

UNDERSTANDING THE ROLE OF COMMITMENTS IN EXPLAINING P2P LENDING INVESTING WILLINGNESS: ANTECEDENTS AND CONSEQUENCES

Xinglu Gao, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, 510069193@qq.com

Yueyan Liu, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, 549869871@qq.com

Yiwen Gao, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, yvonnegao1992@gmail.com

Jianian Zhao, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, 609182863@qq.com

Fangyi Yang, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, 540833797@qq.com

Tao Wang*, School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu, China, ccnuwt@swufe.edu.cn

Abstract

As a relatively new e-commerce phenomenon, peer-to-peer (P2P) lending has the potential to thoroughly change the structure of the loan segment in the financial industry. And the success of P2P lending heavily depend on users' continuous use. However, this topic has not been fully studied in IS research. The high practical significance and lack of research indicate the importance of the present study. This study aims to apply Meyer and Allen's three-component model of commitment to construct a research model, which incorporates context-specific antecedents. To test the model, we use a survey of 216 actual lenders of the P2P lending platform in China. Results derived from data indicated that lenders' continuous investments were jointly determined by continuous commitment and affective commitment. Further, platform assurance, trust on third-party, economic feasibility and quality of alternatives performed well as antecedents of continuous commitment. And perceived critical mass and platform assurance were significantly associated with affective commitment. The results of this research provided theoretical implications for future research and practical implications for the success of P2P lending platforms.

Keywords: Peer-to-peer lending, affective commitment, continuous commitment, continuous use.

* Corresponding Author

1 INTRODUCTION

With the evolution of information technology in the financial industry, a kind of electronic lending market was first emerged in 2005(Luo & Lin 2013). The online peer-to-peer(P2P) lending is a new platform of financial industry that is contrary to traditional intermediaries by directly connecting borrowers and lenders(Yum et al. 2012).P2P lending matches unrelated individuals who need small loans but can't get them from traditional intermediaries such as banking or other traditional financial institutions(en.wikipedia.org/wiki/). Though it has a short history, P2P lending has rapidly developed in recent years. In especial, it has grown quickly in China as an alternative platform to investment. According to the Service Industry White Paper in China, the number of P2P lending platforms in China has been more than 1000 and the amount of investments has exceeded 80 billion RMB in June 2014.

Because of the popularity of this new platform of financial industry, P2P lending has drawn significant attention from both financial industry and research institutes (Light 2012). In the perspective of research, most researches concentrate in two fields. One is about the funding success of P2P lending market; another is about participants' behavior (e.g. Berkovich 2011; Wang et al. 2013). However, these researches only take the lenders' initial use into consideration but neglect the lenders' continuous use. As Bhattacharjee (2001) noted, "Initial acceptance of IS is an important first step toward realizing IS success, long-term viability of an IS and its eventual success depend on its continued use rather than first-time use". Hence, how to attract lenders to continue investing in P2P lending platform becomes an urgent problem.

In the past time, there are two sorts of literature that have addressed continuous use: satisfaction research and commitment research. Satisfaction research has shown a satisfied customer is more likely to stay with a business (Abdinnour-Helm et al. 2005). But relying on satisfaction to predict continuous use behavior is not sufficient as it is not able to explain why there are some users who discontinue using an information system even if they have initially expressed satisfaction towards the system (Hsu et al. 2004). Thus, using satisfaction as a motive to examine lenders' continuous use is likely to produce an incomplete causal model. Commitment research has shown users' commitment to continuous use is critical to providers in the Internet context (Li et al. 2006). Because the Internet context is one in which individual use is primarily voluntary rather than compulsive (Gefen et al. 2003), and it is relatively easy and involves low cost to switch from one Web site to another (Brynjolfsson & Smith, 2000). Based on the above discussions, in order to investigate lenders' intention of continuous investment, our paper first applies commitment theory in the context of P2P lending.

In order to investigate this objective, a literature review was conducted to identify the constructs examined in our research model. It is composed of eight variables drawn from prior studies concerning various aspects of P2P lending and commitment. Meyer and Allen's three-component model of commitment was employed as the basic theoretical foundation to construct a theoretical framework. To test the model, we use a survey of 216 actual lenders of the P2P lending platform in China. This study will be of interest to both researches and industries. From a theoretical perspective, this is the first study to empirically test the lenders' willingness to continue investing on the P2P lending platform. This study will not only add contribution to the P2P lending research, but also contribute to the commitment research. From a practical perspective, the findings will provide useful insights for P2P lending platforms to improve themselves to meet lenders' requirements.

The rest of the paper is organized as follows: section 2 provides the theoretical background on P2P lending and commitment for our research. Section 3 presents the research model and hypotheses, specifying the antecedents determining individual's commitment on P2P lending platforms. Section 4 outlines the research measurement. Section 5 provides the results of empirical tests, followed by a summary of the findings and a discussion of the implications of the research. At the end of the paper, limitations and suggestions are identified for future researches.

