

Offline Mobile Payment in a Certain Entity Shop and Its Influence Factors

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Abstract. In nearly a decade, with the rapid development of mobile Internet and e-commerce in China, online shopping with mobile terminals has gradually become an important way of shopping for life. In this paper, we selected a new angle of view to explain consumers' acceptance behavior by adding promotional offer, personal innovativeness and social influence into the basic Technology Acceptance Model (TAM). By questionnaire survey on 332 respondents, we used the structural equation model to evaluate the modified model. Results show that our proposed model could explain about 69.84% of the variance in customers' intentions to use mobile payment in entity shops. Attitude is the most important factor influencing users' intention to adopt offline mobile payment compared to perceived usefulness and social influence. Meanwhile, personal innovativeness, perceived usefulness and promotional offer also have significant effects on attitude whereas the perceived ease of use is not as important as others but does with significant effect on perceived usefulness. At the end of this paper, management suggestions for operators are given.

1 Introduction

With the rapid development of mobile commerce, the number of mobile smart phone users increases rapidly and one of the new mobile applications called mobile payment has been used widely. It showed that mobile commerce has stepped into a new development phase, since mobile commerce could not exist without payment solutions. For any transaction to take place there must be a way for consumers to pay, that is what the mobile payment provides. Nowadays, with the development of mobile payment technology and as the online market becoming mature gradually, a great number of internet giants have once again shifted their focus from online to offline, in the hope of a breakthrough in the offline market. Thus it can be seen, represented by quick response code (QR code), the sound waves of internet technology in the application of offline payment area will become the core of mobile payment market in the days to come.

2 Methodology

2.1 Research Model

This study uses the technology acceptance model (TAM) as the underpinning model to analyze the attitude and behavioral intentions of consumers toward offline mobile payment. Since its introduction by Davis [20] and Davis et al. [21], TAM has received extensive empirical support through validations, applications, and replications for its prediction power [22]. However, one of the major theoretical limitations of TAM is the exclusion of the possibility of influence from social and personal control factors [23]. The attitude toward adopting a technology is believed to be the result of personal and social influences, and the fact that TAM does not account for social influence is a limitation.

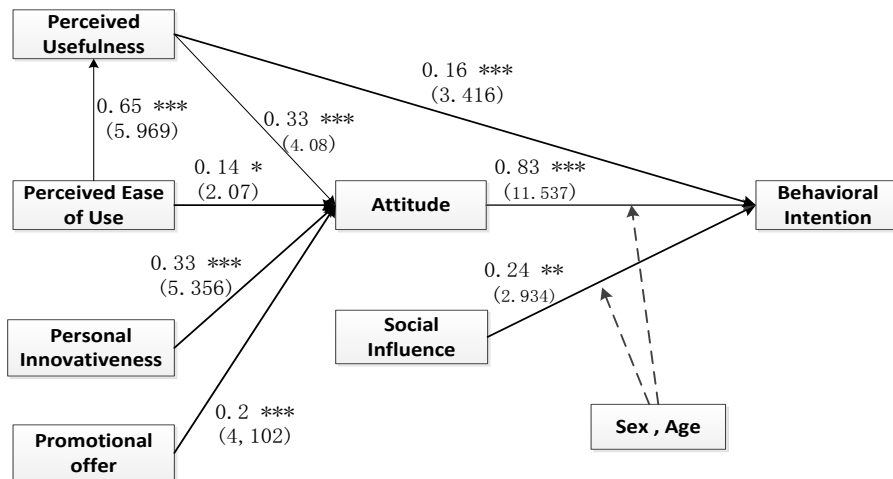


Fig.1. A Model for Offline Mobile Payment Behavioral Intentions

2.2 Hypotheses

Following the work of Venkatesh and Davis [24], we start our hypotheses section with the core construct of TAM and incorporate additional constructs to extend the original theory. We begin by discussing five hypotheses that are related to the technology itself. Subsequently, we introduce a factor associated with the social context and a factor pertaining to an individual user characteristic.

5 Discussion and Conclusion

This research proposes an integrated model to examine what influence factors influence consumers' behavior to offline mobile payment. The primary objective of this study was to examine consumer acceptance of using offline mobile payment in China in the light of the TAM added with new variables derived from UTAUT and other models. The findings of the study strongly support the appropriateness of using the TAM model to understand the acceptance of offline mobile payment in China from consumers' perspectives.

5.1 Implications for Research

Our result confirms that the behavior intention of offline mobile payment is directly influenced by perceived usefulness, attitude, social influence, and the attitude of offline mobile payment is directly influenced by perceived ease of use, personal innovativeness and promotional offer. Overall, the results show that the model demonstrates good predictive powers and explains behavioral intentions toward offline mobile payment.

Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) were the original constructs in TAM, and they have been found to influence users' attitude and intention and then the acceptance of technology by countless prior studies. Thus, it is not surprising to find that they also affect consumer acceptance of offline mobile payment. This model explains 69.84% of variance, which is considered higher for technology acceptance models [51].

5.2 Implications for Practice and Managers

The purpose of this research is to propose a more reasonable, effective and complete consumer influence factor model through the analysis to provide more practical views and suggestions for mobile Internet companies when they launch related products for better shopping experience, and to make some contribution to the better and faster development of mobile payment market. The validated model provides a useful framework for managers having to assess the possibility of success for the products of offline mobile payment introductions, and to proactively design promotion strategies.

As a consequence, based on the above research conclusions and targets, this study proposes three management suggestions for companies who want to set foot in the offline mobile payment market to reference:

First of all, research results illustrate the importance of personal innovativeness related to the attitude of consumers to use offline mobile payment. Increasing the attraction of innovation for offline mobile payment is very necessary for mobile payment practitioners to dig out more potential users.

Secondly, promotional offer also plays a very important role in influencing consumers' attitude. Certain promotion measures, like mobile coupons, red envelopes are very important for Chinese consumers in using offline mobile payment, because when people go shopping most of them are fond of these small mercies. As to

company managers, it's wise taking advantage of the characteristics with Chinese people who is keen on small gains to market their products and improve consumer loyalty.

Last but not the least, the behavioral intention of users is still largely influenced by the endorsement of family and friends. The social influence factors sometimes will determine whether a certain social group will join the wave of new technology; therefore, it is very important for managers to create a good social atmosphere and sound public praise.

5.3 Limitations and Suggestions for Future Research

Although this study provides new insights into using mobile payment in entity shops and points out that several factors such as personal innovativeness and promotional offer should be added in the model, there are still various research avenues to pursue, since the influence factors are more than those mentioned, actually. Future research is expected to use more different variables to study the reasons for consumers adopting the offline mobile payment and to propose more research hypothesis and verify them in order to improve the explanation of the overall model.

The second limitation is about the sample. Although the sample size is quite large, the young people accounts for the majority and all samples come from China. When it comes to potential users of offline mobile payment, other groups' research in other regions also has certain practical significance. Therefore this study suffers from the limitation of size and geography of the population. This fact has an effect on non-uniform distribution of sample and makes the result not universal. If time and condition allows, a meaningful avenue for further research shall be, for example, an extensible study on different ages of people in different areas across countries.

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