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### Trust Building in the Mobile Payment Platform: The Moderating Effect of Gender

Completed Research Paper

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#### **Abstract**

This study investigates gender differences issue regarding the effect of platform characteristics on trust and continuance intention in the context of mobile payment. Drawing upon innovation diffusion and trust theory, a research model is developed to examine four significant antecedents of trust for male and female users. An empirical survey was conducted and 740 valid questionnaires were collected from users of Alipay and Wechat pay, which are recognized as two leading mobile payment platforms in China. Structural equation modelling analysis results suggest that security is the most significant antecedent of customers' trust, followed by platform reputation, mobility and customization. Specifically, a multi-group analysis results indicate that mobility and reputation have more significant influence on trust for males, while customization and security are more important in promoting trust for females. Theoretical and practical implications are discussed in the final section.

**Keywords:** Mobile Payment; Trust; Continuance Intention; Gender

#### Introduction

With the development and popularity of mobile-commerce, mobile payment has emerged as a new payment style in daily life in China. Mobile payment enables customers to pay for goods and services through mobile devices (such as a smartphone) by combing wireless, mobile communication and other information technologies (Chandra et al., 2010). Compared with traditional offline payment, mobile payment can satisfy customers' payment requirements in various scenarios and help customers to complete the transaction process at any time in any place (Qasim & Abu-Shanab, 2015; Li & Cabanillas et al., 2017).

In the past few years, China has become one of the largest mobile payment markets all over the world. According to the statistics of iResearch report in 2017, the Gross Merchandise Volume (GMV) of third-party mobile payment in China has increased from 1,200 to 58,800 billion RMB from the year of 2013 to 2017, with an average grow rate of more than 236.2 % (IResearch report, 2017). Alipay and Wechat are recognized as two leading mobile payment platforms in China based on rich user group and payment scenarios, and there are several other third-party platforms that occupy the market share. Despite mobile payment has enjoyed rapid growth in China, user stickiness towards the new payment style is still low. There are still a large number of people who would not like to shift from the traditional payment style to mobile payment after using them for one or two times. Thus how to promote customers' continuance usage has become a great challenge in front of the mobile platforms (IResearch report, 2017).

Previous literatures have examined the critical factors that drive the acceptance and continuance usage of mobile payment, and trust was identified as a significant determinant (Li & ana-Cabanillas et al., 2014; Oliveira et al., 2016). Empirical studies found that customers' trust in the mobile payment is beneficial to decrease customers' perceived risk, and also, to increase their acceptance and usage of mobile

payment (Lu et al., 2011; Qasim & Abu-Shanab, 2015). Drawing upon information systems success model, Zhou (2013) indicated that system quality, information quality and service quality are significant antecedents of customers' trust. In a recent study, Khalilzadeh et al. (2017) examined the influence of security-related factors on mobile payment usage based on the unified theory of acceptance and use of technology (UTAUT).

Although scholars have examined the antecedents of trust building in the mobile payment from different theoretical perspectives, to our knowledge, few studies have systematically examined the significant technology innovation characteristics that drive customers' trust formulation in the third-party platform. In addition, most of the extant literatures consider customers as a unified sample group, few studies have explored the moderating effects of individual characteristics in building trust and continuance intention in the context of mobile payment. Drawing upon IS literatures, males and females behavior differently regarding the acceptance and usage of a new information technology, and gender was identified as a significant moderator in affecting individuals' acceptance and usage of information technologies in various research contexts (Venkatesh et al., 2012; Zhou et al., 2014; Lin et al., 2017). Thus, it is essential to consider gender differences in the research framework, in order to provide further insights into the design and development of mobile payment platforms.

Given the remaining open research questions, this study aims to develop a theoretical model to examine the significant antecedents that promote customers' trust and continuance intention in the mobile payment platform, and also, to examine if there exists behavioral differences between males and females regarding the influence of critical antecedents on trust. The structure of the paper is organized as follows: we first review the extant literatures in trust and innovation diffusion theory. Then we develop a research model and propose the corresponding hypotheses. Thirdly, we address the research methodology and discuss the data analysis results. We conclude with a discussion of theoretical and practical implications.

