M-wallet acceptance in India: Identifying the impact of Education

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Abstract

In this era of digitalization every commercial institution are rapidly adopting various forms of advanced information and communication technology (ICT). Similarly, the Indian banks or other financial companies are competitively introducing more innovative Internet/e- banking or M-banking delivery channels and services to the customers. The purpose of the Present study is to understand the consumer acceptance of M-wallet services and it explores the effect of consumer's education level. The study adopted basic constructs of the technology acceptance model (TAM). The findings reported that the education level shows significant effect on M-wallet acceptance. High educated consumers found to have high acceptance level than lower and middle level educated consumers. The results provide implications for bank managers to adopt appropriate strategies to encourage M-wallet adoption among the consumers.

Keywords: Mobile wallet, E-wallet, Mobile banking, Technology Acceptance Model

1. Introduction

Mobile payment is being adopted all over the world in different ways. In 2008, the combined market for all types of mobile payments was projected to reach more than $600B globally by 2013, which would be double the figure as of February, 2011. The mobile payment market for goods and services, excluding contactless payments using near field communication (NFC) and money transfers, is expected contactless payments using globally by 2013. Investment on mobile money services is expected to grow by 22.2% during the next two years across the globe. It will result in revenue share of mobile money reaching up to 9% by 2018. Asia and Africa will observe significant growth for mobile money with technological innovation and focus on interoperability emerging as prominent trends by 2018. In Indian scenario the concept of M-wallet is in very emerging stage but showing very good growth and trends. According to data

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released by RBI, the number of transactions through M-wallet increased to 201.23 million in October 2017 from 99.57 million in October 2016 and the amount transacted through M-wallet has grown by 156% in the same time duration (Verma, 2017).

M-wallet has come into picture from a concept of "Digital Wallet", which was developed by Sam Pitroda. According to him, a digital wallet is consisting of a liquid crystal display not as like a regular plastic bank card, which preferably a touch-screen and simple user interfaces that allows the users to make payments as in the same manner as they make payment through a leather wallet". (Pitroda and Desai, 2010). Mobile payment (also referred to as mobile money, mobile money transfer, and mobile wallet) generally refer to payment services operated under financial regulation and performed from or via a mobile device. Instead of paying with cash, cheque, or credit cards, a consumer can use a mobile phone to pay for a wide range of services and digital or hard goods. Although the concept of using non-coin based currency systems has a long history, it is only recently that the technology to support such systems has become widely available.

The present study was focused on to understand the perception of customers towards the use of M-wallet services and its acceptance. The study has also investigated the effect of consumers' education on acceptance of M-wallet and it also tried to find the effect of education on the factors responsible for acceptance of M-wallet such as Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude (ATT) and Intention to Use (IU).

2. Review of literature

Chandra (2010) suggested and tests a "trust-theoretic m-payment adoption model" which can serve as an initial step in the direction of the m-wallet services. This study highlights the key role of "consumer trusts" which facilitates the adoption of m-wallet services as compared to the need for having "usefulness" and ease of using the new technological system. The paper provides "trust prime technology adoption model" for m-wallet services the research provides a number of

directions to continue the agenda regarding the adoption, implementation, and impact of providing m-wallet services beneficially.

Gamal and Geba (2013) researched about the mobile banking adoption with special reference to TAM and TPB models. The research shows that the proposed model has low explanatory power. This could be especially valuable for including more variables beyond TAM and TPB models when predicting mobile banking adoption. Findings of this research are based on snapshot survey data that reduce the ability to reflect the changes in the research constructs, particularly when mobile banking services and experiences increase.

Arif, Afshan and Sharif (2016) concluded that the formation of attitude of future prospects is mainly influenced towards the usage o mobile banking adoption. This attitude is affected by the perceived ease of use, perceived usefulness and perceived risk dimensions. We know that, attitude is found to have significant positive effect on the adoption intention of mobile banking. The result shows that the formation of positive attitude of mobile banking adoption should take place before the technology can be accepted. Perceived ease of use highlights the expectation of consumers that mobile banking should be free of effort. When users identify that mobile baking is easy, then their intention of adopting mobile banking increases.

Baraghani (2007) represented that technological and trust based issues are important in increasing customer's trust to use online banking. The TAM beliefs perceived ease of use & perceived usefulness and trust are shown to the sets which are dependent on behavioral intention to use. This means that to attract the people to use internet banking, we need to pay attention on both the aspects. In other words, trust is important in determining user's attitude Perceived ease of use and Perceived usefulness in internet banking.

Roy and Sinha (2014) researched on the e-payment acceptance in Kolkata. The model formulated evaluated Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Credibility (PC), Perceived Risk (PR) and Customer Attitude (CUAT) to continue using E-payment acceptance. Among the factors Perceived Ease of Use (PEOU) is found to be the most

significant predictor. Similarly, customer attitude was the least was found to be least affected. E-payment system in India, has shown tremendous growth, but still there has lot to be done to increase its usage. There is a need to widen the scope of electronic payment. Innovation, incentive, customer convenience and legal framework are the four factors which contribute to strengthen the E-payment.

