

A study of factors affecting the perception of mobile wallet users in case of Public Sector and Private Sector Mobile Wallet providers

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Abstract

The extant study is put out to identify the Influence of public and private sector on the drive in using mobile wallets. Independent variable is mobile wallet sector having two categories- public and private. Dependent variables are problems faced in mobile wallets, customers' satisfaction, risks and solution to boost the risk. Average agreement using T-test is applied for quantitative analysis for analysis the hypotheses as well as validating the results. The exploration is in conformism with the aim of the study and the hypotheses framed. The collected data are analysed by JAMOMI open source software for quantitative and word cloud for qualitative. Findings include public sector respondents' face less problems in use of mobile wallets than private sector respondents. It is also observed that private sector need more attention to remove different risk in mobile wallet.

Keywords: Public, Private, Mobile Wallets, Customer awareness.

INTRODUCTION

Technology is changing fast. Payment system is not exception to this change. Smart phones plays an important role in life of our life. According to the data released by TRAI (Telecom regulatory authority of India) there are around 300 million people using androids. Smart phones not only provides the communication system instead they also serve the purpose of entertainment. The usage

of mobile wallets in payment methods like mobile wallets (Paytm, BHIM UPI, Googlepay, Paypal) is snowballing. Here. A mobile wallet helps the users in making contact less payments, without disclosing identity. Mobile wallet money is used by banks, shopkeepers, companies, customers etc. After demonetization there has been a revolutionary change in payment modes as our govt. is focusing on cashless system so use of mobile wallets has been increasing with high speed. Mobile wallets are the

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platforms that help its users to do financial transactions without disclosing identity to another person by using his android. In India there are different kinds of people from different demographic profiles. People in India prefer technology and maximum available resources. Mobile wallets made people life easy as carrying cash is too risky especially if someone is travelling or in any other situation. But mobile wallets have made life easy.

Mobile wallets are also known as e-wallets or mobile wallets which helps the users to store cash with carrying it in pockets. Users can secure cash in these wallets by using strong passwords. These wallets allow its users to make easy purchase via smart phone app. In India, there are so many mobile

wallets like Google pay which is a combination of Google wallet and Android pay.

Mobile wallets in Private Sector: google pay. Paytm, citrus, oxygen, ICICI pocket, amazon wallet, flipkart wallet, Apple pay, China's Alipay, wechat, Masterpass now converted into Samsung pass In USA, CitiPayetc are some of the examples of mobile wallets.

Mobile wallets in Public Sector: SBI buddy, Unified Payments Interface (UPI) wallet app, PNB Kitty. Maha Mobile, Bank of Maharashtra

Literature Review: Digital wallet is contemporary issue. Following is work done in different publications at national and international level:

Table 1: Review of existing literature:

Author	Country	Year	Tool, Sample (N)	Finding
D L. Amoroso and RM Watanabe	Japan	2012	Case study, secondary data	There is found relationships among variables that influenceshopper'sproclivityin using digital wallet.
S Singh, M Arora International Journal of Management, IT and Engineering 4 (7), 251	India	2014	T Test, ANOVA	A significant difference is found in demographic perception in public sector and private sector banks
Vidyashree DV, Nithya Shree G,	India	2015	Percentage, 50	Pay U money is the best and safe system where we can pay via debit card, credit card andnetbanking also.
Sinha I (2016)	India	2016	Regression, pilot study	Indian customers will adopt digital wallets until or unless they face any Kind of security issues.
Garg P, Panchal M,	India	2017	SPSS,100	Concept of cashless economy which helps in fighting against terrorist, corruption, money laundering etc.

