A STUDY ON E-WALLET ADOPTION AMONG CUSTOMERS AND BUSINESSES IN DELHI

MSc Research Project
MSC Fintech

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A STUDY ON E-WALLET ADOPTION AMONG CUSTOMERS AND BUSINESSES IN DELHI

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Abstract

The phenomenon of Mobile Wallets in India has seen a spike in interest towards the cashless technology after the act of demonetisation that took place in November 2016. It is also observed that the government of India is encouraging the public to become cashless. This paper's main goal is to identify factors that affect the intent to use mobile wallets in New Delhi. Moreover, the study aims to examine the acceptance of this technology within small businesses of Delhi and to know the most-widely used wallet services. In this study, the Technology Acceptance Model (TAM) is used to determine the factors related to the user's intent to use the cashless wallets. The data for this study is analysed using Exploratory and Confirmatory Factor Analysis. In addition, various statistical tests such as Descriptive Statistics, Chi-Square test, Kruskal Wallis test, and other non-parametric tests are also performed. Paytm wallet is considered to be widely used mobile-wallet among the users of Delhi. The research describes five major factors 'ease of use', 'usefulness', 'secure', 'attitude' and 'risk' that are driving consumer's intention to use the services. It also analysed that these payment technologies are widely adopted in restaurant and grocery store businesses for payments. Hence, mobile wallets are slowly getting accepted among small businesses in Delhi. The results of this study would be useful for the government to frame their policies and for mobile wallet companies to know consumer's intention regarding mobile wallets.

1 Introduction

For any country to carry out its economic operations and trade, the supply of money is required to meet their needs of demand and supply. Any mechanism which is commonly agreed as a means of trade between two parties for the purchase and sale of goods is defined as a medium of exchange. In India, the instruments for payments and processes have a quite long history. Financial markets of any country play a crucial role in the financial system and the economy of the country. Reserve Bank of India (RBI) performs a key role in introducing safe, stable, and approved payment systems. The payments and settlements in India are regulated by the Payment and Settlement Structures Act 2007. (BADRUDDIN, 2015) According to the PSS Act 2007, no other person or entity other than RBI is allowed to introduce or control the payment system in India until approved by RBI.

Prepaid Payment Instrument (PPI)

RBI had introduced a digital form of payment system known as Prepaid Payment Instrument (PPI). In 2009-10, RBI had issued 26 PPI license. From then PPI issuers were allowed to issue semi-closed wallets that enabled payments without two-factor authentication. (The Boston Consulting Group, 2016) It is a payment instrument which is used for purchasing goods and services and to transfer money to anyone. As per the RBI's policy, the total amount deposited in PPI's cannot exceed ₹10,000 in a month and ₹100,000 in a year. (Dubey, 2019)

Concept of Mobile wallets

The mobile wallet (m-wallet) term is formed from the concept of 'Digital Wallet'. The m-wallet technologies are virtual replacements of traditional physical leather wallets in which cash, debit, and credit cards are carried for making payments. It is an internet and application-based service. The penetration of smartphones along with the inexpensive 3G and 4G connections were the biggest factors that introduced the e-wallet system in India. The latest data shows that India had around 1 billion mobile phone users in 2019 and 530 million in 2018 as compared to 240 million users in its previous year. (Singh, et al., 2020) In online transactions via bank account, a fee is charged for every transaction and the users have to enter the card details along with the password, every time they do the transactions. However, in m-wallets, there are no such charges and saves the user's time. (Jain & Singla, 2017) Moreover, m-wallet stores personal information and also keep records of the shopping receipts for future reference.

Types of E-Wallets

As per the RBI, there are 3 primary forms of digital wallet present in India.

1. **Closed Wallet-** This form of the m-wallet is offered by business organizations to its customers for providing specific services related to business only. From this wallet, money can neither be redeemed for any other purpose nor transferred to the bank account. The amount of money kept in this wallet can only be used for availing services from that particular company only.
2. **Semi-closed / Semi-open Wallets-** As per RBI, this is an accepted form of electronic wallet. This wallet permits its users to make payments for their purchases from different merchants. In this wallet, users can receive or send higher value transactions also. However, semi-closed wallets do not allow users to withdraw money.
3. **Open Wallets-** Such wallets are operated and issued by banks only to their customers for making payments. This wallet provides the facility of withdrawing cash from ATMs and the excess money stored in the wallet can be transferred to a bank account. For opening this wallet, KYC details of a user are mandatory and the maximum limit of money that can be stored in this wallet is ₹1,000,000. (Jain & Singla, 2017)

Advantages of Mobile Wallets

1. **Reduces Fraud-** The personal information of the user such as debit and credit card number is kept secure in the m-wallet application with the help of encryptions and it is not disclosed. The application also uses biometric technology thus it reduces the frauds.
2. **Faster Mode of Payment-** Paying money using m-wallets is faster than cash or any other payment methods as it saves time.
3. **Discounts and Cashbacks-** For promoting the digital payments system E-wallet companies and governments provide various cashback discounts to the users. Paytm application provides various savings on the railway, flight, and movie ticket bookings.
4. **Helps in Tracking spending-** On m-wallets all the spending of the user is recorded thus maintaining a record of their budgets.
5. **No problem of Change-** The exact amount of money can be transferred from one account to another account.

Major Providers of E-wallet Services in India

1. **Paytm-** Paytm is one of India's largest providers of m-wallets. It was introduced in 2010 and now has become one of the most used m-wallets of India. This company holds the RBI's license to create a payment bank account that allows providing current accounts and saving deposits.

2. **GooglePay-** Recently Google has introduced a digital payment application in India named 'Google Pay' which has gained much popularity among users. In just two years, this digital payment company has reached 67 million active users monthly, generating more than about $110 billion in transactions annually. Google Pay enables the direct transfer of money from one bank account to another bank through mobile devices.
3. **PhonePe-** This mobile payment app was first introduced in December 2015. It enables sending and receiving money, recharges, making payments for utilities, and many more. It is very much popular among users as in December 2019 the app had crossed about 5 billion transactions. (Jose, 2019)

Rationale of the Study

M-Wallets had gained prominence in India after the occurrence of demonetisation when there was a cash crunch. First, it was used for recharging and bill payments. But afterward, it became common for transferring money from person to person and for making payments.

Recently in Income Tax Act, a new provision has been implemented from 1st February 2020, requiring that businesses of turnover more than ₹500 million must provide facilities of accepting payments from their customers through digital payment modes. However, if any business fails to do so, the business owner will be liable to pay a penalty of ₹5,000 per day. (Indo-Asian News Service, 2019)

According to the RazorPay report, digital payments in Delhi NCR had seen a 442% growth from 2018 to 2019. It indicated that Google Pay was the most preferred app with a 50% share in the market in 2019. (Economic Times, 2020)

Recently, a survey was conducted by a consultancy firm named Local Circles which claimed that digital payments are mainly made for the purchasing of essential products and for recharging of smartphones. The survey revealed that Paytm and Google Pay are amongst the top digital payment applications that customers use. (Press Trust of India, 2020) Therefore, this research is conducted to know the intention of m-wallet users of Delhi for adopting these services and also to evaluate the impact of this on the merchants of small businesses of Delhi.

