Recognition of Digital payment system- Realistic analysis of user trust and acceptance factors.

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ABSTRACT

Digital India is the flagship strategy of the Government of India. This proposal was initiated on 1st July 2015 by Prime Minister Mr.Narendra Modi, with an idea to transform India into a digitally authorized society and knowledge economy. Internet has wrapped up everyone's imagination and still continues to go forward in India. There is a stable desire to keep tempo with internet trends. Further, there has been a rise in adoption of new technologies, embarrassment of digital street like M-Wallets etc., On 8thNovember 2017, the Government of India announced the demonetization of Rs. 500 and Rs. 1000 notes, to control black money, corruption and terrorism. During 2015-16 to 2021-22, usage of smartphones and mobile internet access will lead to growth of e-commerce sector together with increasing disposable of incomes. Indian mobile wallet market in 2015-16 was around Rs 154 cr[1]. Before venturing into the full-fledged study, preliminary feasibility study was undertaken. The pre-test was conducted with a sample (10% of total sample size of consumer and merchant) of 37 consumers and Assumption test were Reliability Test, Confirmatory Factor Analysis and Final Reliability and Validity Checking

Keywords: Digital payment, trust, acceptance, feasibility testing

1. PREFACE

[1] M-Wallet Report press by Associated Chambers of Commerce and Industry of India and research firm RNCOS Dec27,2016.

Scientific inventions make the human life easier. In the field of telecommunications mobile phone is the biggest invention that changed the human life. After introducing the smartphones, the human life style has changed in a dramatic manner. People started using the smart phones for better voice quality and other facilities, later internet played a vital role in smart phones. Using internet on the go makes people to do lot of things. Telecommunication service providers and smartphone manufacturers grab the opportunity and they started introducing new features every day. India one of the fastest growing major telecommunication service and secured second place in internet user (460 million in 2017 will increase to 635.8 million in 2021)[2].

Nowadays along with the Social Network and other tools people started using smart phones to do the financial transactions. After the invention of internet banking facility every bank has developed their own mobile banking applications. After internet banking and mobile banking systems, e wallets also have entered in the field. It makes people to do their transactions much easier than the traditional cash payment. The people started adopting the new way of payment in a rapid way as it provides value added service. Mobile wallet also gives more benefits than the traditional payment methods.

Digital Financial Service

India is also one of the forerunners in digital transformation and financial inclusion. The wide range of financial services accessed and delivered through digital system like payments, investments, transfer of funds and insurance. Mobile phones are used to access monetary services and execute financial information. This concept includes both transactional and non-transactional services. Transactional services are like transferring funds, making a payment etc., and non-transactional services are like balance checking, statement viewing etc.

2. STATEMENT OF THE PROBLEM

India aims to become cashless. Presently, the "Digital India" initiative of the government has given a tremendous boost to the digital payment systems throughout the country. The online modes of payments are on the rise, and most of the users are looking for safe and secure ways of doing it. M-wallets now have changed the payment systems in India. Many mobile operators are offering discounts and cash backs on the payment of bill and recharge. From the operator view, they meet their end user directly. The application provides personalized data to the customer. This study approaches all aspects in detail and will give a

[2] Internet usage in India report by IAMAI, reported by Times of India, Feb 20,2018

clear view about this trend. The present study is therefore undertaken to identify the awareness and factor influence to use of digital payment systems in Coimbatore city.

3. OBJECTIVES OF THE STUDY

- To examine the factors influencing and the level of satisfaction of customers towards services offered by in using M-Wallets payment service.
- To identify the challenges in using M-wallet payment service.

4. RESEARCH METHODOLOGY

The researchers have collected Primary data has been collected from the consumers using interview schedule method and secondary data has been collected from websites, books and journals with regard to e wallet.

4.1 Feasibility Testing

- Reliability Test
- Confirmatory Factor Analysis
- Final Reliability and Validity Checking.

4.2 Sampling size and population

The total number of respondents taken for pilot study was 37 consumers.

4.3 Pilot Study

Before venturing into the full-fledged study, preliminary feasibility study was undertaken. The pre-test was conducted with a sample (10% of total sample size of consumer and merchant)[3] of 37 consumers i.e. 15 Government employees, 8 Private employees, 4 Professionals, 4 Self-employed and 6 unemployed persons. Factor analysis and principal component analysis with varimax rotation was made to remove out significant factors among the variables. The number of variables was determined based on the maximum value of principal components matrix. Finally, structural questionnaire was modified and reworded based on the suggestions by the respondents.

4.4 Reliability Test

Reliability Test is a measurement instrument that produces stable and consistent results each time. All the measurement items were analysed by five-point rating scale: 5=strongly agree, 4=agree, 3=neutral, 2=disagree,1=strongly disagree. Cronbach's alpha

[3]Connelly, L.M.(2008). Pilot Studies. Medsurg Nursing, 17(6), 411-2.

coefficient (α) was employed to test the reliability of the questions, which should be between 0 and 1[4] shown in Table No.: 3.2 and 3.3.