Chauhan M, Shingari I, 2017,	India	2017	Pie charts, 100	People are still having security issues, loss of payments etc.
Dr. S. Yuvarajand SheilaEveline.	India	2018	Chi-square, 160	Consumers prefer credit/debit card followed by mobile wallets.
Arora M and Yadav M	India	2018	ANOVA, 351	Gen Y is more concerned with measures effective use of mobile wallets
Arora M	India	2018	Cluster 445	Techno shrewd is the most attractive segment for digital wallet since they are strongly favoring the possibilities
Yadav M and Arora M	India	2019	SEM 354	Positive relationship is found for customer satisfaction with solutions in e-wallets

Some studies have done on the same but majority of the studies have been found inconclusive. In current juncture, it is needed to explore the study on A Study on mobile wallet: Users perception in private and public sector have different opinion and

perception regarding the customer satisfaction. Hence, the present study answers whether there is significant difference in the perception of public and private sector or not

Table 2 :Scale used for construct derived

Author, year, country, Paper title, Journal	Sample size and tools	Constructs / Statements
S Singh, M Arora (2014)	T- test, ANOVA	Problems faced Difficult to Use Inadequate Working Assistance Intellectual Efforts required Limited Languages Options Slow Speed of Data Transmission
S Singh, M Arora (2014)	T- test, ANOVA	Customer satisfaction CS1=Efficient Management of Funds CS2= Easy to Use CS3=Reduction in the waiting time for any transaction CS4== Quickness
S Singh, M Arora (2014)	T- test, ANOVA	Personalised Risk PR1= Bad Experiences PR2= Unawareness PR3= Security Breaking
S Singh, M Arora (2014)	T- test, ANOVA	Measures of boosting up Solution for risk Implementation of Security Measures Performance Benchmarks for Service Providers Skilled Wallet Staff

Research Methodology embraced

This work is put out to Impact of users in public and private sector regarding mobile wallets and to suggest measures for improving customer satisfaction. The specific objectives of the study are as follows:

- (I) To study the problems in mobile wallet in public and private sector
- (ii) To observe the Customer satisfaction for mobile wallet in public and private sector
- (iii) To analyses risk involved in mobile wallets for users in public and private sector

Hypotheses Formulation

To authenticate the outcomes of the study, the following hypotheses have been verbalized:

H01: No significant difference exists in the perception of users of mobile wallets in public and private sector

Ha1: A significant difference exists in the perception of users of mobile wallets in public and private sector

Data Gathering

Both primary plus secondary statistics is used in this study. Collected data from Primary source using have been used by judgment sampling with the help of pre-structured questionnaire on five point Likert scale i.e. Strongly Disagree (SD), Disagree (D), Indifferent (I), Agree (A) and Strongly Agree (SA). After examination, 433questionnaires,222 from private sector and 211 from public sector were found complete and used for further analysis. Secondary data have been extracted from the research studies and articles published in various reputed journals.

Data Analysis

The collected data were analyzed through qualitative analysis tool word cloud and descriptive statistical techniques like frequency distribution, percentage, mean, mode, standard deviation etc. For coding and analyzing the data, weights were assigned in order of importance i.e. 1 to Strongly Disagree (SD), 2 to Disagree (A), 3 to Neutral, 4 to Agree (A), and 5 to Strongly Agree (SA). T test is used for quantitative analysis to test the hypotheses and validate the results. The analysis is in conformity with the objectives of the study and the hypotheses formulated. The collected data were analyzed through IBM SPSS.

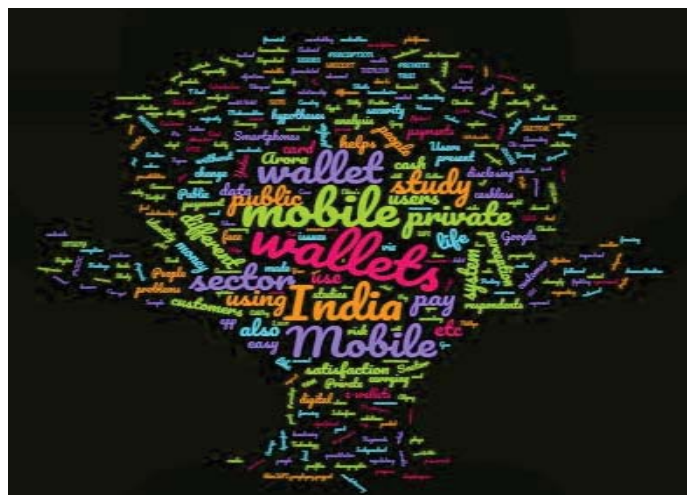


Figure 1: Word cloud for digital wallet by author using wordcloud.com

The figure 1 shows maximum weightage is given to mobile and wallet and third to India hence literature

is in right direction. For quantitative reliability Cronbach’s alpha was calculated.

