Consumer Adoption towards Digital Payment wallets

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Abstract

The most significant contributor for the Cashless economy and Electronic payments emerging in today's scenario is the innovation of digital payment Wallets along with technology acceptance in the hands of common man. The robust growth of digital payment wallets are highly supplemented with smart phones and 4G connectivity. The present study is focused on consumer preference towards digital payment wallets among its users linked with education sector and effectively analyzes the impact of demographic variables on the usage of these Digital Payment Wallets. A total of 60 respondents from educational institutions were analyzed with their responses. Chi-square and T test are the statistical tools used to analyse the data are SPSS 21.0 and model test using WARP PLS. This study will help in devising appropriate strategies for digital payment wallet companies to tap potential customers by throwing light on consumer adoption process in digital payment wallets.

Key words : Digital Wallets, Electronic Payments

INTRODUCTION

The Reserve Bank of India (RBI) has started working towards making India a cashless economy and to bring in accountability and transparency in each financial transaction. The Union Cabinet has cleared the implementation of a few short and long term measures to promote digital and card-based payments to curb cash use in the system. Some of the measures include withdrawal of surcharge, service charge or convenience fee on card and other digital transactions. With this, digital payment, which is already gaining traction, is expected to gain momentum. The rise of the Smartphone as a payment tool is reflected in the brisk growth of Digital wallet transactions in the country, according to RBI data and the trend is only expected to grow with the introduction of unified payment interface and payment banks. Digital wallets have emerged as the most significant contributor in pushing cashless and electronic payments. Foreseeing this big opportunity, a bunch of youngsters has kick-started a movement by launching digital wallets and is slowly changing the way Indians transact. A digital wallet app is a virtual wallet where a registered customer can preload a certain amount of money with any service provider, which can be used for various

bill payments and recharges. Broadly, there are four kinds of digital wallets in India - open, semi-open, semi-closed and closed.

Open wallets allow users to redeem money and withdraw cash, apart from buying goods and services, including financial services. Only issued by banks e.g.: ICICI Bank Pockets, HDFC Bank Payzapp, SBI Buddy.

Semi-closed wallets can be used to buy goods and services, including financial services, at select merchant establishments. You cannot withdraw or redeem cash with them e.g.: Paytm, Mobikwik, Citrus, PayUMoney, Oxigen, M-pesa.

Closed wallets can be used only for buying goods and services from a particular merchant. Refunds have to be used for further transactions with same merchant. No redemption or cash withdrawals are allowed. E.g.: Bookmyshow, Makemytrip, Flipkart.

A digital payment wallet is the digital equivalent of a physical wallet in which we store cash and make payments from. It is your electronic prepaid account, which can be used to pay for anything from grocery to movie tickets without having to swipe a card. Paytm, Mobikwik, Freecharge, PayU, Oxigen and Citrus are a few leading mobile wallet companies in India. While the leading players are talking about growing market share, many smaller ones too are entering the market to grab their pie.

SCENARIO OF INDIAN MOBILE WALLET MARKET

According to a recent report from TechSci Research titled 'India Mobile Wallet Market Opportunities and Forecast, 2020', the mobile wallet market in India is projected to reach $6.6 billion by 2020. As a testimony to the opportunity offered by the Indian mobile wallet, global investors are signing cheques worth millions of dollars for investing in these smart ventures.

Mobikwik raised around $30 million from investors including Sequoia Capital, Tree Line Asia, American Express and Cisco. Chinese e-commerce major Alibaba Group and Ant Financial have invested more than $650 million in One97 Communications that runs Paytm wallet. Citrus Payment Solutions has also raised funds from Sequoia Capital and Ascent Capital. In April last, e-commerce major Snapdeal had made one of the biggest acquisitions in the Indian e-commerce industry by buying wallet player Freecharge for about $400 million. As the wallets allow a user to load cash from a very small amount to a maximum of Rs 10,000, the risk associated with the loss of money through transaction is minimal. Apart from this, the wallet companies provide high security standards for customers while transacting. Recently, the RBI had issued certain guidelines that allow the users to increase

based on certain KYC verification. The mobile wallet user base in India has even surpassed the total number of credit cards issued in the country. The RBI data shows that till November 2015, around 22 million credit cards have been issued by 55 banks, while a rough estimate shows there are more than 100 million wallet users in India.

