

Teachers' Perception towards Mobile Wallet Payment System and A Comparative Study of Leading Mobile Wallet Service Providers

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Abstract:

India's drive to become a less-cash economy will help the mobile wallet industry grow to \$4.4 billion by 2022. The projection of a compound annual rate (CAGR) of 148 per cent over five years comes despite several industry watchers writing off the digital wallet model. The RBI bulletin shows steep rise in usage of mobile wallet payment especially after demonetization. The government of India has mooted a 6-point formula to boost digital payment system as a part of ongoing 'Digital India Campaign'. According to Ministry of Commerce and Information Technology, digital transactions in India have seen big growth in volume from about 10,000 million transactions in 2016-17 to 20,450 million in 2017-18. There is great scope for mobile wallet industry in India and considered as world's fastest-growing mobile payment market followed by China, having 75.5 per cent surge in mobile wallet users from 32 million in 2016 to 56.2 million in 2017. This number is expected to grow to 77.8 million, nearly 30 per cent of India's total number of Smartphone users in the year 2018. In this research article authors tried to evaluate college lecturers' perception and behavior towards adoption of mobile wallets in their day-to-day payments. A sample of 50 lectures selected randomly through convenience sampling and surveyed by distributing structured questionnaires. To understand the dominance in Indian mobile wallet industry, major 10 service providers considered on the basis of market coverage for comparative study. Final interpretations drawn by applying different statistical techniques like chart, table, ANOVA analysis, chi-square test, t-test and trend analysis. Final interpretations would be used by wallet service provider for better understanding of Indian digital market to extend their business.

Keywords: Cashless Economy, Demonetization, Lecturer Perception, Mobile Wallet, Service Providers.

1.0 Introduction:

In today's world mobile play an important part of everyday life. Because of technology, mobile user can nowadays use their mobile to make money transaction or payment by using different application installed in their mobile such as paytm, phone pay etc., Beside payment we can also store receipt, coupons, and cards, bills in the mobile, when mobile performs the basic functions of a leather wallets, in digital world such wallets would be called as "Mobile wallet or digital wallets". Thus the Digital wallet refers to an electronic device or online service that allows an individual to make electronic transaction. The digital payment service works as cashless payment service where people do not have to pay cash or swipe their debit card and credit card at offline merchant.

There are different types of mobile wallet in India:

- a. Closed wallet:** E-wallet which is designed for making full or part payment for the services directly provided by the wallet issuer. A closed wallet cannot be used for making payments to any third party service providers or money transfer. Some of the examples for closed wallets are amazon wallet, ola money etc.
- b. Semi closed wallet:** Even in case of semi-closed wallet also, money cannot be withdrawn. Semi closed wallet are used to purchase the goods and services. Issuer and merchant have a specific contract between them. Major semi closed wallets dominating in the markets are Paytm, Mobilewiki etc.
- c. Open wallet:** Unique nature of these kinds of wallet includes money withdrawal facility at ATM centers. Open wallets also performs basic utilities such as shopping, bill payment, fund transfer, reservation facility etc. Most frequently used open wallets in India are Visa and Master cards.

Developing countries like India, more than 60% is covered with rural area where people believe strongly traditional touch and feel method of purchasing. Recent survey showed that India is one of the destinations where trend of cashless economy concept started to adopt from government level. This leads for great opportunities both for the mobile wallet service providers and users. Attitude of Indians also changed towards using mobile

wallet, which got supported with an increased number of Android cell phone users. New era in Indian digital world started after central governments scheme of demonetization. According to study of GOOGLE–BCG report estimated that India's digital payment industry would grow to us \$500billion by 2020, which will contribute 15% of country's GDP. Therefore India represents a largest market opportunity for digital payment.

Here are some of the mobile wallets companies in India which is often used by people for their transaction .

