route of the Central Railway zone.

Primary survey is taken from the m-wallet users from the area of Ulhasnagar. Data is collected through random sampling unit and data is collected through questionnaire form 50 respondents.

# **CHAPTER 2**



Research methodology is a careful investigation for inquiring in a systematic method and finding solution of a problem. It comprises the defining and redefining of problem formulating hypothesis, collection and evaluating data, making detection and reaching conclusion. This research consists of following element:

- Research Design
- Sampling Design
- Sampling Universe
- Sampling Unit
- Sample Size

This chapter focuses on data and research methodology. It highlights the use of statistics to test research hypothesis and assumptions done during the course of research. The chapter discusses the rationale used while drafting the questions for sample study and the differences in questionnaire for Plastic Money and Virtual Mobile Wallet. The survey explored the unexplored area comparing the users of Plastic Money and Wallet. Awareness about the conditions of card holders, services and security measures has been ascertained during the survey. The popularity of the cards and wallet is also an important factor that would contribute to the overall growth of different kinds of electronic modes of payments and electronic services offered to the user. Additional benefits of cards relate to shopping convenience, loans and disbursements in the form credit and debit facility, safety and recordkeeping. Currently acceptability of mobile wallet payment is limited at outlets though Paytm has increased acceptance at many outlets. But the wide acceptability of wallets is still required to gauge the correct impact of wallet on payments services. The current effort captures the data set considering the limitations of the system.

The project was carried out as per the steps of Marketing Research. The well supportive objective of Research Methodology was set for the study. To meet the objectives primary research was undertaken. The data collection approach adopted was experimental research & survey research. The instrument used for the data collection was observation & questionnaire. The target respondents were the investors and perspective investors, with the sample size of 50 for the study. Tables & charts were used to translate responses into meaningful information to get the most out of the collected data. Based on those the inferences have been drawn with peer supportive data.

## 2.1 SELECTION & RELEVANCE OF THE PROBLEMS

Mobile wallets are changing the traditional ways of making and receiving problems during shopping, bills etc. Students belong to Generation F which wants fast food, fast fuel, face book. This generation has grown up in the world with technology, concerned with social media networks using their smart phones and tablets. Though lot of research work has been done on the use of mobile wallet minuscule amount of research has been done on the same with the respondents from area of Ulhasnagar. This research study is a humble attempt in this direction to know the preference of m-wallet in area of Ulhasnagar.

## 2.2 OBJECTIVES OF THE STUDY:

This main objective of this study was as to identifying the factors which influence the usage of m-wallet. The following objective were as secondary objective such as,

- To study the preference towards the usage of mobile wallet among the people of Ulhasnagar.
- To find out the impact of various demographic variables on the option regarding the future of mobile wallet.
- □ To examine the factors influencing adoption of mobile wallet.
- □ To examine the factors refraining the usage of mobile wallet.

# 2.3 HYPOTHESIS OF THE STUDY:

H1: There is no significant relationship between respondents' gender and the opinion regarding the future of mobile wallet.

H2: There is no significant relationship between respondents age and the opinion regarding the future of mobile wallet.

H3: There is no significant relationship between respondents' programme of study and the opinion regarding the future of mobile wallet.

# 2.4 SCOPE OF THE STUDY:

The primary objective of this study is to study Usage of Plastic Money and Virtual Wallet as Modes of Payments in and around Ulhasnagar City but the same would have relevance in other parts of the country. The following points exhibit the scope of the Study.

- The study is confined only to Credit Card, Debit Card and Virtual Wallet Services
- The study has taken into account both users and non-users of such modern banking gadgets.
- The users and non-users are randomly surveyed.
- Geographically the study is in and around Ulhasnagar city.

# 2.5 LIMITATIONS OF THE STUDY:

- □ Since it was based on the primary data collected from the respondents who were selected by using purposive sampling. As such the study suffers from all the limitations of sampling in general and purposive sampling in particular.
- □ Findings of the research study do not have universal applicability due to small size and non-inclusion of other institutions
- □ Hawthorne effect was also a problem.
- □ More in-depth comparative studies can be conducted on different cashless payment options. For drawing policy implications studies on the cost-benefit analysis of

mobile wallet can also be conducted which this study is lacking.

#### 2.7 SAMPLE SIZE OF THE STUDY:

Sample size is a subset of the target population and it is used to represent the population under the study. This means that if the sample is carefully selected and if the sample is optimum to fulfil the requirements of efficiency, representative, reliability and flexibility then then the information gather from the sample can be used to generalize the general population. The sample size for the present study is 50 respondents from Ulhasnagar.

#### 2.8 DATA COLLECTION:

Data was collected from both primary and secondary sources. Data on the use of plastic money and virtual wallet was done by two different questionnaires which are similar in nature and constitute the primary data source for this research. Pilot test was carried out using a set of questionnaires. The questionnaire is well structured and starts from collecting the user's demographics, then user usage and perception on plastic money and virtual wallet. The question was to use the data collection to bring out the usage and preferences of customers and non- customers. The result of the pilot was used for to carry out the survey on a large number of participants. During the survey it was evident that the users had very different expectations from the plastic money and wallets so it would not be great to draft nearly same set of questionnaires from the respondents. Wallets is new and it is difficult to gauge people responses as most of the people are not aware of the features and definitely most people are not experts at using this new technology. Acceptance was a challenge and it was also evident while collecting user responses for it was hard to get people to response on wallet survey parameters. The data was collected from various general public has been used extensively to arrive at the impact factors. preferences of customers and non-customers. The result of the pilot was used for to carry out the survey on a large number of participants. During the survey it was evident that the users had very different expectations from the plastic money and wallets so it would not be great to draft nearly same set of questionnaires from the respondents. Wallets is new and it is difficult to gauge people responses as most of the people are not aware of the features and definitely most people are not experts at using this new technology. Acceptance was a challenge and it was also evident while collecting user