#### **Literature Review**

#### Trust

Originated from social psychology, trust was conceptualized as a willingness to be vulnerable to another party based on specific layer structures in ability, benevolence and integrity (Gefen, 2000; McKnight et al., 2002; Zhou, 2011). Luhman (1979) defined trust as the belief that one will behave in a predictable manner to the other. Mayer et al. (1995) posited that trust was a relationship between two parties and the trustee consciously acted with altruism. In the past decades, trust has been widely applied in the context of e-commerce and mobile commerce. McKnight et al. (2002) proposed a theoretical framework to examine the significant antecedents that influence individuals' trust building and subsequent behavioral intention in the context of e-commerce, and it was found that perceived reputation, website quality and structural assurance of the website are critical factors that promotes individuals' trust and behavioral intention.

In the Chinese context, trust is more important because of the weak institutional mechanisms and the lack of legal polies in the mobile commerce environment. The innovation of technology and business model in China made the third-party mobile payment platform more popular compared with west countries, and mobile payment has been widely used in various scenes such as retail stores, movie theaters, taxi services and other traditional offline industries. There is a call for more trust literatures in the Chinese mobile commerce context (Huang et al., 2014).

#### Innovation Diffusion Theory

Drawing upon Innovation Diffusion Theory (IDT), potential users make decisions to adopt an innovation based on beliefs that they form about the innovation attributes (Rogers, 1995; Agarwal, 2000). Diffusion of the innovation is "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995, p. 5). In the past decades, innovation diffusion theory has been widely used in the literatures of information systems and e-commerce, and the attribute of relative advantage was identified as the most salient factor in

explaining individuals' adoption and continuance usage of information technology (Teo & Pok, 2003; Tornatzky & Klein, 1982; Wu & Wang, 2005).

Drawing upon the extant literatures, this study divided the attribute of relative advantage into two dimensions of mobility and customization, which are significant attributes of the mobile payment technology compared with traditional offline payment (IResearch, 2017). Mobility refers to conduct transactions anytime or anywhere with carrying cell phones and other mobile devices (Kim et al., 2010). While customization is defined as personalized settings of the purchase transaction process to meet the demand of users' needs and personal habits (Huang et al., 2014; Li & Yeh, 2010).

#### **Research Model and Hypotheses**

Considering the high penetration of mobile payment in China and the potential risk associated with mobile payment, this study integrates innovation diffusion theory with trust building framework to examine the critical factors that influence users' continuous intention in the third-party mobile payment platform. Specifically, mobility and customization are included in the research model to represent the relative advantage of the mobile payment based on innovation diffusion theory. In addition, reputation and security are also added in the research model as significant antecedents of trust drawing upon McKnight et al. (2002)'s trust building framework. Gender was considered as a moderator in the research model, in order to examine if there exists significant differences between males and females regarding the antecedents of trust building. The research model is illustrated in Figure 1.

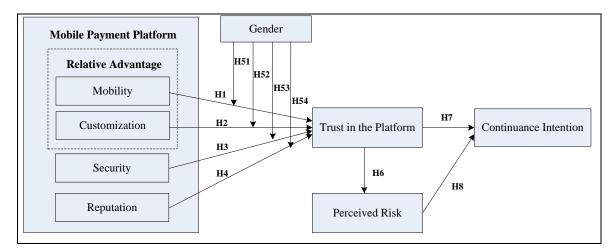


Figure 1. Research Model

#### Mobility and trust

Relative advantage refers to the innovation technology shaking off the yoke of time and space (Rogers, 1995). In this paper, mobility is defined as the relative advantage of using mobile payment anytime or anywhere in the consumers-perceived platform. There is no doubt that mobility is the most prominent trait in the technology of m-commerce, which enables diversified mobile payment services integrated into one carry-on mobile terminal (Au & Kauffman, 2008; Mallat, 2007). Chinese third-party mobile payment platform like Alipay really offers an approach to form a virtual online life with no difference from the real life, then establish well "connection" between the realistic scenes and mobile payment behaviors (Lu et al., 2011).