- a) **Paytm:** Paytm is one of the largest mobile commerce platform in India, offering its customers a digital wallets to store money and make quick payments which was launched in 2010, Paytm works on a semi-closed model and has a mobile market, where customer can load money and make payment to merchants who have operational tie-ups with a company. number of installation is 1000,000+ according to a recent study of 2017 .One can easily call them the "Whatsapp" of the digital wallet space.
- b) **Phonepe:** Phone pe started as UPI payment app and later was acquired by Flipkart to be launched as digital wallet for e-commerce giant. It definitely has a lot of smart people behind the app as a first time users will find the app is really easy to use
- c) **Mobikwik:** Mobikwik is an independent mobile payment network that that supposedly connects 25 million users 50,000 retailers and more. The mobile wallet lets its users and money using debit ,credit cards ,net banking and even doorsteps cash collection service ,which can in turn be used to recharge, pay utilize bills and shop at market places.

According to survey about digital payments and mobile wallets in India ,indicates the growing need for secure ,faster and efficient payment methods for online market place ,Thus, the day is not far where you will walk around without physical wallet and pay your retailers shop through online.

1.1 Review of Literature:

Baraga & Masson (2017): Research survey on the topic "Payment Model Influencing Consumer Purchase Mode", reveals that Digital wallet payment brings extra convenience

such as flexibility, saves time, ease to use, security convenient and also information can be stored under one roof and also shoppers are highly influenced by the attractive discounts for payment through digital.

Samsher Singh (2017): Empirical study on the topic "The study of consumer perception of digital payment mode", which was published in Journal of Internet Banking and commerce in the year 2017, identified many issues towards consumers perception towards use and convince of digital payment mode. Major finding are, 1. The card transaction after demonetization saw a huge growth in India. 2. The percentage of cash transaction has been a rapid decline due to increase in adoption of non cash instrument such has PAYTM, payment cards, electronic transfer etc., 3. There're huge opportunities to Indian digital payment industry and therefore, service provider can explore this opportunity through introducing innovative market attraction strategies to dominate the industry.

DezonShira& Associates (2017): Investigation under the title "Growth of Digital payment system in India", tried to identify issues related for revolutionary growth of Indian digital payment system. Major findings revealed that, 1. Along with innovative ideologies of private players such as paytm, paypal, google pay, even Indian government also started to take initiatives to promote concept of Digital India by introducing BHIM app., Adhar etc., which will be very favorable for Indian digital payment industry. 2. This study shows the new apps to ease the transfer of funds, especially in rural communities. 3. Digital payment industry is fast highly attractive destination for foreign investors keen to establish in India. 4. This study estimated that India's digital payment industry would grow to \$500 billion by 2020, So that it contribute to 15% of GDP.

David Lillierond and Fabinsundelin (2017): The research titled "Factors to consider when adapting to mobile payment" show a various factors which contribute while adopting a mobile payment includes, 1. It is important that mobile service should be fast; many consumers cancelled their purchase for the reason that the payment process was not fast enough and because of lengthy registration process. 2. Another important factor which contributes for success of mobile payment is, it should be easy to use. 3. Time and efforts required for learning using mobile payment also considerable factor for success of mobile wallet.

Dr.s.Manikandam ,J.Maryjayakandi (2016):Research paper on, "An empirical study on consumer adoption of mobile wallet with special reference to Chennai", provided empirical evidence with notable justifications. Mobile wallet will alter other modes of online payment systems in future. Factor like loyalty, convince of shopping plays an important role in adoption of mobile wallet in fast developing countries like India.

S.Wycech (2015):The study "An investigation of attitude concerning mobile payment", concluded major findings which helped us to draw the research gap. Investigation identified 2 types of digital payment modes i.e., mobile wallet & NFS. NFS is a mode of payment which is done through wireless communication limited to just to 10 cm; but this mode is rarely used.Further, investigator highlights adoption issue by stating difficulties of adopting a perfect mobile payment service that will suit both the user and merchant. While identifying major factors which concerns for preventing users from adopting mobile wallet is security issue and other related threats. Finally in this study also authors identified a great future for Indian mobile wallet payment system showing empirical evidence of gaining rapid popularity of adoption ratio.