According to RBI data, Digital Wallets have already surpassed mobile banking in volume terms. For the year 2014-15, the volume of mobile banking transactions stood at 171.92 million, compared to 255 million m-wallet transactions. The number for credit card and debit card stood at 21.11 million and 553.45 million, respectively. For the financial year ended March 2017, the volume of m-wallets transactions doubled for the April 2016-February 2017 period to over 550 million. According to research firm RNCOS, the market size for mobile wallets is expected to grow at a CAGR of 30 per cent from its current size of Rs.350 crore to Rs.1,210 crore by 2019. Paytm is currently the leader in the segment has about 125 million wallet users. It sees about 60 million monthly transactions on its platform. Interestingly, a report by Nielson points out that the penetration of mobile payment apps among users is similar across towns of all sizes with 60 per cent of people in large town (with over 10 lakh population) and 58 per cent in smaller towns using the facility. However, usage is higher among small town users, with these consumers spending 109 minutes a month on such app against 91 minutes in bigger towns.

Significantly, as per an IAMAIIMRB's Digital Commerce 2017 Report, only about eight per cent of buyers pay online using Digital wallets, while 21 per cent prefer to pay using debit card, 16 per cent prefer credit cards and majority 45 per cent prefer cash-on-delivery mode of payment. In a bid to garner market share, almost all players are offering cash back and discounts, which can be used for another transaction. Some players even provide offline way of wallet balance top up. Mobikwik has its 'Cash Pickup' service in select cities that will facilitate cash to be directly added to MobiKwik wallet. There is a clear indication that the wallets have moved from the big cities to smaller towns.

According to reports, the early adopters of wallets were in the northern and western parts of India, but due to the drop in smart phone prices and 3G tariffs, virtual wallets are growing pan India. Leading private telecom operator Airtel too operates Airtel Money. PingPay, Payzapp, Idea Money and m-pesa are some of the wallets operated by telecom players and banks. Cab aggregator Ola has launched Ola Money, an independent wallet for mobile recharge and money transfers.

Digital wallets are the best bet to usher in digital payments. There are three key drivers:

1. **Strong growth in smartphones:** The digital payments landscape in India has witnessed unprecedented growth largely driven by increased Smartphone penetration. Smartphone user base has increased by 60% in the metros, but more importantly, it is the penetration in the tier 2 and 3 areas which is of critical importance. 61 million people from tier 2 and 3 use smart phones for online shopping.

2. **Adoption of Aadhaar & UPI:** Data availability along with Aadhaar based authentication will allow for seamless adoption of the digital wallet. Initiatives such as Aadhaar, UPI will have a catalytic effect on the industry.

3. **Improved 3G & 4G services:** 3G and 4G services are being offered at extremely affordable prices, giving a huge boost to mobile commerce. With 4G becoming more and more affordable, we expect Smartphone users from tier 2 and 3 regions to adopt digital wallets.

OBJECTIVES OF THE STUDY

1. To study the awareness and preference towards the usage of Digital Wallets.
2. To find out the impact of various demographic variables on the usage of Digital wallets.
3. To study the factors influencing the respondents to opt Digital wallets
4. To examine the factors refraining the usage of Digital Mobile wallets
5. To conceptualize a model with Knowledge, Risk Appetite and Brand Loyalty as independent variables mediated through schemes of propagators to the dependent variable Adoption Intensions

STATEMENT OF THE PROBLEM

Within the last decade or so, our world has become rapidly more digitized. For example, we now have internet purchases, and social interactions made via short message service (SMS), e-mails and social networks on the Internet. Two important factors that have contributed to this development are the use of mobile phones, and the use of the Internet. We are more 'on the go' than ever and get things done while we are on the go via our digital services turning the world to a mobile village. A part of the above mentioned digital purchases is digital payments. And when everything else is mobile, the payments have to be mobile too; we have to be able to pay for goods and services no matter where we are. Thus there is a need for an electronic wallet, an e-wallet, with which mobile payments can be made. It is therefore relevant to pay attention towards mobile payment option as cashless payment.