Objectives of the Study

1. To analyse the intention of users for adopting the m-wallets in Delhi.
2. To analyse the satisfaction level and to know the preference of users, whether they will continue to use the service in the future.
3. To evaluate the relationship between demographic variables such as customer's age, gender, income, education and perception of using m-wallets.
4. To recognize the most widely used m-wallet service in Delhi.
5. To understand how these wallets are adopted in small businesses of Delhi to accept payments.

Hypothesis

1. **H01:** Ease of use has no significant impact on the secure factor for adopting m-wallets
2. **H02:** Ease of use has no significant impact on the usefulness for adopting m-wallets.
3. **H03:** Ease of use has no significant impact on risk.
4. **H04:** The secure has no significant impact on the usefulness and risk.
5. **H05:** Attitude has no significant impact on the usefulness and risk for the adoption of m-wallets.
6. **H06:** Usefulness has no significant impact on the risk.
7. **H07:** Future intention to use has no significant impact on ease of use and secure factor.
8. **H08:** Future Intention to use has no significant impact on the usefulness.

2 Related Work

Ramkumar (2018) explained, there are various factors such as 'offers & discounts', 'synchronization of data', 'store locating', 'superior shopping experience', and many more which influence the youngsters to use these digital wallets. In this study, the researcher has used Factor Analysis for segregating various variables that influence the users to adopt this technology into three factors "convenience", "privacy" and "promotional mix". According to this study, Paytm was the most preferred m-wallet followed by Airtel Money in the Chennai city. It states that m-wallets play a big role in digitalizing the economy, lowers the cost, and brings convenience.

Jain & Sabharwal (2019) stated that most of the transactions these days are done online through m-wallet applications. According to this study, the younger generation is more agile in shifting from traditional cash-based systems to electronic payments and are the major consumers of m-wallets. The study highlighted that legal formalities, low awareness, lack of trust, and security issues are some of the factors which discourage the usage of these m-wallets. The study analysed that age of people has a significant relation with the usage of E-Wallets but gender and occupation do not have.

Yadav & Arora (2019) aimed to assess the relationship between 'customer satisfaction', 'problems with using m-wallets', 'solutions', and 'risks to boost their usage' in their study which demonstrated that there is a significant relationship between customer satisfaction and the solutions in m-wallets. Whereas there is a negative impact between the problems of using m-wallets and satisfaction. Some of the limitations of this study were that the researchers had confined their data collection to Delhi and NCR region and there was no target audience for this study.

Chawla & Joshi (2019) examined consumer attitude and intention to use m-wallets. It is observed from this paper that people still prefer cash and debit cards over any digital payments. TAM and Unified theory of acceptance model were adopted in this paper. The findings indicated that 'perceived ease of use', 'perceived usefulness', 'trust', 'security', 'facilitating conditions' and 'lifestyle compatibility' have a major impact on the attitude towards customers for using the m-wallets. The awareness level of people towards m-wallets are rising. Perceived ease of using m-wallets has a considerable direct effect on perceived usefulness and trust factor.

M.Nandhini & K.Girija (2019) analysed that, people have started to embrace the m-wallet payment system as an attractive and important alternative to other payment methods. Google Pay is a commonly used m-wallet service among respondents. Fast service is considered as the major factor influencing the customer's preference. Moreover, 'convenience' and 'cashback & discounts' are the next important factors persuading people to use it. However, there are various obstacles to use these services, 'network connectivity' being the major issue. Moreover, the Chi-Square test was applied in the paper between the occupation and benefits of using m-wallets, the results revealed, there is a significant relationship between both the variables. A T-test was done on gender and customer's opinion regarding the usage and it proved that there is a significant difference between them. This study was done in the area of Western Tamil Nadu.

Sharma & Kulshreshtha (2019), analysed that consumers are shifting their opinions regarding m-wallets, technology is advancing and younger generations are getting more attracted to these services. The study was done in Tier-2 & Tier-3 cities. One important observation of this study is that in these cities, males tend to use more m-wallets than females. Various factors were examined which influence the purpose to use m-wallets and classified every factor into convenience, safety, complexity, trainability, compatibility, quality of service, privacy, information availability, and ease of use by applying exploratory factor analysis.

Eappen (2019) aimed to understand how trust and information sharing shape the consumer's use and adoption of m-wallets. The data was gathered from students of the University of Kerala. The findings presented that 'trust' is one of the important factors which influence adoption. There was seen a need to establish a customer's confidence in driving the adoption. According to the researcher, 'perceived usefulness', 'perceived ease of use', 'information sharing', and 'trust' positively affects the user's intention. Lastly, the study also analysed that the sharing of personal information has been found to have a substantial effect on the purpose of adoption.

Rani & Suresh (2019) highlighted various factors that strongly influence consumers to use m-wallets. One reason for rising cashless payments nowadays is due to the high consumption of smartphones by people. Twelve factors are mentioned in this paper that shapes the adoption of this technology and factor analysis was applied for the analysis. The results showed that 'convenience', 'intention for payment purpose', 'save time', and 'offer discounts and rewards' are the main factors persuading consumers. Also, people utilize cashless wallets because of the immediate transfer of funds.

Punwatkar & Verghese (2018) revealed, there are various factors such as 'economic value', 'perceived usefulness', 'perceived security', 'privacy', 'know-how', and 'intention to use' that positively affect the adoption of digital payments among users. The analysis of the study didn't identify any strong evidence of the 'perceived usefulness' with the adoption. It is also observed that the participants are enthusiastic about this new technology for doing payments. 'Perceived security' is the major factor that affects the adoption of consumer behaviour.

Lonare et al. (2018) aimed to explain the factors that influence the importance of m-wallet adoption and also discussed the usage gap proportion in Tier-2 and metro cities. It was revealed that the E-Wallet user base in metropolitan towns is more likely compared to tier-2 cities. The only important variable for the adoption of m-wallets was described as simplicity. However, it was observed that business vendors who have adopted m-wallets are much less than was initially thought. In the case of consumers, demonetisation has very little impact on their adoption and from the vendor's perspective, demonetisation has enabled a large number of shopkeepers to accept payments through m-wallets.

Padiya & Bantwa (2018) concluded there are more than 50% of respondents that use m-wallets in Ahmedabad. This research discussed the reasons which demotivate users to use these services. Findings indicated that 'resistance to change' is the key reason for not using wallets because people do not want to step out of the comfort of using conventional payment methods. Other major reasons, discouraging users from using these services are privacy issues, security risks and fees. Moreover, it is observed that there is still no broad-based use of e-wallets on daily basis, it is majorly used once a month only. Demonetization drive in India had largely impacted the payment system in the country. Now people are much aware of the cashless payment alternatives.

Singh, et al. (2020) used the TAM approach to evaluate the intention of users for adopting these services. It is highlighted that various factors such as 'perceived ease of use', 'perceived usefulness', 'perceived risk', 'attitude', 'social influence', 'innovation' and 'stress' are used to measure the perception of the consumers. Digitalization is rapidly setting in and there are currently several emerging mobile payment technology techniques that provide a gateway for credit/debit card purchases from the customer's bank to merchants through a secured portal. Recently, the Indian government has also started encouraging people to adopt these services.