1.2 Research Gap:There are well defined studies found both in India and outside the country, which tried to focus on the issues related for mobile wallet payment system and main concerns in its adoption. Separate studies found both in the users and services providers angles, but found no studies which includes following three issues together.

- a. Teachers' perception towards usage and adoption of mobile wallet payment system in Dhakshina Kannada District.
- b. Comparison of leading mobile wallet service provider with empirical evidence.
- c. Individual evaluation of top mobile wallet service provider along with finding possible best strategies to dominate the industry.

2.1 Objectives:

1. To study the present status of mobile wallet adoption by teachers of Dhakshina Kannada District.
2. To critically analyze the perception and attitudes of teachers towards mobile wallet.
3. To compare performance of top digital wallet service providers in Indian market.
4. To critically evaluate each individual top mobile wallet service providers.

5. To suggest for formulating effective strategies for both customers and service providers of mobile wallet.

2.2 Hypothesis:

Hypothesis 1:

H_0 = Teachers' stream of post-graduation is independent of number of mobile wallets held by them.

Hypothesis 2:

H_0 = Teachers' income level is independent of average balance kept in mobile wallet.

Hypothesis 3:

H_0 = There is no significance difference in popularity and usage of different mobile wallet platforms.

Hypothesis 4:

H_0 = There is no significance in teachers opinion regarding security issue.

Hypothesis 5:

H_1 = There is no significance difference in opinion of elimination of carrying paper currency by teachers.

H_2 = All teachers very likely to refer mobile wallet to family and friends.

2.3 Limitations: The research has been conducted on the basis of primary as well secondary data. Primary data is collected by distributing well structured questionnaire to the teachers of different colleges in Dhakshina Kannada District. This research is restricted only 50 respondents, lack of large sample advantages would be found. This study covers only teachers' attitude towards adoption of mobile wallet in Dhakshina Kannada District, which reduced scope of the paper. While evaluating top players in Indian mobile wallet industry, well known and popular service providers only considered.

3.0 Methodology: Empirical research on teachers' perception towards adoption of mobile wallet is backed with both primary and secondary data.

3.1 Sources of Data: Empirical research on teachers' perception towards adoption of mobile wallet is backed with both primary and secondary data.

a. Primary Data: To know the teachers perception and attitude towards adoption of mobile wallet for day to day's financial transactions, a group of 50 teachers randomly

selected from different colleges of Dhakshina Kannada district. A set of well defined questionnaires distributed to collect the respondents reaction.

b. Secondary Data: To evaluate and compare the major players in Indian mobile wallet industry, data have been collected from deferent websites, news papers, journals and books. Conceptual framework related for Indian mobile wallet segment is done through secondary sources of information.

3.2 Tools of Analysis: Review of literature helped to identify research gap, which is represented as hypothesis to provide empirical evidence. Hypothesis in this study evaluated through different statistical tools like tables, charts, chi-square test, ANOVA one-way and two-way. Final interpretation drawn by evaluating respondents' reactions after using mentioned critical statistical tools.

3.3 Scope of Study: This research covers perception and adoption status towards mobile wallet usage among teachers' of Dhakshina Kannada district. For the better evaluation and comparison, top 10 mobile wallet service providers from Indian industry used on the basis of market shares.

3.4 Social Relevance: Teachers are an extremely important facet of any society for a number of reasons and their role in society is both significant and valuable. Teachers are the people who educate the youth of society and considered as pillars of any nation. It is well known fact that their knowledge will be multiplied among the society with in the short period of time. Teachers' awareness and adoption status of digital wallet system is important issue to decide the route towards which an industry is climbing. Creating awareness related to top mobile wallet operators and its status of working considered as focal issue to be discussed.

