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FACELESS, PAPERLESS & CASHLESS: A STUDY ON ADOPTION OF INDEPENDENT M-WALLETS IN AHMEDABAD CITY

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ABSTRACT MOBILE WALLETS" have changed world's payments system by providing multiple digital services right from utility payment to e-tailing. Players like Paytm, Mobikwik, Freecharge, Oxygen, Citrus etc. have already taken charge towards the payment system & many more players likely to explore this opportunity in Indian market. The paper while considering the scope of M-Wallets, tries to find out the preference of users for the service provider. The study also attempts to determine the purpose for which M-Wallets are used. The paper then examines the factors influencing the adoption of M-Wallets as well as the risk & challenges faced by the respondents. The study is conducted in Ahmedabad City with a sample size of 100 respondents. Techniques like Chi-Square Test, T- test & Weighted Average Rank Analysis are used for testing the hypotheses and drawing conclusions.

KEYWORDS : Independent M-Wallets, Adoption, Users, Digital Payment, Ahmedabad City

INTRODUCTION

Internet has gripped everyone's imagination & it still continues to evolve its avatar in India. There is a constant desire to keep pace with internet trends. With digital literacy on the rise, the last few years have witnessed significant mobile & internet penetration. Further, there has been a rise in adoption of new age technologies, plethora of digital avenues like M-Wallets opening up & increasing internet enabled channels.

The year 2016 was marked by demonetization move which paved way for the most exciting times for digital payments in India, especially via mobile wallets (CFO India, 2016). Following graph shows the number of transactions & amount transacted from January 2017 to January 2018 (MEDIANAMA, February 2018).
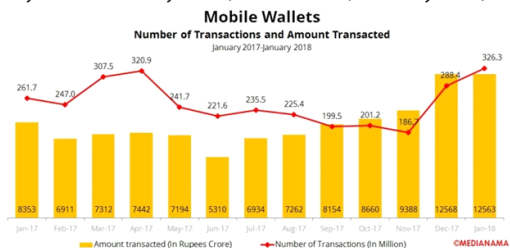
Further, the mobile wallet market in India is expected to grow at over 190 per cent to reach 1,512 billion by the financial year 2022 from the current level of about 1.5 billion, says a study conducted jointly by trade body Assocham and business consulting firm RNCOS (IANS, 2016). This highlights a lot of opportunity for players like Paytm, Mobikwik, Freecharge, Oxygen, Citrus etc. who have already taken charge towards the payment system & many more players likely to explore this opportunity in Indian market.

Literature Review

(Kafsh, 2015) made a study on "Developing Consumer Adoption Model on mobile wallet in Canada", by taking a sample of 530 respondents through convenience sampling. Partial Least Square model was used to analyse the data. The focus of the study was to identify the factors that influence the consumer's adoption of mobile wallets. This study was based on technology acceptance model (TAM) & innovation diffusion theory (IDT). As per the analysis made by them, there is relationship among perceived usage, perceived ease of use & perceived security in predicting the adoption of mobile wallets. (Sastry, 2014) conducted a study on "A Novel Interoperable Mobile Wallet Model with Capability based access control framework", this study makes an important contribution towards the development of a mobile wallet that can work across various platforms. As security is the major concern when it comes to finance related information, the study addresses the security issues by giving access control model that works towards interoperable mobile wallet. (Shwetu Kumar, 2014) made a study on "Paytm", it studied about its achievements, technical