When customers perceive that the platform is a unique tool satisfying any network or off-line coverage places with fast charge and enough payment services, they will trust it and prefer to use it while travelling outside compared to other types of payments (Zmijewska et al., 2004). Kim et al. (2010) indicated that mobility provides consumers freedom and allows them to carry out transactions regardless of time and place. This is beneficial to enhance customers' trust in the mobile platform (Zhou, 2011). Therefore, we propose the following hypothesis:

**H1.** Mobility is positively related to trust in the third-party mobile payment platform.

#### Customization and trust

In the context of mobile payment, customization is another significant attribute that can explicitly reflect the relative advantage of Chinese third-party mobile payment platform (Huang, 2017). Customization is defined as the ability for customers to customize the information function, payment methods and security settings based on their favorite and accustomed behavior (Huang et al., 2014).

In Alipay, customers can edit the home page to customize favorite or commonly used software, and select from the five payment methods and three security settings for fitting their own requirement of quick-payment. This is beneficial to increase customers' trust in the platform since it provides them adequate flexibility to complete their transactions according to their expected approach (Huang et al., 2014). Empirical studies found that customization is one of the most significant predictors of trust in the online marketplace (Huang et al., 2014). Siau et al. (2003) suggested that personalization has a significant impact on trust. While Li and Yeh (2010) posited that customization has remarkable explanatory power on trust in Chinese mobile commerce. Therefore, we propose the following hypothesis.

**H2.** Customization is positively related with trust in the third-party mobile payment platform.

#### Security and trust

In the context of mobile payment, security is defined as customers' perception of safety and reliability of the institutional structures such as the guarantees, regulations and promises of the transactions in the mobile payment environment (Zhou, 2011). Security was considered as a significant factor in protecting customers from transaction uncertainties and risks, which is beneficial to promote customers' trust in the mobile platform (Xin et al., 2015).

Customers are more likely to trust the mobile platform if safe and reliable structural assurance is provided on the platform (McKnight et al., 2002). Kim et al. (2010) posited that there exists a positive relationship between multiple security guarantees and customers' trust in the use of electronic payment systems. In the mobile payment environment, Linck et al. (2006) stated that customers' trust will be eroded if they feel insecure. While Zhou (2011) mentioned that security is significant to affect customers' trust and eventually their use of mobile payment. Therefore, we propose the following hypothesis.

**H3.** Security is positively related with trust in the third-party mobile payment platform.

#### Reputation and trust

Reputation is defined as the extent to which customers believe that a firm has good impression in ability, benevolence and integrity (Kim et al., 2009). It has been verified that reputation plays a decisive role in business engagements among firms (Kim & Prabhakar, 2004; McKnight et al., 1998). Customers prefer to relay on the reputation of a firm to assess its trustworthiness if they do not possess previous experience with the firm (McKnight et al., 1998).

Reputable platform providers are more likely to attract more transactions from the customers (Grazioli & Jarvenpaa, 2000; Teo & Liu, 2007), while providers with a bad reputation usually discourage the customers from conducting online transactions (Ba, 2001). In the context of mobile payment, the reputation of a platform also plays a significant role in fostering customers' trust. Dahlberg et al. (2003) suggested that the credence of mobile commerce seems more difficult to grasp for consumers, therefore more emphasis should be focused on the reputation of mobile payment firms. The above analysis leads to the following hypothesis.

**H4.** Reputation is positively related with trust in the third-party mobile payment platform.

#### The moderating effect of gender

Social psychology literatures suggested that there exist differences between males and females regarding the decision making process in various situations (Bandura, 1986). Females and males tend to have different attitudinal and behavioral orientations resulted from socialization construction process (Bandura, 1986; Kim, 2010). For example, females and males are different when seeking and processing information and evaluating products, using different socially constructed cognitive structures (Venkatesh & Morris, 2000).

Previous literatures posited that males are more pragmatic than females and are more task-oriented, thus males are more likely influenced by utility and performance expectancy (Venkatesh et al., 2012). In comparison with traditional offline and online payment, mobile payment enable customers to conduct transactions from anywhere at any time using smartphone or other mobile devices, thus provide them more freedom and value (Kim et al., 2010). The characteristics of mobility represents a utility value, which may generate more positive attitude and behavioral intention among males. In addition, males are more objective and logical than females when making decisions, and they prefer to depend on credible information to build trust and reduce cognitive uncertainty. Mart  $\hat{n}$  & Jim énez (2011) reported that positive evaluation of a web site may generate more trust in the male user group. In the context of mobile payment, males may rely more on the public impression and reputation of the platform to evaluate its credibility.

