The Effects of Lender-Borrower Communication on P2P Lending Outcomes

Research-in-Progress

Jennifer J. Xu
Bentley University
175 Forest Street, Waltham MA
jxu@bentley.edu

Eric Yong Lu
Pennsylvania State University
76 University Drive, Hazleton PA
Yul14@psu.edu

Michael Chau
The University of Hong Kong
Pokfulam, Hong Kong, China
mchau@business.hku.hk

Abstract

Lenders face great uncertainty because of the information asymmetry problem in peer-to-peer (P2P) marketplaces. This paper studies an online feature on a P2P platform, which allows lenders to seek information directly from the borrower of a loan, and examines the impact of the direct lender-borrower communication on the funding outcomes and the loan performance. Our analysis results show that the number of lender comments is negatively associated with funding success. This implies that as a listing receives more comments from lenders, the chance of getting funded is lower. On the other hand, the number of borrower responses and response length are positively associated with funding success, although they cannot help reduce the final interest rate. The role of borrower response is even stronger for listings with poor credit grades. The loan performance (i.e., default ratio), however, cannot be predicted based on the amount of lender-borrower communication.

Keywords: P2P lending, lender-borrower communication, online trust

Introduction

Recent years have witnessed a rapid growth in the number of peer-to-peer (P2P) lending platforms around the world. P2P lending is a type of online auction marketplace in which individuals can acquire loans from other people without an intermediary financial institution (e.g., a bank). As a type of financial innovation, which has greatly benefited from the advance of information technology and the maturation of C2C marketplaces, this new phenomenon has attracted considerable attention from the public, media, and academia since its inception.

The greatest challenge facing P2P lenders is *information asymmetry*, a situation in which one party in a transaction has more or better information than the other (Akerlof 1970). In the traditional lending context, financial institutions such as commercial banks have access to detailed information of borrowers and sophisticated risk-assessment instruments. As a result, they are able to mitigate information asymmetry and reduce risks effectively. In the P2P lending context, however, the information asymmetry between borrowers and lenders is significantly elevated and the adverse selection problem is more severe. Because P2P platforms cannot offer any guarantees that the borrowers would repay the loans on time, lenders must make careful selections from a large number of available loan requests (also called listings) that are subject to a high level of uncertainty, opportunism, and risks (Greiner and Wang 2011).

To reduce uncertainty and financial risks, many lenders hope to seek more information about listings and the borrowers who create those listings before making lending decisions. However, due to the virtual nature of the online settings, the information sources that lenders can get access to are limited to only the platform and the borrowers. A P2P platform generally provides the hard credit information (e.g., credit score, debt-income ratio) about a borrower. Such hard information is most important for decision-making of lenders. In addition, lenders may also rely on other "soft" clues, such as social capital (e.g., number of friends a borrower has) (Lin et al. 2013; Lu et al. 2012), demographics (e.g., age, gender, and personal images) (Duarte et al. 2012; Pope and Sydnor 2011), and loan descriptions (Larrimore et al. 2011; Michels 2012) to determine if a borrower is trustworthy.

The effects of platform-provided information on lending decisions have been studied extensively in the P2P literature. Relatively limited research has been found to investigate the impact of borrower-provided information, which is the focus of our present study. Specifically, we examine how the direct communication between lenders and borrower affects the funding outcomes of listings. Because of anonymity on P2P platforms, it is almost impossible for lenders to get information from borrowers through face-to-face contacts. However, the platform that we study in this research allows lenders and borrowers to engage in direct communication using the comment feature on the website. Using this feature, a lender can request additional information directly from a borrower by posting questions or comments. The borrower can respond by providing requested information, clarifying confusing issues, or assuring the lenders of timely repayment. Both the comments and responses are displayed on the listing page so that other prospective lenders can view or participate in the discussion. Therefore, our research questions are concerned about whether such direct lender-borrower communication, as well as the unverifiable, voluntarily disclosed borrower information, plays a role in predicting funding outcomes and loan performance.

