

Factors Affecting the Adoption of Mobile Payments of Rural Entrepreneurs - A Qualitative Study

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Abstract: Rural economy and their activities plays a significant role on the Economic progress of the country. The recent demonetization in India had a greater impact among the rural people, which gave rise to the cashless Economy. Many innovative methods for electronic funds transfer are emerging as digital transactions at a global level. The payment tools comprises of extension of the established payment systems and new methods which is substantially different from past transactions. In the recent scenario mobile payments are becoming familiar. Not only the entrepreneurs with huge investments but also the small-scale entrepreneurs started using mobiles for their business transactions. This method helps the rural economy to adopt some changes within social and cultural trends in the digital payments. Even now entrepreneurs in the rural area are facing with poor infrastructure facility and knowledge related to mobile payments. It is vibrant from the earlier studies that there are some issues and challenges faced by the rural entrepreneurs while adopting the mobile payments. In addressing the above issue the present study aims at focusing on various factors that influence the entrepreneurs to adopt the mobile payments in rural areas. The present study aims to conduct a structured Interview Schedule with 30 entrepreneurs in the rural area of Kanchipuram district. The respondents were from silk Industries, sales and services business at the selected place of study. The study suggested that factors such as complexity, cost, trust, security has derived from perceived ease of use and perceived usefulness have an impact on the consumer's behavior on mobile payments. The present study helps the researcher to find that service providers and the organizations providing the mobile payments applications to the end users were playing a major role in mobile payment adoption.

Keywords: Mobile payments, Entrepreneurs in rural district, Financial Technology.

INTRODUCTION

Mobile payment platforms have the potential to change the landscape of monetary transactions, it is possible with the current ubiquities of mobile technology. Yang, S., Lu, Y., & Zhang, R., (2012) stated that people's acceptance of new kinds of payments is closely intertwined with cultural perception. Even though there are more than 120 mobile payment projects being undertaken in more than 70 emerging markets (Beshouri, C., Gravrak, J., 2010), stated that mobile payments has become a standard practice. The innovation in the mobile technology and the robustness blend with the information technology have made the mobile phone a strategic and a profitable tool for delivering the products services and information (Bauer, H.H., Richardt, T., Barnes, S.J., & Neumann, M.M., 2005; HSU & Kulviwat, 2006; Varshney & Vetter, 2002). Nowadays mobile payments are becoming much easier and it is developing as a new platform for the satisfying needs of the consumers (Skeldon, 2011). Worldwide usage of mobile payments usage were determined as less than one percent of the smart phone users. The most important question in front of the mobile payment service providers is the reason that why there is a low adoption of mobile payment in the rural areas? Hence it is required to find that there is a need to explore the factors influencing mobile payments in the developing economy like rural areas.

The following of the article is structured as follows. The second section focuses on review of literature and in the third section, rational of the study is described. The objective of the research is presented in the fourth section. The fifth section focuses on the research methods followed by the model and the framework at the sixth function. In the seventh section we will be presenting the discussion, findings and suggestions. Finally in the eighth section we have presented the limitation followed by the future research in the ninth section.

LITERATURE REVIEW

Mobile payments are defined as a system which uses various mobile devices to start activate for confirmation of payment (Karnouskos, 2004). Schierz (2010) conducted a survey among 1000 peoples and stated that the factors affecting the adoption of mobile payment system, as a perceived compatibility, usefulness and ease of use have the highest effect on adoption of mobile payment system. Yang (2012) stated as various behavioral beliefs, social influences and personal traits have a linear and significant influence on the adoption of mobile payment system. Padmavathy Adalarasu (2014) stated that trust, ease of use and expressiveness have also effected the adoption of mobile payment. Ral (2012) stated safety and security of payment are more influential factors in adoption of mobile payment. Authentication, confidentiality, integrity of data have positive effect in gaining the trust of people in digital payment methods.

The literature review were carried out to figure the current state of mobile payments and to add direction for the research. Mobile payment is a tool used for mobile banking, mobile coupons, as well as for the purchase of goods and services using mobile phone. The RBI has issued various guidelines for mobile banking transaction in Oct 2008 to support mobile payments in the country. In order to get rid of fraudulent transactions a common mobile banking platform was created by National Payments Corporation of India, as regulated by RBI. After Enactment of these Services 12 million bank customers had registered for mobile banking services (Chakrobarty, 2012).

