

Mobile Wallets Are Alternative or Substitute for Traditional Payment Methods: An User Perception Descriptive Analysis in Bangalore Rural District

By

Mr. Narasimha Murthy H

Research scholar, School of Commerce, Presidency University, Asst. Professor, Presidency College- Autonomous, Bangalore

Email ID: hnmurthy2011@gmail.com

Dr. Balu L

Associate Dean and HOD School of Commerce, Presidency University, Bangalore

Email ID: balul@presidencyuniversity.in

Abstract

The rise of smart phones has drastically changed the perception of money transactions. Due to the increasing number of people using mobile data, the number of firms that provide mobile payment solutions has also increased. The rise of mobile wallets has led to a change in the way people make and receive payments. Although the technology has many advantages, the number of people who use it has remained low in rural locations. The aim of this research is to examine the adoption of m-wallets in Bangalore rural district by identifying motivating factors to use and the real time challenges faced by the users along with m-wallets are alternative or substitute to the traditional payment methods like cash, Debit card, Credit card etc., found that the adoption of m-wallets is less in rural areas and m-wallets are not the alternative only substitute mode of payment to the other traditional payment methods.

Keywords: mobile wallets, adoption of technology, digital, alternative, substitute.

Introduction

The history of exchange started from 'Barter system' and continuing with digital 'cashless' transactions. The growth in computer and information technology along with communication technologies has evolved digital transaction. Mobile wallets, debit cards and credit cards by by-passing currency notes transactions.

The Smartphone has become an integral part of people's daily lives due to its technological advancement. It can be used for various functions such as communication, entertainment, and payment. Through the use of mobile technology, the owners of smartphones were able to carry out various financial transactions. One of the most important features of a mobile wallet is its ability to provide secure and encrypted data. Mobile wallets have become an integral part of the lives of people due to their ability to carry out fast and convenient transactions. They also provide businesses with a variety of payment options and transaction services.

The rise of m-wallets has led to a change in the traditional payment methods like, cash, Debit card, credit cards, Cheques etc. in developing countries, such as India. They provide a secure and convenient way to pay for various products and services online. The rise of smartphones has resulted in a significant change in how people think about money transactions. Due to their popularity, people are more likely to make transactions using their mobile applications. This has led to a surge in the number of companies that provide mobile payment services.

Published/ publié in *Res Militaris* (resmilitaris.net), vol.13, n°2, January Issue 2023

Despite the inherent benefits of mobile wallet technology, the number of actual users of this service has remained low (Aggarwal, 2016). Mobile wallet empowers customers to leave their cards and physical wallet at home because bank account attached or preloaded wallets in the smart phone are serving all the payment requirements of individuals which are safe and secure.

The aim of this research is to examine the adoption of m-wallets in Bangalore rural district by identifying motivating factors to use and the real time challenges faced by the users along with m-wallets are alternative or substitute to traditional payment methods, found that the adoption of m-wallets is less in rural areas and m-wallets are not the alternative only substitute mode of payment to the traditional payment methods.

Demonetization and Digital transaction

Indian economy is rich in informal economic activities than formal, it is difficult to implement financial inclusion due to the size of informal economy and transactions and manage the bank accounts for lower income people and illiterate as well. Demonetization was to reduce informal cash transactions and to increase formal cash transactions through banking, indirectly a mode of financial inclusion. Demonetization and covid-19 has contributed penetration of use mobile wallets in rural area.

Theoretical background

UTAUT Model (The unified theory of acceptance and use of technology (UTAUT)) model explain how technology adaption is influenced by the demographic variables of population. The first three are Performance expectancy, effort expectancy and social influence are the direct influencing factors of usage intention and behavior, and the fourth, facilitating condition is a direct determinant of user behavior. Gender, age, experience, and voluntariness of use are theorized to moderate the impact of the four key constructs on usage intention and behavior.

The technology adaption is lack due to set of perceptions like fear of risk of loss and security, Lack of knowledge and experience in using technology limits adaptability (SARFARAZ & Alzubi, 2017). The UTAUT model integrates personal attributes with product and environment attributes. This shows that the technology adaptability by the individuals is a complex mix of personal efficacy and social influence and the same theoretical constructs are used in this research.