Our research is different from other P2P studies in two aspects. First, our research focuses on the direct communication between lenders and borrowers, which has been understudied in the prior literature. This type of dynamic interaction is different from other passive forms of presentation of information (e.g., images and loan descriptions) and can facilitate lenders' information-seeking and borrowers' trust-building behavior. It may also help plant the seeds for forming future social relationships between lenders and borrowers. Second, while most prior research has investigated P2P platforms in developed countries (e.g., Prosper.com in the U.S.), the platform we study is in China, which has disparate financial environment (e.g., the lack of a nationwide credit system), legislation and regulation systems, and culture from developed countries. Under greater uncertainty than their western counterparts, Chinese lenders may have different patterns of trust in information sources. A recent survey reports that trust in borrowers is more important than trust in intermediary in affecting lenders' willingness to lend in China's P2P context (Chen et al. 2014). It remains an unanswered question about whether lenders trust borrowers and are willing to lend loans based on the information from the borrowers in P2P marketplaces in China.

The rest of the paper is organized as follows. The next section reviews the prior literature on P2P lending and develops our hypotheses. Sections 3 and 4 present our study and report the preliminary results. The last section concludes the paper and plans for the future work.

Literature Review

Hard and Soft Information

Existing P2P literature is mostly concerned with how lenders make lending decisions under the condition of information asymmetry and adverse selection. Lin et al. (2013) categorized the information available to lenders into two types: hard information and soft information. Based on the elaboration likelihood model, Greiner and Wang (2011) examined the cognitive process of decision-making of lenders and confirmed that the hard information and soft information are processed through different routes (central vs. peripheral) and have varying influence on lenders' trust and bidding behavior.

Hard information refers to the information about an individual's financial status that can be objectively verified and used as a signal of quality. In the context of P2P lending in developed countries, this type of hard information often includes a borrower's credit grade, debt-to-income ratio, number of bank cards, number of credit inquiries on the borrower, credit history length, and home ownership (Lin et al. 2013). Because the hard information is based on the past credit history of a borrower, it is naturally the most credible source of information that lenders tend to rely on when making lending decisions. Accordingly, research has shown that most factors in the hard information category can significantly affect funding outcomes, which are often measured by funding success and final interest rate of a loan request (Herzenstein et al. 2011a; Lee and Lee 2012; Lin et al. 2013; Yum et al. 2012; Zhang and Liu 2012). Listings with high credit grades and low debt-to-income ratios can relatively easily get fully funded with a lower final interest rate. An exception is home ownership, whose impact has been found to be nonsignificant probably because it is not a strong sign of financial security after the subprime mortgage crisis in the U.S. (Herzenstein et al. 2011a; Zhang and Liu 2012).

Soft information refers to other informational cues than the above mentioned hard measures (Lin et al. 2013). Soft information usually cannot be objectively verified and quantified, but may be "hardened" by information technology into usable forms for lenders. For example, social capital, a most commonly studied type of soft information, has been measured using the number and type of friends a borrower has. Most P2P platforms allow users to create online friendship links with one another and specify the types of the relationships (e.g., online only, schoolmates, relatives, etc.). Accordingly, the social capital of a borrower and the number of friend endorsements his/her listing receives may become a signal of listing quality that influences the funding outcomes (Freedman and Jin 2014; Greiner and Wang 2009; Lin et al. 2013; Lu et al. 2012). Research has shown that this effect is more significant for listings with lower borrower credit grades, for which lenders have to make more subjective assessment about the potential risks (Lin et al. 2013). Lenders may also derive signals of quality from other types of soft information such as images, demographics, and the preparedness of listings (Greiner and Wang 2011; Mollick 2014). For example, Duarte et al. (2012) coded the perceived trustworthiness based on the self-portrait images posted by borrowers and found that borrowers who appear to be more trustworthy are more likely to get their listings funded. Similarly, Pope and Sydnor (2011) studied several individual characteristics (e.g., race, gender, age, attractiveness, etc.) based on borrower images and found that black borrowers are less likely to receive funding than white borrowers with similar credit profiles.