Compared with males, females tend to have greater anxiety when facing new activities and are less likely to take risks. Thus females are more concerned about security and privacy issues than males when trying new activities. The extant literatures reported that security and privacy policies have a greater effect on females in building online trust (Mart ń & Jim énez, 2011). Females engage in security and privacy protection behaviors more often than males to avoid the potential financial loss in the online environments (Hoy & Milne, 2010). Meanwhile, females are process-oriented and prefer personalization of products and services when making transactions in the online marketplaces (Mart ń & Jim énez, 2011). In the context of mobile payment, females may prefer to customize the information function, payment methods and security setting to satisfy their favorite and accustomed behavior, and also, to decrease potential risks and uncertainties on the platform. It was found that process customizability offered by a platform is positively correlated with the consumers' perceived process control, which in turn promotes customers' trust in the platform (Huang et al., 2014). Drawing upon the above analysis, the following hypotheses are proposed.

- **H5.** Gender moderates the influence of mobile platform characteristics on trust.
- **H51.** The influence of mobility on trust is stronger for males than for females.
- **H52.** The influence of customization on trust is stronger for females than for males.
- **H53.** The influence of security on trust is stronger for females than for males.
- **H54.** The influence of reputation on trust is stronger for males than for females.

#### Trust, perceived risk and continuance intention

Trust and perceived risk are identified as two significant antecedents of customers' behavioral intention in the extant literatures of e-commerce (McKnight et al., 2002; Pavlou & Gefen, 2004; Teo & Liu, 2007), and mobile-commerce (Lin et al., 2014; Lu et al., 2011; Mallat, 2007).

In the context of mobile payment, perceived risk is defined as the hazard-perception perceived by customers from the leakage of personal information and loss of funds (McKnight et al., 2002). Because of customers' trepidation of financial and privacy risk when using mobile payment, perceived risk was identified as a salient adverse factor affecting the continuance intention (Yang et al., 2015). Previous studies showed that trust can affect the intention of using mobile payment directly and indirectly by perceived risk across different countries (Teo & Liu, 2007). When customers perceive that the platform provides a trustworthy system for mobile payment, their continuance intentions toward using the platform will be enhanced (McKnight et al., 2002). While perceived risk has a hindering mediation-

effect on trust and intention (Pavlou & Gefen, 2004, Teo & Liu, 2007, Lu et al., 2011, Lin et al., 2014). The above analysis leads to the following hypothesis.

- **H6.** Trust is negatively related with perceived risk in the third-party mobile payment platform.
- **H7.** Trust is positively related with continuance intention of the third-party mobile payment platform.
- **H8.** Perceived risk is negatively related with continuance intention of the third-party mobile payment platform.

#### **Research Methodology**

#### Research setting and data collection

Data was collected through two leading Chinese mobile payment platforms, Alipay and Wechat pay. An online questionnaire survey was conducted via the electronic questionnaire website (www.sojump.com). Alipay and Wechat pay have been recognized as the most popular mobile platforms in China. The two Chinese mobile payment platforms have occupied 92% of the Chinese mobile wallet market wallet in 2017 (IResearch, 2017) and the rate keeps soaring. Individuals who have payment experience in Alipay and Wechat pay were selected as the respondents, in order to guarantee the accuracy of the data analysis. A total of 784 questionnaires were collected from March to July in 2017. We deleted the questionnaires with incomplete or missing data, and finally got 740 valid questionnaires for data analysis. The sample characteristics are summarized in Table 1. The sample characteristics is consistent with the users of mobile payment in China (IResearch, 2017).