2 THEORETICAL BACKGROUND

2.1 Peer-to-peer Lending

Peer-to-peer (P2P) lending refers to lending and borrowing between individuals through a for-profit online platform, without the intermediation of a traditional financial institution (Gonzalez et al. 2014). Online P2P lending platforms differ in type. They can basically be divided into three types: simple intermediary, compound intermediary and non-profit public welfare intermediary. The simple intermediary offer a platform to engage lenders with borrowers. They only provide an information exchange platform for loan demand and investment opportunities. Because the largest P2P lending platform, Prosper.com, is a kind of simple intermediary. And in China, the first P2P lending platform, PPDAl.com, is also a kind of simple intermediary. According to Alexa.com, providing web site ranking, the network traffic of PPDAl.com ranks first in the P2P lending platform of China. Thus, our paper focuses on the simple intermediary of P2P lending platform.

Although P2P lending is relatively new, it has been paid considerable attention from the research community, especially since the data provided by Prosper have been available for academic studies. Using the data from Prosper, Freedman and Jin (2008) concluded that lender learning had effect in reducing risk of founded loans over time. As a result, the market has ruled out more and more subprime borrowers. A study by Herzenstein et al. (2008) analyzed around 5,000 loan listings on Prosper during June 2006 and found that demographic attributes such as race and gender had only a small effect on the likelihood of funding success when compared to the impact of borrowers' financial strength and effort when listing and publicizing the auction. Iyer et al. (2009) proved that, on Prosper, the credit score is a reliable proxy for creditworthiness and should play an important role in the decision making of lenders.

In addition, most of researchers focus on finding factors that affect the likelihood of funding success. Ravina (2008) showed that borrowers' characteristics such as beauty and race significantly influenced loan fund ability and loan pricing. Puro et al. (2010) analyzed the determinants affecting the success rate of obtaining a loan, and established a decision aid system for improving borrowers' decision quality. Avery et al. (2004) examined consumer lending and showed that a borrower's financial strength was crucial in his ability to obtain secured and unsecured credit from financial institutions.

Besides, one of the research directions in the P2P lending is to address the impact of social networks. Lin et al. (2011) suggested that social networks as a new source of soft information could mitigate information asymmetry which is particularly serious in P2P lending. Lin et al. (2013) pointed out that friendship networks and groups played an important role in reducing information asymmetries. Although many studies mentioned above have shown that social networks in P2P lending can reduce information asymmetry, but the different results exist. Like Freedman and Jin (2008) found evidence that the return gap between group and non-group borrowers was converging over time, which was partially due to lender learning. To the best of our knowledge, there is no empirical research on the P2P lending users' adoption behavior formation process. Our research fills this knowledge gap.

2.2 Commitment

Commitment is generally referred to as a continued desire to sustain a relationship (Morgan & Hunt 1994). Meyer and Herscovitch (2001) defined commitment as "a force that binds an individual to a course of action of relevance to one or more targets". They also indicated that it is experienced by an individual as a mindset, "a frame of mind or psychological state that compels an individual toward a course of action" (Meyer & Herscovitch 2001). System commitment plays an important role in the network by directly influencing commitment in vendors and indirectly influencing attitude and intention to purchase. On P2P lending, commitment is a force that binds a lender to investment

behaviors. Thus, the concept of commitment could capture a broader opinion of the forces driving an individual's online continuous actions.

The most extensively studied area in commitment research is organizational commitment (Meyer & Herscovitch 2001). In 1990, Allen and Meyer (1990) improved the single-dimensional construct and the two-dimensional model, and synthesized the notion of organizational commitment by pointing out a three-component conceptualization: affective, continuous, and normative dimensions. Since then, commitment has often been studied as a three-dimensional construct (Bansal et al. 2004). Affective commitment refers to an individual's emotional attachment to, identification with, and involvement with the organization (Lin & Fan 2012). This emotion is a general positive feeling (Konovsky 1991). Continuous commitment implies that individuals become committed to a course of action because of the cost of failing to do so, or because they do not have any other alternatives (Chen et al. 2013). The last dimension is normative commitment, which explains morality, social regulations, and one's responsibility to the other party in a relationship (Allen & Meyer 1990). Based on its definition and implications, we consider normative commitment to be less concerned in the relationship between a lender and an e-vendor than in other relationships such as business-to-business relationship. Therefore, we elide normative commitment from this study.

Previous study in area of Information System has employed component commitment model to examine users' commitment toward Information System usage (Li et al. 2006). Goo and Huang (2008) regarded commitment as an important mediating factor that affected relationship durability. The stronger commitment, the lower turnover and the more stable relationships. Li et al. (2006) utilized the organizational commitment literatures to recognize affective commitment and continuous commitment to explain continuance intention of online services. They further advised that the quality of alternatives and trust are antecedents of these two kinds of commitment in the Web service context. Affective commitment has been regarded as an important factor in continuous knowledge sharing intention (Hwang & Kim 2007).