Loan Descriptions and Trust

In addition to the verifiable hard information and soft information such as social capital and demographics, the optional loan descriptions, which borrowers provide along with their listings, are also a source from which lenders infer quality information. In the loan description section on a listing page, a borrower can write a brief narrative to state the purpose of the loan, explain the causes for a poor credit history, justify repaying abilities, or disclose other personal information that the borrower likes the lenders to know. Studies have shown that lenders tend to believe in what is disclosed in loan descriptions and trust the borrowers to some extent. Herzenstein et al. (2011b) found that the more identity claims (i.e., trustworthy, economic hardship, hardworking, successful, moral, and religious) a borrower makes in his/her loan descriptions the more likely for the listing to be funded. However, lenders' trust based on the identity claims may cause lenders negative consequences as the number of identity claims is positively associated with defaults in the loan performance analysis. Sonenshein et al. (2011) examined loan descriptions through the theoretical lens of social accounts and found that lenders react to different social accounts differently. Descriptions combining explanation with acknowledgement or explanation with denial raise the perceived trustworthiness of the borrower and further increase the likelihood of positive funding outcomes. Larrimore et al. (2011) reported that the linguistic features in loan descriptions (e.g., extended narratives, concrete descriptions, and quantitative words) are indicators of trustworthiness and are positively associated with funding success. Similarly, Michels (2012) found that listings with more disclosures can attract more bids and lower the final interest rate, but often perform poorly in the repayment process with a higher likelihood of default.

Prior P2P studies have examined nearly all sorts of information that is available on listing pages. However, the way the information is presented is generally static, passive, and indirect. Little research has been done to find out if the direct communication between lenders and borrowers has any impact on lending decisions and funding outcomes. Only one study has briefly touched upon this question based on data from a Korean P2P lending platform, which reported that the number of messages posted by borrowers on a QA bulletin board is positively associated with funding outcomes during the period of late repayment of borrowers (Yum et al. 2012).

It is important to note that direct communication provides an extra venue through which the information asymmetry problem may be mitigated. It makes it possible for lenders to actively seek information from borrowers and for borrowers to strategically build lender trust. In this research we study the comment feature available on a P2P lending platform and the impact of the direct communication. We posit that as lenders and the borrower of a listing engage in more direct communication, lenders will perceive the borrower as more trustworthy; and consequently, the funding outcomes will be more likely to be positive.

> **H1**: The amount of direct lender-borrower communication regarding a listing is positively associated with the listing's funding outcomes.

The prior P2P literature indicates that lenders tend to rely more on soft information based quality signals if a listing is risky (i.e., with poor credit grades) (Lin et al. 2013). However, consumer behavior theories predict that when a purchase situation becomes more risky, the seller becomes a less trustworthy information source (Locander and Hermann 1979). Our second hypothesis thus is intended to ascertain the strength of the impact with respect to a listing's risk level.

> **H2**: The impact of direct communication is stronger for listings with lower credit grades.

Lastly, we test if the direct communication is related to a listing's loan performance.

> **H3**: The amount of direct communication is positively associated with the loan performance.

Methods and Data

Study Context

The platform we study in this research, XLending,[1] is one of the largest P2P lending marketplaces in China. Launched in 2007, XLending has attracted over 5 million users with more than 100 million RMB in funded loans by the end of 2014. The true identities of users (i.e., borrowers and lenders) are never publicly released on XLending. However, to engage in a transaction, a user's identity must be verified by XLending using the user's identification number. Because China does not have a nationwide credit system, it is not possible for the platform to quantify the credibility of a borrower based on the borrower's credit history. To address this problem, XLending calculates each borrower's credit score based on the borrower's background information (e.g., education level and degrees, professional certificates, etc.), and assigns each borrower a letter credit grade from A (High Quality) to HR (High Risk) (Lu et al. 2012).