Items Numbers **Types** Percentage(%) Age < 30 622 84.1 30-40 61 8.2 57 7.7 >40 Gender Male 324 43.8 Female 416 56.2 Occupation Students 515 69.6 186 25.1 Employee 39 others 5.3 Monthly use 1-10 146 19.7 time 10-20 181 24.5 20-30 155 20.9 >30 258 34.9 Senior high school and under Education 71 9.6 Bachelor 431 58.2 238 Master and above 32.2

**Table 1. Sample characteristics** 

#### Instruments

The instrument was adapted from previous literatures, and each construct was measured with three or four items. The references of the items are illustrated in Table 2. Seven-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree) was used to design the instrument (Likert, 1932). The English questionnaire was then translated into Chinese by two Ph.D students. Several items were adjusted based on the mobile payment platform environment in China to guarantee the expression accuracy. A pilot test was conducted in our university to examine the content and construct validity of our instrument. We invite 99 students and professors who have used Alipay and Wechat pay to complete the questionnaires. Based on the feedbacks from the respondents and the factor analysis results, we adjusted

the reverse items of perceived risk into positive and deleted an item for security and trust respectively to better reflect the measured constructs.

**Table 2. Construct measurements** 

Measurement construct	Measurement items	Sources
Mobility	MOB1-MOB3	Kim et al., 2010
Customization	CUS1-CUS3	Huang et al., 2014; Nidumolu & Knotts, 1998
Security	SEC1-SEC3	Kim et.al., 2009; Kim & Prabhaker, 2004
Reputation	REP1-REP3	Kim et.al., 2009
Trust	TR1-TR3	Huang et al., 2014
Perceived Risk	PR1-PR3	McKnight et al., 2002
Continuance intention	CI1-CI3	Bhattcherjee, 2001

#### Structural equation modeling analysis

Structural equation modeling technique was used to analyze the research model. Partial least square (PLS) was used as the primary statistical tool to examine the research model since it is appropriate for theory exploration and prediction, and has been recognized as an effective method for measuring construct reliability and validity(Chin et al., 2003). Followed by a two-step analysis procedure (Anderson & Gerbing, 1988), we first examined the measurement model and then examined the structural model in SmartPLS 3.0.

#### Measurement model analysis

The evaluation of the measurement model include reliability, convergent validity and discriminant validity test. Reliability is evaluated by examining if the composite reliability of each construct are greater than 0.7 (Lin et al., 2017). As shown in Table 3, the composite reliability of all the constructs are highly above the 0.70 threshold, indicating a good internal consistency of the constructs (Lin et al., 2017). Convergent validity is evaluated by examining if the factor loadings of each construct exceed 0.7 and the average extraction variance (AVE) exceeds 0.5 (Yang et al., 2017). Table 3 shows that all the factor loadings have exceeded 0.85 and the AVE for each construct has exceeded 0.7, showing a good convergent validity of the constructs.

Table 3. Reliability and convergent validity analysis

Construct	Items	Factor loading	Composite reliability	AVE
Mobility(MOB)	MOB1	0.906**	0.941	0.841
	MOB2	0.941**		
	MOB3	0.904**		
Customization(CUS)	CUS1	0.897**	0.937	0.831
	CUS2	0.916**		
	CUS3	0.922**		
Security(SEC)	SEC1	0.945**	0.966	0.905
	SEC2	0.961**		
	SEC3	0.948**		
Reputation(REP)	REP1	0.877**	0.914	0.780
	REP2	0.907**		
	REP3	0.864**		
Trust(TR)	TR1	0.890**	0.925	0.803
	TR2	0.876**		

	TR3	0.922**		
Perceived Risk(PR)	PR1	0.929**	0.957	0.882
	PR2	0.957**		
	PR3	0.932**		
Continuance	CI1	0.909**	0.931	0.818
intention(CI)	CI2	0.874**		
	CI3	0.929**		

Note: T test are significant at: \*P<0.05, \*\*P < 0.01

Discriminant validity is evaluated by testing if the square root of AVE of every construct is greater than its correlation with other constructs (Lin et al., 2017). As shown in Table 4, the diagonal values is highly above other values in each independent column, indicating a good discriminant validity of the constructs (Chin et al., 2003).