METHODOLOGY

Sample size: The sample size was determined (Surveys that you distribute internally (i.e. to employees) generally have a much higher response rate than those distributed to external audiences (i.e. customers). Internal surveys will generally receive a 30-40% response rate (or more) on average, compared to an average 10-15% response rate for external surveys. (Jul 27, 2015)) both by qualitative and quantitative approach. This study was conducted in the urban area of Cochin city, largest urban agglomeration in Kerala.

The sample size of the study was 60 respondents, consisting of Urban population. The respondents were the users of Mobile wallets. The questionnaire were distributed among 100 respondents, only 60 valid responses were received.

Tools for Data Collection: Primary data and secondary data have been used. Primary data was collected through the structured questionnaire and the secondary data was collected from various Books, Journals, Articles, Newspapers, Magazines and Websites. The data collected were further analyzed by using statistical tools like percentages, T test and Chi-square test Regression and Correlations

Period of the study: The data were collected during the month of December 2017.

Hypothesis

1. There is no significant relationship between respondents Gender and Income towards cash less payments.
2. There is no significant relationship between respondents age and Income towards cash less payments.
3. There exists a positive relationship between Knoweldge level and adoption intension of respondents.
4 There exists a positive relationship between risk appetite and adoption intension of respondents.

5 There exists a positive relationship between brand loyalty and adoption intension of respondents.

6 Schemes of Propagators mediates the relationship between independent variables such as Knowledge, risk appetite and brand loyalty and the dependent variable adoption Intension

REVIEW OF LITERATURE

Many empirical studies have been conducted on the subject of cashless society in India and abroad. The major emphasis of research has been on various issues like frauds, security, usage pattern, new method of e-payment, etc. The previous work done on cashless society needs perusal. It has been reviewed to indicate in a general way the type of work done on this subject in India. It is expected that the critical examination of the studies would give focus to our problem and help to indicate the areas which have remained neglected at the hands of the researchers.

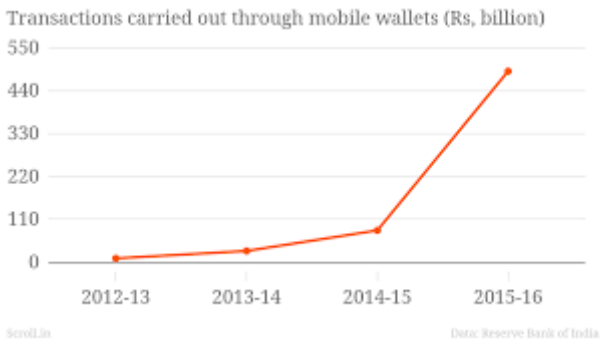
From the review of literature, it was found that hardly there was a study which examined the preference towards cash less payments among urban youth. This study, an attempt is made to include the usage of Digital wallets in the analysis.

Barker (1992) in his study, Globalization of credit card usage: The case of a developing economy" measured the attitude of Turkish consumers towards credit cards, and the approach of card issuers by surveying two samples of 200 card holders and non-holders. The respondents were categorized into better educated, middle aged members of the upper middle class. The most significant reasons for using a credit card were "case of payment", followed by "risk of carrying cash", Non holders do not carry credit cards because they do not know much about it; informal sources of information appear to be more influential than mass media advertising in penetrating the market; proposes that the usage and the administration of credit cards are influenced very much by the infrastructure of the country and therefore, credit card companies have to re appropriate their marketing and administrative procedures rather than following a standardized approach.