Table 3: Reliability analysis for statement with constructs

Constructs no. of statements		Cronbach's α
Problems	5	0.884
Customer Satisfaction	4	.765
Personalised Risk	3	.762
Solutions	3	.711

For five statements of problems (P) it was found .884, for 4 statements of customer Satisfaction (CS) it was .765, for 4 statements of Personalised Risk (PS) it was .762 and 3 statement of Solutions (Sol) it was .711. All values are greater than .60; it shows greater internal consistency in responses of statements.

Implications

The present study would be beneficial to the policy makers, customers and researchers to know designing suitable strategies for customer satisfaction for users’ mobile wallets.

Key Outcomes and Deliberations

Endeavor through to explore the connection between use of mobile wallet with public and private sector is

taken. As there are two independent descriptive of people with public and private sector on which we are comparing the average level of agreement on various issues so apply T-test. As sample size is large enough so normality and homogeneity of variables assumptions is not a serious violation here. It is clear from table 1 mobile wallet users related public sector (Mean=3.38, SD=1.261) are more facing P1 in comparison to private sector (Mean=3.61, SD=1.182).

On the contrary mobile wallet users related public sector (Mean=2.81, SD=1.168) are less facing P2 in comparison to private sector (Mean=2.95, SD=1.217).

Also Similarly mobile wallet users related public sector (Mean=2.94, SD=1.113) are less facing P3 in comparison to private sector (Mean=3.29, SD=1.076).

Table 4: Group Statistics for perception of users private and public sector in Mobile Wallet

	Group	N	Mean	SD
Difficult to Use	Private	222	3.61	1.182
	Public	211	3.38	1.261
Inadequate Working Assistance	Private	222	2.95	1.217
	Public	211	2.81	1.168
Intellectual Efforts required	Private	222	3.29	1.076
	Public	211	2.94	1.113

Limited Languages Options	Private	222	3.43	1.069
	Public	211	2.88	1.127
Slow Speed of Data Transmission	Private	222	3.34	1.080
	Public	211	2.96	1.207
Efficient Management of Funds	Private	222	3.92	0.894
	Public	211	3.71	0.966
Easy to Use	Private	222	3.91	0.816
	Public	211	3.73	0.955
Reduction in the waiting time for any transaction	Private	222	3.20	1.100
	Public	211	3.30	0.862
Quickness	Private	222	3.91	0.851
	Public	211	3.92	0.935
Bad Experiences	Private	222	3.80	0.906
	Public	211	3.60	1.053
Unawareness	Private	222	3.41	0.951
	Public	211	3.22	0.977
Security Breaking	Private	222	3.64	0.865
	Public	211	3.50	0.912
Implementation of Security Measures	Private	222	4.35	0.802
	Public	211	4.07	1.000
Performance Benchmarks for Service Providers	Private	222	4.05	0.865
	Public	211	3.87	0.945
Skilled Wallet Staff	Private	222	3.89	0.844
	Public	211	3.73	0.999

Source: Authors own computation based on primary data

Similarly mobile wallet users related public sector (Mean=3.73, SD=.999) are less believe in sol3 in comparison to private sector (Mean=3.89, SD=.844).

Table 5 : Independent Samples T-Test for factors affecting the perception of mobile wallet users

Code	Test	t-Statistic	df	p	95% Confidence Interval	
					Lower	Upper
P1	Student's t	1.910	431	0.057	-0.00656	0.4550
P2	Student's t	1.259	431	0.209	-0.08101	0.3701
P3	Student's t	3.368	431	<0.001	0.14760	0.5612
P4	Student's t	5.265	431	<0.001	0.34823	0.7631
P5	Student's t	3.458	431	<0.001	0.16415	0.5964
CS1	Student's t	2.381 C	431	0.018	0.03712	0.3884
CS2	Student's t	2.060 C	431	0.040	0.00805	0.3430
CS3	Student's t	-1.053 C	431	0.293	-0.28769	0.0869
CS4	Student's t	-0.111	431	0.912	-0.17830	0.1593
PR1	Student's t	2.172 C	431	0.030	0.01943	0.3899
PR2	Student's t	2.068	431	0.039	0.00953	0.3738
PR3	Student's t	1.554	431	0.121	-0.03512	0.3007
Sol1	Student's t	3.173 C	431	0.002	0.10493	0.4466
Sol2	Student's t	2.092 C	431	0.037	0.01102	0.3530
Sol3	Student's t	1.826 C	431	0.068	-0.01234	0.3364

