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A Comparative Study of online P2P Lending in the USA and China

Dongyu Chen

Associate Professor, School of Management, Fuzhou University, Fuzhou, China
Postal Address: School of Management, New College District, No.2 Xueyuan RD, Fuzhou, China

Author's Personal Website: <http://qlxy.fzu.edu.cn/collegeabout.asp>

Email: chendy_t@swufe.edu.cn

Dr. Dongyu Chen is associate professor of management information system at School of Management, Fuzhou University, Fuzhou China. Dr. Chen's research areas focus on management information systems and e-commerce. Dr. Chen has published in *Journal of Global Information Technology Management* and *Construction Engineering and Management*.

Chaodong Han *

Assistant Professor, Department of E-Business and Technology Management, College of Business and Economics, Towson University

Postal Address: Department of EBTM, Stephens Hall 316P, 8000 York Road, Towson, MD 21252

Author's Personal/Organizational Website: <http://pages.towson.edu/chan>

Email: chan@towson.edu

Dr. Han is assistant professor of E-Business and Technology Management at Towson University. Dr. Han received his Ph.D. in logistics and supply chain management from Robert H. Smith School of Business, University of Maryland, College Park. Dr. Han's research has focused on globalization, IT in supply chain management, and manufacturing industries. His research has been published in *Production and Operations Management Journal*, *International Journal of Production Economics*, *Journal of Computer Information Systems*, *International Journal of Physical Distribution and Logistics Management* and *Transportation Journal*.

*** Corresponding author**

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Abstract

Peer-to-Peer (P2P) lending provides online users an innovative loaning and investment vehicle without the intermediation of financial institutions. However, the research on online P2P lending is still scarce. In this study we review relevant literature and conduct a comparative study of online P2P lending practices in the USA and China. We find that two categories of credit information, "hard" and "soft" information, may have profound influences on lending outcomes in both countries, but lenders in China is more reliable on "soft" information. This study provides valuable insights for future research and practices and enriches the understanding of online P2P lending across countries.

Keywords: Peer-to-Peer (P2P) Lending; Information Asymmetry; Social Lending; Social Network

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INTRODUCTION

The advancement of information technology (IT) has resulted in a rapid growth of electronic markets (Malone *et al.*, 1987). One of the most impressive features of electronic markets is its enabling role of eliminating or reducing the reliance on traditional middlemen, who connect the product/service providers and the end customers (Patsuris, 1998). This is particularly the case with online peer-to-peer (P2P) lending, a novel financing model for the Internet users.

P2P lending refers to unsecured loans between lenders and borrowers through online platforms without the intermediation of any financial institutions (Lin *et al.*, 2009; Collier & Hampshire, 2010; Bachmann *et al.*, 2011). As a revolutionary application of information technology and Web 2.0 in financial fields (Iyer *et al.*, 2009; Lin *et al.*, 2012), P2P lending is able to effectively facilitate information posting and searching and provides all functions necessary to complete transactions (Brown, 2008; Herzenstein *et al.*, 2008).

Advantages of this innovative lending model include: (1) borrowers and lenders can easily post and search for information and complete transactions on the online platforms with lower transaction costs (Lin, 2009; Lin *et al.*, 2009; Lin *et al.*, 2012); (2) Low transaction costs make very small loans (i.e., microloans) feasible; (3) Multiple microloans may be pooled together to fund projects which require a large fund while reducing the risks of lending; and (4) Through online authentication and information search on social networks, lenders may be able to gather more information about borrowers' credit history and mitigate information asymmetry between borrowers and

lenders, contributing to the reduction of lending risks and to the expansion of lending practices beyond the traditional circle of acquaintances.

Online P2P lending has primarily targeted small and micro loans, which not only fund small businesses but also provide short-term liquidity (Johnson *et al.*, 2010; Wang *et al.*, 2009). Even though the P2P lending platform plays the role of a financial institution in connecting borrowers and lenders, it makes profits from commissions instead of the spread between deposit and loan (Lin, 2009). As an effective and sustainable lending approach, online P2P lending has received increasing attention from both academia and practitioners (Brown, 2008; Galloway, 2009; Lin, 2009; Bachmann *et al.*, 2011).