Mathur and George (1994), "Use of credit-cards by older American" shows the usage behavior pattern of older people with credit card spending. Using a large national sample of respondents from different age groups, finds that older adults use credit cards as frequently as younger adults when circumstances for consumption in both groups are similar. Contrary to it, the commonly held belief that older people do not use credit cards, the data suggests the need for practitioners to stop thinking about consumer targets in terms of age and focus more on circumstances that determine one's likelihood to use credit cards. Factors such as income, employment, retirement status, shopping habits should be considered. While credit card usage may overall decline with age, certain segment of mature consumers continues making use of credit cards throughout the life.

Kaynak (1995), "Correlates of credit card acceptance and usage in an advanced developing Middle Eastern Country." Study shows that with the surge of technological developments, innovation and increase in the level of socio-economic progress the acceptance of credit cards and usage has increased like anything.

An empirical research study conducted in urban Turkey indicates that there are certain relationship between socio-economic and demographic characteristics of Turkish consumers and their credit card holding and usage behaviours. It was observed that one of the determinants of credit card use is related to the age of the family head and family life–cycle stage. Generally, those household heads who are in middle and upper age having large discretionary income level are more likely to use credit cards. This may be termed a social class effect of credit card usage and acceptance. Despite most of credit card users are urban dwellers, more educated with professional type of jobs, and high income earners. Authors feel that targeting more people to use credit cards is indeed a marketing challenge.



DATA ANALYSIS & INTERPRETATION

Table 1 Demographic profile of the respondents

Particulars	categories	No of respondents	percentage
Age	21-30 years	45	75
	31-40 years	9	15
	41-50 years	3	10
	51 & above	3	10
Gender	Male	32	53.3
	Female	28	46.7
Education	Intermediate	10	16.6
	Graduate	17	28.4
	Postgraduate	33	55.0
Annual Income	Rs.200000 - Rs.300000	29	48.3
	Rs. 300001 - Rs.400000	17	28.3
	Rs. 400001 - Rs.500000	8	13.4
	Above 500001	6	10.0
Profession	Service	30	50.0
	Business	10	16.6
	Profession	15	25.0
	Any other	5	8.34

Source: Primary Data

75% of the respondents are in the age group of 21 to 30, 53.3%of the respondents are Male, 55% of the respondents are post-graduates, 50% of the respondents have been working in service area and 48.3% of the respondents earn annual income ranging from 200000 to 300000.

Table 2 Preference regarding usage of Digital wallet for purchasing products/services.

Product/Services	No: of respondents	Percentage
Books	4	6.7

Movie Tickets	6	10.0
To pay bills	10	16.7
Railway/Bus reservation	5	8.3
Cloths	2	3.3
Recharge Mobile & DTH	12	20.0
To transfer Money	17	28.3
Buy Electronic products	4	6.7

Source: Primary Data

As per the above table, 28.3% majority of the respondents preferred to use Digital payment wallet to transfer money followed by Recharging mobile or DTH payment and so on.

Table 3 Related to factors influencing to opt for Digital wallets

Factors Influencing to opt for Digital Wallets	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Instant Payments	0	0	0	06(10%)	54(90%)
Reputation of the company	0	0	02(3.3%)	16(26.7)	42(70%)
One stop shop	0	1(1.7%)	8(13.3%)	21(35%)	30(50%)
Seamless process	0	2(3.3%)	7(11.6%)	19(31.6)	32(53.3)
Instant Refunds	0	0	0	10(16.6%)	50(83.3%)
Rewards and offers	0	0	08(13.3%)	12(20%)	40(60.6%)

Source: Primary data

From the above table it is clear that 90% of the respondents believe that instant payments is an important factor to opt for Mobile payments and 83.3% of the respondents look over the instant refund one of the factor provided by the Digital wallet companies.