architecture of paytm, working and technologies of paytm which include a study on supply chain management, web technologies of paytm, web based tool of paytm and also described about electronic payment system. (Doan, 2014) conducted a study on "Consumer adoption in Mobile wallet (A study of consumers in Finland)". This study was undertaken to understand about the consumer adoption status of mobile wallet with research area limited in Finland. It also examines the market situation of mobile consumers toward mobile wallet. The study states that the adoption of M-wallet among consumers in Finland is only at the beginning stage & the success of M-wallets depends on the marketing strategies of M-wallet companies as well as the financial policy makers in Finland. (Nitika Rai, 2012) in her paper "M-wallet: An SMS based payment system", describes about replacing the current payment solutions like credit card, debit cards and cash with a simple short Messaging services (SMS) based on solution that would work on all mobile phones irrespective of the network carrier and the manufacturer. Transactions can also take place between consumers that have subscribed to the service and merchants irrespective of their subscription. The study concludes that it is safer, faster and network independent mode of payment. (Tomi Dahlberg, 2008) studied in their paper "Trust enhanced technology acceptance model – Consumer acceptance of mobile payment solutions" (2003) that Whether the Technology Acceptance Model (TAM) describing user acceptance of technology offers comprehensive explanation for consumer decisions related to adoption of mobile payments. Their analysis suggests that the Technology Acceptance Model (TAM) provides a good basis to explain use of mobile payment solutions, yet, data proposes that a new construct, trust, should be included into the model to augment the present descriptors in explaining consumer adoption decisions in the mobile payment context. (Rajesh Krishna Balan, 2006) studied in their paper "Digital Wallet: Requirements and Challenges" (2006) that the requirements and challenges of deploying a nationwide digital wallet solution in Singapore. Further they discussed why Singapore is ready for a digital wallet and identify the key challenges in building and deploying a digital wallet. Then discussion done of the key challenges, supporting peer -to-peer cash transactions between individuals using a digital wallet, in more detail and end the paper with their proposed solution. (Vishya Ganesan, 2016) observed that E-wallets (mobile money store and transfer facility) are fast emerging as a substitute for cash. Many credible players like Pay tm, Oxygen, m-Rupee and Airtel Money now offer e-wallet. The Government has suggested use of e-wallets, but mere suggestion won't help, without the Government actively promoting it and hand-holding people in the early stage adoption. Also, since the Government is unable to offer enough cash to the public (through banks and POs), it is the Government which has to introduce this e-cash as a substitute for physical currency to willing public. Once this is done, it will mitigate the sufferings of people substantially. (Pousttchi, 2007) evaluated what key influences affected consumers to use mobile payments and found that subjective security was not

a primary driver of mobile payment acceptance. They found that perceived confidentiality of payment details and perceived trustworthiness were strongly correlated. Four key variables were found to directly impacting consumer intention and usage behavior: performance expectancy, effort expectancy, social influence, and facilitating conditions. (Shin, 2009) examined mobile wallet adoption by using the UTAUT model and proposed four additional constructs of security, trust, social influence, and self-efficacy. He confirmed that familiar factors such as perceived usefulness and ease of use are key determinants toward consumer acceptance and that consumers' attitudes toward accepting mobile wallets are strongly influenced by perceived security and trust. They found that perceived security and trust are key determinants in customer intention to accept mobile wallets, which in turn determines user behavior. The research results also suggested that security and trust are enhanced by social influence.

OBJECTIVES OF THE STUDY
- To study the growth of independent M-wallet payment gateway services.
- To find out the preferences of the users towards independent M-wallet service providers.
- To determine the purpose for which it is used.
- To study the risk and challenges faced by respondents in use of independent M-wallets.
- To identify the factors that influence respondents in adoption of independent M-wallets.

Data Collection
A self-administered survey was carried out to collect the data. Convenient Sampling method was employed to select the respondents. All respondents belonged to Ahmedabad City. Sample size was 100. Though all 100 were aware about M-Wallets, only 92 respondents used them. So, analysis is done considering response rate of 92%.

Hypothesis of the study
1. H1: Usage of M-Wallet is dependent on gender
2. H2: Usage of M-Wallet is dependent on income
3. H3: Usage of M-Wallet is dependent on education
4. H4: Usage of M-Wallet is dependent on age
5. H5: There is a significant difference in the preference of M-Wallet

Demographic Characteristics of the sample
The sample consisted of 57 males & 43 females. A large proportion of respondents were in <25 age group. 6% respondents were undergraduate, 24% respondents had graduate degree, 65% had a post graduate degree & 4% were doctorates. Statistics relating to occupation reveal that significant number of sample consist of students (42%) followed by service class (41%). 29% respondents have income less than Rs. 2.5 lakhs, while only 3% of respondents have income in excess of Rs. 10 lakhs.

Inferences from the study
- All the respondents are aware about M-wallet payment services as digital mode of payment has become important part of life style.
- 92% of the respondents use M-wallet payment services.
- Paytm is the most preferred service provider with 84% respondents preferring it.
- People use M-wallet services mostly (68%) for food & movie tickets.
- Most of the respondents use M-wallet services twice in a week that suggest that people have adopted M-wallet payment services to make their life easier.
- Secured transaction & easy availability of Mobile wallet payment services are considered as the most important factors in adoption of M-wallet.
- 35% of the respondents believe that inconvenience in remembering login credentials is one of the major barriers faced by them followed by "not everyone accepts payment through M-Wallets" (25%). Possibility of technical or human mistake

during the transaction, frequently running out of funds, likelihood of fraud & hidden charges are the other challenges faced by respondents.