Tarasewich, et al. (2002) defined mobile commerce as “All activities related to a commercial transaction conducted through communication networks that deal with wireless devices”. Globally the researchers have viewed that internet banking, e-commerce and similar technologies through the prism of creative technology adoption. Davis (1989) proposed a Technology acceptance model and its later versions are the most commonly used models for research on usage intention towards a new technology. Kleijnen, M., Wetzels, M., & de Ruyter, K., (2004) studied about wireless finance in Netherland, the study stated that the normative pressure was significant in the development of people’s intention to use wireless finance. The work of Venkatesh and Morris (2000) conducted a study in the context of technology usage in a workplace found strong role of Social influence towards adopting enterprise technologies. Online banking is often used as a new mean of banking transactions where social pressure will prevail among bank customers to distinguish themselves from the others (Pikkarainen et al., 2004; Wang et al., 2003; Karjaluto, 2002). The report published by FDIC (Federal deposit Insurance Corporation) estimates that at least 28.3% of U.S households are unbanked. Educating consumers about the benefits of mobile payments were related with consumer demand. On the other hand consumer will not use mobile payment system unless merchants accept them (Begonha, D.B., Hoffman, A., & Melin, p., 2002; Contini, D., Crowe, M., Marritt, C., Oliver, R., & Mott, S., 2011; De Bel & Gaza, 2011).

In order to meet sustainable growth rates mobile network operators and mobile service providers in general, have shifted focus from developed countries to developing country (Longoni & Gaza, 2013). The present study seeks to explore the constructs of Davis et al model on various constructs of Perceived usefulness, Perceived ease of use and Trust on the mobile payments in the rural areas of Kanchipuram district.

OBJECTIVE OF THE STUDY

The aim of the study is to find the mobile payment users in the silk industry. The study also aims to explore the factors that determines the issues faced by the rural entrepreneur’s. The study first explored the determinants of the mobile payment adoption by an extended review of literature, then the model of TAM were used to understand the mobile payment

in Indian context. The study aims to offer a better contemporary, conceptual clarity on mobile payment practitioners in the rural areas particularly in silk industry.

Rational of the Study

Advancement in mobile devices and the various internet sources are the drivers of mobile payment system. Due to the recent demonetization of five hundred and thousand rupees notes. The situation observed to have huge specifications of the ATM withdrawal limits which had a serious implications in the market which specifically effected not only the urban but also the rural areas. To undergo the crises, the government started promoting the online transactions which drives the cashless economy. Business Enterprises and Banking Institutions started introducing mobile applications that helps in easy and quick transactions. Nowadays payments are made possible in one click with a mobile application. Bloomberg stated that only 53% of Indians have bank account, in which most of the accounts have zero balance. But the statistics says 80% of the people are using mobile phones for many such transactions. Hence, the recent demonetization has created the need for exploring the full potential usage of mobile payments at the rural areas, where the scope for the study is relatively high.

Research Methods

Based on the literature on mobile payments and the other models discussed in the theory of mobile payment, the research questions were drafted. The data was collected through qualitative interviews using a structured open-ended approach from the respondents of mobile payment. The respondents include 30 mobile payment users from the rural area of the Kanchipuram.

Interview Questions

Seven research questions are developed to elicit responses from the rural entrepreneurs who adopted mobile payment usage for their business transaction. The questions are evolved from the literature, theories and models of mobile payments. The following are the questions drafted:

- What is the purpose of using mobile technology?
- What according to you is the relative advantage of using mobile payments?
- What is the complex issue faced while using the mobile transactions?
- What kind of expenses incurred during online transactions?
- Among various financial technology providers, whom do you trust the most?
- What kind of fear do you have while using mobile payment?
- What kind of security risk do you face?

Theoretical Framework

Many research studies have tried to measure different factors in different context. The TAM has been widely adopted robust model in financial technology studies (Aravidsson, 2014; Chen, 2008; Duane, A., O'Reilly, P, Andrev, P. (2014); Keramati, A., Taeb. R., Larijani, A.M., & Mojr, N. (2012); Kim et al.; Venkatesh & Davis, 2000; Yan, Md-nor,

Abu- Shanab, E., & Sustanon pai boon, J., (2009); Compeau & Higgins, 1995; Ajzen, 1991). The present study uses TAM as a model for the theoretical base to check and explore the factors affecting mobile payment adoption in rural areas in India.