MOB PR **CUS** SEC **REP** CI MOB 0.917 **CUS** 0.511 0.912 SEC 0.537 0.621 0.951 **REP** 0.531 0.614 0.697 0.883 TR 0.566 0.600 0.793 0.745 0.896 PR -0.405 -0.393 -0.649 -0.511 -0.630 0.939 CI 0.523 0.587 0.637 0.721 0.735 -0.499 0.904

Table 4. Discriminant validity analysis

Note: The diagonal values represent the square roots of AVE of each construct

Structural model analysis for the full sample

We then analyze the structural model to examine the path relationship and explanatory power of the research model. Bootstrapping procedure method is used to calculate the statistical significance of the parameter estimates since it is beneficial to derive valid standard errors or t-values (Temme et al., 2006). The analysis result is described in Figure 2.

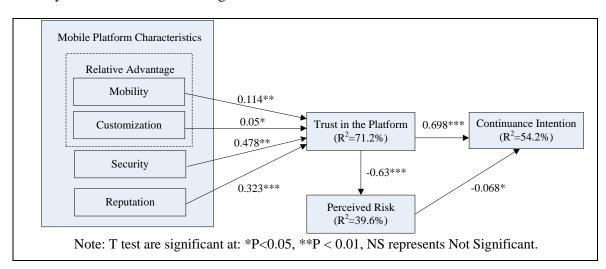


Figure 2. Structural model analysis

As shown in Figure 2, mobility and customization are positively associated with trust in the platform  $(\beta 1 = 0.114, p < 0.01; \beta 2 = 0.05, p < 0.05)$ , thus H1 and H2 are supported. While security and reputation

also have significant influences on trust ( $\beta 1 = 0.478$ , p < 0.001;  $\beta 2 = 0.323$ , p < 0.001), thus supports H3 and H4. Moreover, trust in the third-party mobile payment platform is negatively related with perceived risk ( $\beta = -0.63$ , p < 0.001), and is positively associated with continuance intention ( $\beta = 0.698$ , p < 0.001). Further, perceived risk has negative impact on continuance intention ( $\beta 1 = -0.068$ , p < 0.05). Therefore, H5, H6 and H7 are supported.

Regarding the explanatory power of the research model, the R<sup>2</sup> suggests that the research model explains 71.2% of variance in trust, 39.6% of variance in perceived risk, and 54.2% of variance in continuance intention. The results indicate that the four antecedents can explain a large variance of the endogenous variables, demonstrating a good explanatory power of the theoretical model.

Between Group Analysis: Gender Differences

We then add gender as a moderator in the research model, and classify the full sample into two subsamples (female vs. male user group). Following Keli et al. (2000)'s calculation procedure, a multigroup PLS analysis was conducted to compare the path coefficient differences of the structural model for the two sub-samples, as suggested in the previous studies (Sia et al., 2009; Zhou et al., 2014). The results is described in Table 5.

Path Path coefficients Hypotheses  $t_{\text{spooled}}$ Females(N1=416)  $Males(N_2=324)$ 0.190\*\*H51 mobility  $\rightarrow$  trust  $0.073^*$ 37.363\*\* Supported 26.899\*\*\* H52: customization  $\rightarrow$  trust  $0.077^*$ -0.012(NS)Supported  $0.513^{**}$ 0.429\*\*24.310\*\*\* H53: security  $\rightarrow$  trust Supported H54: reputation  $\rightarrow$  trust 0.293\*\* 0.368\*\*23.064\*\*\* Supported

Table 5. Path coefficient comparison between females and males

Note: \*P < 0.05, \*\*P < 0.01, \*\*P<0.001, NS represents Not Significant

The multi-group PLS analysis results suggest that the path coefficient from mobility to trust is significantly higher for the males user group than the females user group ( $\beta_{females}$ =0.073,  $\beta_{males}$ =0.19,  $t_{spooled}$ =37.363), thus provides support for hypothesis H51. While the path coefficient from customization to trust is significantly higher for the females user group than the males user group ( $\beta_{females}$ =0.077,  $\beta_{males}$ =-0.012,  $t_{spooled}$ =26.899), thus supporting hypothesis H52. Regarding the influence of security and reputation, the results indicate that the influence of security on trust is significantly stronger for the females user group than the males user group ( $\beta_{females}$ =0.513,  $\beta_{males}$ =0.429,  $t_{spooled}$ =24.310), while the influence of reputation on trust is significantly stronger for the males user group than the females user group ( $\beta_{females}$ =0.293,  $\beta_{males}$ =0.368,  $t_{spooled}$ =23.064). The above empirical analysis results can provide empirical evidence for hypotheses H53 and H54.