The use of m-wallet by an individual is emerged from a complex attitude to use of technology , initiated by the curiosity to use latest technology or constrained by the fear of wrong use of applications' or 'loss of money'. Another fear is the possibility for exposure of transaction details if the mobile is lost. Hence people use traditional cash payments But this fear perception is gradually overruled by the convenience in spending or receiving, bank update after every transaction, convenience of transaction without cash, easy inter-transferability of money in between accounts, easiness to transfer fund using mobile number etc.

Review of Literature

Anup Kumar, et.al. (2018) the result of the study shows usefulness and ease of use affects significantly on user's intension to continually use m-wallets and related satisfaction.

Perceived security and satisfaction is having direct influence on adoption and use of m-wallets in direct connection with grievance redressal.

Bagla and Sancheti, (2018) this study aims at expanding popularity of digital wallets is due to features such as attractive cashback and rewards, convenience of use, fast money transfer without using cash, significantly higher transaction security compared to credit/debit cards, and the absence of any transaction cost. However, there are gaps between user expectations and satisfaction levels, which make digital wallets difficult to reach.

Pachpande and kamble (2018) the aim of this research is to analyze the usage of E wallet on the basis of Ease of use, Transaction Time, Privacy at Mumbai. The respondents were categorized on the basis of, Frequency of usage, Usage of E-wallet before and after Demonetization, Purpose of usage, Devices on which E-wallet used, Average monthly spending on E-wallet, Failure in payment transaction and Customer satisfaction level and found that E wallet is a hassle free mode of making an payment, performing well in terms of privacy, transaction time, discounts, offers and customer satisfaction also found that they have faced the transaction failure and security issues.

Vijay (2019) the study found, Mobile wallets are a type of payment method that replaces the traditional methods of making payments, such as using automatic teller machines and negotiable instruments. The emergence of digital technology and smart phones has opened up the possibility of using mobile wallets. There are three types of mobile wallets: open, semi-open, and close. This is a prepaid platform that is customer-friendly. Open type allows users to purchase goods and services and withdraw money from banks or ATMs. These services can only be launched with a bank. The funds are then sent to an account number. Mobile wallets have made banking popular, though there are security issues.

Singha and sinha (2019) This empirical study aims at measuring merchant's intention to use a mobile wallet using the variables, perceived compatibility, perceived usefulness, awareness, perceived cost, perceived customer value addition and perceived trust, and aims to determine their influence on intention to use along with testing the mediating effect of perceived trust on the influence of perceived usefulness to predict merchant's intention. The study includes results of the survey of 315 Indian merchants by an online survey method analyzed using structural equation modelling with AMOS and found the highest effect of perceived customer value addition on merchant's intention, followed by perceived usefulness of technology. The proposed mediation effect of perceived trust was small but significant on perceived usefulness.

Aditya sari, et.al. (2020) In order to improve the adoption of P2P lending applications in terms of user innovation, application providers must be more creative in giving new features or employing appealing marketing to encourage users to try them out. Service providers can form collaborations with appropriate public figures or influencers and also present testimonials from other customers to improve their trust.

George & Sunny(2021) The use of mobile wallets was introduced in 2004 and the use of mobile wallets became common due to three factors, demonetization, and CoVID Break the Chain lock downs increased the need of the Mobile Wallets. The customer preference towards the use Mobile Wallet was explained using Unified Theory of Acceptance and Use of Technology (UTAUT). This was model was developed by Venkatesh and others. The use behaviour or adaption of technology is an outcome of behaviour intension which was the outcome of multiplexed interaction of two sets of variables, demographic (gender, sage,

experience, voluntariness to use) and expectations from technology (performance expectancy, effort expectancy, social influence, and facilitating conditions. The various aspects of his theory include relative advantage, compatibility (CO), complexity, image, trialability, visibility, and results demonstrability. Diffusion of Innovation Theory (DOI), Theory of Planned Behaviour (TPB), Unified Theory of Acceptance and Use of Technology (UTAUT), TM and UTAUT 2 were the other prominent models.

Jaiswal et., all.(2022) the goal of this study is to identify the factors that influence the pre and post-acceptance of mobile wallets. It also aims to develop a linkage framework that will allow researchers to understand the consumers' psychological and behavioural characteristics when it comes to using m-wallets. Finally, it explores the various demographic factors that influence the continued usage of these devices. The results revealed that certain factors, such as performance expectancy and effort expectancy, can influence confirmation. They also found that satisfaction can be influenced by education and age.