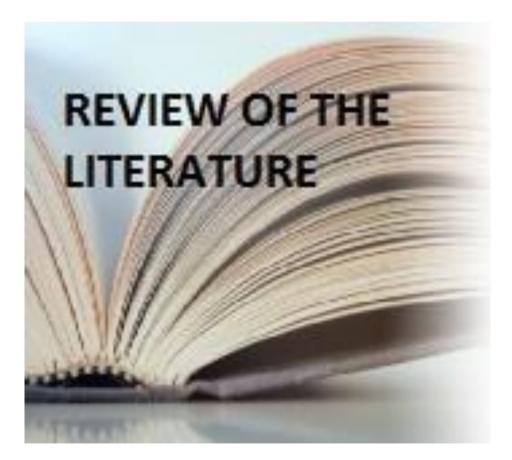
responses for it was hard to get people to response on wallet survey parameters. The data was collected from various general public has been used extensively to arrive at the impact factors. preferences of customers and non-customers. The result of the pilot was used for to carry out the survey on a large number of participants. During the survey it was evident that the users had very different expectations from the plastic money and wallets so it would not be great to draft nearly same set of questionnaires from the respondents. Wallets is new and it is difficult to gauge people responses as most of the people are not aware of the features and definitely most people are not experts at using this new technology. Acceptance was a challenge and it was also evident while collecting user responses for it was hard to get people to response on wallet survey parameters.

This research was basically based on primary data collected using a structured questionnaire administered to 100 respondents during a period of 1 month from 1<sup>st</sup> march to 31<sup>st</sup> march. Small amount of secondary data collected from various sources was also used.

#### 2.9 STATISTICAL TOOLS USED FOR DATA PRESENTATION:

The main statistical tools used for the analyses of data in this project are:(1) Pie Charts, (2) Bar Diagram indicates the most possible combination of predictor variables that could contribute to the impact of dependent variables.

# **CHAPTER 3**



Mobile Payments nowadays play an important role in every transaction at the personal level and professional level. An increasing number of people are utilizing their mobile phones for payments, money transfer, trade and commerce on a daily basis. This has led to a rapid growth in the development of various mobile payment models and systems. Major research efforts were undertaken in recent years to build a secure mobile payment solution. Current research on mobile payment systems mainly focus on the technological aspects of the system, particularly those that are related to the functionality and implementation issues. In recent times, the focus of the research has shifted to the business aspects of mobile payments such as user adoption process, strengths and weaknesses of the existing system encompassing various dimensions namely costs, size of payments, payment time and security.

Security in payment system is an important requirement in the field of m-commerce secure information exchange and safe financial transactions through mobile networks. However, it is difficult to strongly authenticate the mobile users remotely and provide an adequate level of non-repudiation of transactions.

Li et al. (2008) have proposed an architecture for POS payments that supports strong platform attestation with the help of Trusted Computing (TC) technologies. The platform attestation refers to the validation of actual payment application and its respective runtime environment with Trusted Computing. This prevents the mobile devices from the malicious payment software. The architecture employs two techniques namely Identity-Based Signature scheme (IBS) to verify the mobile platform's integrity and attestation cache to reduce the attestation overhead in order to improve the performance of the payment transaction without sacrificing the security requirements.

Xi et al. (2007) have proposed an architecture for SIM-based mobile payment system using SMS technology, where the payment application is installed into the SIM card of the mobile phone. The interoperability between SIM card and terminals is achieved through Global Platform standards. There are many drawbacks on this system. The smart card remains unblocked until the phone is switched off or the SIM loses power. Second, when the mobile phone or SIM is lost or stolen, the user has to inform the operator immediately. The above payment system architecture supports symmetric cryptography. However, this does not satisfy the transaction security properties. The confidential information such as account number and password are sent through the message. The secure communication between consumer, content provider and financial institution are handled by network interface and core application platform layer. The business layer includes all application business logics. The decision-making layer uses various tools like statistical analysis and data mining for analyzing the payment market and to help decision on market.

The architecture presented in this system uses Short Message Service (SMS). The transaction details are usually sent as an SMS message. The main issue identified in this architecture is missing of encryption for the data during On-The-Air (OTA) transmission between the service center and the mobile phone. Also, SMS messages can be easily forged by operator network insiders, and thus cannot ensure either confidentiality or data integrity

The secure communication between consumer, content provider and financial institution are handled bynetwork interface and core application platform layer. The business layer includes all application business logics. The decision-making layer uses various tools like statistical analysis and data mining for analyzing the payment market and to help decision on market. The architecture presented in this system uses Short Message Service (SMS). The transaction details are usually sent as an SMS message. The main issue identified in this architecture is missing of encryption for the data during On-The- Air (OTA) transmission between the service center and the mobile phone. Also, SMS messages can be easily forged by operator network insiders, and thus cannot ensure either confidentiality or data integrity.

Gao et al. (2005) have proposed the architecture for peer-to-peer m-payment system using symmetric key mechanism. The system allows the customers to make payments over the wireless Internet or via Bluetooth.