#### **Theoretical and Practical Implications**

This study makes three major contributions to the existing literatures. Firstly, this study adapted McKnight et al. (2002)'s trust building framework in the context of mobile payment to explore the significant antecedents that promote customers' trust and continuance intention in the third-party platform. Previous studies of mobile payment mostly examined the direct antecedents of continuance intention while ignoring the significance of trust and perceived risk. By integrating trust building framework with innovation diffusion theory, this study identified four significant antecedents that are beneficial to build customers' trust in the mobile payment platform. Secondly, this study introduced the construct of relative advantage from innovation diffusion theory in the context of mobile payment. By analyzing the environment of Chinese mobile payment, we divided relative advantage into two dimensions of mobility and customization, and empirically examined their influence on customers' trust and continuance intention. The research findings can further enrich our understanding of mobile payment usage in China from an innovation diffusion theoretical perspective. Thirdly, this study

identified gender as a significant moderator in the research model, and empirically examined the behavioral differences between males and females. A multi-group analysis results suggest that there are significant gender differences regarding the influence of the four antecedents on trust and continuance intention. Specifically, mobility and reputation have more significant effects on trust for males, while customization and security have stronger effects on trust for females. The empirical research findings can further extend the boundary condition of the proposed theoretical model.

The empirical findings also provide several important practical implications for the developers and business operators of the third-party mobile payment platform. The business operators in domestic third-party mobile payment platforms, such as Alipay and Wechat pay, need to recognize the importance of mobile platform characteristics in building customers' trust, and design the third-party payment platform accordingly to attract customers and build their loyalty. Regarding the advantage of mobility and customization characteristics, the third-party platform operators should design effective tactics to make the mobile payment more convenient, flexible and controllable in accordance with customers' life styles and needs. Regarding the significance of security of mobile payment, the system designers need to set up and implement real-name registration system, payment code protection, alltime suspicious transaction monitoring and other structural assurance initiatives to prevent potential cheating, theft and illegal acts in the platform. Meanwhile, the business operators need also pay attention to the reputation of the third-party platform, and use appropriate market strategies to build a good social impression of the platform, in order to achieve positive word-of-mouth among customers. Last but not least, the platform operators must recognize the issue of gender differences, and use different strategies for different user groups. Specifically, when addressing females, it is important to emphasize on the customization and security of the mobile payment transactions and provide more personalized options to satisfy their needs. In contract, when addressing males, the platform operators should provide more convenient and diversified mobile payment services, and integrate them into one carry-on mobile terminal, in order to satisfy their payment requirements in different scenarios.

#### **Conclusions and Future Research Directions**

Drawing upon innovation diffusion theory and trust building framework, this study develops a theoretical model to examine the significant antecedents that promote customers' trust and continuance intention in the third-party mobile payment. A survey was conducted in China, and 740 valid Data was collected from Alipay and Wechat pay users. Structural equation modelling method was used to examine the research model and corresponding hypotheses. The empirical results show that four characteristics of the mobile payment platform (mobility, customization, security and reputation) are beneficial to promote customers' trust and continuance intention. Specifically, there are significant differences between males and females regarding the influence of the antecedents. The influences of mobility and reputation on trust are stronger for males, while the influences of customization and security on trust are stronger for females. Although this study provides several theoretical and practical contributions, there are still some limitations that leave open future research directions. Firstly, the survey data of this study is based on Chinese users, future research can be conducted in other countries, to further examine the generalization of the research model. Secondly, future research can also incorporate customers' age, experience and nationality as moderators in the research model, in order to examine if there exists behavioral differences in different user groups categorized by these characteristics.

#### Acknowledgements

This research was supported by the National Natural Science Foundation of China (71771064) and the Ministry of Education of Humanities and Social Science Project (17YJC630118). We thank the respondents for their participation in the investigations. We also thank the associate editor and the reviewers for their constructive suggestions.

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