^a Levene's test is significant (p < .05), suggesting a violation of the assumption of equal variances

Source: Authors own computation based on primary data

Statistically results shows that there is no significant difference among viewpoint of public sector respondents(211) and private sector respondents (222) at 5 percent level of significance, t (1,431) = 1.910, p=.0057about P1 using t-test. Therefore Null hypothesis (H0) outlooks accepted.

Similarly, statistically results shows that there is no significant difference among viewpoint of public sector respondents (211) and private sector respondents (222) at 5 percent level of significance, t (1, 431) = 1.259, p=.0209 about P2 using t-test. Therefore Null hypothesis (H0) outlooks accepted. Following table 3 shows more light about empirical results.

Table 6: Empirical Results about perception of public and private sector towards mobile wallet

Code= Statement	P value results	Null hypothesis Decision Rule
P1= Difficult to Use	Not significant	Accepted
P2= Inadequate Working Assistance	Not significant	Accepted
P3= Intellectual Efforts required	Significant	Rejected
P4= Limited Languages Options	Significant	Rejected
P5= Slow Speed of Data Transmission	Significant	Rejected
CS1=Efficient Management of Funds	Significant	Rejected

CS2= Easy to Use	Significant	Rejected
CS3=Reduction in the waiting time for any transaction	Not significant	Accepted
CS4== Quickness	Not significant	Accepted
PR1= Bad Experiences	Significant	Rejected
PR2= Unawareness	Significant	Rejected
PR3= Security Breaking	Not significant	Accepted
Sol1= Implementation of Security Measures	Significant	Rejected
Sol2= Performance Benchmarks for Service Providers	Significant	Rejected
Sol3= Skilled Wallet Staff	Not significant	Accepted

Source: Authors own computation based on primary data

Empirical results shows that P1= Difficult to Use is not found significant as p value is more than .05, therefore, null hypothesis is accepted. Similarly P2= Inadequate Working Assistance, again p value is more than .05, therefore, null hypothesis is accepted. but for P3= Intellectual Efforts required, P4= Limited Languages Options, P5= Slow Speed of Data Transmission, CS1=Efficient Management of Funds, CS2= Easy to Use, p value is less than .05, so null hypothesis is rejected. Again, for CS3=Reduction in the waiting time for any transaction and CS4== Quickness, p value is more than .05, therefore, null hypothesis is accepted.

But for PR1= Bad Experiences and PR2= Unawareness, p value is significant being less than .05. Therefore null hypothesis is rejected and alternate hypothesis is accepted. On the contrary, PR3= Security Breaking and Sol3= Skilled Wallet Staff, p value is more than .05, therefore, null hypothesis is accepted. Last but not the least, Sol1= Implementation of Security Measures, Sol2= Performance Benchmarks for Service Providers being p value being significant due to less than .05, null hypothesis is rejected.

Table 7 : Independent Samples T-Test for overall results

Variables	Tool	Statistic	df	p
Problems	Student's t	3.64	431	<.001
Customer Satisfaction	Student's t	1.18	431	0.240
Personalised Risk	Student's t	2.50	431	0.013
Solutions	Student's t	2.97	431	0.003

Table 8: Empirical Overall Results

Variable	Significant at 5 % level	Null Hypothesis
Problems	Significant	Rejected
Customer satisfaction	Not significant	Accepted
Personal Risk	Significant	Rejected
Solution/ Customer Service	Significant	Rejected

Research Findings and Recommendations

Mobile wallet users related public sector find more difficult to use in comparison to private sector. On the contrary mobile wallet users related public sector are less facing Inadequate Working Assistance in comparison to private sector. Results are similar with Arora M (2018) with age demographic. Empirical results shows that Difficult to Use is not found significant as p value is more than .05, therefore, null hypothesis is accepted. Similarly Inadequate Working Assistance, therefore, null hypothesis is accepted. But Intellectual Efforts required, Limited Languages Options, Slow Speed of Data Transmission, Efficient Management of Funds, Easy to Use, p value is less than .05, so null hypothesis is rejected. Again, for Reduction in the waiting time for any transaction and Quickness, p value is more than .05, therefore, null hypothesis is accepted.