Since 2005, online P2P lending has experienced a rapid growth across a number of countries, including United States, Canada, UK, Japan, Italy and China, with slightly different forms. Some online P2P lending platforms are for charity purposes, aiming to collect and provide money for people in poverty, while others are for commercial purposes, intending to facilitate lending process between borrowers and lenders. Among the most successful online platforms are British Zopa, U.S. Prosper and Kiva. For example, founded in 2006, Prosper had made \$170 million in loans by 2009 (Lin *et al.*, 2012). A non-profit organization headquartered in San Francisco, California, Kiva reports that the total value of all loans made through its platform has reached \$205 million as of April 2011 (Kiva, 2011).

Despite a late development, online P2P lending has had considerable growth in China. Among the well-known Chinese online P2P lending platforms are Ppdai.com [拍拍贷], My089.net [红岭创投], Qifang.com, and CreditEasy.com. For example, the first Chinese online P2P platform established in 2007, Ppdai.com has had nearly 80,000 registered users within one and half years. My089.net is another large lending website in China, with a registered capital of 50 million RMB. Within three years, CreditEasy.com has developed its networks in Beijing and other fifteen cities and absorbed nearly \$100 million from thousands of private investors, transforming into a nationwide P2P lending platform.

Despite its fast growth, the P2P lending markets are still at an infant stage. In fact, only a few online platforms are able to achieve operational efficiency to survive and thrive in the fierce competition (Lin, 2009). Even for Prosper.com, fewer than 10% of the borrowers are able to successfully obtain funds as requested, while many lenders are ironically not able to find potential borrowers.

It is argued that information asymmetry and distrust brought by borrower's opportunistic behaviors may cause inefficiency of matching lenders and borrowers. As a result, most borrowers have been able to request funds only once and have to quit P2P lending platforms (Collier & Hampshire, 2010). Research shows that not only technical factors but also psychological factors could affect the behaviors of borrowers and lenders. Therefore, an examination of lending and borrowing behaviors and identifying antecedents of successful P2P loans is meaningful for the healthy development of online P2P lending markets.

In order to promote the healthy development of online P2P lending market, both

practitioners and researchers need to address the following questions: (1) What are the critical success factors for online P2P lending? (2) What are the determinants of using or giving up the online P2P lending? (3) What are the specific considerations when lenders do not honor certain requests from the borrowers? (4) What may contribute to a bad loan and hence negatively affect the credit of the borrowers? (5) How do we evaluate the risk of lending based on credit information provided by social networks?

However, these questions have received inadequate examination. To address those issues, we examine relevant studies on online P2P lending practices in two largest economies in the world: USA and China. Both countries experience fast growth of online lending, but the former represents developed countries, while the latter represents developing countries. The remainder of this paper is organized as follows: We first describe the research methodology, then present our findings, and conclude with discussions and directions for future research.

METHODOLOGY

We reviewed academic papers and research reports of online P2P lending published between January 2005 and November 2010. The papers and reports were retrieved from databases of EBSCO (BSP, ASP) database, Journal Storage, Springer Link database, ABI Complete database, Science Direct database, and Google Scholars, by searching and visual inspection of published abstracts with a combination of keywords. The keywords we used included "micro-lending", "microloan", "P2P lending", "peer-to-peer lending", "people-to-people lending", "person-to-person lending", "online lending", "social lending", "network loan", and "P2P loan". Following the guidelines provided by Robey *et al.* (2008), we also examined abstracts of articles whose titles may imply P2P lending. The searching yielded 31 articles, 19 of which are working papers, eight are conference papers, and four are journal articles. Two authors reviewed all the 31 articles independently and coded them into different categories. Following Robey *et al.* (2008), one author provided the initial coding, which was then reviewed by another author. Agreement on the findings of literature review was obtained after several rounds of discussions. We further compare online P2P lending practices in both USA and China based on limited data available from public sources.

RESEARCH FINDINGS

In the traditional lending context, financial institutions, such as commercial banks, take the role of a transaction intermediary. These banks take deposits at lower interest rates, and then make loans to customers at higher rates. As banks have sophisticated risk-assessment instruments and more information of borrowers, they are able to mitigate information asymmetry more effectively during the lending process. In contrast, in the online P2P lending settings, it is difficult for lenders to obtain comprehensive information about borrowers, resulting in a severe hazard of information asymmetry (Lin *et al.*, 2009). Therefore, most studies on online P2P lending focus on the mitigation of information asymmetry between borrowers and lenders in the lending process for the purpose of risk reduction, including: (1) the operation mode of online P2P lending; (2) impacts of "hard credit information", such as personal information, on lending outcomes; and (3) impacts of "soft credit information" on lending outcomes.