5.3.1. Perceived Ease of use

Research studies have examined PEOU as an important factor influencing mobile payment adoption at the time of sale. (Viehland & Leong, (2010); Duane et al., (2014); Kim, C., Mirusmonov, M., & Lee, I., 2010; Schierz, P.G., Schilke, O., & Wirtz, B.W., (2010); Dhalberg, T., Mallat, N., Ondrus, J., & Zmijewska, A., (2006); Apanasevic, T., Markendah, J., & Arvidsson. N., (2010). Davis (1989) defined ease of use as the degree of beliefs that for using a specific technology will result in less effort, hence Chen (2008) proposed a model in addition to TAM, which is a so called innovation diffusion theory (IDI) and stated that perceived ease of use as a crucial determinant of mobile payment acceptance. In many of the mobile banking and Internet usage studies, ease of use are identified as an important antecedent of the mobile technology adoption (Kim, Shin & Lee, 2009; Shankar & kumari, 2016, Peng, Zempouetral. 2012).

5.3.2. Perceived Useful

The perceived usefulness is the degree of belief that the customer have in adopting a specific technology, which will enhance their performance (Davis, 1989). The belief plays a major role in the perceived use because when we adopt a mobile payment we will have many smooth transactions such as online payments such as utility bills, mobile recharge and recharge of DTH, money transfer and ticket booking etc. are indicators of perceived usefulness. While using a new technology, online customers critically try to check the benefits they will get, once after using it. Kim et al (2010) analyzed the impact of user-centric and their attitude towards the system of mobile payment across different users and found Perceived usefulness has a significant relation on mobile payment usage. The Perceived usage has been tested empirically as an antecedent of new technology adoption (Arvidsson, 2014, Apanasevik et al., 2016, Duane et al., 2014; Keramati et al, 2012; Kim et al., 2010).

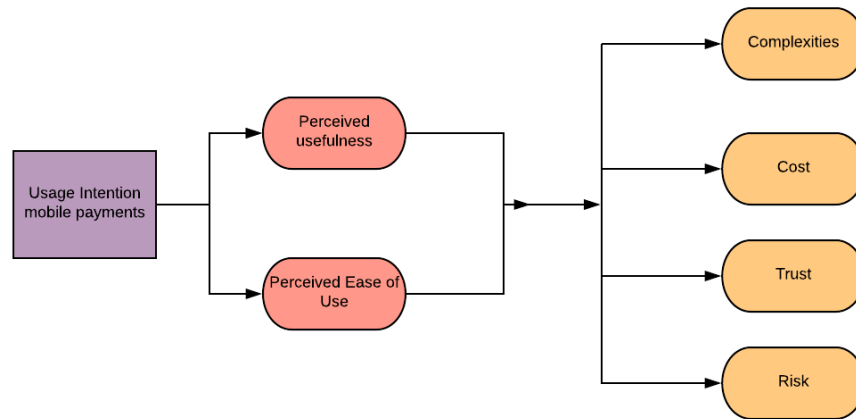
5.3.3. Trust

Trust is the very important factor which affects consumer perception (Mallat. N, 2007; Yan et al., 2009; Srivastava, Chandra and Theng, 2010) proposed a trust-theoretical model and identified trust as most important construct compared to other factors.

It is understood that the PEOU and perceived security had a significant impact on trust, which is the predictor of mobile payment usage intention (Zhou, 2011). Based on the constructs such as trust transfer theory and valence framework Lee, Yang, Chau and Cao, (2011) has created a trust based decision-making model in the context of Mobile payment. The study stated that trust has significant impact on cross environment relationship. Duane et al., 2014; Kim et al., (2010) stated that mobile payment services, financial information and personal information has to be shared by consumers. Zhou 2013 reported in his study as information and service quality have a positive impact on the trust, because trust leads to the user's continuation of mobile payment. Hence, it is observed that trust plays a very important role in Mobile payment adoption Intention (Duane et al., Kim et al).

On the basis of the literature review, a conceptual model is proposed to check the impact of various determinants on Mobile payments adoption behavior in rural areas of Kanchipuram district.