Statement of Problem

The technology adaptability is influenced by the socio-economic factors and the financial inclusion in urban area is deep while the same in rural areas is shallow hence people are using traditional payment methods due the higher degree of informality in living and trade .The use of Mobile wallets in urban areas shows a higher degree of adaptability in routine life while a thin use of it in rural areas (Jaiswal et., all. (2022). This research analyses the adoption of m -wallets in Bangalore rural district and m-wallet users opinion about whether m-wallets are the alternative or substitute mode of payments for paper currency and other traditional payment methods along with the motivating factors and challenges to use.

Objectives of the study

1. To understand the motivating factors to adopt and use the m-wallets in Bangalore rural district
2. To evaluate the challenges faced by the Bangalore rural district users.
3. To find the users opinion about m-wallets are alternative or substitute to traditional payment methods

Scope of the study

This study was limited to primary data collected from m-wallets users of Bangalore rural district of Karnataka. The author concluded the adoption of m-wallets more of based on demographic factors in Bangalore rural district by identifying motivating factors to use and the real time challenges confronted by the users along with m-wallets are alternative or substitute to traditional payment methods,

Research Methodology of the study

The data was collected from Bangalore rural district m-wallets users using 5 point Likert scale structured questionnaire The respondents are of different ages, income, education and occupation and the total number of respondents are 393 of which 102 responses are from semi urban and 291 responses from rural area. In this research. Secondary data was collected from published sources. The data is analyzed at descriptive level and inferred based using percentage and Chi-square.

Hypothesis

Substitute

H0 : M-wallets are not the substitute payment methods to the traditional payment methods

H1 : M-wallets are the substitute payment methods to the traditional payment methods

Alternative

H0 : M-wallets are not the alternative payment methods to the traditional payment methods

H1 : M-wallets are the alternative payment methods to the traditional payment methods

Data Analysis and interpretation

Table 1: Demographic factors of the respondents

1	Age in years	Percentage	No. of respondents
	18-36	42	165
	36-54	35	138
	54-72	23	90
	Total	100	393
2	Gender	Percentage	No. of respondents
	Male	52	204
	Female	48	189
	Total	100	393
3	Educational Qualifications	Percentage	No. of respondents
	Preliminary education not completed	07	27
	School	42	165
	Graduation	23	91
	Vocational training	28	110
	Total	100	393
4	Occupation (multiple)	Percentage	No. of respondents
	Employed	18	71
	Trading/Self-employed	31	122
	farmer	51	200
	Total	100	393
5.	Income per month	Percentage	No. of respondents
	Up to 20000	44	173
	20001 to 30000	24	94
	30001 to 40000	20	79
	40000 and above	12	47
	Total	100	393

Source: Primary Data (SDA- Strongly disagree, DA- Disagree, N- Neutral, AG- Agree, SA- Strongly Agree)

From table number 1 analyzed the demographic profile of the respondents, 42% of the respondents are belong to the age category of 18-36 years, 23% of respondents are belong to the age category of 54 to 72 years and 52% of respondents are male. Majorities, 51% of the

respondents are farmers and 18% are employed, notable 7% of the respondent had not even completed their basic education, maximum respondents i.e. 165 respondents had completed their schooling only. 44% of the respondents earning up to 20000 income per month and minimum that is only 12 % of the respondents earning more than 40000 per month.