Guo (2008) has proposed a layered architecture for SMS-based mobile payment system, wherein the payment is done through fund transfer between the consumer bank account to the merchant account. This architecture includes four layers namely load-bearing layer, network interface and core application platform layer, business layer and decision-making layer.

However, the major limitation in RFID technology is the memory size of the card. Since the proposed architecture supports GPRS, many security risks are posed at network level such as GSM threads like Hijacking the outgoing calls, Eaves dropping on user data and compromised cyber key, system intrusion, Internet junk data, denial of service.

Labrou et al. (2004) have proposed the architecture for server-side wallet which is built on Universal Pervasive Transaction Framework (UPTF). UPTF is a generic architecture and defines communication protocol, called the Secure Agreement Submission (SAS) that supports multi-party agreements over the insecure wireless networks. The UPTF SAS protocol encrypts the message using symmetric, shared secret-key approach and the secret key is known only to an individual party and the trusted third party, namely the Secure

Transaction Server (STS). STS maintains a log of all messaging activity for nonrepudiation purposes. Since the proposed architecture is based on server-side wallet, the scheme does not store any personal information at the mobile devices; however the user needs to enter the PIN for the payment authorization.

Karnouskos et al. (2003) have presented an architecture and a business model for Secure Mobile Payment System (SEMOPS), where banks, mobile operators, customers, merchants, developers, initiators, license holders, service providers and suppliers are the key actors. The SEMOPS is the universal and open mobile payment system that supports micro, mini and macro payments. SEMOPS supports the business opportunities inherent in biUing, customer-service, technical relationships and banking services among mobile customers, mobile operators and banks in order to offer a competitive solution to existing payment services. SEMOPS supports both mobile and Internet transactions, and can accommodate various transaction types, irrespective of value, function, time, and currency.

Meng et al. (2008) have proposed a secure payment model for credit card-based mobile payment system based on Wireless Application Protocol (WAP). In this model, Elliptic Curve Cryptography (ECC) algorithm is adopted in order to reduce the time taken for key generation at mobile device and WAP PKI (WPKI) are implemented to secure wireless communications. WPKI is the optimized version of the traditional PKI for wireless networks. The Wireless Transport Layer Security (WTLS) certificate defined by the Open Mobile Alliance (OMA) is utilized for key distribution in the wireless environment. The WTLS certificates do not have extensions and can be stored in Wireless Identification Module (WIM). With cross certification, the mobile payment system is organized as a Bridge Certificate Authority (CA) authentication model. The major issue raised against the Bride CA Authentication model is that each entity requires to download not only their root CA's certificate but also the trusted neighbours' CA certificates to verify the identity of the entity. WTLS provides transport level security between a user device and WAP gateway, however there is a need for security protocol translation between the wireless network to the Internet.

M-commerce is defined as "any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and completed by using mobile access to computer-mediated networks with the help of an electronic device."

M-commerce is defined as: "business transactions conducted by using a mobile electronic device (as a cell phone)".

The phrase mobile commerce was originally coined in 1997 to mean "the delivery of electronic commerce capabilities directly into the consumer's hand, anywhere, via wireless technology."

M-commerce is also known as mobile electronic commerce or wireless electronic commerce. It is a subset of electronic commerce that involves the use of mobile computing devices in carrying out different types of economic transactions (marketing, buying and selling products and services).

1. Mobile commerce: A review Jain (2012) The author outlines the various applications of M commerce along with its advantages and disadvantages in this study. The various challenges regarding the implementation of M-commerce have been revealed like lack of awareness, security problems, lack of standardized payment mechanism, wireless constraints, user behaviour, infrastructure, privacy, etc.

2. Predicting the consumers' intention to adopt mobile shopping: An emerging market perspective Wong et al. (2012) The paper examines the predictors of consumers' intention to adopt mobile shopping (M-shopping) in Malaysia on the empirical data collected using the web-based survey. The study also suggests the usefulness and ease of use as the significant factors for the adoption of mobile shopping by the consumers. Multiple regression analysis has been used to test the model framework to examine the relation between the dependant and many independent variables.

3. Barriers to Ecommerce adoption in Egyptian SMEs Zaied (2012) The conceptual framework for e-commerce adoption barriers in small medium enterprises (SMEs) involving various types of barriers such as: social and cultural, technical, economical, political, organizational and legal and regulatory barriers has been developed for investigating and revealing the significant factors associated with the ICT and related e-commerce adoption. The factors responsible for low usage of e-commerce in SMEs in Egypt have been well addressed in this work.

4. The Influencing factors of Chinese farmers adopt M-commerce services: Social Network perspective Huo et al. (2011). The authors explore the social network model related with the farmer's adoption of M-commerce services. The various models like Technology acceptance model, social network model and constructed social network model have been integrated and the impact of the social networks on individual adoption has been addressed in this study so as to highlight the influencing factors of adoption of M-commerce services by farmers.

5. m-Learning: Integrating eLearning with Mobile Technology Al-Sadi (2009). The paper explores the applications of mobile technology in e-learning so that the existing learning management systems (LMS) integrate learning and collaborative interaction with mlearning (e-learning using mobile devices and wireless media). The various technical aspects of the m-learning have been stated in the paper along with the advantages and disadvantages of using mobility in the learning process. The relevance and feasibility of using m-learning in terms of technology and usability, limitations of mobile technology while using m-learning tools have also been widely explored in this study. The authors lay stress on the use of mobile technology with mlearning and learning management systems so as to spread the significance of education and m-learning anytime anywhere.