Although commitment model has been used in the area of information system, rare studies discuss end-users' commitment on P2P lending platforms. It is necessary to build human-platform commitment since it is good for platform to form scale. This paper specifically examines the commitment between lenders and P2P lending platforms. We divide the platform commitment into two dimensions: (1) continuous commitment (2) affective commitment.

3 RESEARCH MODEL AND HYPOTHESES

Based on the literature review, a research model was built that includes eight variables. Figure 1 summarizes our research model. The dependent variable is a lender's behavioral willingness to continue to invest in P2P lending platforms. Using behavioral willingness in the investigation of technology acceptance has been justified in many prior researches (e.g. Looney et al. 2006).

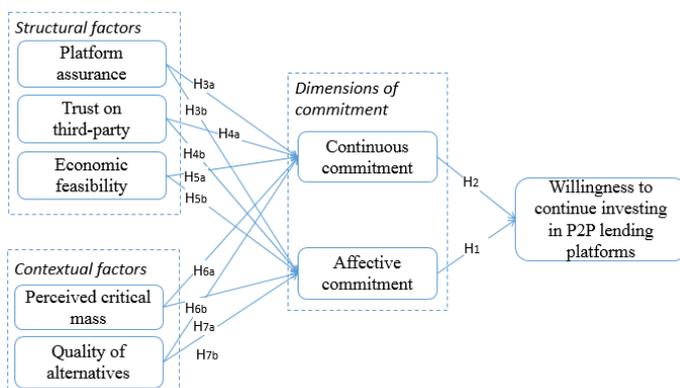


Figure 1: The research model

3.1 Affective Commitment

In the context of P2P lending, we define affective commitment as a situation in which a user demonstrates an affective and emotional attachment to willingness to continue investing in P2P lending. Previous studies have consistently found affective commitment had positive effect on behavioral intention (e.g. De Ruyter et al. 2001). Chen et al. (2013) concluded that affective commitment had a large positive effect on content creation behaviors on a social network site. Based on their findings, affective commitment suggests a lender has a positive attitude toward his (her) past investment behaviors on the P2P lending platform. Therefore, the following hypotheses can be formulated:

H1. Affective commitment is positively associated with willingness to continue investing in P2P lending platforms.

3.2 Continuous Commitment

Continuous commitment on P2P lending is a situation in which a lender recognizes the rewards and benefits associated with continuing to use a P2P lending platform. Continuous commitment is recognized as more rational in nature than emotional (Lin & Fan 2012). The decisions of investing in P2P lending platform were economically rational choice process. Many lenders do not enjoy the relationship, but continue to invest in that P2P lending platform because of the time to learn how to use the technology, money invested in the P2P platform and various other investment resources. These various resources constitute sunk costs, which will be lost if the lender stops investing in the P2P lending platform. Thus, the following hypotheses can be established:

H2. Continuous commitment is positively associated with willingness to continue investing in P2P lending platforms.

3.3 Structural Factors

Platform assurance means the belief that the Web site has protective safeguards or technological structures to assure that online transaction could be conducted in a safe context (McKnight et al. 2002). As an intermediary, P2P lending platform check on and monitor the participant engaged, reassure enforcements in case of an opportunistic behavior and take care of privacy and security of both data and transaction (Wang et al. 2014). A high level of platform assurance will help users overcome fears and trust those operating of the Internet. Based on the above understanding, we assume following hypothesizes:

H3a. Platform assurance is positively associated with a lender's continuous commitment.

H3b. Platform assurance is positively associated with a lender's affective commitment.

Third-party provides a kind of service assurance. Service assurance protects lenders' right of enjoying high-quality service throughout the online transaction, such as solving the problem of borrowers absconded with funds. Aiken and Boush (2006) examined the trust in e-commerce and found that third-party was a good way to develop trust. In addition, trust could promote building relationship commitment (Li et al. 2006). Thus, we establish the following hypotheses:

H4a. Trust on third-party is positively associated with a lender's continuous commitment.

H4b. Trust on third-party is positively associated with a lender's affective commitment.

Economic feasibility refers to an individual's expectation that P2P lending platform provides valuable investment project and high rate of return. Economic feasibility is often regarded as a major factor influencing consumers' purchasing decisions (Kim 2011). Lu et al. (2006) examined that the economic feasibility has considerable effect on consumers' trust in e-commerce. Based on the commitment-trust

theory, an individual's feeling of commitment has been identified to be directly affected by trust (Yen 2009). Based on the above review, we hypothesize that:

H5a. Economic feasibility is positively associated with a lender's continuous commitment.

H5b. Economic feasibility is positively associated with a lender's affective commitment.

3.4 Contextual Factors

Perceived critical mass is a kind of network externality. Hsu and Lu (2004) defined perceived critical mass was the fact that the value of a technology to a user increased with the number of its adopters. On P2P lending, lenders would follow others' investment, because they think it is an efficient and rational way. Based on Triandis model and related theories, many empirical studies have found that perceived critical mass had a positive effect on an individual's behavior (e.g. Cheung et al. 2000). Based on the above understanding, we posit the following hypotheses:

H6a. Perceived critical mass is positively associated with a lender's continuous commitment.