Analysis of demographic variables & usage of M-Wallet: Application of Chi-square test
- Usage of M-Wallet is dependent on gender

Table 1: Association between gender & usage of M-Wallet

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.920a	1	.337
Continuity Correctionb	.342	1	.559
Likelihood Ratio	.974	1	.324
Linear-by-Linear Association	.911	1	.340
N of Valid Cases	100		
a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 3.28.			

From table 1, it is found that the significant value is 0.337 which is more than the acceptable level of 0.05. Hence, null hypothesis is accepted & it is concluded that usage of M-Wallet is independent of gender.
- Usage of M-Wallet is dependent on income

Table 2: Association between income & usage of M-Wallet

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.531a	3	.912
Likelihood Ratio	.755	3	.860
Linear-by-Linear Association	.052	1	.819
N of Valid Cases	100		
a. 5 cells (62.5%) have expected count less than 5. The minimum expected count is .24.			

From table 2, it is found that the significant value is 0.912 which is more than the acceptable level of 0.05. Hence, null hypothesis is accepted & it is concluded that usage of M-Wallet is independent of income.
- Usage of M-Wallet is dependent on education

Table 3: Association between education & usage of M-Wallet

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.548a	3	.315
Likelihood Ratio	3.565	3	.312
Linear-by-Linear Association	2.907	1	.088
N of Valid Cases	100		
a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .32.			

From table 3, it is found that the significant value is 0.315 which is more than the acceptable level of 0.05. Hence, null hypothesis is accepted & it is concluded that usage of M-Wallet is independent of education.
- Usage of M-Wallet is dependent on age

Table 4: Association between age & usage of M-Wallet

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.252a	6	.001
Likelihood Ratio	25.459	6	.000
Linear-by-Linear Association	1.441	1	.230
N of Valid Cases	92		
a. 4 cells (33.3%) have expected count less than 5. The minimum expected count is 1.79.			

From table 4, it is found that the significant value is 0.001 which is less than the acceptable level of 0.05. Hence, null hypothesis is rejected & it is concluded that usage of M-Wallet is dependent on age.

Preference for M-Wallet: Application of One-Sample t-test
- There is a difference in the preference of M-wallet

Table 5: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
PREFERENCE_ABOUT _MWALLET_SERVICE	92	1.5435	1.25280	.13061

Table 6: One-Sample Test						
	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
PREFERENCE_ABOUT_MWALLET_SERVICE	11.817	91	.000	1.54348	1.2840	1.8029

From table 5 & 6, it is found that the significant value is 0.000 which is less than the acceptable level of 0.05. Hence, null hypothesis is rejected & it is concluded that there is a difference in the preference of M-wallet.

Factors influencing adoption of M-Wallets: Weighted Average Rank Analysis
Table 7: Factors that influence respondents in adoption of independent M-wallets

	STRONGLY AGREE (1)	AGREE (2)	NEUTRAL (3)	DISAGREE (4)	STRONGLY DISAGREE (5)	WEIGHTED AVERAGE	RANK
EASY AVAILABILITY OF M-WALLET SERVICES	22	60	8	1	1	11.67	2
SECURED TRANSACTION	18	47	17	9	1	13.6	1
M-WALLET IS USED AS AN ALTERNATIVE MODE OF PAYMENT	37	45	9	0	1	10.6	4
M-WALLET IS NECESSARY	33	43	11	3	2	11.6	3
M-WALLET SAVES THE TIME	36	48	7	0	1	10.53	5.5
M-WALLET HAS MADE LIFE EASIER	35	50	6	0	1	10.53	5.5

From table 7, it is evident that secured transaction is the most important factor influencing the users to adopt M-Wallet services followed by easy availability of these services. The least influencing factor among all is that it is making life easier & saving time.

SUGGESTIONS
• THE M-wallet service providers should strengthen their network to avoid inconvenience in performing transaction.
• The M-wallet service providers should fasten their complaints redressal system so that any complaints of M-wallet users can be addressed properly and quickly.
• The M-wallet service providers should create an advanced application that helps customer to personalize their transactions.
• The M-wallet service providers should safeguard the backup mechanism in case of phone being lost or stolen to provide strong security.

CONCLUSION
The findings of the study can be used to analyze & conclude about the impact of independent M-Wallets on the Indian market in general. It seems that the digital payment market is still in its nascent stage despite concentrated activity in past years. But the landscape is still dynamic & rapidly evolving. With rapid usage of mobile & higher internet penetration, digital payment would become a front runner for all businesses. Supported by favorable regulatory environment & coupled with young demography eager to adopt digital payments, Indian payment industry is bound to grow multifold in the coming decade. It has also started gearing up with many M-Wallet service providers. Additionally, foreign players are likely to explore this growing opportunity in Indian market.

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