6. Major milestones of modern payment systems Rao et al. (2009) The various security issues of various payment systems have been explored so as to showcase the best electronic payment system among the existing systems. The characteristics of all the payment schemes have been featured and the analysis has been concluded with the comparison of Comdata, sound based e-commerce, iKP and biometric fingerprint system.

7. Comparative study on Mcommerce applications in various scenarios Fong and Yan (2008) The paper explored the mobile payment system design, various M-commerce application scenarios and the benefits of using SMS in mobile payment. The research

also highlighted how M-commerce is different from e-Commerce and the various reasons for low level of trust on Mobile commerce such as: stability of the mobile network, standardization and user experience and thus providing insight for how M-commerce applications can be technically designed for various scenarios.

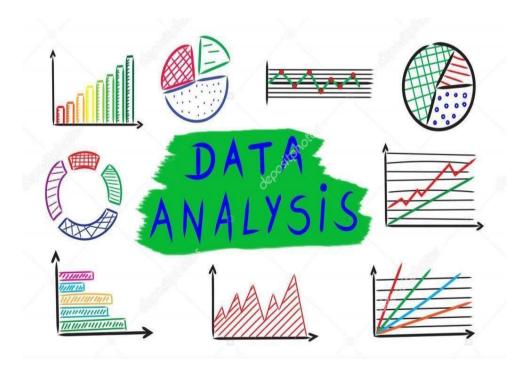
8. Mobile technologies for development - A Gronlund et al. (2008) The study compares and analyzes three cases of applications and uses of mobile technology for everyday learning in developing countries. The field studies showcase preliminary results and tests have been analyzed in terms of the technical, comparative study on challenges professional, social, cultural and organizational challenges involved in development. The cases and findings from investigations, field studies, laboratory and field tests and experiences from implementation have been addressed.

9. Research on influencing factors of consumer initial trust based on mobile commerce Li and Li (2008) The authors highlight the influencing factors of consumer initial trust in mobile commerce based on foundation of trust, the formation process of online trust and the characteristics of mobile commerce trust. The existing online-trust development lifecycle has been illustrated and the various strategies for creating consumer initial trust in mobile commerce have been discussed in this research work. 10. Study on trust in mobile commerce adoption - A conceptual model Meng et al. (2008) A conceptual model for evaluating the role of trust and its antecedents of the customer in adoption of Mobile commerce has been proposed in this research work. The classification of various types of trusts: Mobile vendor trust, Mobile technology trust, Instrumentation based trusts have been considered as components of consumer trust in mobile commerce in the study. The survey conducted for collection of data has been further validated with empirical testing hypothesis and research model.

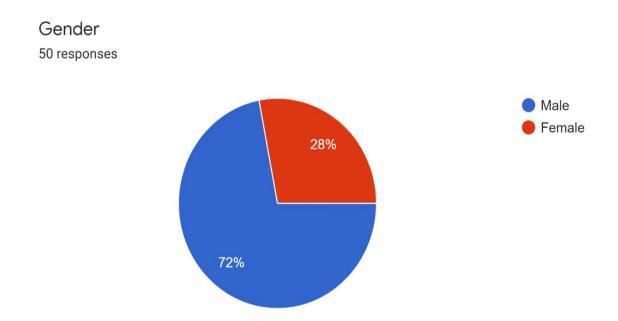
11. Mobile payment in mobile ecommerce Zhang (2008) A new form of mobile payment for mobile ecommerce and highlights its advantages has been suggested in this contribution by the authors. The advantages and disadvantages of the existing mobile payment methods in China such as mobile fee account payment and bank card mobile payment have been discussed. The study highlights how mobile payment has great significance related with mobile commerce and also presented the various hindrances associated with mobile payment.

# CHAPTE R 4

### DATA ANALYSIS, INTERPRETATION & PRESENTATION



Gender	No. of Respondents
Male	36
Female	14
Grand Total	50



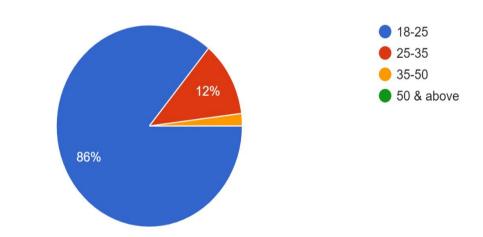
#### Interpretation:

From the data collected from sample size of 50 respondents.

Number of Male Respondents are 36 and number of Female Respondents are 14.

Age	No. of Respondents
18-25	43
25-35	06
35-50	01
50 & above	0
Grand Total	50





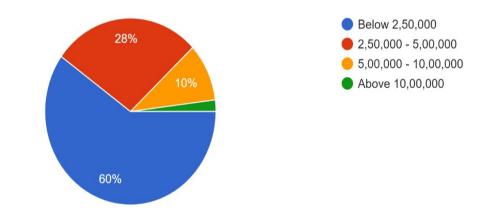
#### Interpretation:

From the data collected from sample size of 50 respondents.

Respondents from age group 18-25 years are 86%, respondents from age group 25-35 years are 12%, and respondents from age group 35-50 years are 2%.