H6b. Perceived critical mass is positively associated with a lender's affective commitment.

In the circumstances of P2P lending, quality of alternatives is the desirability of the best available alternative P2P lending platform that provides similar technologies and services as compared to the P2P lending platform currently used by a lender (Li et al. 2006). Without alternatives available, a lender is likely to believe that current P2P lending platform can satisfy his or her interests. Besides, the lender may increase his or her investment into that platform because he or she has no choice (Li et al. 2006). Such increased investment will foster continuous commitment. Therefore, the following hypotheses can be established:

H7a. Quality of alternatives is negatively associated with a lender's continuous commitment.

H7b. Quality of alternatives is negatively associated with a lender's affective commitment.

4 RESEARCH MEASUREMENT

4.1 Measurement Development

All measurement items included in Appendix A were adapted from prior literature that examined the continuous phenomenon. We only did minor modifications in wording to make them relevant in the context of P2P lending. The measurement items were formulated by a five-point Likert scale, ranging from 1 "strongly disagree" to 5 "strongly agree". Before posting formal survey, the survey was examined by bachelor's degree students (n=20) in a MIS program who have experience of P2P lending to reduce possible ambiguity in the questions. Respondents were asked about any problems they may have encountered in the survey. Comments and suggestions on the items' contents were solicited.

4.2 Survey Procedure

This research took China as the site of the empirical investigation because the supporting infrastructure required for P2P lending has been put in place. According to Service Industry White Paper in China, the growth rate yearly exceeds 300%. Up to 2014, the amount of investments in Chinese P2P lending market has exceeded 80 billion RMB. To test the hypotheses, we conducted a Web based survey with users who have experience of investing in P2P lending. In order to find our respondents, we posted the survey hyperlink in the online communities of P2P users, including three QQ online group-chatting communities, each community has about 1000 members. QQ is the largest instant messaging tool in China. Each respondent was given one chance to raffle as a reward for

participation. In total, 256 questionnaires were collected between December, 2014 and January, 2015. After deleting incomplete questionnaires, 216 questionnaires were left for empirical analysis. The sample demographics are provided in table 1. Our sample comprised 53.6% male and 46.4% female respondents. This ratio is similar to the gender structure of Chinese net citizens. The age structure in our sample also conforms to Chinese net citizens' age structure. It indicates our sample is representative.

Category	Items	Percentage	Category	Items	Percentage
Gender	Male	53.7%	Occupation	Student	34.7%
	Female	46.3%		Manager	13%
Age	Less than 20	10.6%	Net age	Professional	7%
	21-25	35.7%		other	45.3%
	26-30	26.4%		Less than 1 year	0%
	31-35	12%		2-5 years	9.3%
	36-40	6%		5-10 years	54.6%
	Above 40	9.3%		Above 10 years	36.1%
Education	Below bachelor	16.2%			
	Bachelor	75.9%			
	Above master degree	7.9%			

Table 1. Demographic statistics.

5 DATA ANALYSIS AND RESULTS

5.1 Measurement Model Development

The measurement model is evaluated based on its reliability and validity. We assessed the reliability of eight constructs with Cronbach's α , composite reliability (CR) and the average variance extracted (AVE). For a construct with good reliability, Cronbach's α should be at least 0.7, CR should exceed 0.5, and the AVE should be larger than 0.7 (Hair et al. 1998). As shown in Table 2, all values are larger than the generally accepted values, representing good reliability.

Constructs	Items	Factor loading	CR	AVE	Cronbach's α
Platform Assurance	PA1	0.862	0.881	0.713	0.877
	PA2	0.838			
	PA3	0.832			
Trust on third-party	TTP1	0.858	0.880	0.709	0.884
	TTP2	0.852			
	TTP3	0.815			
Economic Feasibility	EF1	0.856	0.869	0.689	0.873
	EF2	0.817			
	EF3	0.816			
Perceived Critical Mass	PCM1	0.856	0.853	0.660	0.868
	PCM2	0.812			
	PCM3	0.767			
Quality of Alternatives	QA1	0.843	0.868	0.688	0.869
	QA2	0.843			
	QA3	0.801			
Continuous Commitment	CC1	0.859	0.871	0.693	0.868
	CC2	0.826			
	CC3	0.811			
Affective Commitment	AC1	0.861	0.861	0.674	0.881

	AC2	0.817			
	AC3	0.783			
Willingness to continue investing	WTCI1	0.849	0.877	0.704	0.890
	WTCI2	0.844			
	WTCI3	0.824			

Table 2. Construct reliability and convergent validity.