4.0 Data Interpretation:

Respondent's opinion on E-wallet depicted the following result .

4.01. Table showing stream of education and nature of education.

	Government	Private	Some other	total
Commerce	3	14	00	17
Arts	0	3	00	3
Total	3	17	00	20

source :Primary data

Table 4.01 shows a classification of respondents on the basis of their stream i.e. commerce, arts. Research depicted that more number of teachers of commerce stream to the extent of 85% use E-wallet .where as 15% of teachers from arts stream use E-wallet .So from this table we can say that teachers from commerce background of private sector use more e-wallet when compare to arts and other stream.

4.02. Table showing average annual income.

	Number of respondent	Percentage
Less than 150000	00	00
150000-250000	12	60
Above 250000	08	40
Total	20	100

Source :Primary data

Table 4.02 shows classification of teachers on the basis of average income from different streams .Research yield that average income of teachers lies between 150000-250000 approximately 60% of teachers use e-wallet for various purpose.nearly 40% of teachers earn 250000 p.a so this table shows that teachers from different stream whose income level is between 150000-250000 use a E-wallet when compare to other level of income.

4.03 Table showing number of bank account by respondent.

	Number of respondent	percentage
One	3	15
Two	7	35
Three or more	10	50
Total	20	100

Source :Primary data

Table 4.03 shows a classification of respondents on the basis of number of bank account they hold. This table shows that nearly teachers from stream posses more than 3 or more bank account for saving approximately 50% of a teachers have 3 or more accounts and 35% of people use 2 bank accounts and 15% of them use 1 bank account.

Thus majority of teachers posses nearly 3 or more account for different purposes.

4.04. Table showing the managing bank transaction.

	Number of respondent	percentage
Visiting bank branch	2	10
Net banking/mobile banking	8	40
Through mobile wallets	10	50
Total	20	100

Source :Primary data

Table 4.04 represents a classification of teachers on basis of managing their banking transaction it was found that again 50% of teachers use e-wallet for transaction .and 40% teachers use net banking and res of 10 % use visiting bank. the table yields that use e-wallet and mobile banking is staidly increasing when compare to traditional mode of managing the transaction.

4.05 Tables showing the device for using of mobile wallet.

	Number of respondent	Percentage
Smartphone's	16	80
Tablets	3	15
Computer	1	5
Total	20	100

Source :Primary data

4.05 represents classification of teachers on basis of use of mobile wallet 80% of teachers use their smart phones for e-wallet. Whereas 15% of teachers use tablets and only5% of teachers use computers for transactions. This highlights that e-wallet is highly used in smart phone which is convenient to carry and make a transaction anytime and anyplace.

4.06. Table showing source of information about mobile wallet.

	Number of respondent	percentage
Friends	8	40
Social media	8	40
Magazines/television	4	20
Total	20	100

Source :Primary data

Table 4.06 represents classification of respondents in the basis of source of information about mobile wallet, we can observe that friends and social media are main source of information for teachers to use e-wallet when i.e. 40% of teachers are influenced by social media and friends when compare to magazine/television which is of 20% of teachers are influenced. Table concludes that friends and social media are main source of information for teachers.

4.07 Table showing convenient about using mobile wallet.

	Number of respondent	Percentage
Easy to operate	8	40
Time saving	3	15
Safety and security	3	15
Immediate payment	6	30
	20	100

Source: Primary data

Table 4.07 represents classification on respondents on the basis of convenient of using of mobile wallet ,table depicted that 40% of teachers agreed that e-wallet is easy to operate and 30% of people agreed that e-wallet is convenient because it is helpful in immediate payment of money and remaining 15% of teachers agree that it is safety and time saving. Therefore the above table highlights e-wallet is most convenient mode of payment when compare other mode of payment when compare to other mode .Teachers opted e-wallet as it is easy to operate and have immediate payment with less time.