Table No.: 4.1

Confidence level of the feedback form with Cronbach's Alpha - Consumer

S. No.	Dimension	Number of items	α – value
a.	Purpose for M-Wallet payment services are used.	10	.930
b.	Factors influencing the users in using M-Wallets payment service.	9	.945
c.	**Level of agreeability towards adoption of M-Wallet payment service**		
	Ease of use	5	.933
	Usefulness	5	.918
	Convenience	5	.939
	Trust	5	.958
	Technology Adoption	5	.934
	Relative Advantage	5	.963
d.	Level of satisfaction towards the facilities offered in M-Wallet payment service.	10	.942
e.	Level of satisfaction of customers towards M-Wallet payment services offered.	10	.946
f.	**Challenges in using M-Wallet payment service.**		
	Security	5	.934
	Operational difficulties	5	.837
	Network Coverage	5	.883
	Competition	4	.894

Note: α – value – computed Cronbach's Alpha

The outcome of the reliability test from the M-Wallet payment users of 37 consumers and 10 merchants. All the variables in the structured questionnaire have been analyzed to verify the reliability and higher scores illustrate that more reliability for the measurements. Cronbach's Alpha measures the internal consistency of data and reliability of each variable had the level of confidence between 0.837 and 0.963. According to Nunnally (1978) value of

[4] Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. Psychometrika , 16 (3),297-334.

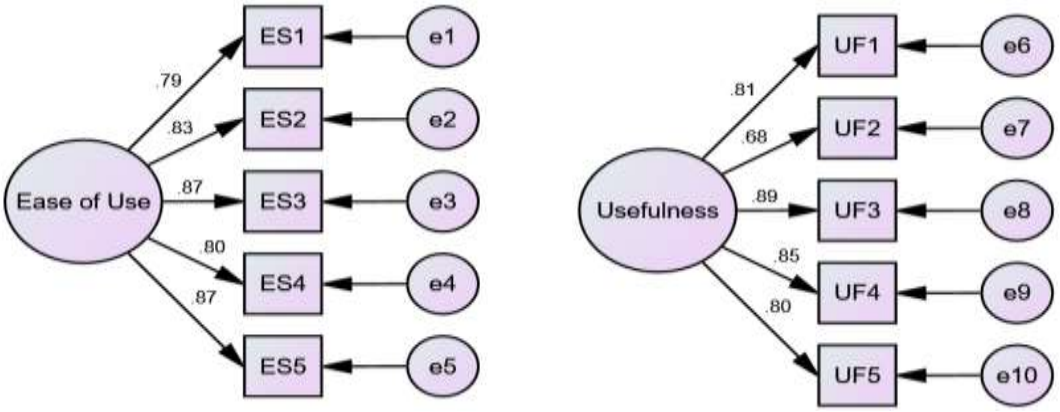
Cronbach's Alpha should be at least 0.90 were preferably and above 0.95 were better[5]. Hence it indicated good internal consistency.

4.5 Confirmatory Factor Analysis

Confirmatory factor analysis (CFA) is one of the most common methods used in social science research to explore consistency of data in the construct. Before going to the analysis, each and every construct has to verified for different sets of observed variables and whether all sets of observed variables are relevant to that construct. Verification was done through CFA, whether constructs of the consumer opinion towards adoption of M-Wallet payment service is within the threshold limit of factor loadings and e1 to e10 denote error of each variables.[6]

Exhibit No.: 4.1

Confirmatory Analysis for two constructs in the consumer questionnaire



ES1 - M-Wallet service is user-friendly.

ES2 - Learning about M-Wallet service is very easy.

ES3 - Procedure in using M-Wallet service is flexible.

ES4 - M-Wallet service increases my skill.

ES5 - The installation of M-Wallet application is clear and understandable.

UF1 - M-Wallet services help to finish financial task and to pay quickly.

UF2 - M-Wallet service would improve my performance in making payments.

UF3 - M-Wallet service helps to make transactions at my convenient time.

UF4 - M-Wallet service saves time.