Table 2: Factors Motivating To Adopt and Use M Wallets

Si. No	Factors	No of Respondents					Total
		SDA	DA	N	AG	SA	
1	M-wallets are useful to buy goods and services 24*7	17	29	11	245	91	393
	Percentages	4.33	7.38	2.80	62.34	23.16	100
2	M-wallets are easy to understand download and use	18	20	3	219	133	393
	Percentages	4.58	5.09	0.76	55.73	33.84	100
3	M-wallets made my banking and financial transactions convenient	21	19	9	145	199	393
	Percentages	5.34	4.83	2.29	36.90	50.64	100
4	M-wallets gives more promotional offers	56	47	2	167	121	393
	Percentages	14.25	11.96	0.51	42.49	30.79	100
5	M-wallets are widely accepted in general world	12	9	0	173	199	393
	Percentages	3.05	2.29	0.00	44.02	50.64	100
6	In M-wallets are my personal and banking data safe	58	65	2	143	125	393
	Percentages	14.76	16.54	0.51	36.39	31.81	100
7	M-wallets adoption and maintenance cost is less	23	19	5	244	102	393
	Percentages	5.85	4.83	1.27	62.09	25.95	100
8	M-wallets are the solution for tendering(currency change) problems	3	2	0	81	307	393
	Percentages	0.76	0.51	0.00	20.61	78.12	100
9	M-wallets are helping me to do utility payments from home	9	8	0	175	199	393
	Percentages	2.29	2.04	0.00	44.53	50.64	100

Source: Primary Data (SDA- Strongly disagree, DA- Disagree, N- Neutral, AG- Agree, SA- Strongly Agree)

From the above table number 2 analyzed the motivating factors to adopt and use the m-wallets and found maximum,85% of the respondents opinion is m-wallets are useful for 24X7 transaction, maximum respondents,88% said easy to download and use, 87% of the respondents said because of m-wallets financial transactions are convenient, 73% of the respondents agreed that m-wallet give some promotional offers. 95% of the respondent opinion is m-wallets are widely accepted in the society. Only 68% of the respondents said because of m-wallets banking transitions have become easy, maximum respondents said m-wallets are less costly and maximum, 92% of the respondent finding m-wallets as solution for tendering (currency change) problems and maximum respondents, 95% said m-wallets are very much useful for daily utility payments.

Table 3: Challenges Faced By the Users In Adopting And Using M Wallets

Si. No	Factors	No of Respondents					Total
		SDA	DA	N	AG	SA	
1	Internet issues to use m-wallets	97	86	35	111	64	393
	Percentages	24.68	21.88	8.91	28.24	16.28	100
2	Fear of losing money	37	83	5	196	72	393
	Percentages	49.87	21.12	1.27	9.41	18.32	100
3	Transaction reversal is quick and easy	123	111	2	97	60	393
	Percentages	31.30	28.24	0.51	24.68	15.27	100
4	Vendor prefer cash payment	136	111	32	59	55	393
	Percentages	34.61	28.24	8.14	15.01	13.99	100
5	Transaction failures are common	117	111	2	56	107	393
	Percentages	29.77	28.24	0.51	14.25	27.23	100

Source: Primary Data (SDA- Strongly disagree, DA- Disagree, N- Neutral, AG- Agree, SA- Strongly Agree)

From the above table number 3 analyzed the challenges to adopt and use the m-wallets in rural Bangalore. The result shows the mixed opinion about internet issues. 46% of users said there are internet issues and almost same percentage of the users said internet issues are not stopping us using m-wallets. Maximum, 71% of the respondents expressed the fear of losing money in m-wallets and also maximum, 59% of the respondents felt reversals of transactions are not quick and easy. Transactional failures are quite common in m-wallets this is 58% of the respondent's opinion.

Table 4: Mobile Wallets Are Alternative or Substitute

S,No	Factors	No of Respondents					Total
		SDA	DA	N	AG	SA	
1	Do you carry cash with your wallet enabled smart phone when you go for any purchases or payment	3	2	0	345	43	393
	Percentages	0.76	0.51	0.00	87.79	10.94	100
2	Do you carry only your m-wallet enabled smart phone when you go for any purchases or payments	279	71	19	11	13	393
	Percentages	70.99	18.07	4.83	2.80	3.31	100
3	Do you carry only cash when you go for any purchases or payments	54	79	57	113	90	393
	Percentages	13.74	20.10	14.50	28.75	22.90	100
4	Do you think M- wallets are substitute to traditional payment methods	279	61	2	32	19	393
	Percentages	70.99	15.52	0.51	8.14	4.83	100
5	Do you think M- wallets are alternative to traditional payment methods	9	11	51	299	23	393
	Percentages	2.29	2.80	12.98	76.08	5.85	100

Source: Primary Data (SDA- Strongly disagree, DA- Disagree, N- Neutral, AG- Agree, SA- Strongly Agree)

From the above table number 4 analyzed whether users are migrating towards m-wallets or still they are comfortable with traditional payments. Almost all the users said they carry cash along with their wallet enabled smart phone when they go for any purchases or payment. M-wallet users (89%) are not going only with their m-wallets enable smart phone for any purchases or payments, 52% of them are going only with cash for their financial transactions. More importantly 86% of the respondents said m-wallets are not substitute and 82% of the respondents said m-wallets are only alternative to traditional payment methods.