Like on most P2P platforms, a loan transaction starts with a borrower creating a loan request (called listing) for auction on XLending. The borrower must specify the amount he/she hopes to borrow and the

---

[1] We use the fictitious company name for data confidentiality.

maximum interest rate he/she is willing to pay. A borrower has the option to disclose additional information (e.g., location, gender, age, marital status, and a self-portrait image), and a brief text description about the loan (e.g., the purpose, the proof of repaying abilities, etc.).

A lender can bid on the listing by contributing a certain amount to the listing (with a minimum of 50 RMB) and posting the minimum interest rate he/she is willing to accept. The bidding process typically lasts for several days. If a listing is fully funded before it is closed, lenders can compete and bid down the final interest rate. A listing that receives sufficient funding will be materialized into a loan. Each loan has a maturity of 3-36 months and each monthly payment made by the borrower is distributed among the winning lenders based on their contribution proportions.

To help lenders seek more information when making decisions, XLending provides two types of online features to facilitate direct lender-borrower communication. One feature is the comment section on each listing page, where lenders can ask questions, make comments, or request the borrower to provide more information about the listing and the borrower his/herself. The borrower can decide which comments to respond to and how to respond. Another feature is the public forums where all users can share experiences and lessons learned, seek or provide investment advice, and discuss P2P related topics. There is a dedicated forum for borrowers to promote their listings. Listing advertisements posted in other forums often are immediately deleted by the system administrator. Our research at this stage will focus only on the comment feature.

Data

XLending provided a proprietary sample that consists of all 39,694 listings made by 23,049 borrowers on XLending from June 2007 to October 2011. Among these listings, 9,771 (24%) were fully funded and the remaining 29,923 (76%) listings failed to receive sufficient funding. Table 1 reports the descriptive statistics of the sample (means and standard deviations in parentheses). All the means are significantly different between funded and unfunded listings ($p < 0.0001$).

We have two **dependent variables** for representing funding outcomes: *Funding Success* and *Final Interest Rate*. The funding success is coded 1 if a listing is fully funded and 0 otherwise.

Our **independent variables** include a set of factors that have been found in the prior literature to have significant impact on funding outcomes. The variable reflecting hard credit information is *Credit Grade*, which is a categorical variable in our sample. In this sample, the majority of listings (71.5%) are in the "risky" categories (i.e., grade E or HR); and only about 28.5% of listings are in grade D or higher. The percentage of risky listings in the funded and unfunded sets is 63.5% and 77%, respectively. In Table 1 we convert the credit grades into numerical values (e.g., A = 1, HR = 6, etc.) and report the means. We use a single variable, *Number of Friends*, to capture a borrower's soft social capital information.

	All	**Funded**	**Not Funded**
Amount Requested	13,400 (22,100)	6,867 (9,053)	15,533 (24,557)
Borrower Rate	17.4 (5.97)	17.79 (4.5)	17.3 (6.37)
Credit Grade (numerical)	3.97 (0.96)	3.08 (0.73)	4.26 (0.84)
# Friends	19.29 (51.95)	58.35 (83.53)	6.54 (25.31)
# Comments	1.08 (2.45)	2 (3.98)	0.78 (1.56)
# Responses	0.49 (1.66)	1.26 (2.79)	0.24 (0.93)
Average Response Length	7.61 (25.13)	15.44 (34.05)	5.05 (20.8)

Table 1. Sample Statistics

The three independent variables that we use to measure the amount of direct lender-borrower communication are *Number of Comments*, *Number of Responses*, and *Average Response Length*. The number of comments posted on a listing by lenders ranges from 0 to 117, with a mean of 1.08. The mean number of responses made by borrowers is 0.49, 1.26, and 0.24 for all listings, funded, and unfunded, respectively. We also count the number of characters in each borrower response; and for each listing we calculate the average length of responses (7.61). It can be seen that borrowers with funded listings posted significantly longer responses (15.44) than those with unfunded listings (5.05).