Mobile Payments – Users Intention Model



Source: Authors contribution

Understanding and outcome of the research study

1. Perceived Usefulness - Purpose of using mobile payments

Emails

Chatting & messaging (what's up)

Booking Movie, Train, and Bus tickets.

Utility bill payments (Electricity bill, recharges, tax payments)

Reading News

Purchase of goods and service.

Searching jobs, surfing net

Money transfer

2. Perceived Ease of Use

Ease of useful

Avoids Queuing

Consuming time and place

Avoids unnecessary Expenditure

Cost reduction

quick money transfer

Gift vouchers (Amazon Gift vouchers)

Complementary to cash

3. Complexities

- Complex SMS Formats
- Complex registration procedures
- Management of separate accounts
- Undesirable codes
- Forced to use the savings account of other banks.

5. Costs

- Service Charges
- Service Tax
- Premium pricing

6. Trust

- Telecom Operators – Private
- Telecom Operators – Government
- Financial Institutions -private
- Financial Institutions –Government
- Merchant – private
- Merchant – Government
- Risks

7. Threats

- Fear of online errors
- Tapping of wrong information

8. Security

- Unauthorized usage
- Concern on device and network reliability.
- Threatened by unsolicited calls
- Vague transactions
- Sharing of personal information to unknown directories
- Uncleared spam messages
- Transactional errors
- Research Questions & Feedback

- What is the purpose of using mobile payments?

The interviewed entrepreneurs are using the mobile payments for various purposes. According to them, they opt mobile phones for many reasons such as, for checking Emails which involves both the personal and official information. They said that by using mobile phones for Email checking mails serves many purposes. The mobile applications adoption is helping them to widely cover various facilities such as chats, Messengers, what's up etc. The mobile applications are also useful in booking the movie tickets, air, train and bus tickets. They also said that it is very useful for them to develop a good relationship with family and friends, also by minimizing the time and cost. The entrepreneurs in that district are not that aware of job portals, sports, entertainment and news, but after the advancement in the technology they indicated that through mobile application, they found themselves updated. They stated that now a days they are purchasing of goods & services, money transfers made very easily in no time. The findings of the present survey is similar with the study on Kim et al (2010) about mobile payment and its significant relationship with the perceived usefulness. The perceived usage was empirically stated as a crucial antecedent of new technology adoption intention.

What According to You is The Relative Advantage of using Mobile Payments?

The respondents stated that there are various advantages in using the mobile phones. It is very easy to learn and seems good for utility purposes. The most important thing that they emphasize upon is that it helps in avoiding ques, usually in the places where we attend to wait for paying the electricity charges, service charges etc. Also they feel glad to pay the digital payments and recharges over mobile phones. According to them mobile payments services are consuming most of their time and cost as well. They also said that when they do online transactions some applications are offering compliments and Gift vouchers to them as a token of appreciation. The results were similar to the Davis (1989) study which elaborated that ease of use as the degree of belief in using a particular technology will be effortless.

What is the Complex Issue Faced While using the Mobile Transactions?

The entrepreneurs found that there are some critical issues faced with the mobile transactions. The first issue they face is that they are receiving some SMS formats that seems very complex. It seems that it is difficult for them to understand. While for any new registration process, they said that they have to spend a lots of time on it. Usually the registration process are big, after spending a huge time on it, it will finally ask for a OTP which is called as a one-time password to fulfil the registration process. Which will get notified in the Inbox. They says that some people are not aware of that inbox even. That becomes difficult for them to handle it.

What Kind of Expenses Incurred During Online Transactions?

The respondents of the study stated that when they use mobile payments, they incur more transactional costs. The transactional costs includes the service tax, service costs and premium pricing. They also pointed out some examples as to which is counted under this transactional cost category. They stated that when they pay or transfer funds through Pay tm, then they will have to bear some transactional cost. They clearly stated that they have to pay some premium pricing for using some of the applications. For eg: Ola Money and Amazon prime are charging some premium pricing to use their application, until the customers get registered they were not allowed to use them. The findings are similar with the study of Vander Heijden, (2002) stated in his study that cost is a major factor influencing the mobile payments usage adoption.

Among Various Financial Technology Providers, whom do You Trust The Most?