3. Objectives of the Study

- To understand the consumer acceptance towards M-wallet.
- To identify the effect of consumers' education on M-wallet acceptance.
- To identify the effect of consumers' education on the factors responsible for acceptance of M-wallet.

4. Hypothesis Development

$H0_1$: There is no significant impact of consumers' level of education on M-wallet acceptance.

$H0_2$: There is no significant difference between consumer's level of education and perceived Ease of Use towards M-wallet services.

$H0_3$: There is no significant difference between consumer's level of education and perceived Usefulness towards M-wallet services.

$H0_4$: There is no significant difference between consumer's level of education and perceived Attitude towards M-wallet services.

$H0_5$: There is no significant difference between consumer's level of education and intention to use towards M-wallet services.

5. Research Methodology

5.1. The Study/ The design

The study is descriptive in nature. We adopt the quantitative research approach. The study is going to understand the views of consumers towards the M-wallet acceptance.

5.2. The sample:

The sample of the study was collected from 200 respondents belonging to Indore city (MP). A non probability convenient sampling was used for collection of data.

Table 1: Demographic Profile of Consumers

Demographic variable	Freq.	Per. %
Age		
18-30	87	43.5
31-45	70	35
46 & above	43	21.5
Gender		
Male	118	59
Female	82	41
Education level		
Undergraduate	87	43.5
Graduation	46	23
Post graduation & above	67	33.5

5.3. Tools for Data Collection:

Primary data were collected using a questionnaire survey method. The questions were designed adopting items from technology acceptance model (TAM) developed by Devis et al. (1989) and it consists of four basic constructs of TAM, i.e. Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude (ATT) and Intention to Use (IU). All the items were measured on a 5 point Likert scale. Secondary data was collected through various publications, journals, books, online sources.

6. Analysis:

Data were analyzed using various statistical test such as one way ANOVA to test the differences in M-wallet acceptance education wise using SPSS-16. Prior to data analysis we ensure the data reliability and assumptions for ANOVA test. Value of Cronbach's Alpha (.892) confirms the reliability of data. Shapiro-Wilk test confirms the normality of data and the levene's test statistics confirms the equality of variances.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.892	12

Table 3: Test of normality and equality of variances

Education level	Shapiro-Wilk Test (P)	Levene's test
Up to 12th	.648	
Graduation	.913	Sig.=.954
Post graduation & above	.133	

7. Result and Discussion:

When we applied ANOVA on the whole data education wise, it was found significant (F = 34.42, p = .000) at 0.05 level of significance. That means there is significant difference exists towards E-wallet acceptance among consumers who have different level of education. Lower educated consumers found to have less acceptance of M-wallet (M= 2.62) and it increases with increasing the level of education. The possible reason for this particular finding is that the individual's values, cognitive preferences, learning ability, proficiency, and innovativeness developed through education and knowledge (Becker, 1970). So, the Education facilitates greater awareness, operating knowledge and high learning potential.

Table 4: Result of ANOVA analysis

Demographic variable	Overall Acceptance scale		
Education	M	F	Sig.
Under Graduate Graduate Post graduate & above	2.62 3.03 3.81	34.425	**.000**

Further, the ANOVA was applied education wise on various factors like Perceived Usefulness, Perceived Ease of Use, Attitude and Intention to Use. It was found significant differences with Perceived Usefulness (F = 23.46, p = .000), Ease of Use (F = 32.39, p = .000) and Attitude (F = 26.59, p = .000) but found insignificant with Intention to Use (F = 2.29, p = .103).

High educated consumers perceived M-wallet more useful as well as easy to use than their other counter parts and this perception increases with increasing of education. Highly educated consumers were also showing more positive attitude towards M-wallet acceptance than others. There is another important finding is that the consumers with different level of education found to have homogenous intentions to adopt M-wallet in the future.

Table 5: Result of ANOVA analysis factor wise.

Demographic variable	PU			PEOU			ATT			IU		
Education Level	M	F	Sig.	M	F	Sig.	M	F	Sig.	M	F	Sig.
UG Graduate PG& above	3.66 4.07 4.55	23.46	**.000**	3.08 3.81 4.37	32.39	**.000**	3.06 3.86 4.28	26.59	**.000**	3.73 3.86 4.06	2.29	**.103**

8. Conclusion and implication:

The results of the study reveal high acceptance among higher educated consumers for M-wallet and it also found that the consumer acceptance of M-wallet increases with increasing of level of education of consumers. Why lower educated consumers are not accepting or comparatively less accepting the M-wallet? Present study provide some little insights on this issue i.e., lower educated consumers are not or comparatively less perceived M-wallet as easy to use and useful, may this is the reason behind that they are failed to develop positive attitude towards M-wallet.

Banks need to adopt different strategies in targeting different group of customers in terms of their education level in order to promote and encourage the adoption and usage of M-wallet services. The banks may take steps to educate consumers about its usefulness and need to try to

reduce the difficulties they are facing while using M-wallet through various education workshops, demos and video presentations.

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