But for Bad Experiences and Unawareness, p value is significant. Therefore null hypothesis is rejected and alternate hypothesis is accepted. On the contrary, Security Breaking and Skilled Wallet Staff, null hypothesis is accepted. Last but not the least, Implementation of Security Measures, Performance Benchmarks for Service Providers being p value being significant due to less than .05, null hypothesis is rejected. Recommendations include Bad Experiences should be used for service recovery. Unawareness creates misconceptions, that's why educating about mobile wallets is also a measure should be taken by companies. Misuse of Personal Information may be again a factor for not satisfaction. Implementation of Security Measures should be ensured to users. Performance Benchmarks for Service Providers will help to check deliverables. Skilled Wallet Staff will be helpful for customers. Further studies may include perception of government, perception of mobile wallet providers

REFERENCES

1) Arora M (2018), Use of Digital Wallets- Cluster

Analysis for Expectation and Voice of the Customers, Vimarsh "An Endeavour to Share Knowledge" A Bi-Annual Peer-Reviewed Refereed Journal, 9 (2), July - December 2018, 16-24

- 2) Arora M and Yadav M (2018), A Study on Perception of Different Generation in the Use of E Wallet, Journal of IMS Group, 15(1), 39-45
- 3) Chauhan Madhu, ShingariIsha (2017), Future of e-Wallets: A Perspective From Under Graduates, International Journals of Advanced Research in Computer Science and Software Engineering ISSN: 2277-128X (Volume-7, Issue-8) ISSN: 2277-128X (Volume-7, Issue-8),146-150
- 4) Donald L. Amoroso and Rémy Magnier-Watanabe (2012), Adoption :The case of mobile Suica, Journal of Theoretical and Applies electronic commerce research Building a Research model for mobile wallet consumer VOL 7 / ISSUE 1 / APRIL 2012 / 94-110
- 5) Dr. Indrajit Sinha (2016), India, Mobile Wallet service Utilisation in India : Empirical analysis of user trust and acceptance factors, International Journal of Scientific & Engineering Research, Volume 7, Issue 4, April-2016, ISSN 2229-5518,P.no.1762-1771
- 6) Garg P and Panchal M, (2017), India, Study on Introduction of Cashless Economy in India 2016: Benefits & Challenge's, IOSR Journal of Business and Managemen (IOSR-JBM) Volume 19, Issue 4. Ver. II (Apr. 2017), pp 116-120
- 7) <https://scielo.conicyt.cl/pdf/jtaer/v7n1/art08.pdf>
- 8) Prasad Yadav, Miklesh and Arora, Madhu (2019), Study on Impact on Customer Satisfaction for E-Wallet Using Path Analysis Model (April 10, 2019). International Journal of Information Systems & Management Science, elseveir,Vol. 2, No. 1, 2019. Available at SSRN: <https://ssrn.com/abstract=3369651>
- 9) S. Yuvaraj, Sheila Eveline. N, India (2018), Consumer perception towards cashless transactions and information security in digital economy, International Journal of Mechanical Engineering and Technology (IJMET) Volume 9,

Issue 7, July 2018, 89-96

- 10) Vidyashree DV, Yamuna N Nithya Shree G,(2015), A study on new dynamics in Digital payment system-with special reference to Paytm and PayU money, International Journal of Applied Research 2015; 1(10): 1002-1005
- 11) S Singh, M Arora, (2014), Demographic perception towards mobile banking in India, International Journal of Management, IT and Engineering 4 (7), 251
- 12) <https://www.wordclouds.com/> accessed on dated 01-04-2019
- 13) The jamovi project (2019). jamovi. (Version 0.9) [Computer Software]. Retrieved from <https://www.jamovi.org>.
- 14) R Core Team (2018). R: A Language and environment for statistical computing. [Computer software]. Retrieved from <https://cran.r-project.org/>.
- 15) Revelle, W. (2019). psych: Procedures for Psychological, Psychometric, and Personality Research. [R package]. Retrieved from <https://cran.r-project.org/package=psych>.