Jayanthi et al. (2020) has focussed on IT sector employees in Coimbatore for the study of m-wallet services. The data was collected from 70 IT Employees, about the various factors which influenced them to use the services and about their demographics and their usage status of the smartphone technology. The various problems faced in using this technology were also discussed and ranked. For analysing the data, the Likert scale and Garrett Ranking methods were used. The results showed that factors like 'accessibility', 'convenience', 'technology adoption', 'substitution of the physical payment system' strongly influence the IT employees to use m-wallets.

Tiwari, et al. (2019) analysed the adoption of m-wallets in the National Capital Region (NCR) by collecting data from 200 respondents. The utility of this technology was investigated with the willingness of people to adopt this innovation. For analysing the data, ANOVA analysis, Regression and Correlation approaches were adopted. The findings showed that people of middle age, are more aware of this innovation and males are more enthusiastic towards learning about the m-wallets and use this payment system more frequently as compared to females. It was also analysed that in the NCR region, the Paytm wallet is most popular among all other wallets. This research tells that the young generation uses this technology because it provides convenience. However, one of the major concerns about this technology is its security. Therefore, the inclusion of the m-wallet can be utilized by improving its security features.

Kalra (2020) aimed at understanding some factors that affect the satisfaction of skilled youths of India by using the UPI payments. The study was carried out by obtaining data from the users of the service. Various factors that have been used are 'performance expectancy', 'security', 'social influence', 'habit' and 'effort expectancy'. UPI system of payments provides trouble-free easy transactions between parties by transferring of funds instantly. This system is suitable for high frequency, low-value transactions and it guarantees 24*7 and 365 days of accessibility. The researcher has conducted a reliability test, exploratory factor analysis and multiple regression for the analysis.

Liu & Tai (2016) identified the factors that influence the decision of users of mobile payment services in Vietnam. They tried to examine the effects of factors such as mobility, convenience, compatibility and many more on the intention to use mobile payment services. The findings of the study suggested that the good determinants of intent to use M-payment services are 'perceived ease of use' and 'perceived Usefulness'. The study indicated that respondents didn't worried about the risk in using the technology and stated that mobility, convenience, compatibility and knowledge are the factors that are related to the ease of use and usefulness.

Voronenko (2018) has used the UTAUT 2 Model with extended factors (trust, risk and security) in its report for exploring the factors related to adopting the digital wallets among the consumers of Russia. The researcher has evaluated the relationship between various factors and the intention of users for adopting the m-wallets and founded that performance expectancy and habit are the main factors that influence the adoption of the m-wallets among the Russian market. Moreover, habit plays a very critical part of the intention to use m-wallet. This study has also analysed that there is no relation between various characteristics such as age and gender with the user's intention to adopt this technology.

Taufan & Yuwono (2019) analysed the adoption of the Go-Pay m-wallet of Indonesia among the users. The researchers have used TAM approach and have stated that perceived value, perceived ease of use and perceived usefulness are the important factors that influence the adoption of the GoPay m-wallet in Indonesia. The study also mentioned that GoPay is the most used m-wallet in Indonesia.

Mathiraj et al. (2019) observed that the education level of a person affects the perception of using m-wallets. However, other demographic factors like age and gender of the person do not affect the perception. The study revealed, though people are satisfied with the e-wallet services there are few problems in it, 'delayed payments', 'lack of security and safety' is the major issues.

Chakraborty & Mitra (2018) stated that 'perceived usefulness', 'perceived ease of use', 'social influence', 'perceived self-efficacy', 'value', 'innovativeness' and 'attractive alternative' are various factors that are significant towards adoption intention. The researchers have used a diffusion of TAM and UTAUT model in this study. Correlation test and regression analysis have been done to study the connection and relation of various factors to use the technology.

Rathore (2016) stated that m-wallets are fast evolving into a popular method for doing transactions through the online payment process. The research was carried out among the respondents of different demographics to learn consumer perception towards m-wallets. However, there was no significant difference between male and female users. The study also analysed that 'convenience', 'brand loyalty' and 'usefulness' plays a critical role in deciding the adoption. Users also face challenging issues such as security and safety of transactions.

Ahuja & Joshi (2018) had researched about the consumer's perception towards the m-wallets. This revealed that four major factors are 'ease of use', 'benefit', 'trust' and 'self-efficacy' which influence consumer's perception towards m-wallets. In this study, researchers had applied Factor Analysis and KMO test for the analysis.

3 Research Methodology

A descriptive research design has been used in this study as it describes the various characteristics of the population from which the sample has been selected. The data for this research was gathered from both primary as well as secondary sources. The secondary data was collected from various articles, newspapers, and journals. Whereas, primary data was collected by sending a structured questionnaire on various social media platforms such as WhatsApp, Facebook, Instagram, and LinkedIn, to gather responses from individuals. Telephonic Interviews were also taken to ensure that valid data is achieved. Two questionnaires were designed for data collection by establishing various factors from the study of existing literature relating to the research. The objective of one questionnaire was to get responses from users of these m-wallets. Whereas, the other questionnaire was framed to collect data from merchants of small businesses such as restaurant owners, service providers, general storekeepers, and other small businesses of Delhi. The second questionnaire that targeted responses of business merchants was translated into the Hindi language to get responses from those who didn't know English. In this study, the TAM approach was used to analyse the factors for adopting m-wallet technologies among consumers. The factors included in this study for the analysis are 'ease of use', 'usefulness', 'risk', 'attitude', 'secure' and 'intention to use'.

Sample Size

For the analysis of consumer's intention about these services, 423 responses were collected out of which 383 reliable responses were analysed. Before gathering the full data from the respondents, a pre-test was conducted on a sample of the first 50 respondents to test the techniques. While for understanding how successfully these services are adopted by merchants of small businesses 229 responses were gathered, out of which 200 reliable responses were analysed. For gathering data of consumer's intention, the Snowball sampling technique was used.

Scales and Measurements used in the Study

In this research, five-point Likert Scale was used in the questionnaire ranging from 'Strongly Agree' to 'Strongly Disagree' to collect the precise reaction from the respondents. In the questionnaire, there were different sections which collected demographic information and views of respondents on different factors that are affecting the consumer's preference. To ensure that only accurate data is taken into study, questionnaires were framed in such a way that few similar questions were asked from the respondents but in a different manner. In this way it was analysed that respondents had filled the survey carefully.

Target Population

The target population for the first questionnaire is respondents residing in Delhi, who are users of m-wallet services and those who are in the age group of 18 - 65 years. They were targeted to understand their intention of adopting m-wallets. Whereas the second questionnaire was filled by merchants of small businesses located in Delhi, to analyse how these wallets are adopted in the small businesses of Delhi.

Statistical Techniques Used for the Analysis

The different statistical techniques have been used in this study for analysis.