We also include in our analysis a number of **control variables** reflecting other characteristics of listings and borrowers. Variables for listing characteristics are *Length of Loan Maturity* (mean = 7.75 months), *Listing Duration* (mean = 7.64 days), *Length of Listing Title* (mean = 16.15 characters), and *Loan Category*.[2] Variables for borrower demographical characteristics are *Age* (mean = 29.2), *Gender* (Male: 54%, Female: 10%, N/A: 36%), *Education Level*, and *Marital Status* (Married: 29.3%). In addition, we use a monthly dummy to capture the effect of any platform-wide shocks, such as the increase in the media exposure of XLending (Kim and Viswanathan 2014). All categorical variables are represented using dummies in our analysis except for the testing for H2.

For the loan performance analysis, we acquired the payment data for 6,415 funded listings in this sample. Based on the payment information we identified 2,184 (34%) defaulted loans and calculated the number of months before default.[3]

Results

Hypothesis Testing

We use logistic regression to test if the focal independent variables, namely the *Number of Comments*, *Number of Responses*, and the *Average Response Length,* have any impact on the funding success (H1). Column (1) in Table 2 reports the odds ratios (exponentiated coefficients) of these three variables and the hard and soft scores (i.e., *Credit Grade* and *Number of Friends*). The result indicates that the amount of direct communication does relate to the funding success. However, the three variables exhibit different effects in terms of direction and magnitude. For a listing, the number of comments made by lenders is negatively associated with the listing's funding success. In other words, the odds of getting funded drop by 3% for an additional lender comment. On the other hand, if the borrower chooses to respond to the comments then each additional response will increase the odds by 36.4%. The length of the responses also matters but only marginally (a 0.3% increase in the odds).

	(1)	(2)	(3)	(4)
	Funding Success	***Final Interest Rate***	***Percent Funded***	***# Bids***
# Comments	**0.97***	**-0.04****	**-1.281****	**0.324****
# Responses	**1.364****	-0.004	**2.926****	**1.208****
Average Response Length	**1.003****	.000	**0.028****	**0.018****
Credit Grade				
E	0.039**	-.151**	-50.363**	-11.862**
HR	0.005**	.144**	-60.947**	-14.512**
# Friends	1.012**	-0.001**	0.073**	.027**
Adjusted/Pseudo-R^2	0.767	0.883	0.605	0.45

* $p < 0.05$; ** $p < 0.0001$

Table 2. Results for Testing H1

Consistent with findings from prior studies, hard credit grades can affect the funding success. However, we found in our analysis that only the risky grades (E or HR) have significant impact. Specifically, a listing with a grade E will cause a roughly 96% decrease in the odds of being funded; and the decrease in odds is 99.5% for listings with a grade HR. Lenders tend not to differentiate between listings with higher grades. We leave out coefficients of other grades (A though D) because none of them is significant. Soft social capital information also affects lending decisions with a 1.2% increase in the odds of funding success for each additional friend. Also similar to other prior findings, the borrower rate is positively associated with the funding success. However, the amount requested turns out to have no impact on the funding success.

---

[2] Loan category represents the purpose of a loan, including business, automobile, home improvement, personal, short-term capital, student loan, and other.

[3] Default is defined as being late for payment for at least three months by the end of the time period of the sample (October 2011).

Other control variables exhibit different effects. Listing characteristics (e.g., the length of loan maturity, listing duration, and title length) all have positive effects, while the loan category's impact is not significant. Borrower characteristics (i.e., gender, age, education, and marital status) also have varying effects on the funding success. Because of the paper page limit we do not report results regarding the control variables in Table 2.

Column (2) in Table 2 lists the coefficients of independent variables in the linear regression with the final interest rate as the dependent variable. It shows that each additional comment by lender can help reduce the final interest rate by 0.04. However, the number of borrower responses and the average response length do not play a role in reducing the final interest rate. Other independent variables and control variables have similar effects as they do on the funding success.