Annual Family Income	No. of Respondents
Below 2,50,000	30
2,50,000 - 5,00,000	14
5,00,000 - 10,00,000	05
Above 10,00,000	01
Grand Total	50

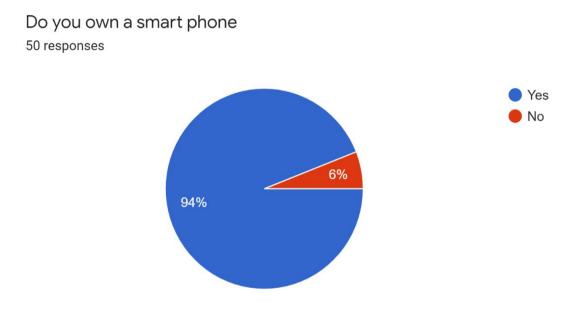
What is your annual family income? 50 responses



#### Interpretation:

From the data collected from sample size of 65 respondents.

Respondents belonging to income group below 2,50,000 are 60%, respondents belonging to income group 2,50,000-5,00,000 are 28%, respondents belonging to income group 5,00,000-10,00,000 are 10%, and 2% respondents belong to the income group above 10,00,000.



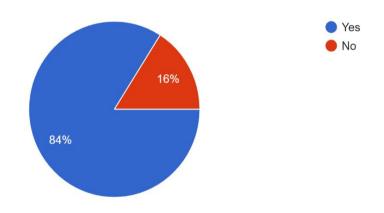
#### Interpretation:

From the data collected from sample size of 50 respondents.

Number of respondents who own smart phone are 47, whereas 3 respondents do not own smart phone.

It is seen that almost everyone is using smart phone at present situation.

Do you use a smart phone for completing a monetary transaction?(online payment) <sup>50</sup> responses



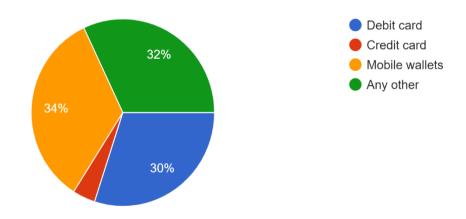
#### **Interpretation:**

From the data collected from sample size of 50 respondents.

42 respondents said that they do monetary transactions via mobile phone. Whereas 8 respondents do not make any kind of monetary transactions via mobile phone. From the survey, I can conclude that more than 84% people do monetary transactions on mobile phone. This may not be true in real sense due to limited sample size and restricted area.

Mode Of Payment	No. Of Respondents
Credit Card	02
Debit Card	15
Mobile Wallets	17
Any Other	16
Grand Total	50

Which mode of payment do you prefer the most? 50 responses

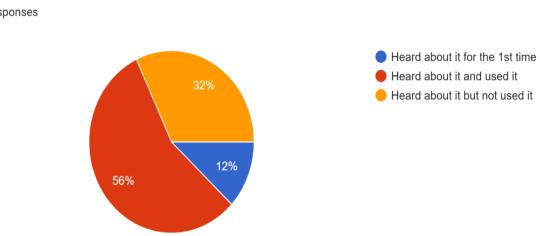


#### Interpretation:

From the data collected from sample size of 50 respondents.

30 % respondents prefer payment through Debit Cards, 34 % respondents prefer payment through various M-wallets, 32% respondents prefer payment through Credit Cards, and 4% respondents prefer other mode of payment (like cash payments, cheque payments,

bank transfers, etc.).



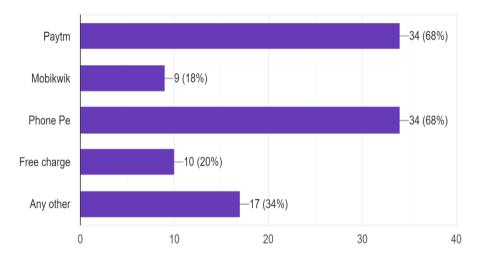
### Are you aware about the mobile wallet payment gateway? 50 responses

#### Interpretation:

From the data collected from sample size of 50 respondents.

28 respondents said that they have heard as well as used mobile wallet payment gateway,

16 respondents said that they have heard about mobile payment gateway but not used it, 6 respondents had heard about mobile wallet gateway and used it for 1<sup>st</sup> time.



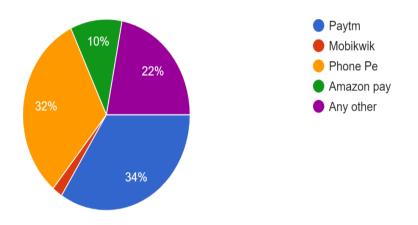
Which of the M-wallets payments gateway are you aware of? 50 responses

#### **Interpretation:**

From the data collected from sample size of 50 respondents.

68% respondents were aware of Paytm, 9% respondents were aware of Mobikwik, 68% respondents were aware of Phone Pe, 20% respondents were aware of Free charge, 34% respondents have awareness about other m-wallets (like google pay, airtel money, jio money, payzapp, amazon pay, etc.)

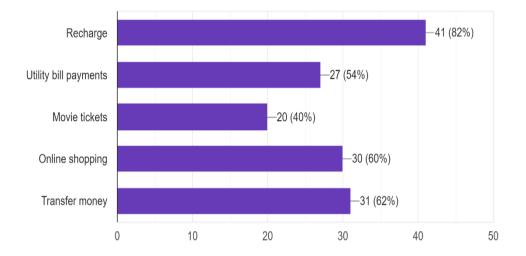
Which one of the following M-wallets payment services you prefer using the most 50 responses



#### Interpretation:

From the data collected from sample size of 50 respondents.