1. **Descriptive Statistics** is used in evaluating frequencies and percentages in the data and to measure mean and standard deviation.
2. **Cronbach's Alpha Test** is used as a measured value to check whether the data is reliable or not.
3. **Chi-Square Test** is used in examining whether the demographic variables of the respondents make any difference in their preference to continue using m-wallets in the future.
4. **Kruskal Wallis Test** is a nonparametric test that is used when the data is not normally distributed as an alternative to Anova One-Way test. This test is used to ascertain the significant difference between the independent categorical variables. In this research, Kruskal Wallis test is used to analyse whether the demographic variables such as gender, age, education, occupation, and annual income of consumers make any difference between the factors for adopting the m-wallets.
5. **Mann-Whitney U Test** is used to determine the difference in the median between the two groups. Mann-Whitney U Test is a nonparametric test, similar to Kruskal Wallis Test, however, the major difference between these two tests is that the Mann-Whitney U Test is used when there are two independent groups.
6. **Goodman-Kruskal Gamma Test** is a correlation test that is performed on nonparametric data. It tests how closely the two variables are associated with each other in the data.
7. **Exploratory & Confirmatory Factor Analysis** was done to analyse whether any factors influence the consumers to adopt m-wallet services and to know the relationship between these factors.

Validating the Questionnaire

A validation test is a method used to check whether the data attempts to assess what it is expected. The questionnaire for doing the survey was designed after reviewing many existing literatures. After designing the questionnaire, it was checked by a qualified official for checking the questionnaire's validity.

Reliability

The secondary data gathered for the research about the m-wallet payment system of India is taken from peer-reviewed journals, articles, and news articles which are considered a reliable source of information.

For the primary data collected by the surveys, internal consistency and reliability analysis were conducted to examine the accuracy of the sample data. Cronbach's Alpha test was carried out for checking the reliability and the results showed that the value of the Cronbach's Alpha was coming to be 0.745.

4 Results

After examining and reviewing various works of literature on the mobile payment system, it was understood that numerous factors are affecting the intention of the users to adopt the m-wallet payment system. In this research, five objectives were formulated. This section will look at the analysis and evaluation of the data collected. Two data sets that were collected will be examined in this section; one focusing on consumer intention for adopting these services and another focusing on the adoption of the m-wallet system in the small businesses of Delhi.

Analysis and Interpretation of Consumer's Intention for Adopting M-Wallets

From (Table 1 of the configuration manual), 'Paytm' wallet is observed to be the most accessible m-wallet application among Delhi users, followed by 'Google Pay'. Table 1 below reveals that 43.95% of respondents are using 'Paytm' and 24.89% are using 'Google Pay' application.

Table 1: Most Used Mobile Wallets

Mobile Wallets	Users	Percentage
Paytm	309	43.95
Google Pay	175	24.89
Phone Pay	88	12.51
Amazon Pay	67	9.53
Airtel Money	23	3.27
Any Other	41	5.83
Total Respondents - 383		

Descriptive Statistics

The research comprises 43.86% females and 56.13% males, reflecting the almost equal distribution of males and females as shown in table 2. Table 3 indicates that the bulk of respondents are from 20-30 years of age, only 4.69% are above 50 years and 1.82% did not disclose their age. From Table 6, it is noted that most respondents are students. The percentage of employees is 20.1%, 17.23% are professionals, and respondents having businesses and other occupations have the same proportion. Among the total respondents, 35.24% earned no income as they were students, 23.23% did not disclose their income. While only 5.48% had less than ₹10,000 incomes. (as seen in Table5) Further from Table 4, it is evaluated that 48.56% of respondents who participated in this study, were graduate, 22.45% were postgraduates, 13.83% had professional degrees, and some of them had secondary and other education. While some didn't disclose and only 1 person was undergraduate.

Demographics of Respondents

Table 2: Gender

	Frequency	Percentage
Female	168	43.86
Male	215	56.13

Table 3: Age

	Frequency	Percentage
18-20 years	54	14.09
20-30 years	206	53.78
31-40 years	41	10.7
41-50 years	57	14.88
Above 50 years	18	4.69
Prefer not to disclose	7	1.82

Table 4: Education

	Frequency	Percentage
Graduate	186	48.56
Post Graduate	86	22.45
Professional	53	13.83
Secondary	29	7.57
Under Graduate	1	0.26
Others	7	1.82
Prefer not to disclose	21	5.48

Table 5: Monthly Income

	Frequency	Percentage
No Income (student)	135	35.24
Below ₹ 10,000	21	5.48
₹10,000- ₹20,000	27	7.04
₹20,000- ₹40,000	42	10.96
₹40,000- ₹ 60,000	34	8.87
Above ₹60,000	35	9.13
Prefer not to disclose	89	23.23

Table 6: Occupation		
	Frequency	**Percentage**
Business	28	7.31
Employees	77	20.1
Professional	66	17.23
Student	165	43.08
Others	28	7.31
Prefer not to disclose	19	4.96

Table 7: Preference of Respondents for Continuing the Usage of Mobile Wallets		
	Frequency	**Percentage**
NO	19	4.96
YES	364	95.04

It can be observed from table 7 that 95.04% of respondents will continue using m-wallets in the future.

Mean and Standard Deviation

Further, descriptive statistics was applied to the data. Mean scores of all variables that affect consumers' willingness to adopt m-wallet service along with their intention and satisfaction level are taken into consideration. It is observed from Table 2 of the configuration manual that making payments through these e-wallets is convenient with the highest mean value of 4.51436 on the scale of 5 followed by respondent's intention to continue using m-wallets in the future with the mean value of 4.443. Whereas, payments through m-wallets are considered a risky choice with the least mean value of 2.543 and there is a great potential to lose money if goods are purchased online using m-wallet payments has a mean value of 2.718 and so on. Moreover, the standard deviation demonstrates how far the reaction deviates from the given mean.

Frequency Analysis

Frequency analysis was carried out to find out the intention and perception of the respondents along with the overall satisfaction. Table 3 of the configuration manual tells that the majority of respondents are satisfied with m-wallet services and believe that this service is an appealing alternative to a cash-based system and is useful. Most of the respondents are attracted to use m-wallets because of the discounts and cashback offers which the m-wallet companies provide. Along with that, this technology also reduces the cost and time in the transaction. Furthermore, most of the respondents disagree with the statement that dealing with mobile payments is a risky choice.

Chi-Square Test

Table 8: Relation between Gender & Preference of Continuing using m-wallets		
	p-value	**DF**
Pearson Chi-Square	0.5804	1

Chi-Square test was applied to examine the relationship between the respondents' gender and their desire to continue using m-wallets as indicated in table 8. It reveals that there is no important association between these two variables because the value of Chi-Square (X^2= 0.5804, $p>0.05$) is not significant. This indicates that the choice to continue using m-wallets is insensitive to gender.

Table 9: Relation between Age & Preference of Continue using m-wallets		
	p-value	**DF**
Pearson Chi-Square	0.2871	5

Table 9 shows that there is no important connection between age and preference to continue using m-wallets in the future. The value of Chi-Square is not significant (X^2=0.2871; $p>0.005$). This means that age does not impact the preference of respondents for continuing using m-wallets in the future.

Chi-Square test was also applied to examine the relationship between the respondents' Education, Occupation, Monthly Income and their desire to continue using m-wallets as indicated in tables 10, 11 and 12.

Table 10: Relation between Education & Preference of Continue using m-wallets		
	p-value	**DF**
Pearson Chi-Square	0.04041	6

Table 11: Relation between Occupation & Preference of Continue using m-wallets		
	p-value	**DF**
Pearson Chi-Square	0.6032	5

Table 12: Relation between Monthly Income & Preference of Continue using m-wallets		
	p-value	**DF**
Pearson Chi-Square	0.5814	6

The results show that the Chi-Square value is greater than 0.05 (significant p-value). Therefore, there is no relation between preference to continue using m-wallets in the future with occupation and monthly income of respondents. However, it is seen that the education of respondents has a 0.04041 chi-square value, (less than 0.05), therefore there can be some relation between the education level and the preference to continue using m-wallets in the future.