In summary, H1 is partially supported in that the amount of direct lender-borrower communication does have impact on the funding outcomes. The borrower response can significantly increase a listing's likelihood of being funded. While the number of lender comments lowers the odds of funding success it helps reduce the final interest rate. This is probably because the lender comments increase the visibility of a listing and attract more lenders to bid down the interest rate.

To test H2 regarding listings with different risk levels, we use the numerical values to represent *Credit Grade* (A = 1, HR = 6). Three interaction variables, *Number of Comments* X *Grade*, *Number of Responses* X *Grade*, and *Average Response Length* X *Grade*, are created. Only listings with at least one lender comment are included in this analysis (*n* = 16,055). Columns (1) and (2) in Table 3 report the results of the logistic regression on funding success and the linear regression on the final interest rate, respectively. Two out of the three interaction terms are significant in column (1), indicating that the amount of response a borrower makes has different impact on funding success with different credit grades. The positive associations imply that the more risky the listing is the stronger the impact is. This finding complies with the prior P2P literature (Lin et al. 2013) but deviates from the predictions based on the consumer behavior literature (Locander and Hermann 1979). For the final interest rate, only the number of lender comments has different impact with respect of credit grades. Therefore, H2 is partially support as well.

	(1) Funding Success	(2) Final Interest Rate
# Comments	0.855*	0.057
# Responses	0.59***	0.058
Average Response Length	0.993	0.005*
Credit Grade (numerical)	0.064***	0.054
# Friends	1.009***	0.00
# Comments X Grade	1.036	**-0.023****
# Responses X Grade	**1.199*****	-0.016
Avg. Resp. Len. X Grade	**1.002***	-.001
Adjusted/Pseudo-R^2	0.686	0.855

* p < 0.05; ** p < 0.005; ** p< 0.0001

Table 3. Results for Testing H2

We model the *Time to Default* using the Cox proportional hazards model when testing H3. The regression based on the right-censored sample shows that none of the three focal independent variables has significant impact on the loan performance. In other words, the amount of lender-borrower communication and the amount of information disclosed in the borrower responses cannot predict if a loan will default. Thus, H3 is not supported. Unsurprisingly, the most significant predictor of loan performance is the credit grade; and the number of friends has no impact on the default (hazards) ratio.

Robustness Checks

The independent variables were checked for multicollinearity and all VIF values are less than 10. We also tested H1 using alternative specifications of the dependent variables regarding funding outcomes. Columns (3) and (4) in Table 2 report the results of linear regressions using the *Percent Funded* and the *Number of Bids* received by each listing as proxies for funding outcomes (Michels 2012; Sonenshein et al.

2011). The conclusions remain largely the same. That is, the number of lender comments negatively affects the funding success although it helps attract more bids. The number of borrower responses and the length of responses both increase a listing's chance to be funded and the number of bids.

Concluding Remarks and Future Work

Information asymmetry is an inevitable challenge that P2P lenders must face when making decisions. To reduce uncertainty, lenders often strive to seek more information. In the online context of P2P marketplaces, however, the only alternative source of information, in addition to the platform, seems to be the borrowers. This research-in-progress paper studies an online feature that allows lenders to seek information directly from the borrower of a loan. Our research question aims at unfolding the impact of the direct lender-borrower communication on the funding outcomes of a loan request and the loan performance. Our analysis results show that although H1 and H2 are only partially supported, the message is quite clear – the amount of direct communication does matter for funding success. Specifically, we found that the number of lender comments is negatively associated with funding success and the final interest rate. This implies that as a listing receives more questions and comments, it may raise more quality concerns among lenders, thereby decreasing the chance for the listing to get funded. However, the number of borrower responses and response length are positively associated with funding success, although they cannot help reduce the final interest rate. The role of borrower response is even stronger for listings with poor credit grades. Our H3 is not supported meaning that the lender-borrower communication that happens during the auction process does not have any impact on the loan repayment process that takes place in a much longer period of time.