Table 4 Factors refraining the usage of Digital Wallets

Factors refraining the usage of Digital Wallets	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Prefer to use other cashless payment option	0	6(10%)	9(15%)	20(33.3%)	25(41.7%)
concerned about the security of Digital Wallet payments	5(8.3%)	7(11.7%)	8(13.3%)	10(16.7%)	30(50%)
don't see value of using Digital Wallet payments	5(8.3%)	9(15%)	24(40%)	12(20%)	10(16.67%)

The cost of data access on wireless plan is too high	8(13.3%)	4(6.7%)	9(15%)	17(28.3%)	22(36.7%)
Possibility of information theft during wireless transmission at point of sale	5(8.3%)	5(8.3%)	7(11.7%)	23(38.3%)	20(33.4%)

Source: Primary Data

From the above table No.4 it shows that 50% of the respondents are strongly agree that they are concerned about the security of Mobile payments and 42% prefer strongly agree that they prefer to use other cashless payment option.

Table 5 Overall preference towards Digital wallets

Particulars	No. of respondents (n=60)	Percentage
Low	33	55
High	27	45
Mean:117.95/Median:114.50/S.D:11.322/Min:89/Max:146		

Source: primary data

The overall preference towards Digital wallets with reference to the city is low.

Table No. 6 Chi-Square test on association between age of the Respondents and their opinion about usage of Digital wallets

Age	Overall usage of Digital wallets			Statistical Inference
	Low (n=33)	High (n=27)	Total (n=60)	
21 to 30 years	22 (66.7%)	23(85.2%)	45 (75%)	X2=5.589 Df=3 .133>0.05 Not Significant
31 to 40 years	5 (15.2%)	4 (14.8%)	9 (15%)	
41 to 50 years	3 (9.1%)	0	3 (5%)	
51 years & above	3 (9.1%)	0	3 (5%)	

Source: Primary Data

Research hypothesis: There is a significant association between age of the respondents and their opinion about the usage of Mobile wallets

Null hypothesis: There is no significant association between age of the respondents and their opinion about the usage of Mobile wallets.

Findings: The above table reveals that there is no significant association between age of the respondents and their usage of Mobile wallets. Hence, the calculated value greater than table value ($p>0.05$). So the research hypothesis is rejected and the null hypothesis is accepted.

Table 7 Chi-Square Test on association between preferable products/Services by the Respondents and their opinion about overall usage of Mobile payments

Preference regarding usage of Digital Wallets for Purchasing products/services.	Overall usage of Digital wallets			Statistical Inference
	Low (n=33)	High (n=27)	Total (n=60)	
Books	4(12.1%)	0	4(6.7%)	Df=7 .326>0.05 Not Significant
Movie Tickets	3(9.1%)	3(11.1%)	6(10%)	
To pay bills	4 (12.1%)	6(22.2%)	10(16.7%)	
Railway/Bus reservation	1 (3%)	4(14.8%)	5(8.3%)	
Cloths	1 (3%)	1(3.7%)	2 (3.3%)	
Recharge Mobile or DTH	8 (24.2%)	4(14.8%)	12 (20%)	
To transfer money	9 (27.3%)	8(29.6%)	17(28.3%)	
Electronic products	3 (9.1%)	1(3.7%)	4(6.7%)	

Source : Primary Data

Research hypothesis: There is a significant association between preferable products/services by the respondents and their opinion about overall usage of Digital Wallets

Null hypothesis: There is no significant association between preferable products/services by the respondents and their opinion about overall usage of Digital Wallets

Findings: The above table reveals that there is no significant association between preferable products/services by the respondents and their opinion about overall usage of Digital Wallets . Hence, the calculated value greater than table value (p>0.05). So the resea hypothesis is rejected and the null hypothesis is accepted.

Table 8 T-Test on Difference between Gender of the Respondents and their opinion about Overall usage of Digital Wallet payments.