Kruskal Wallis Test

In the study, Kruskal Wallis Test has been performed. This test decides if the medians are different in two or more classes. The Kruskal Wallis test was applied to know the difference in the demographic variables of users with the factors adopting m-wallets.

Table 13: Results of Kruskal Wallis Test on Gender

Characteristics/Attributes	**Gender**	
	Kruskal-Wallis chi-squared	**p-value**
Using E-wallets are Easy	0.102	0.748
Interaction with mobile payment is clear and understandable.	0.002	0.96
Doing payments through these Electronic Wallets is convenient.	0.019	0.888
E-wallet services provide security to transactions	1.495	0.221
Paying money through mobile wallets is a trusted source of payment mechanism	7.298	0.006
I believe that my Personal Information which is stored on mobile wallets is protected.	0.047	0.826
I believe that using Mobile-Wallet puts my privacy at risk	0.781	0.376
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	2.246	0.133
There is significant risk in Internet shopping/social network using mobile payments	5.342	0.02
I think dealing with mobile payments is a risky choice.	4.1006	0.042
Brand Loyalty of E-wallet companies affects the usage of these services.	5.992	0.014
Quality of E-wallet service providers also affect the intention to use these services	7.959	0.004
E-wallet services provide a reduced time of transactions	0.273	0.6
Discounts and cashback offers, attracts you to use these services	0.568	0.451
Mobile wallets reduces the cost of transactions.	2.712	0.0995
The E-wallet system is considered as a useful payment method.	0.003	0.949
E-wallets serve as an appealing alternative for making payments.	0.184	0.667
How satisfied are you, with these E-wallet services for making payments?	1.095	0.295

Results of the Kruskal Wallis test measurement in table 13 show that the respondent's gender shows a major difference between factors such as risk, brand loyalty, quality of service provider. The rest all other attributes such as reduced time and cost of transactions, ease, convenience, discounts, and so on show no substantial difference between males and females.

Table 14: Results of Kruskal Wallis Test on Age		
Characteristics/Attributes	**Age**	
	Kruskal-Wallis Chi-square	**p-value**
Using E-wallets are Easy	5.366	0.372
Interaction with mobile payment is clear and understandable.	0.431	0.505
Doing payments through these Electronic Wallets is convenient.	9.246	0.0963
E-wallet services provide security to transactions	11.523	0.04193
Paying money through mobile wallets is a trusted source of payment mechanism	2.402	0.791
I believe that my Personal Information which is stored on mobile wallets is protected.	16.651	0.005
I believe that using Mobile-Wallet puts my privacy at risk	3.148	0.677
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	1.516	0.911
There is significant risk in Internet shopping/social network using mobile payments	3.372	0.642
I think dealing with mobile payments is a risky choice.	7.521	0.184
Brand Loyalty of E-wallet companies affects the usage of these services.	8.285	0.141
Quality of E-wallet service providers also affect the intention to use these services	8.598	0.126
E-wallet services provide a reduced time of transactions	11.198	0.047
Discounts and cashback offers, attracts you to use these services	6.585	0.253
Mobile wallets reduces the cost of transactions.	14.519	0.012
The E-wallet system is considered as a useful payment method.	3.061	0.69
E-wallets serve as an appealing alternative for making payments.	2.398	0.7917
How satisfied are you, with these E-wallet services for making payments?	3.793	0.579

It is observed from table 14 below that the sense of security in using m-wallets is significantly different among respondents of different age groups. It is noted that the older generation finds m-wallet security complex in comparison to younger generations. Respondents from different age groups have a different opinion of how personal information on the m-wallet application is held secure. Factors like reduced transaction time and cost often vary significantly among different age groups. While, other various factors such as discounts, privacy, brand loyalty remain unaffected concerning the different age groups.

Table 15: Results of Kruskal Wallis Test on Education		
Characteristics/Attributes	**Education**	
	Kruskal-Wallis Chi-square	**p-value**
Using E-wallets are Easy	10.205	0.116
Interaction with mobile payment is clear and understandable.	16.558	0.011
Doing payments through these Electronic Wallets is convenient.	10.615	0.101
E-wallet services provide security to transactions	10.745	0.096
Paying money through mobile wallets is a trusted source of payment mechanism	8.297	0.217
I believe that my Personal Information which is stored on mobile wallets is protected.	4.802	0.569
I believe that using Mobile-Wallet puts my privacy at risk	4.802	0.569
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	6.771	0.342
There is significant risk in Internet shopping/social network using mobile payments	5.719	0.455
I think dealing with mobile payments is a risky choice.	4.871	0.56
Brand Loyalty of E-wallet companies affects the usage of these services.	8.675	0.192
Quality of E-wallet service providers also affect the intention to use these services	6.336	0.386
E-wallet services provide a reduced time of transactions	2.469	0.871
Discounts and cashback offers, attracts you to use these services	7.518	0.275
Mobile wallets reduces the cost of transactions.	8.54	0.201
The E-wallet system is considered as an useful payment method.	12.045	0.06
E-wallets serve as an appealing alternative for making payments.	8.651	0.194
How satisfied are you, with these E-wallet services for making payments?	4.108	0.662
****N=383; significant p- value<0.05****		

The findings of the Kruskal Wallis Test in table 15 indicate that the impact of clear and understandable characteristics on using m-wallets has a substantial difference between respondents' different education levels. The effect of variables such as ease and comfort is unaffected. Similarly, as observed in the table, the degree of education has no substantial difference as various other attributes remain unaffected.

Table 16: Results of Kruskal Wallis Test on Occupation		
Characteristics/Attributes	**Occupation**	
	Kruskal-Wallis ch-square	**p-value**
Using E-wallets are Easy	4.803	0.44
Interaction with mobile payment is clear and understandable.	8.637	0.124
Doing payments through these Electronic Wallets is convenient.	3.419	0.635
E-wallet services provide security to transactions	11.682	0.0394
Paying money through mobile wallets is a trusted source of payment mechanism	22.819	0.0003
I believe that my Personal Information which is stored on mobile wallets is protected.	10.621	0.0594
I believe that using Mobile-Wallet puts my privacy at risk	1.757	0.881
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	8.062	0.152
There is significant risk in Internet shopping/social network using mobile payments	1.021	0.96
I think dealing with mobile payments is a risky choice.	4.232	0.516
Brand Loyalty of E-wallet companies affects the usage of these services.	6.634	0.249
Quality of E-wallet service providers also affect the intention to use these services	4.835	0.436
E-wallet services provide a reduced time of transactions	7.45	0.188
Discounts and cashback offers, attracts you to use these services	18.107	0.002
Mobile wallets reduces the cost of transactions.	6.412	0.268
The E-wallets system is considered as an useful payment method.	4.314	0.505
E-wallets serves as an appealing alternative for making payments.	3.116	0.682
How satisfied are you, with these E-wallet services for making payments?	14.337	0.013
****N=383; significant p- value<0.05****		

In table 16, the occupation of respondents also affects the attributes that lead to the adoption of m-wallets. The perception that m-wallets provide security is a trusted method and the attraction towards discounts and cashback offers significantly differs in respondents of different occupations.