17 respondents prefer services offered by Paytm, 16 respondents prefer Phone Pe services, 10 people prefer Amazon pay, 2 people prefer Mobikwik, and 11 people prefer paying through other m-wallets. You prefer using M-wallets for completing \_\_\_\_\_\_ transaction? 50 responses

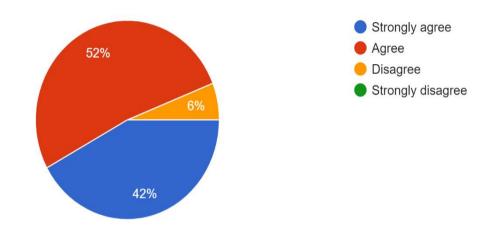


#### **Interpretation:**

From the data collected from sample size of 50 respondents.

82% people use m-wallets for mobile recharge, 54% people use m-wallets for payment of utility bills, 40% people use m-wallets for booking movie tickets, 60% people use m-wallets for online shopping, 62% people use m-wallets for transfer money.

From the survey taken it was noted that many people use m-wallets for multiple transaction. Majority people use M-wallets for recharge, online shopping and money transfers. Do you get the availability of mobile payment gateway services? 50 responses



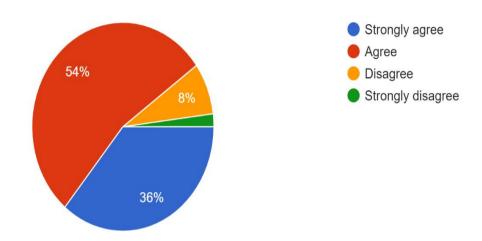
#### **Interpretation:**

From the data collected from sample size of 50 respondents.

Respondent who agrees with the availability of mobile payment gateway services are 26, respondent who strongly agrees with the availability of mobile payment gateway services are 21, respondents who disagrees with the availability of mobile payment gateway services are 3.

Availability of gateway services are subject to have internet network availability, after MODI - Make in India concept and launch of Jio network, number of data users and level of speed due to 4G have reached to unexpected height. Many m-wallets are user friendly so many people get gateway services while making payments through m-wallets.

Do you get convience while payment from M-wallets? 50 responses



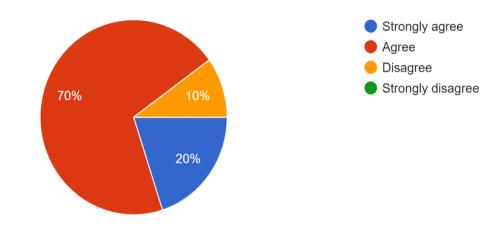
#### **Interpretation:**

From the data collected from sample size of 50 respondents.

18 respondents strongly agreed that they get convenience while making payments through m-wallets, 27 respondents agreed with the above statement, 5 respondents found difficulties while making payments through m-wallets.

M-wallet users get convenience as this is hands on transactions, user have to maintain privacy related to their otp, cvv, pin number.

### Are comfort with security of the mobile payment gateway? 50 responses

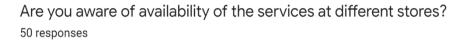


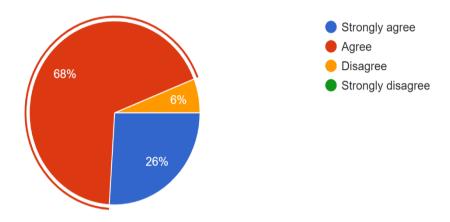
#### Interpretation:

From the data collected from sample size of 50 respondents.

10 respondents strongly agreed with the security of m-wallets, 35 respondents agreed with the security, where as 05 people still disagree with the available security while using m-wallets.

When we do banking transaction via m-wallets, people are very much concerned about the security of the transactions, as they are spending their hard-earned money. So, people have to follow security guidelines provided to users.

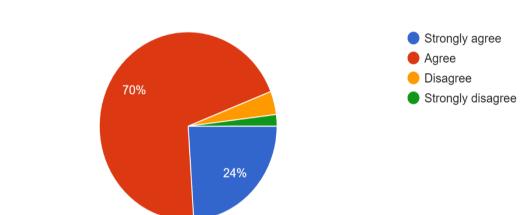




#### **Interpretation:**

From the data collected from sample size of 50 respondents.

Many m-wallets provide payment services at stores 26% of respondents strongly agreed that they aware about the availability of these services, 68% of respondents agreed that they aware about the availability of these services, 6% respondents disagreed about availability of these services at various stores.



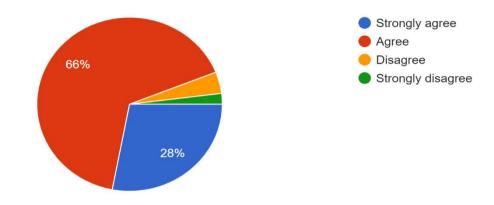
Do you take the advantage of loyalty points and discounts/cashback? <sup>50</sup> responses

#### **Interpretation:**

From the data collected from sample size of 50 respondents.

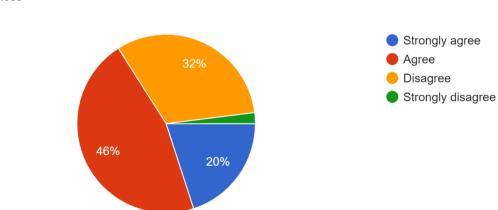
Many m-wallets provide cash back offers, 47 out of 50 respondents agreed that they take benefit of these offers, whereas 3 respondents disagreed of taking the benefit of these offers.