Hypothesis testing

Hypothesis testing is a statistical inference used to decide a possible conclusion. In this study, the data analysis is focusing on the chi-square test. Whether m-wallets are the alternative or substitute mode of payments the traditional payment methods. The overall validity of the is resulting 0.079, hence alternative hypothesis is rejected and null hypothesis is accepted and it can be concluded that m-wallets are not the alternative mode of payments to the currency notes

Substitute

The overall validity is resulting 0.68, hence alternative hypothesis is rejected and null hypothesis is accepted and it can be concluded that m-wallets are not the Substitute mode of payments to the Traditional payment methods.

Alternative

The overall validity is resulting 0.041 hence alternative hypothesis is accepted and null hypothesis is rejected and it can be concluded that m-wallets are the alternative mode of payments to the Traditional payment methods.

Findings of the study

1. Majority respondents are young and they are male. Majorities, respondents are farmers and notable 7% of the respondent had not even completed their basic education.
2. Maximum respondents had completed their schooling and earning up to 20000 income per month and minimum respondents earning more than 40000 per month.
3. High number of respondents opinion is m-wallets are useful for 24X7 transactions, easy to download and m-wallets financial transactions are convenient.
4. Maximum respondents agreed that m-wallets give some promotional offers, widely accepted in the society and said because of m-wallets banking transitions have become easy,
5. Majority respondents said m-wallets are less costly, solution for tendering (currency change) problems and m-wallets are very much useful for daily utility payments.
6. The result shows the mixed opinion about internet issues. Almost equal number of users said there are internet issues and almost same percentage of the users said internet issues are not stopping us using m-wallets.
7. Maximum respondents expressed the fear of losing money in m-wallets and also felt reversals of transactions are not quick and easy.
8. Good number of respondents also felt Transactional failures are quite common in m-wallets
9. Almost all the users said they carry cash along with their wallet enabled smart phone when they go for any purchases or payment.

10. More importantly Majority of the respondents said m-wallets are not substitute and only alternative to traditional payment methods.

Implications and conclusions

The unified theory of acceptance and use of technology (UTAUT), widely used model in the area of information and communication technology research to understand and describe user's behavior, this research summarized technology acceptance by rural people, using the factors relevant to the model and this model succeeded in providing key factors which are applicable to the end users acceptance of technology.

This study was aimed at exploring the factors influencing on adoption, usage of m-wallets and difficulties faced by the of m-wallet users in Bangalore rural district. This descriptive study exhibits that the youngsters are adopting the technology widely compared to other age category the regulatory authorities and service providers are suggested implement the new and simplified technology to increase the adoption rate in rural areas. Service providers are suggested to create awareness among the rural users to promote m-wallet usage by live demonstrations or digital literacy programmers or through various promotional techniques. Banks, m-wallet Service providers and device manufacturers also advised to increase security features and grievance redressal hence it is possible to build the users confidence and adoption to enhance financial inclusions. Again it is advised to the service providers to have standardization in downloading and installation procedure, authorization, charges for payment, security measures and performance of the wallets.

This research also concludes that m- wallets are not the substitute mode of payments, only alternative to traditional payment methods people like to carry the currency notes as they are not aware about m-wallets due to lack of technological education, promotion of govt. schemes like digital India and lack of connectivity between service providers, banks and the rural people. As a part of financial inclusions if Government, financial institutions, m- wallet service providers and smart phone manufacturers comes together to uplift the technology adoption rate in the rural areas could increase the use of m-wallet and financial inclusions.

Limitations and directions for future research

Basically this research was restricted to only 393 respondents of Bangalore rural district m-wallet users due to time and cost constraints. Consumer's behavioral oriented research cannot give long lasting results due to timely fluctuations. The same research can be extended with more number of respondents, comparative study between users - non-users, urban – rural, between different wallets and so on.

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