Theoretical Implications

Our research has the potential to contribute to the theory by expanding our understanding and knowledge about how lenders make decisions in the P2P lending context. Specifically, it reveals the role that the direct lender-borrower communication plays in mitigating the information asymmetry problem. Naturally lenders prefer to fund listings with higher credit grades. However, most listings in P2P marketplaces have low credit grades, because individuals with good credit history often can borrow from traditional commercial banks. In a P2P marketplace, as a small number of highly competitive listings are quickly funded and closed, many prospective lenders turn to listings with lower credit grades. Getting involved in such arm's length transactions, lenders become more vulnerable to the information asymmetry and adverse selection problem. In the online context, without knowing the true identity of a borrower, lenders have rather limited means to find more information and assess the borrower's willingness and ability to repay the loan. The availability of the comment feature enables the direct communication between lenders and borrowers. Our study provides evidence that lenders do take the information disclosed by the borrowers into consideration when making lending decisions. Further, the more information a borrower provides, the more likely that lenders will make favorable decisions. This implies that the direct communication is not simply a type of cheap talk but serves, to some extent, a signal for the quality of the loan request. Lenders may have associated the borrower's diligence in responding to comments and questions with the borrower's willingness and ability to repay the loan.

Our study also adds to the theory on online trust. First, our analysis reveals that in the P2P context, lenders have rather different patterns of trust in information sources than in regular economic exchanges (e.g., purchase of products). Traditional consumer behavior theories predict that as a purchasing situation becomes more uncertain and risky, buyers tend to trust the seller less. However, our finding suggests that lenders (i.e., the buyers of a loan) rely even more on the borrower (i.e., the seller of a loan) as a source of information when the borrower's credit grade is poor. This happens probably because of the lack of alternative information sources and feedback and reputation systems (e.g., the rating mechanism on eBay). Second, our study contributes to the research on online trust in an investment setting that is rather different from developed countries. The lack of a nationwide credit system in China implies that if a borrower provides misleading or untrue information during the bidding process or even defaults in the repayment process, the consequence to the borrower is minimal. The borrower's misbehavior will have little impact on his/her credit records and future chances of getting loans. In this situation, Chinese P2P lenders face much higher risks than their western counterparts do. Interestingly, our results show that even in such a disadvantageous circumstance, lenders still tend to trust the unverifiable information from borrowers.

Practical Implications

Our research also has practical implications for P2P platforms, lenders, and borrowers. For the P2P platform, our study shows that the comment feature on the platform website (XLending.com) can facilitate lenders' decision-making by helping them get more information about borrowers. Other P2P platforms than XLending may adopt this idea and implement similar features on their websites. Moreover, P2P platforms may consider designing and providing more communication channels for their users. For example, open forms and chat rooms can create more opportunities for lender-borrower communication while preserving anonymity.

From the lenders' perspective, we suggest that they take more advantage of communication features available on a P2P platform. By posting questions and participating in discussions they may get more useful information about a listing and its borrower, thereby reducing the uncertainty. However, lenders should be quite careful about what is disclosed by borrowers as the information is voluntary and unverifiable. The information presented in borrower responses may be subject to manipulation and deception (e.g., concealment and distortion). Lenders may make a better judgment on the borrower's trustworthiness by scrutinizing the contents of the responses or conducting reality checks.

The direct communication feature allows borrowers to present positive, favorable images of themselves. This is especially critical when lenders post concerns and questions about a listing. By diligently responding to the questions, providing additional information, making clarifications, and offering explanations, a borrower can manage to reduce the negative impact the lender comments on the funding outcomes. However, we strongly discourage borrowers to abuse the feature by posting deceptive information. Such misbehavior will ruin the trust of lenders and deteriorate the investment environment in P2P marketplaces.