Are M-wallets used as an alternative mode of payment? 50 responses



#### **Interpretation:**

47 out of 50 respondents agreed that m-wallet is alternative mode of payments, whereas 3 respondents disagreed that m-wallet is not alternative mode of payments.



Do you think M-wallets supports the traditional payment system? <sup>50</sup> responses

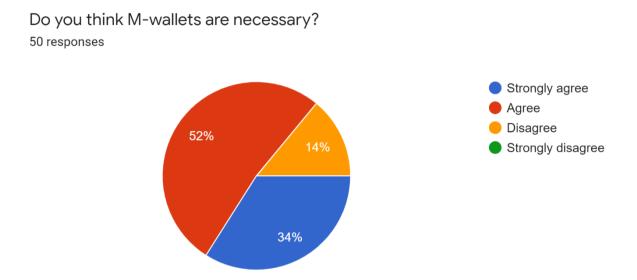
#### Interpretation:

Many m-wallets modern way of payments, 33 out of 50 respondents agreed that m-wallets

supports to the traditional payment system, whereas 17 respondents disagreed with the above statement.

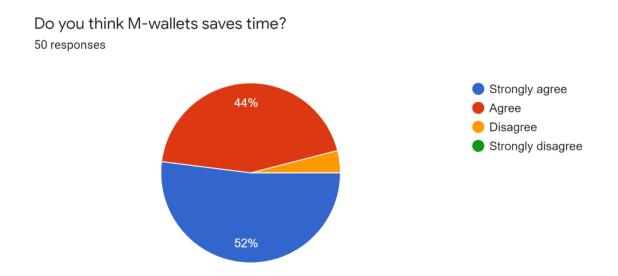
As traditional payments system has personal interactions between customers and bankers.

So, the comparing traditional system with mobile wallets are groundless.



#### **Interpretation:**

43 out of 50 respondents agreed that m-wallet necessary as per changing business needs, whereas 7 respondents disagreed about its necessity.



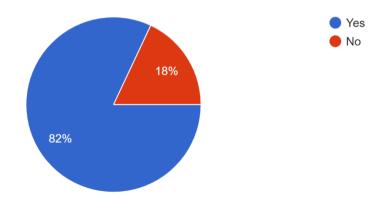
#### Interpretation:

48 out of 50 respondents agreed that m-wallet saves time, whereas 2 respondents disagreed about it.

#### Interpretation:

47 out of 50 respondents agreed that m-wallet made life-easier, whereas 3 respondents disagreed about it.

Have you reduced the frequency of traditional payment system due to M-wallets? <sup>50</sup> responses

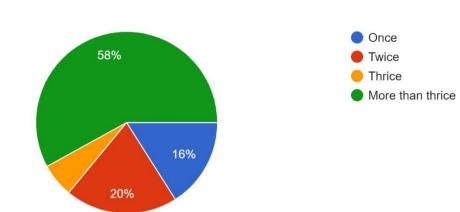


#### **Interpretation:**

From the data collected from sample size of 50 respondents.

41 number of respondents have reduced the frequency of traditional payment system due

to use of m-wallets, 9 number of respondents still follow traditional payment systems. 82% of people switch over modern payment system(m-wallets). Government of India-PM-NARENDRA MODI also promotes payments BHIM UPI and Rupay card payments.

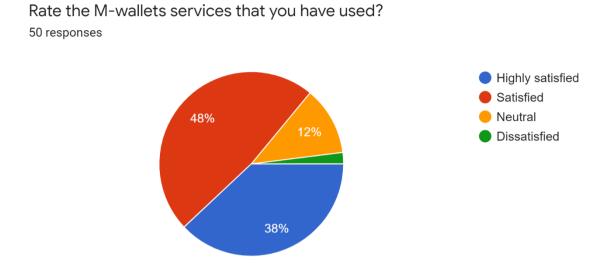


How often do you use M-wallets?(per month). 50 responses

#### Interpretation:

From the data collected from sample size of 50 respondents. 16 % respondents use mwallets once in a month, 20 % respondents use m-wallets twice in a week, 6% respondents use m-wallets thrice in a week, and 58% respondent uses m-wallets more than thrice in a week.

From the survey I can say that majority of people prefer using m-wallets more than thrice in a month.



#### Interpretation:

43 out of 50 respondents said that they are highly satisfied with the services of m-wallets.

## **CHAPTER 5**



#### FINDINGS

- Majority of the respondents use their smart phones for completing a monetary transaction.
- Most of the respondents prefer using M-wallet. The respondent's awareness about mobile wallet payment gateway services is high.

- Majority of the respondents are aware and prefer using Paytm followed by Phone pe.
- The respondents prefer using M-wallets for Recharge purpose followed by Online Shopping and also for payment of utility bills.
- The Availability, Convenience, Service acceptance, Security and Reward points are the major factors which influences most of the respondents to use M-wallets.
- Majority of the respondents feel that M-wallet saves time and has made life easier.
- Most of the respondents feel that M-wallet can be used as an alternative mode of payment which can substitute the physical payment system.
- Majority of the respondents have reduced their traditional payment due to Mwallets.
- ▶ Most of the respondents use M-wallet frequently.
- A large number of the respondents are satisfied with the service provided by them whereas a few numbers of the respondents are highly satisfied with the service used.
- Majority of the respondents have not come across any obstacle while using Mwallet and major problem faced by some of the users is network server issue.
- As most of the respondents are satisfied with the service provided, majority of the respondents prefer to continue using M-wallet.
- Quite a few numbers of respondents do not use M-wallets, the major reason being M- wallet security issues.