Overall preference for Digital Wallet payments	Mean	S.D	Statistical Inference
Male(n=32)	118.13	12.725	T=.127 Df=58 .899>0.05 Not Significant
Female(n=28)	117.75	9.702	

Source : Primary Data

Research hypothesis: There is a significant difference between gender of the respondents and their opinion about overall usage of

Null hypothesis: There is no significant difference between gender of the respondents and their opinion about overall usage of Digital payment Wallets

Findings: The above table reveals that there is no significant difference between gender of the respondents and their opinion about overall usage of Digital payment Wallets Hence, the calculated value greater than table value (p>0.05). So the research hypothesis is rejected and the null hypothesis is accepted.

Test of reliability

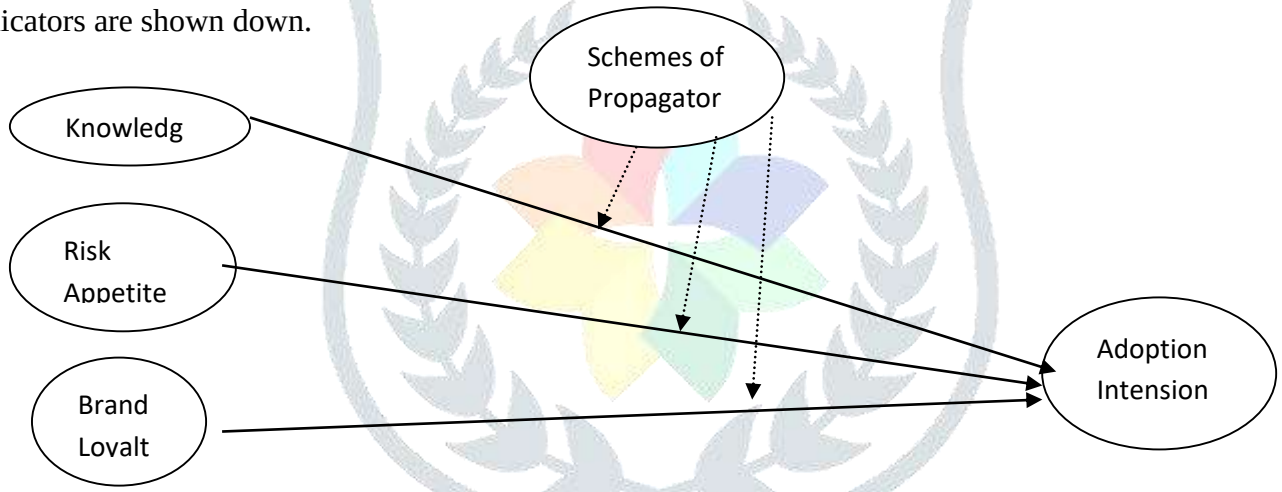
Sl no	Variables	No of items	Cronbach's Alpha(á)
1	Knowledge	7	0.914
2	Risk Appetite	9	0.76
3	Brand Loyalty	11	0.862
4	Schemes of Propagators	6	0.79
5	Adoption Intensions	9	0.86

MODEL FIT INDICES AND P VALUES – RESEARCH MODEL WITH SCHEMES BY PROPAGATORS

Research Model with Mediation

For the analysis of the research model, Partial Least Squares (PLS) based structural Equation Model was carried out using Warp PLS 4.0 Software.

The figure shows the research model with the relationship between the latent variables and also the indicators used to measure the variables. The number of indicators used to each latent variable and the indicators are shown down.