Trust is the most important. Determinant which affects consumer perception (Mallet 2007; Yan et al., 2009). The respondents in the present study stated that they believe that mobile payment service providers has the ability to offer these services. They have their own preferences of holding the trustees. The respondents have the liberty to choose service providers and operators. There are about three different constructs with two major dimensions mentioned by the respondents on service providers. The respondents trusted them because the service providers were ethical in capturing, retaining,

processing and managing the personal data. They strongly believe that privacy controls and their honesty dealings with the customer are good. The feedback suggested that the study is relevant to the studies of (Chau et al., 2007; Cheung & Lee 2003; Pavlou, 2003).

What Kind of Fear do you have while Using Mobile Payment?

Poustchi (2003) found in his study that data confidentiality is the most important criterion for mobile payment Adoption. From this study it is found that the respondents do have threats with regard to online transactions. They listed as the fear of online errors, tapping of wrong information are some of the threats that they do face often. Wamyu (2014) rightly pointed out that the digital technology offers convenience, security and affordability over other payment methods specially while transferring money.

What Kind of Security Risk do you Face?

The respondents stated that they have security issues which is concerned with unauthorized usage of the data. They told that they cannot rely upon the network. They says that they are threatened by some unsolicited calls, which leads them to psychological stress. They also said that sometimes they are involved in vague transactions, which will result in sharing of personal information to unknown directories. There will be some circumstances where they will receive spam messages. The respondents clearly said that they believe in the service providers who will help them in implementing adequate security measures to secure our personal information. Thus helping them to come out of the transactional errors.

Discussion

This study proposed a theoretical model for examining the various factors influencing the mobile payment adoption intention of the entrepreneurs in the rural areas of the Kanchipuram district. The study identified two user centric variables such as perceived usefulness and perceived ease of use. The field survey on the theoretical model stated that perceived usefulness and perceived ease of use to be the most important determinant of mobile payment in the rural area. The perceived ease of use on mobile payment intention in the current study is consistent with the earlier study of mobile payment adoption (Chen, 2008; Kim et al, 2010; Pousttchi & Wiedemann, 2007; Apanasevic et al, 2016).

It is understood that that perceived usefulness has a great impact on the various technology enabled product adoption on the rural entrepreneurs. They says that they find some difficulties in adopting the technology changes. Complexities with updated technological changes finds it more crucial for the entrepreneurs to use it. The perceived usefulness has an impact on the complexities in using the technology, cost, trust and the risk pertaining to safety and security. This study is consistent with the earlier studies on M-payment adoption studies (Kim et al, 2010; Pousttchi & Wiedemann, 2007; Duane et al, 2014; Chen, 2008; Zhou, 2011).

It is found that the user will adopt the changes only when they are comfortable enough to handle it, since they live in a rural area, they are not much aware of the various technologies available. Hence all the consumers have their own preferences to choose a particular application. It is found that until they need it they are not preferring it hence cost, trust and risk plays a major role in mobile payments usage intention. Mallet, (2007) stated consumer trust is also important factor while adopting mobile payment. The trust on the present study states that it is consistent with the findings of mobile payment studies (Arvidson, 2014; Yan et al, 2009; Zhou, 2011) The literature on trust indicates that service providers plays a major role in providing the quality services to the customers, which helps them to keep up the trust. If the service providers lacks in their services then the trust in adopting the mobile services by the customers will also falls back.

Conclusion

Mobile payments are availing attention among various customers globally. It is transformed as one of the alternative financial transaction system not only in India, but also in other countries. So, far, there are only few studies available on the mobile payment adoption in India. Especially, the study was not explored in the rural areas. To fulfil the gap, a theoretical model has used to explore the factors affecting mobile payment adoption in rural areas. The qualitative research explores to find the various factors which affect mobile payment adoption in rural area. The answers suggested that factors such

as complexity, cost, trust, security were derived from perceived ease of use and perceived usefulness have an impact on the behaviour. The present study helps the researcher to find that service providers and the organizations providing the mobile payments applications to the end users. The current research will help the service providers to enable themselves with various user-centric factors, and guiding them to take strategic decisions. The organization will get to know about the consumer choices with respect to rural areas, which would increase their sense of awareness towards adoption of mobile payment. The current study will also help the government in enduring and implementing cashless economy and to face financial inclusion.

Limitations & Future Research

The chosen research is a qualitative approach, hence the research results lack in its generalizability. Therefore, further research is encouraged to test the proposed propositions with extended models.

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