Content validity and construct validity are used to measure validity. The variables in this study were derived from existing literature, thus exhibiting strong content validity. Construct validity was examined by investigating discriminant validity and convergent validity. We applied principal components analysis to test the convergent validity of each construct. All of the factor loadings for the items exceed the recommended level of 0.6 and are significant at $p < 0.001$. Thus, all constructs in the model have adequate convergent validity. Discriminant validity was examined using criteria suggested by Fornell and Larcker (1981): the square root of AVE from each construct should be greater than the correlations between the construct and the other constructs. Each construct in our research model has a higher loading on its corresponding construct than its cross-loadings on other constructs, thus providing evidence of discriminant validity (Table 3).

Scale	1	2	3	4	5	6	7	8
EF	0.830							
PA	0.333	0.844						
TTP	0.379	0.319	0.842					
PCM	0.421	0.383	0.349	0.812				
QA	0.346	0.306	0.368	0.376	0.829			
CC	0.266	0.346	0.335	0.407	0.308	0.832		
AC	0.407	0.350	0.395	0.324	0.390	0.400	0.821	
WTCI	0.386	0.367	0.383	0.372	0.391	0.329	0.400	0.839

* Numbers along the diagonal indicate the square root of the AVE.

Table 3. Discriminant validity: the square root of AVE and correlation

5.2 Test of Structural Model

To assess how well the model represents the data, this paper employed AMOS 6.0 to evaluate 'Goodness-of-Fit Indexes. We found that most of the model fit indices ($\chi^2/df=1.91$, RMSEA=0.06, GFI=0.84, AGFI=0.81, CFI =0.90, NFI=0.82 and IFI=0.91) are within the commonly accepted thresholds suggested in the literature (Fornell & Larcker 1981; Hair et al. 1998). The fit indices indicate that the model provides a relatively good fit.

5.3 Hypothesis Testing

The standardized path coefficients for the research model are presented in Table 4. Most of the paths are significant in the expected directions. Exceptions mainly exist in paths connecting structural factors and contextual factors with affective commitment (e.g. H_{4b}, H_{5b}). The path coefficients of hypotheses 1, 2, 3a, 4a, 5a and 6b are significant at a level of $p < 0.001$, indicating support for these hypotheses. The path coefficients of hypotheses 7a are significant at a level of $p < 0.005$, thus indicating support for these hypotheses. The path coefficients of hypotheses 4b is significant at a level of $p < 0.01$ which is marginally accepted. Hypotheses 4b, 6a and 7b are rejected. Table 4 shows a summary of the estimates for each path in the research model.

Hypothesized path	Estimate	S.E.	C.R.	p-Value
H1 Affective Commitment → Willingness to continue investing	0.294	0.091	3.239	0.000***

H2	Continuous Commitment → Willingness to continue investing	0.397	0.080	4.937	0.000***
H3a	Platform Assurance → Continuous Commitment	0.151	0.046	3.301	0.000***
H3b	Platform Assurance → Affective Commitment	0.093	0.040	2.304	0.011*
H4a	Trust on Third-party → Continuous Commitment	0.214	0.059	3.626	0.000***
H4b	Trust on Third-party → Affective Commitment	0.087	0.052	1.678	0.093
H5a	Economic Feasibility → Continuous Commitment	0.166	0.048	3.488	0.000***
H5b	Economic Feasibility → Affective Commitment	-0.036	0.042	-0.851	0.395
H6a	Perceived Critical Mass → Continuous Commitment	0.029	0.071	0.416	0.677
H6b	Perceived Critical Mass → Affective Commitment	0.302	0.065	4.654	0.000***
H7a	Quality of Alternatives → Continuous Commitment	0.143	0.050	2.877	0.004**
H7b	Quality of Alternatives → Affective Commitment	0.042	0.044	0.973	0.330

Notes: *** represents $p < 0.001$; ** represents $p < 0.005$; * represents $p < 0.01$

Table 4. Hypothesis testing results

6 DISCUSSIONS AND IMPLICATIONS

The result showed that affective commitment was significant in explaining a lenders' willingness to continue investing in P2P lending platforms ($\beta=0.294$, $p < 0.001$), which was consistent with prior studies (e.g. Zhou et al. 2012). This indicates that positive attitudes and pleasant feelings toward lenders have significant effect on P2P platforms' continuous use. The influence of continuous commitment on willingness to continue investing ($\beta=0.397$, $p < 0.001$) was also significant, which means a lender concerns with a purely cognitive cost/benefit analysis of maintaining a relationship (Kumar et al., 1995). This finding is consistent with several previous researches (e.g. Lin & Fan 2012). For instance, Chen et al. (2013) found that continuous commitment was good predictors of users' content creation behaviors on an SNS.