Table 17: Results of Kruskal Wallis Test on Monthly Income		
Characteristics/Attributes	**Monthly Income**	
	Kruskal-Wallis ch-square	**p-value**
Using E-wallets are Easy	4.476	0.612
Interaction with mobile payment is clear and understandable.	4.811	0.568
Doing payments through these Electronic Wallets is convenient.	4.357	0.628
E-wallet services provide security to transactions	11.484	0.074
Paying money through mobile wallets is a trusted source of payment mechanism	12.31	0.0554
I believe that my Personal Information which is stored on mobile wallets is protected.	15.621	0.015
I believe that using Mobile-Wallet puts my privacy at risk	5.722	0.455
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	3.865	0.694
There is significant risk in Internet shopping/social network using mobile payments	4.467	0.613
I think dealing with mobile payments is a risky choice.	3.321	0.767
Brand Loyalty of E-wallet companies affects the usage of these services.	4.488	0.61
Quality of E-wallet service providers also affect the intention to use these services	12.612	0.049
E-wallet services provide a reduced time of transactions	14.181	0.027
Discounts and cashback offers, attracts you to use these services	9.111	0.167
Mobile wallets reduces the cost of transactions.	12.891	0.044
The E-wallets system is considered as an useful payment method.	1.769	0.939
E-wallets serves as an appealing alternative for making payments.	8.133	0.228
How satisfied are you, with these E-wallet services for making payments?	19.485	0.003
****N=383; significant p- value<0.05****		

Table 17 notes that the satisfaction level, trust factor and sense of security of personal information towards m-wallets differ significantly among respondents receiving varying monthly income. Along with these; quality, reduced time and cost of the transaction also differ significantly.

Mann-Whitney U Test

In this research, the Mann-Whitney U test was also applied This test is done when the comparison in the median is to be made between two groups. So this test was done between the respondents' gender and the factors influencing their adoption of the m-wallets, to know whether there is any difference between the intention of males and females to adopt this technology. It was observed (as seen in table 18) that the respondent's gender showed a major difference in their perceptions about the significant risk in Internet shopping and using m-wallets. It is evaluated that a major percent of males strongly disagreed that Internet shopping and using m-wallets can be risky, in comparison to females. Moreover, there is also a significant difference between males and females about their perception that brand loyalty and quality of m-wallet service providers affect the intention of users to adopt these technologies.

Table 18: Results of Mann-Whitney U Test: Showing significant difference between the groups	
Characteristics/Attributes	**Gender**
	p-value
There is significant risk in Internet shopping/social network using mobile payments	0.02
I think dealing with mobile payments is a risky choice.	0.042
Brand Loyalty of E-wallet companies affects the usage of these services.	0.014
Quality of E-wallet service providers also affect the intention to use these services	0.004
****Significant P-value<0.05**	

Goodman-Kruskal's Gamma Test

In this research, the Goodman-Kruskal Gamma test is conducted to analyse the correlation between the satisfaction level and the various perceptions of users because of which it leads to the adoption of m-wallet services. The results in table 19 stated that the satisfaction level of users is positively correlated with the perceptions that m-wallets are easy to use, convenient, and clearly understandable. The satisfaction level is also positively associated with the characteristic that m-wallet services provide security to transactions and with the trust variable. However, the satisfaction level of users is negatively related to the perceptions that m-wallets put the user's privacy at risk and that there is a great potential to lose money if consumers purchase goods through the internet from mobile payments. The other risk factors mentioned are also negatively related to satisfaction.

Table 19: Results of Godman & Kruskal's gamma test		
Characteristics/Attributes	**Goodman-Kruskal's gamma**	**P-Value**
Using E-wallets are Easy	0.723	Significant
Interaction with mobile payment is clear and understandable.	0.659	Significant
Doing payments through these Electronic Wallets is convenient.	0.704	Significant
E-wallet services provide security to transactions	0.461	Significant
Paying money through mobile wallets is a trusted source of payment mechanism	0.484	Significant
I believe that my Personal Information which is stored on mobile wallets is protected.	0.419	Significant
I believe that using Mobile-Wallet puts my privacy at risk	-0.181	Significant
There is a great potential to lose money if I buy goods on the Internet/social networking using mobile payments.	-0.219	Significant
There is significant risk in Internet shopping/social network using mobile payments	-0.178	Significant
I think dealing with mobile payments is a risky choice.	-0.165	Significant
Brand Loyalty of E-wallet companies affects the usage of these services.	0.029	Not Significant
Quality of E-wallet service providers also affect the intention to use these services	0.168	Significant
E-wallet services provide a reduced time of transactions	0.462	Significant
Discounts and cashback offers, attracts you to use these services	0.319	Significant
Mobile wallets reduces the cost of transactions.	0.158	Significant
The E-wallets system is considered as an useful payment method.	0.533	Significant
E-wallets serves as an appealing alternative for making payments.	0.514	Significant
I am likely to continue using mobile wallet services in the future	0.615	Significant

Reliability Test

To statistically evaluate the reliability of the data obtained from the survey, Cronbach's Alpha reliability test has been conducted. As per this test, results for acceptance should be at least 0.6. Any value below 0.6 is not considered reliable. In this study, the Cronbach's Alpha value on the selected data for the analysis is showing to be 0.705, which is above 0.6. Therefore, the data which has been gathered is reliable for further analysis

Table: 20 Cronbach's Alpha Reliability Test on 5 factors			
Factors	**Cronbach's Alpha**	**N of Items**	**Combined Reliability of all factors**
Ease of Use	0.8163352	3	0.7050797
Secure	0.852451	3	
Risk	0.831203	4	
Perceived Attitude	0.6881687	2	
Usefulness	0.7021777	5	

The reliability test was applied to each and every factor, as seen from table 20. The combined reliability of all factors in this study is 0.705. Moreover, Cronbach's alpha of 'Ease of Use', 'Secure', 'Risk', 'Perceived Attitude', and 'Usefulness' factors are 0.816, 0.852, 0.831, 0.688, and 0.702 respectively. This shows that the questionnaire has higher consistency.

Factor Analysis

In this study Exploratory factor analysis (EFA) is applied which is a method of determining the relation between variables. It specifies the interdependence in the data without identifying dependent or independent variables. The KMO value in the analysis (as seen in table 21) is calculated to be 0.84 (>0.5) and the Bartlett test has a significance level of 1.197058e-68 (<0.05). Therefore, the factor analysis can be done with this data to extract factors for knowing the intention of consumers to adopt m-wallets.

Table 21: Results of KMO and Bartlett's Test of Sphericity	
Kaiser-Meyer-Olkin measure of sampling adequacy	0.84
Bartlett's test of sphericity approx. Chi-Square	653.5341
Df	136
Sig	1.197058e-68

Table 22 shows that, five major factors have been extracted out from the total of 17 variables, as their eigenvalues are greater than 1. One of the primary goals of factor analysis is to reduce the number of parameters. So in this research unique 17 variables were first of all considered as factors. Then afterward those factors were retained that had a higher eigenvalue (more than 1).