- As security is a major issue, most of the respondents fear of M-wallet provider sharing the confidential information with other companies, misuse of information if phone stolen, rise in the number of cybercrimes and virus being installed on the phone.
- $\blacktriangleright$  The willingness to use the services is very high if the problems are addressed.
- Based on the age and gender of the respondents, Majority of the male and female respondents prefer using Paytm who fall into the age group of 18-25. M-wallet is affected by demographics as it has been seen in the study that are the factors which influence the preferences of the respondents

#### SUGGESTIONS

- ✓ The future of mobile payments in India depends largely on the payment bank license which is to be provided by RBI so that consumers will get confidence in using the wallet services.
- ✓ All the mobile wallet providers need to meet the guidelines stipulated by RBI, so as to acquire payment bank license.
- ✓ The awareness of the M-wallet providers is rising when compared to the preference of usage of services, therefore the reasons for not using M-wallet can be found.
- ✓ However, security concerns appear to be an important factor depressing the adoption of mobile wallets for payments. Therefore, the mobile wallet providers need to address the security and privacy concerns of the users.
- ✓ Mobile wallet providers can collaborate with the "Telcos" for better and fast network connectivity.

#### CONCLUSION

The study was accomplished to explore consumer awareness, perceptions and willingness to engage in using a smart phone to replace the content of their physical wallets. Specifically, the study explored awareness, usage, likelihood of using smart phones for completing the monetary transactions. With the increased penetration of internet connectivity and smart phones has led to an increase in the number of M-wallet users. M-wallet is getting more and more trendier among the consumers.

As per the findings of the study, M-wallet is getting popularity among the young lots such as students and employees. Further the study also explored which M-wallet gateway services are preferred by the consumers. The study witnessed that paytm is leading among the other wallet providers. When a user is making an online payment via M-wallets, the respondents are affected by various assorted factors. The main influencing factors have been identified as time, convenience, security, loyalty/reward points and discount deals etc. Making payment through M- wallets can be a great benefit to the users in terms of convenience, saving time and money. One of the prime obstacles is security issues, due to which the users gets anxious about his or her confidential information which may get disclosed. Therefore, the M-wallet providers need to understand and meet or even exceed towards the users trust expectations. This includes not only addressing security and privacy concerns but also safeguarding the backup mechanism if the phone is lost or stolen. The study mainly focused on Security, Necessity, Time and satisfaction of the services used that affect the consumer's perception toward M-wallets, the study witnessed that there is a significant association between the perception and the above attributes. M-wallets are growing in INDIA as the consumers are relying upon the digital life style to make things convenient and faster and the consumers are embracing M-wallet with open arms.

#### **BIBLOGRAPHY & WEBLIOGRAPHY**

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#### MAGAZINE:

Business Today – 14th Feb 2016

#### Questionnaire

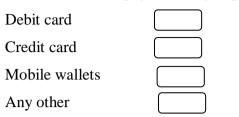
Dear Respondents I am Aaves Shaikh, student of the M.com degree, as a part of my curriculum, I am required to do the project report on usage of m-wallets with reference to Ulhasnagar city. All responses given by you will be kept confidential and use for academic purpose only.

1. Name \* \_\_\_\_\_ 2. Gender \* Male Female 3. Age \* 18-25 25-35 35-50 50 & above 4. What is your annual family income? \* Below 2,50,000 2,50,000 - 5,00,000 5,00,000 - 10,00,000 Above 10,00,000 5. Do you own a smart phone \* Yes No

6. Do you use a smart phone for completing a monetary transaction? (online payment)

Yes	
No	

#### 7. Which mode of payment do you prefer the most? \*



#### 8. Are you aware about the mobile wallet payment gateway? \*

Heard about it for the 1st time	
Heard about it and used it	
Heard about it but not used it	

9. Which of the M-wallets payments gateway are you aware of? \*

10. Which one of the following M-wallets payment services you prefer using the most

Paytm	
Mobikwik	
Phone Pe	
Amazon pay	
Any other	

11. You prefer using M-wallets for completing \_\_\_\_\_\_ transaction? \*

Recharge	
Utility bill payments	
Movie tickets	
Online shopping	
Transfer money	

12. Do you get the availability of mobile payment gateway services? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

13. Do you get convenience while payment from M-wallets? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

14. Are comfort with security of the mobile payment gateway? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

15. Are you aware of availability of the services at different stores? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

16. Do you take the advantage of loyalty points and discounts/cashback? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

17. Are M-wallets used as an alternative mode of payment? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

18. Do you think M-wallets supports the traditional payment system? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

19. Do you think M-wallets are necessary? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

20. Do you think M-wallets saves time? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

21. Do you think M-wallets has made life easier? \*

Strongly agree	
Agree	
Disagree	
Strongly disagree	

22. Have you reduced the frequency of traditional payment system due to M-wallets?

Yes	
No	

23. How often do you use M-wallets? (per month). \*

Once	
Twice	
Thrice	
More than thrice	

24. Rate the M-wallets services that you have used? \*

Highly satisfied	
Satisfied	
Neutral	
Dissatisfied	