4.08 Table showing of money you keep in mobile wallet.

	Number of respondent	Percentage
Less than 500	4	20
500-1000	7	35
More than 1000	9	45
Total	20	100

Source :Primary data

Table 4.08 represents a classification money saved in a mobile wallet. Table depicted that about 45% of teacher save more rs.1000 in their mobile wallet either government or private employee irrespective of their stream, and about 35% of teachers keep nearly 500-1000rs and reaming 20% of teachers save less than 500 amount in their mobile wallet. So, the table shows that more of teachers save more than 1000 in their e-wallet it means they feel secured when compare to other mode

.4.09. Table showing use of mobile wallet.

	Number of respondent	Percentage
Money transfer	1	5
Recharge/bill payment	6	30
Shopping	1	5
All the above	12	60
	20	100

Source :Primary data

Table number4.09 shows a classification on the basis of use of mobile wallet and classification yield that about 60% teachers use e-wallet for all the purpose it may be for shopping, recharge or money transfer etc..whereas 30% of teachers use e-wallet for recharge or a bill payment and rest of 5% use e-wallet for money transfer. The overall study yields that majority of teachers use e-wallet for all the purposes because it's easy to use and safety as well when compare to other mode.

4.10 Table showing elimination of paper currency.

	Number of respondent	Percentage
More than 60%	8	40
30% -60%	10	50
Lesser than 30%	1	5
Not possible	1	5
	20	100

Source :Primary data

Table number 4.010 is classified on the basis on the basis of elimination of paper currency. we can observe that 50% teachers agree that e-wallet contribute in elimination of paper currency about 30%-60% .and about 40% of teachers agreed e-wallet will reduce a paper currency more than 60% ,and remaining 5% of teachers says that it is nit possible to eliminate a paper currency through e-wallet. The table shows that about e-wallet is contributing in reducing the use of paper currency on long run.

4.11 Table showing security of mobile wallet.

	Number of respondent	Percentage
Strongly Agree	1	5
Agree	13	65
Neutral	6	30
Disagree	–	
total	20	100

Source :Primary data

Table number 4.011 shows classification on the basis of security issues on a mobile wallet .The table shows that about 65% of teachers agree that there is security for their money or payments in a e-wallet. Where has 30% of teachers say that there may or may not be safety for their money and remaining 5% agree that they strongly agree that there is safety for their money. Therefore this table shows that trust on e-wallet is steadily increasing by a teachers which automatically increase a demand for e-wallet in long run.

4.12 Table showing reference of mobile wallet.

	Number of respondent	Percentage
Very likely	5	25
likely	15	75

neutral	0	0
unlikely	0	0
	20	100

Source :Primary data

Table number 4.012 shows about reference e-wallet to others, that it shows that about 75% of teachers likely to refer a e-wallet to other ,where as 25% very likely to refer to others .This shows a spreading of information about a e-wallet to others it may be for friends, relatives or students .thus e-wallet is steadily increasing in long run.

Thus overall study on e-wallet shows that the demand and usages of e-wallet is steadily increasing day by day .Thus study on e-wallet is contributing for cashless economy in long run.

4.1 Testing Hypothesis:

Hypothesis 1:

H_0 = Teachers' stream of post-graduation is independent of number of mobile wallets held by them. (Chi-square Test)

	Number of Mobile Wallets Held			
		One	two	Three or more
Stream of Post-Graduation	Commerce	3	6	8
	Arts	-	1	2
	Science	-	-	-

Hypothesis 2:

H_0 = Teachers' income level is independent of average balance kept in mobile wallet.

(Chi-square Test)

	Income Level			
		Below 1,50,000	1,50,000 – 2,50,000	Above 2,50,000
Average Balance Kept	Below 500	-	4	-
	500-1000	-	4	3
	Above 1000		3	6

Hypothesis 3:

H_0 = There is no significance difference in average popularity and usage frequency of different mobile wallet platforms. (T-test)

Mobile Wallet Platforms	Google pay	Paytm,	Phonepe	Amazon pay	BHIM	SBI	My airtel	Free charge
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Average Popularity and Usage frequency	60	65	34	15	12	2	3	2
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Hypothesis 4:

H_0 = There is no significance difference in teachers opinion regarding security issue.