Table 22: Total Variance Explained						
	Initial Eigenvalues			Extracted Sum of Square Loadings		
Factors	**Total**	**% of variance**	**cumulative %**	**Total**	**% of variance**	**cumulative %**
1	5.123	0.30	0.30	2.27596	0.134	0.134
2	2.791	0.16	0.47	2.02701	0.119	0.253
3	1.350	0.08	0.54	1.90046	0.112	0.365
4	1.199	0.07	0.62	1.54969	0.091	0.456
5	1.099	0.06	0.68	1.23601	0.073	0.529
6	0.856	0.05	0.73			
7	0.631	0.04	0.77			
8	0.587	0.03	0.80			
9	0.550	0.03	0.83			
10	0.480	0.03	0.86			
11	0.426	0.03	0.89			
12	0.379	0.02	0.91			
13	0.364	0.02	0.93			
14	0.351	0.02	0.95			
15	0.315	0.02	0.97			
16	0.272	0.02	0.99			
17	0.226	0.01	1.00			

The results of the factor analysis (via the Maximum Likelihood method) on the matrix of the rotated component shows that all the components are accepted because they are properly loaded on the factors as shown in table 23 below.

Table 23: Factor Analysis Rotated Component Matrix						
	Components					
	Factor1	**Factor2**	**Factor3**	**Factor4**	**Factor5**	
Privacy Risk	0.58					
Potential to lose	0.77					
Risk	0.82					
Risky Choice	0.71					
Security		0.83				
Trusted Source		0.78				
Protection		0.77				
Reduced Time			0.6			
Useful			0.74			
Appealing Alternative			0.66			
Ease				0.91		
Clear				0.68		
Quality					1.00	
Convenient				0.45		
Brand Loyalty					0.46	
Discounts			0.45			
Reduced Cost			0.43			
Extraction Method: Maximum Likelihood Method						
Rotation Method: Oblimin						

Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is a multi-variable statistical technique that is used for testing how well the variables represent the data. This test is similar to EFA. However, in CFA, the number of factors are known and this test is done to confirm the results of EFA and to know the relationship between variables. It is a method that is used to validate or reject the hypothesis.

CFA Model 1

In this study, CFA is applied to analyse the relationship between factors that were chosen from the results of exploratory factor analysis earlier, which led to the adoption of m-wallets among the users. In figure 1, the CFA model is displayed.

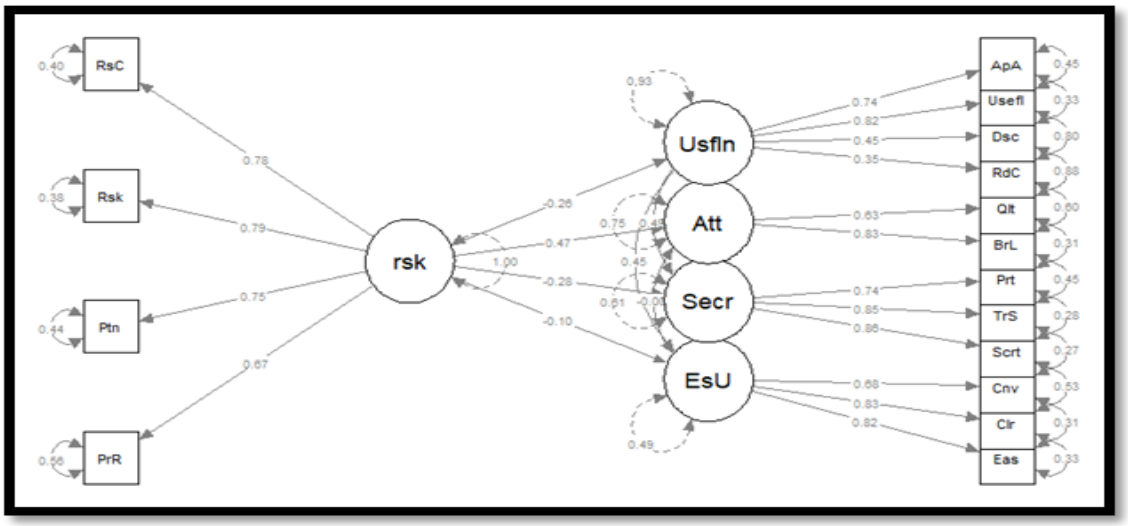

Figure 1: CFA Model 1

In the study, CFA technique determines that there are 5 factors named 'ease of use', 'usefulness', 'secure', 'attitude' and, 'risk' which influence users to adopt m-wallet technology. Moreover, this figure is depicting that risk factor is negatively related to 'secure' and 'usefulness' factor.

Table 24: Indicating a good model fit with the data			
Criteria	**Result**	**Cut-off-value**	**Information**
Chi Square	254.998	Small value are better	Accepted
RMSEA	0.066	≤0,08 ; ≤0,05	Accepted
GFI (Goodness of fit index)	0.924	≥0,90	Accepted
CFI (Comparative fit index)	0.934	≥0,90	Accepted
SRMR	0.059	≤0,08 ; ≤0,05	Accepted

To measure the fit of the model, various fit indices such as the Goodness of Fit Index, Standardized Root Mean Square Residual (SRMR), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA) and Comparative Fit Index (CFI) are used to evaluate the validity fitness of model on the data. All the fit indices which were obtained from the confirmatory factor study had desirable magnitudes (GFI= 0.924; SRMR= 0.059; RMSEA= 0.066; NFI=0.900; CFI= 0.934), which is implying an acceptable fit between the data and the model.

Hypothesis Testing-1

Through confirmatory factor analysis, hypothesis testing is performed, to conclude the study related to factors that lead to the adoption of m-wallets.

Table 25: Results of Hypotheses Test				
	Estimate	**z-value**	**P. Value**	**Label**
EsU<-- Secr	0.344	4.336	***	Accepted
EsU<-- Usfln	0.622	6.04	***	Accepted
EsU<--rsk	-0.149	-1.898	0.058	Rejected
Secr<-- Usfln	0.6	7.436	***	Accepted
Secr<-- rsk	-0.357	-4.985	***	Accepted
Att<-- Usfln	0.388	4.748	***	Accepted
Att<-- rsk	0.54	5.985	***	Accepted
Usfln<-- rsk	-0.274	-4.134	***	Accepted

Table 25 shows the relationship between factors that influence the adoption of m-wallets among users and the results of the hypothesis. From eight hypotheses, seven have significant p-values. The accepted hypothesis is as follows:

1) Ease of Use factor (EsU) has a positive and significant relationship with Secure (Secr) because it has a p-value of less than 0.05.
2) Similarly, EsU has a significant positive relation with the Usefulness factor (Usfln).
3) EsU has no relationship with risk factor because it's p-value is more than 0.05 as seen from the table
4) Secr and Usfln is also seen to have a significant positive relationship.
5) Whereas Secr and ESU, both are negatively related to Risk (Rsk).
6) It can be observed from the table that Attitude (Att) has a positive relation with Rsk and Usfln. Usfln is negatively related to Rsk.

CFA Model-2

In the second model of CFA, 2 new variables were included from the data, 'satisfaction' and 'future intention to continue the service'. These two variables were clubbed into a new factor named 'Intention'. This model was applied to know the relationship between the future intention of users to continue using m-wallets and the factors that influenced their intentions. Therefore, in the second model of CFA, a total of six factors were taken into account by adding the 'Intention' factor to the previous 5 factors that were formed in EFA model. The figure of CFA model-2 depicts that 5 factors influence the Intention factor of users to continue using the m-wallet service in the future.