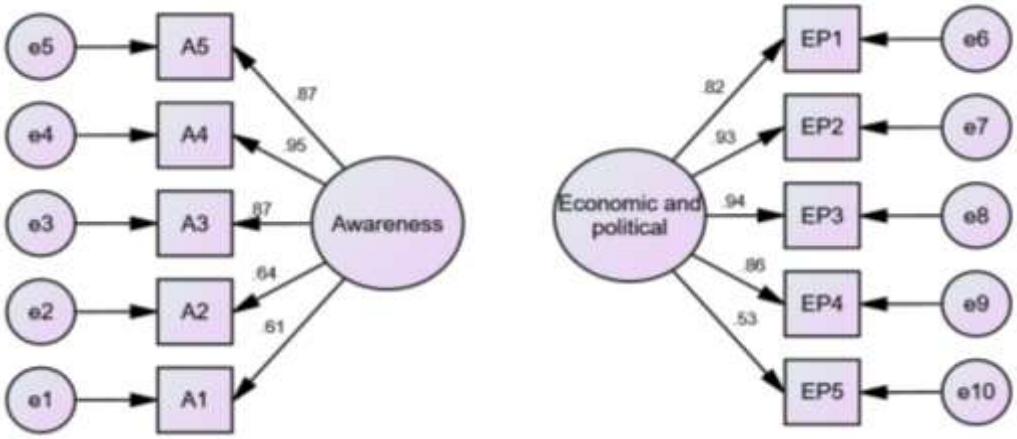
UF5 - Facilities offered by M-Wallet service providers are useful.

[5]Nunnally, J. C. (1978). Psychometric *theory* (2nd Ed.). New York: McGraw-Hill.

Two constructs of adoption of M-Wallet payment service are ease of use and usefulness that, consists of five observed variables displayed in the above Exhibit No.: 3.1. The factor loadings in respect of each variable should exceed the threshold limit of 0.4 and it is observed that all the variables in the construct have factor loadings in excess of the threshold limit. Hence, it can be concluded that all the variables included in this construct explains the construct adequately. The results of confirmatory analysis in respect of all other constructs show the acceptable factor loadings.

Exhibit No.: 4.2

Confirmatory Analysis for two constructs in the Merchant questionnaire



A1 - Lack of awareness in using mobile wallet.

A2 - No proper communication from bankers, agents etc.,

A3 - Not updated with latest technology in financial sector.

A4 - No one influenced to make use of mobile wallet service.

A5 - Customers don't prefer rather than traditional mode of payment.

EP1 - Feeling demonetization affected the regular business.

EP2 - Overcoming cash crisis quickly using of digital payments.

EP3 - It forced us to digital / cashless payment methods

EP4 - Handling such situations in future easily.

EP5 - Cashless transactions increased after demonetization.

Two constructs of challenges faced by merchant in using M-Wallet payment service are awareness and economic and political changes that consists of five observed variables displayed as shown in the above Exhibit No.: 3.2. The factor loadings in respect of each variable should exceed the threshold limit of 0.4. It is observed that all the variables in the construct have factor loadings in excess of the threshold limit. Hence, it can be concluded that all the variables included in this construct explain the construct adequately. Thus, the

result of confirmatory analysis in respect of all other constructs shows the acceptable factor loadings.

4.6 Final Reliability and Validity Checking.

Checking the reliability and validity of the questionnaire plays a vital role before starting any kind of analysis, especially in respect of conducting multivariate analysis with structural equation modelling. Reliability of data is measured through Cronbach‟s alpha. Validity testing is an instrument to know whether it has the ability to measure what it intends to measure. It can be ensured through Average Variance Extracted (AVE) value and composite reliability. AVE discloses the level of variance which has been captured by latent variable. AVE and composite reliability can be measured through structural equation modelling.

Table No.: 4.2

Final Reliability and Validity

S. No.	Dimension	α – value		AVE	Composite Reliability
		Pilot	Final		
a.	**Level of agreeability towards adoption of M-Wallet payment service.**				
	Ease of use	.933	.917	0.603	0.961
	Usefulness	.918	.898		
	Convenience	.939	.912		
	Trust	.958	.959		
	Technology Adoption	.934	.932		
	Relative Advantage	.963	.953		
b.	Level of satisfaction towards the facilities offered in M-Wallet payment service.	.942	.927	0.521	0.902
c.	Level of satisfaction of customers towards M-Wallet payment services offered.	.946	.924	0.611	0.935
d.	**Challenges in using M-Wallet payment service.**				
	Security	.934	.777	0.592	0.900
	Operational difficulties	.837	.845		
	Network Coverage	.883	.844		
	Competition	.794	.760		

Note: AVE - Average Variance Extracted

It is inferred that the Cronbach's alpha, average variance extracted is greater than 0.5 and composite reliability is greater than 0.7 and hence the study is proved and it is taken to the further analysis.

5. Conclusion

Hence all the assumptions in the data have been ruled out and proceed for the further analysis. Mobile wallet is playing a significant role in the life of common people as there is a drastic change in their lifestyle as it promotes digital convenience and speedy access. In future, mobile wallet will be seen in every sphere of business as it mingles value-added services that go ahead of just payment support function. Experts believe that mobile wallets will become the latest marketing channel in the globalized marketing era as they are seen to contribute high in the customers shopping experience, that increase their tendency for frequent and more repurchases with delightful experiences.

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