The recommended criteria for assessing the model fit with data are shown in the following table

Table Model Fit Indices and P values - Research Model

Average path coefficient (APC)=0.234, P<0.001

Average R-squared (ARS)=0.488, P<0.001

Average adjusted R-squared (AARS)=0.479, P<0.001

Average block VIF (AVIF)=1.793, acceptable if <= 5, ideally <= 3.3

Average full collinearity VIF (AFVIF)=1.933, acceptable if <= 5, ideally <= 3.3

Tenenhaus GoF (GoF)=0.488, small >= 0.1, medium >= 0.25, large >= 0.36

Sympson's paradox ratio (SPR)=1.000, acceptable if >= 0.7, ideally = 1

R-squared contribution ratio (RSCR)=1.000, acceptable if >= 0.9, ideally = 1

Statistical suppression ratio (SSR)=1.000, acceptable if >= 0.7

Nonlinear bivariate causality direction ratio (NLBCDR)=1.000, acceptable if >= 0.7

The model in PLS are estimated by loadings or weights, which describes how the observations related to the unobservable. The structural relationship explains how the values of unobservable influence values of other unobservable in the model. The statistical results of the SEM analysis are shown that all the criteria for the model fit were satisfied by the research model.

LATENT VARIABLECOEFFICIENTS OF MEASURES

Latent variable Coefficients	Knowledge	Risk appetite	Brand Loyalty	Schemes of Propogators	Adoption Intensions
R-Squared				0.403	0.572
Composite Reliability	0.933	0.817	0.897	0.854	0.891
Cranach's alpha	0.915	0.75	0.872	0.792	0.862
Average Variance Extracted (AVE)	0.664	0.346	0.45	0.505	0.479
Full Collinearity VIFS	1.424	1.984	2.561	1.835	2.162
Q-Squared				0.409	0.57

The Table shows the every latent variable and coefficients of the model separately. The above statistical result depicts validity indexes for each of these variables. First of all based on R2 coefficient, the more the value of R2 related to the endogenous structures of a model, the better the fitness of the model will be. The value of R2coefficient is higher than the minimum acceptable value. Q square is testing the prediction relevance of the model. Q square values above zero indicated that the values are well constructed and the model has predictive relevance. The Q – squared value for the variable is positive and higher than 0 and are close R – squared values. Both Composite Reliability and Cronbach's Alpha indexes have values higher than 0.7, the minimum acceptable value. Therefore, it can be said that the reliability is good.

Also according to Average Variance Extracted (AVE) values, the entire latent variables have sufficient convergent validity, since in all cases values are higher than 0.4 (Huang, Wang, Wu, & Wang, 2013)**,** the minimum acceptable value in this study. Finally Full Collinearity VIFs indicates that there is no Collinearity problem in latent variables, since all the values are lower than the minimum acceptable value 5

The statistical results evidently proved the conceptual framework developed for the study ; critically examined inter-relationship between Knoweldge , Risk appetite, Band loyalty towards schemes providers and Schemes of propagators towards adoption intension of Digital Wallets.

Relationship between independent and dependent variables

o Knowledge and Adoption Intensions are positively correlated each other (0.462)

o Risk Appetite and Adoption Intensions are positively correlated each other (0.524)

o Brand Loyalty and Adoption Intensions are positively correlated each other (0.674)

o Knoweldge, Risk appetite and Brand loyalty are positively correlated with each other.

o R2 is the proportion of variance in the Propensity to invest scores accounted for by Knowledge, Risk Appetite, and Brand loyalty. R2 value of 0.481, point out that the model has accounted for 48.1% of the variance in the Adoption Intensions .

o Schemes by propagators has a partial mediation role in the relationship between Knowledge and Adoption Intensions of respondents.

o Schemes by propagators has a partial mediation role in the relationship between Risk appetite and Adoption Intension of Respondents.

o Schemes by propagators has a partial mediation role in the relationship between Brand Loyalty and Adoption Intension of Respondents .

o The statistical results of the SEM analysis

o R2coefficient is higher than the minimum acceptable value

o Q square values above zero

o Q – squared value for the variable is positive and higher than 0 and are close R – squared values

o Both Composite Reliability and Cronbach's Alpha indexes have values higher than 0.7, the minimum acceptable value

FINDINGS

1. Majority (29%) of the respondents are preferred to use digital wallet to transfer money followed by recharging mobile or DTH payment and so on.