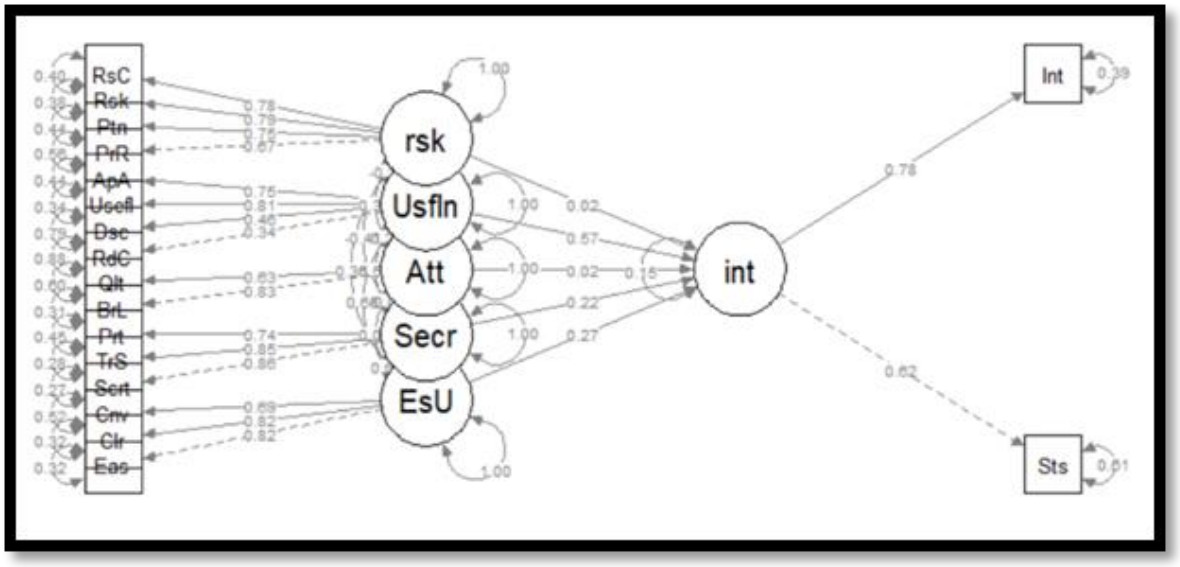

Figure 2: CFA Model 2

i. Fit Indices

This model is showing the desired magnitude of the fit indices. The Comparative Fit Index (CFI) of this model is 0.931 and TLI Index is 0.912, which are desirable values. The Goodness of Fit Index (GFI) is 0.924, RMSEA is coming out to be 0.066. These fit indices show that this model is nicely fitted.

ii. Hypothesis Testing -2

Hypothesis testing was done through this model. The table below shows the results of this CFA model. In total 5 hypotheses were framed and out of which 3 were accepted.

Table 26: Results of Hypotheses Test

	Estimate	z-value	P. Value	Label
FITU<-- EsU	0.197	3.344	0.001	Accepted
FITU<-- Secr	0.118	3.173	0.002	Accepted
FITU<-- Usfln	0.62	4.545	***	Accepted
FITU<-- rsk	0.014	0.390	0.697	Rejected
FITU<-- Att	0.009	0.289	0.773	Rejected

The hypothesis accepted in this model as shown in the table are as follows:

1. Ease of Use (EsU) positively affects the Future Intention to Use (FITU) the m- wallets services, the table is showing that the p-value is 0.001 that is less than 0.05. therefore, it is significant.
2. Secure factor (Secr) also positively affects the FITU m-wallets services, the p-value between these two factors is 0.002.
3. Moreover, the Usefulness factor (Usfln) also positively affects the FITU m-wallets.

Analysis of Adoption of Mobile Wallets among Small Businesses

This section analyses how successfully these m-wallets are adopted in the small businesses of Delhi for accepting payments. The study shows that most of the business owners of Delhi provide the facility of making payments through m-wallets to their customers while some find it risky due to factors like 'fear of security', 'lack of customer's demand' and 'trust issues'. It is also examined that Paytm is known to be the most widely used m-wallet. Since people are still dependent on the traditional cash-based system, m-wallet technologies are being accepted slowly. It is noticed through the survey that a very low percent of business income comes through m-wallets and mostly the business owners were neutral or were of the view that they would not lose their customers by not providing the m-wallet services. However, the majority of the business owners have an opinion that the m-wallet system is a viable alternative to the traditional cash-based systems and consider that receiving payments through m-wallets is secure and convenient. Lastly, it is seen that m-wallet services are majorly adopted in restaurants and grocery stores in Delhi. Whereas, in other small businesses and self-employed service providers, this technology is still not fully adopted.

5 Conclusion and Future Work

There exists a significant difference between the independent variables (Age, Gender, Monthly Income, Occupation and, Education) and factors that influence the adoption of m-wallets. It is seen that the older generation does not find m-wallets safe as compared to the younger generation. Likewise, it is analysed that attraction towards discounts and cashback offers varies significantly among respondents of different occupations. Majorly students are influenced by discounts and cashback offers. It is analysed that in comparison to males, females consider using m-wallets risky for internet shopping. From the study, it is understood that the majority of consumers are satisfied with this technology and will continue to use this service in the future. The main aim of this research was to decide the factors that influence the adoption of m-wallet services among the users of Delhi. According to the findings; ease of use, secure, and usefulness factors are positively related to the intention factor that consumers will prefer to continue using m-wallets. Moreover, the risk factor is negatively related to secure and usefulness factors which lead to the adoption of m-wallets. This study highlights that Paytm is the most usable wallet application. This research also analysed that many small businesses involving customer dealing in Delhi nowadays have started to provide the customers with the facility of making payments through m-wallets; the majority have adopted this service after the act of Demonetisation. Lastly, it is seen that m-wallets are widely adopted in businesses like restaurants and grocery stores in Delhi. Whereas, in other small businesses such as small-scale factories and self-employed service providers these m-wallets are still not fully adopted. Therefore, from this research, it can be concluded that this new technology is getting adopted slowly.

Scope of Future Work

To understand and improve further findings and developments, various additional works can be performed on the intention to use m-wallets. In addition to the independent variables that are addressed in the current study, it is possible to integrate several other significant factors to make the analysis sample more concrete. The existing work is carried out only in New Delhi, the future works can also be conducted in various places to know the adoption of these services. This study can be the base for future studies. In this paper, various factors that influence adoption are studied. In future work, researchers can identify the problems that customers encounter while using these services. The current study also gathered data from various small businesses of Delhi to know how successfully these cashless services are implemented in the businesses in Delhi. However, it came to know that there are many different kinds of small businesses other than self-employed service providers, restaurants,

and grocery stores. Therefore, it is suggested that the study should be carried out by concentrating on a particular sector of businesses to have more accurate results. For getting responses for this research, respondents were contacted online and the questionnaires were distributed to them. Moreover, telephonic interviews were conducted and very few respondents were interacted face-to-face because of the COVID-19 pandemic. So lastly, different methods should be adopted to gather data for future studies.

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