Regarding the three structural factors, platform assurance ($\beta=0.151$, $p < 0.001$), trust on third-party ($\beta=0.214$, $p < 0.001$) and economic feasibility ($\beta=0.166$, $p < 0.001$), all of them have a significant effect on continuous commitment. This result indicates that lenders pay attention to the platform assurance, trust on third-party and economic feasibility during online lending process. However, among of those structural factors, only the relationship between platform assurance and affective commitment ($\beta=0.093$, $p=0.01$) was confirmed. This finding shows lenders' emotional attachments to a P2P platform rely on platform assurance. Our study found no evidence of a statistically significant relationship between trust on third-party ($\beta=0.087$, $p=0.093$) and affective commitment. We speculate that the explanation is that third parties have a short history in China, and people don't accept it emotionally. Some prefer traditional banking lending process since they think there are more guarantees than in P2P lending process provided by third parties. The same result also happened to economic feasibility ($\beta=-0.036$, $p=0.395$). One possible explanation is that the extremely high rate of return and too much false information during the P2P lending process in China. People feel large risk and reduce the desire to invest.

In the contextual factors, perceived critical mass ($\beta=0.302$, $p < 0.001$) showed great impact on affective commitment. But it was not significantly related to continuous commitment ($\beta=0.029$, $p=0.677$). The reason may be that when people first invested in P2P lending, they paid more attention to platform's technology than they repeated invest. Thus, mainly based on their emotion, people would follow the public in the process of continuous investment. Quality of alternatives ($\beta=0.143$, $p=0.004$) was found to have a significant negative influence on continuous commitment. This result is consistent with previous literature (Li et al. 2006; Chen et al. 2013). It indicates that an individual may be attracted to the relative advantages of alternatives, and thus depreciates his or her previous investment into the current platform, when he or she knows many similar alternative platforms. Contrary to previous studies (Li et al. 2006), quality of alternatives ($\beta=0.042$, $p=0.33$) has no effect on affective commitment. The possible reason is due to Chinese Internet censorship. Even though Chinese lenders know that Prosper is better than PPDAl, they can't switch to that.

6.1 Theoretical Implications

This study makes three important contributions to the research literature. First, although commitment theories has been widely used to explain continuous technology use in the IS literature, current studies have shown few attention on its applications in the P2P lending. Our research fills this knowledge gap. We advance these theories by applying commitment-based research model in a P2P lending context. This is the first study to empirically test the lenders' continuous use in the P2P lending. Our research applied commitment-based model expands the understanding of the model's robustness in explaining continuous use. We also extend the existing literature on users' adoption behavior in a P2P lending, which has been focused on primarily on users' decision making process or factors that affect the funding success.

Second, we provide insights into the antecedents of commitment to P2P lending. Although prior researches have already examined the antecedents of commitment to other context, we apply this knowledge by reexamining the importance of these existing antecedents in P2P lending context. For instance, we find that trust on third-party plays an important role in influencing lenders continuous investment in P2P lending platform.

Third, this research has also shown value of two different dimensions of commitment. In different context, continuous commitment and affective commitment have different levels of effects on behavioral intention (Li et al 2006). In the context of P2P lending, continuous commitment has the largest effect on lenders' investment behavior. And affective commitment's influence is moderate.

6.2 Practical Implications

From a practical perspective, the findings of this study will help P2P lending platforms stimulate lenders' willingness to continue investing by increasing their affective commitment and continuous commitment. First, P2P platforms should try to increase the emotional attachment to their P2P platforms. To build social and psychological bonds with lenders, P2P platforms should incorporate features that increase the sense of "personal care," "belonging," and "community" for lenders (Li et al. 2006). Second, to enhance continuous commitment, P2P platform should try to increase a lender's investment in their service. The more a lender has invested in a P2P lending platform, the more committed she will be to the service (Chen et al. 2013). In order to increase investment, P2P platforms could identify premium users and offer rewards.

Meanwhile, both platform designers and company managers can also obtain benefit by applying our model in the practical context. From the perspective of platform designers, they can increase their platform commitment (both affective commitment and continuous commitment) by paying more attention on platform assurance. They could provide detailed policies regulations and law protections to facilitate lenders' commitment toward P2P lending and enhance platform assurance. Besides, third-party is an effective way to enhance continuous commitment of lenders. Although, the operation of third party is disputed. The impacts of the third party will be more significant when the P2P lending is more standard.

From the company managers' point of view, they can increase continuous commitment by appropriately managing economic feasibility. A high rate of return will hinder lenders' investment. Quality of alternative is another important element to consider while increasing continuous commitment. Company managers should consider implementing a differentiation strategy in platform design to differentiate their platform and services from those of their competitors. Involving the perceived critical mass is a valid way to increase affective commitment of lenders. Managers should try to develop strategies that make P2P platforms more attractive and secure. Perceived critical mass may help improve adoption through intensive promotions and potential lenders discovery.

7 LIMITATIONS AND SUGGESTIONS

Despite the importance of the present findings, this paper has several limitations, which should be solved in future study. First, this paper's research model does not examine the relationship between willingness and actual behavior. By not examining the actual behavior of continuous investment in a P2P lending platform, this potential effect remains unclear. Therefore, measuring actual behavior to continuously invest in P2P lending platform may reveal interesting findings. Second, our empirical study is confined to a Chinese sample. It could be prolific to test whether the findings hold in other countries. Differences in cultural and technological should be considered. A further extension to this paper could be to compare the continuous investment in P2P lending platform in different countries. Furthermore, our paper only focuses on the simple intermediary of P2P lending platform. Future researches can examine the research model in other types of P2P lending platforms.