Future Directions

Our research will be carried out in two directions at the next stage. First, we will examine the impact of message content on funding outcomes. In this research we have only analyzed the amount of lender-borrower communication without considering the information content of the communication. We will perform content analysis and find out how lenders react to different types of information (e.g., self-constructed borrower identities or persuasion strategies) and if they have different levels of trust in different types of information. Second, we will study other online communication features (e.g., the open forum) and compare their effectiveness in influencing funding outcomes.

Acknowledgements

We thank XLanding for providing the data used in this research.

References

Akerlof, G.A. 1970."The market for 'lemons': Quality uncertainty and the market mechanism," *The Quarterly Journal of Economics* (84:3), pp. 488-500.

Chen, D., Lai, F., and Lin, Z. 2014."A trust model for online peer-to-peer lending: A lender's perspective," *Information Technology and Management* (15:4), pp. 239-254.

Duarte, J., Siegel, S., and Young, L. 2012."Trust and credit: The role of appearance in peer-to-peer lending," *The Review of Financial Studies* (25:8), pp. 2455-2484.

Freedman, S., and Jin, G.Z. 2014. "The information value of online social networks: Lessons from peer-to-peer lending," Working Paper No.19820, National Bureau of Economic Research.

Greiner, M., and Wang, H. 2011."Building consumer-to-consumer trust in e-finance marketplaces: An empirical analysis," *International Journal of Electronic Commerce* (15:2), pp. 105-136.

Greiner, M.E., and Wang, H. 2009."The role of social capital in people-to-people lending marketplaces," in *Proceedings of Thirtieth International Conference on Information Systems*, Phoenix, pp. 1-17.

Herzenstein, M., Dholakia, U.M., and Andrews, R.L. 2011a."Strategic herding behavior in peer-to-peer loan auctions," *Journal of Interactive Marketing* (25), pp. 27-36.

Herzenstein, M., Sonenshein, S., and Dholakia, U.M. 2011b."Tell me a good story and I may lend you money: The role of narratives in peer-to-peer lending decisions," *Journal of Marketing Research* (48), pp. S138-S149.

Kim, K., and Viswanathan, S. 2014."The experts in the crowd: The role of reputable investors in a crowdfunding market," in *Proceedings of The 41st Research Conference on Communication, Information and Internet Policy (TPRC 41)*, Arlington, VA.

Larrimore, L., Jiang, L., Larrimore, J., Markowitz, D., and Gorski, S. 2011."Peer to Peer Lending: The Relationship Between Language Features, Trustworthiness, and Persuasion Success," *Journal of Applied Communication Research* (39:1), pp. 19-37.

Lee, E., and Lee, B. 2012."Herding behavior in online P2P lending: An empirical investigation," *Electronic Commerce Research and Applications* (11:5), pp. 495-503.

Lin, M., Prabhala, N.R., 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), pp. 17-35.

Locander, W.B., and Hermann, P.W. 1979."The effect of self-confidence and anxiety on information seeking in consumer risk reduction," *Journal of Marketing Research* (16:2), pp. 268-274.

Lu, Y., Gu, B., Ye, Q., and Sheng, Z. 2012."Social influence and defaults in peer-to-peer lending networks," in *Proceedings of the 33rd International Conference on Information Systems*, Orlando, FL.

Michels, J. 2012."Do unverifiable disclosures matter? Evidence from peer-to-peer lending," *The Accounting Review* (87:4), pp. 1385-1413.

Mollick, E. 2014."The dynamics of crowdfunding: An exploratory study," *Journal of Business Venturing* (29:1), pp. 1-16.

Pope, D.G., and Sydnor, J.R. 2011."What's in a picture? Evidence of discrimination from Prosper.com," *The Journal of Human Resources* (46:1), pp. 53-92.

Sonenshein, S., Herzenstein, M., and Dholakia, U.M. 2011."How accounts shape lending decisions through fostering perceived trustworthiness," *Organizational Behavior and Human Decision Processes* (115), pp. 69-84.

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), pp. 469-483.

Zhang, J., and Liu, P. 2012."Rational herding in microloan markets," *Management Science* (58:5), pp. 892-912.