(Test for proportion of success – Large sample)

50 samples number of secure -15 Number of unsecure-5

Hypothesis 5:

H_1 = There is no significance difference in opinion of elimination of carrying paper currency by teachers.

H_2 = All teachers very likely to refer mobile wallet to family and friends.

Agreement Level		30 or below	30 - 60	60 or above
	Very likely	1	2	3
	likely	-	10	3
	neutral	1	-	-
	unlikely	-	-	-

Two way ANOVA table:

Source of Variance	Square of Sum	Df.	Mean of Square	F value
Variance between the column				$F_1=()$

Variance between the row				F₁=
Residual Value				F₂(=)
Total				F₂=

Interpretation: H₁ = There is no influence of age groups on share market investment.

Two Way Variance Analysis obtained calculated value of 'F₁' is 2.29. The table value of F at **5% significance level is 19.247 (V₁ = 2 and V₂ = 2)**. The calculate value is lesser than the table value and hence the experiment provides no evidence against the Null Hypothesis (**Null hypothesis is accepted**). We therefore conclude that there is no influence of different age group share market investment preference.

H₂ = There is no influence of education level on share market investment.

Two Way Variance Analysis obtained calculated value of 'F₁' is 25.73. The table value of F at **5% significance level is 19.247 (V₁ = 2 and V₂ = 2)**. The calculate value is higher than the table value and hence the experiment provides evidence against the Null Hypothesis (**Null hypothesis is rejected**). We therefore conclude that there is greater influence of education level on share market investment preference.

4.1 Findings:

1. From this study it is clear that in the future mobile wallet will replace all the modes of mobile online payment.
2. Teachers from private sector from a commerce background use e-wallet when compare to private sector.
3. This study observes that safety security in the mobile wallet are place an remarkable role in the usage of mobile wallet.
4. The shows the contribution of e-wallet towards elimination of paper currency.
5. The study on teachers perception shows that e-wallet is convenient mode payment which is easy to operate and with immediate transfer of money without any delay.
6. The study shows that teachers are influenced by social media and also friends to use e-wallet.

7. The shows that the usages' e-wallet and mobile banking is staidly increasing when compare to traditional mode of managing the transaction.
8. A study shows visible relationship between the teachers perception,precedents and satisfaction of mobile wallet users.
9. Study shows the users of top trending mobile services in India.

4.2 Suggestions:

- 1) .There is a lack of awareness among teachers about use of e-wallet of other streams when compare to commerce so proper guidelines must be given to them so that they can adopt a e-wallet for their transaction.
- 2) Safety measures should be taken e-wallet service provider has a safety and security measures plays an important in adoption of e-commerce.
- 3) Mobile wallet must be easy to use, it should not contain a lengthy process which consumes more time to learn.
- 4) Proper awareness about a benefits of using of e-wallets must be provided to a teachers so they that they adopt using e-wallet,benfits in a form of cash back ,discounts etc..
- 5) Bankers must suggest their potential customer about use and befits of e-wallets to customer.

4.3 Conclusion:

The study on Teachers Perception towards Mobile Wallet Payment System and A Comparative Study of Leading Mobile Wallet Service Provider. The study concluded that E-wallet is trending a device or mode used by teachers which is easily adopted by a teachers of different stream with different income background. E-wallet in long run which eliminate the traditional mode payment in long run. The Comparison of top e-wallets in India such has paytm,, google pay, etc... Shows increasing in a users over the years where again it proves that E- wallet is mode of payment which converts cash economy to cashless economy.

Thus a day is no longer where we can see people using digital wallet and making their transaction through using e-wallet

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