2. 90% of the respondents believe that an instant payment is an important factor to opt for digital wallets payments.

3. 50% of the respondents are strongly agree that they are concerned about the security of digital wallet payments and 42% prefer strongly agree that they prefer to use other cashless payment option.

4. Majority (81.7%) of the respondents said that security is very important while Purchasing the product through online.

5. The null hypothesis is accepted-there is no significant association between age of the respondents and their usage of digital payment wallets.

6. The null hypothesis is accepted- that there is no significant association between preferable products/services by the respondents and their opinion about overall usage of digital payment Wallets.

7. The null hypothesis is accepted that there is no significant difference between gender of the respondents and their opinion about overall usage of digital payment wallets.

8. The schemes provided in these digital wallets has a great role to play with adoption intensions

CONCLUDING REMARK AND RECOMMENDATION

Cash as a mode of payment is an expensive proposition for the Government. The country needs to move away from cash-based towards a cashless (electronic) payment system. This will help reduce currency management cost, track transactions, check tax avoidance / fraud etc., enhance financial inclusion and integrate the parallel economy with main stream. Additionally as the digital wallets usage crosses the boundaries of big cities and gains popularity into the hinterland, the electronic payment system will generate huge volumes of data on the spending behaviour of persons in these areas.

Most of the ecommerce companies are offering discounts on digital wallets. All big players have their own e-wallets - Flipkart has FX Mart and Snapdeal has Freecharge, adoption of digital wallets is steadily increasing. Some of the existing players may need to revamp their operational structures to meet these norms. Digital wallets have emerged as the most significant contributor in pushing cashless and electronic payments. Over time when digital payments grow and represent a significant part of retail sales, the digital payments data could also be used as a quick estimate of private consumption.

Finally, considering the advantages the digital wallet payment system generates over the paper based payment system, the study looks into few of the impediments and recommends some measures so as to promote the growth of the digital wallet payments:

1. There should be inter-operability between different digital payment wallets.
2. As most of respondents are concerned about the security of digital payments, the security system should be strengthen so that people won't scare about their money and transactions.
3. The numbers of merchants currently listed are limited; therefore the digital wallet companies should expand their horizons towards other untapped merchants.
4. The digital wallet companies may also introduce credit facility to the loyal customers looking into their usage.
5. The usage of digital wallets is still at nascent stage only 36.7% of the internet users go for Digital wallets, therefore the companies should promote the same through their marketing and advertising campaign.
6. Payments businesses (especially digital-wallets) will have to expand their revenue streams ahead of the full-fledged rollout of government's Unified Payments Interface (UPI), which

envisages seamless digital money transfers across banks and their customers.

LIMITATIONS OF THE STUDY AND SCOPE FOR FURTHER RESEARCH

In real world, researchers in any field of knowledge make the ground for further researches and this process goes on but all studies and researches have their own limitations. The researchers have to face many problems, some related to circumstances or situations. The main limitations of the study are as follows.

1. Sampling approach has been used in this study. As such the study suffers from the limitations of sampling in general. The specific limitation of this study has been the non-inclusion of further respondents and respondents of cities other than Kochi .
2. The study being part of behavioural research and primary data was collected through Survey as such suffers from the subjectivity biases of the respondents.
3. Again this study is limited to the single city so the generalization of conclusions of the study may therefore not have universal applicability.
4. The present study is limited to only 60 respondents of Kochi city. Although the care has been taken in selecting the samples in the present study. But it may not be representative of the actual population.
5. A comparative study on different cashless payments option and can be conducted with more in-depth research on different aspects of cashless payments.
6. A cost-benefit analysis can also be undertaken to draw policy implications on the efficiency and effectiveness of Cashless payments tools.
7. Further Similar studies can be undertaken for other emerging economies in the world and further, a comparison could be done.

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