ACKNOWLEDGMENTS

This work has been supported by the Major Program of National Natural Science Foundation of China (No.91218301, No.71090402), the Fundamental Research Funds for the Central Universities (JBK150132, JBK120505), the National Natural Science Foundation of China (No.71302186, No.71371157).

Appendix A. Constructs and measures

Construct	Items	References
Willingness to continue investing in P2P platforms	I plan to keep investing in the P2P lending platform in the future. I intend to continue using P2P lending platform in the future. I expect my use of P2P lending platform to continue in the future.	Agarwal & Karahanna 2000
Affective commitment	I enjoy discussing the good aspects of P2P lending platform with other people. P2P lending platform has a great deal of attraction for me. I feel emotionally attached to P2P lending platform.	Allen & Meyer 1990; Li et al. 2006
Continuous commitment	I am afraid something will be lost if I stop using P2P lending platform. It would be very hard for me to stop using P2P lending platform right now, even if I wanted to. The total cost to change to another P2P platform would be too high.	Allen & Meyer 1990; Li et al. 2006
Platform assurance	I feel assured that legal and technological structures adequately protect me from problems on the P2P lending platform. I feel confident that encryption and other technological advances on the P2P lending platform make it safe for me to do business there. In general, P2P lending platform is now a robust and safe environment in which to invest.	McKnight et al. 2002
Trust on third-party	There are many reputable third-party certification bodies for assuring the trustworthiness of lending platform. I think third-party recognition bodies are doing a good job. Existing third-party recognition bodies are adequate for the protection of users' interest.	Lee & Turban 2001
Economic feasibility	P2P lending platform provides me with attractive and valuable rate of return. I can gain high rate of return through P2P lending platform. P2P lending platform provides benefits beyond my expectations.	Kim & Park 2013

Perceived critical mass	Most people in my group invest in P2P lending platform frequently. Most people in my community invest in P2P lending platform frequently. Most people in my class/office invest in P2P lending platform frequently.	Hsu & Lu 2004
Quality of alternatives	An alternative P2P lending platform is appealing. An alternative P2P lending platform is better than the platform used now. To my knowledge, another P2P lending platform is close to ideal.	Li et al. 2006

References

- Abdinnour-Helm, S. F., Chaparro, B. S. and Farmer, S. M. (2005). Using the end-user computing satisfaction (EUCS) instrument to measure satisfaction with a Web site. *Decision Sciences*, 36(2), 341-364.
- Aiken, K. D. and Boush, D. M. (2006). Trustmarks, objective-source ratings, and implied investments in advertising: investigating online trust and the context-specific nature of internet signals. *Journal of the Academy of Marketing Science*, 34(3), 308-323.
- Allen, N. J. and Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Avery, R. B., Calem, P. S. and Canner, G. B. (2004). Consumer credit scoring: do situational circumstances matter? *Journal of Banking and Finance*, 28(4), 835-856.
- Bansal, H. S., Irving, P. G. and Taylor, S. F. (2004). A three-component model of customer commitment to service providers. *Journal of Academy of Marketing Science*, 32(3), 234-250.
- Berkovich, E. (2011). Search and herding effects in peer-to-peer lending: evidence from prosper.com. *Annals of Finance*, 7(3), 389-405.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351-370.
- Brynjolfsson, E. and Smith, M. D. (2000). Frictionless commerce? A comparison of Internet and conventional retailers. *Management Science*, 46(4), 563-585.
- Cheung, W., Chang, M. and Lai, V. (2000). Prediction of Internet and World Wide Web usage at work: a test of an extended Triandis model. *Decision Support Systems*, 30(1), 83-100.
- Chen, A., Lu, Y., Wang, B., Zhao, L. and Li, M. (2013). What drives content creation behavior on SNSs? A commitment perspective. *Journal of Business Research*, 66(12), 2529-2535.
- De Ruyter, D., Ko, L. M. and Lemmink, J. (2001). Antecedents of commitment and trust in customer-supplier relationships in high technology markets. *Industrial Marketing Management*, 30(2), 271-286.
- Fornell, C. and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Freedman, S. and Jin, G. Z. (2008). Do social networks solve information problems for peer-to-peer lending? Evidence from Prosper.com. Working paper, Social Science Research Network. .
- Gefen, D., Karahanna, E. and Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model, *MIS Quarterly*, 27(1), 51-90.
- Gonzalez, L. and Loureiro, Y. K. (2014). When can a photo increase credit? The impact of lender and borrower profiles on online peer-to-peer loans. *Journal of Behavioral and Experimental Finance*, 2, 44-58.
- Goo, J. and Huang, C. D. (2008). Facilitating relational governance through service level agreements in IT outsourcing: An application of the commitment-trust theory. *Decision Support Systems*, 46(1), 216-232.

- Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998). Working Paper, Multivariate Data Analysis. 5th. New Jersey: Prentice-Hall.
- Herzenstein, M., Andrews, R. L., Dholakia, U. M. and Lyandres, E. (2008). The democratization of personal consumer loans? Determinants of success in online peer-to-peer lending communities. Working paper, University of Delaware, Wilmington, DE.
- Hsu, C. L. and Lu, H. P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information Management*, 41(7), 853-868.
- Hsu, M. H., Chiu, C. M. and Fu, T. L. (2004). Determinants of continued use of the WWW: an integration of two theoretical models. *Industrial Management and Data Systems*, 104(9), 766-775.
- Hwang, Y. and Kim, D. J. (2007). Understanding affective commitment, collectivist culture, and social influence in relation to knowledge sharing in technology mediated learning. *IEEE Transactions on Professional Communication*, 50(3), 232-248.
- Iyer, R., Khwaja, A., Luttmer, E. and Shue, K. (2009). Screening in new credit markets: can individual lenders infer borrower creditworthiness in peer-to-peer lending? Working paper, AFA 2011 Denver Meetings, Chicago, USA.
- Kim, Y. H. (2011). Market analysis and issues of social commerce in Korea. *Korea Information Society Development Institute*, 23(11), 41-63.
- Konovsky, M. A. and Cropanzano, R. (1991). Perceived Fairness of Employee Drug Testing as a Predictor of Employee Attitudes and Job Performance. *Journal of Applied Psychology*, 76(5), 689-707.
- Kumar, N., Sheer, L. K. and Steenkamp, J. E. M. (1995). The Effects of Perceived Interdependence on Dealer Attitudes. *Journal of Marketing*, 32(8), 348-356.
- Li, D., Browne, G. J. and Chau, P. Y. K. (2006). An empirical investigation of Web site use Using a Commitment- Based Model. *Decision Sciences*, 37(3), 427-444.
- Light, J. (2012). Is 'Peer-to-peer' lending worth the risk? *Wall Street Journal*.
- Lin, M., Prabhala, N. R. and Viswanathan, S. (2011). Judging borrowers by the company they keep: Friendship networks and information asymmetry in online peer-to-peer lending. Working paper, Social Science Research Network.
- Lin, H. and Fan, W. (2012). Examining commitment in electronic knowledge repository usage. *Journal of Computer Information Systems*, 52(4), 88-97.
- Lin, M., Prabhala, N. and Viswanathan, S. (2013). Judging borrowers by the company they keep: Friendship networks and information asymmetry in online Peer-to-peer lending. *Management Science*, 59(1), 17-35.
- Looney, C. A., Valacich, J. S., Todd, P. A. and Morris, M. G. (2006). Paradoxes of online investing: Testing the influence of technology on user expectancies. . *Decision Sciences*, 37(2), 205-246.
- Lu, Y.-B., Deng, Z.-C. and Yu, J.-H. (2006). A study on evaluation items and its application for B2C e-commerce trust. In *Proceedings of Management Science and Engineering International Conference Lille, Nord-Pas-de-Calais, France, 2006*.
- Luo, B. and Lin, Z. (2013). A decision tree model for herd behavior and empirical evidence from the online P2P lending market. *Information Systems and e-Business Management*, 11(1), 141-160.
- McKnight, D. H., Choudhury, V. and Kacmar, C. (2002). The impact of initial consumer trust on intentions to transact with a web site: a trust building model. *Journal of Strategic Information Systems*, 11(3-4), 297-323.
- Meyer, J. P. and Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299-326.
- Morgan, R. M. and Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Puro, L., Teich, J. E., Wallenius, H. and Wallenius, J. (2010). Borrower decision aid for people-to-people lending. *Decision Support System*, 49(1), 52-60.
- Ravina, E. (2008). Love and Loans: The Effect of Beauty and Personal Characteristics in Credit Markets. Working Paper, Columbia GSB ,2008
- Wang, M., Wang, T., Kang, M. and Sun, S. (2014). Understanding perceived platform trust and institutional risk in peer-to-peer lending platforms from cognition-based and affect-based

- perspectives. The 18th Pacific Asia Conference on Information Systems (PACIS 2014), Chengdu, China, 2014.6.24.
- Yen, Y. R. (2009). An empirical analysis of relationship commitment and trust in virtual programmer community. *International Journal of Computers*, 3(1), 171-180.
- Yum, H., Lee, B. and Chae, M. (2012). From the wisdom of crowds to my own judgment in microfinance through online peer-to-peer lending platforms. *Electronic Commerce Research and Applications*, 11(5), 469-483.
- Zhou, Z., Fang, Y., Vogel, D. R., Jin, X. and Zhang, X. (2012). Attracted to or Locked In? Predicting Continuance Intention in Social Virtual World Services. *Journal of Management Information Systems*, 29(1), 272-305.