Operation Mode of Online P2P Lending

Calculation of Credit Score

Lenders are hardly able to get the overall information of borrowers. Therefore, how to mitigate information asymmetry between borrowers and lenders are critical to its success. Most lending websites have adopted a variety of methods to evaluate a borrower's creditworthiness. For the Prosper.com in the USA, the credit ratings of borrowers are directly extracted from the third party – Fair, Isaac Credit Organization (FICO) according to the borrower's social security number. However, there's no such agency in China, the credit scores of borrowers are mainly calculated from the information submitted by the borrowers themselves. For Ppdai.com in China, available information is limited to borrower's age, occupation, gender, marriage status, and any financial information provided by banks and other financial institutions. The credit rating system in My089.net [红岭创投] is even more complex. My089.net links its credit collection and reporting system with taobao.com [淘宝网], the largest B2C website in China and equivalent to Amazon.com in USA. Credit ratings of potential borrowers are calculated based on their credit ratings at taobao.com.

Transaction Fees

In general, there are no fees for posting a borrower listing. Fees are only charged if a loan is funded and money is transferred from lenders to borrowers. But there are still some differences in different lending websites. For the Prosper.com in the USA, the transaction fees include three components: closing fee, fines on failed payments, and late payment fee. The closing fee is a percentage of the amount borrowed and varies by Prosper Rating. The higher rating a borrower is, the lower closing fee she has to pay. In addition, a failed automated withdrawal, returned checks or bank drafts will result in a fee of 15 USD. If a monthly payment is 15 days late, the borrower has to pay a late fee to investors. In contrast, the transaction fee in China is much higher. For instance, transaction fees in Ppdai.com include four components: service fee, recharging fee, cashing fee, and late payment fee. Service fees are charged for all funded loans. The longer repayment period that a loan lasts, the higher fees the borrower has to pay. Recharging fees are paid by borrowers and lenders for charging money to their accounts, while cashing fees are paid by both borrowers and lenders for withdrawing cash from their accounts. The late payment fee is 50 RMB per payment plus 0.06% of the late payment amount per day. If the payment is late within 60 days, the fees are charged by the lending website, or else the fees will be transferred to investors to compensate for their losses. My089.net [红岭创投] in China charges even more. In addition to the above fees, it also charges VIP membership fees of 120 RMB per year.

Functions of Social Networking

Nearly all lending websites have provided the functions of social networking services. For Prosper.com, any members who signs up and has a verified email account can create or join a social network. There are two major types of social networks: friendship network and groups (Lin *et al.*, 2012). In a friendship network, a member can be friends with other verified members. Any member at Prosper.com can also create a group and can join in any group if she can meet its membership criteria. However, an individual can only be a member of only one group at a time. The situation is slightly different in China. Ppdai.com provides two types of social networks: friendship network and discussion forum. The friendship network is quite the same as that in the Prosper.com, but the

discussion forum is more like a bulletin board, where any members can post comments and reply to other members' comments. The lending platform of My089.net [红岭创投] only provides discussion forums on its website.

In summary, there are significant differences of functions and operation modes of online P2P lending between USA and China. The loan default rate in Prosper.com in the USA ranges from 1% to 2%, while it ranges from 2%-3% for the Ppdai.com in China, indicating that a developed financial ecosystem, such as independent third-party credit evaluation institutions, is critical to the reduction of default rates in online P2P lending. A comparison of online P2P lending websites is shown in Table 1.

Table 1 Comparison of Online P2P Lending in USA and China

	Transaction Fee	Credit Rating	Social Network	Growth	Risk Control	Default Rate
Prosper (USA)	middle	high	medium	fast	high	1%-2%
Ppdai (China) (拍拍贷)	medium	low	weak	medium	low	2%-3%
My089 (China) (红岭创投)	high	medium	weak	medium	medium	Unknown

(Source: compiled by authors)

Impacts of “Hard Credit Information” on Lending Outcomes

“Hard credit information” refers to the credit information that can be accurately quantified, easily stored and efficiently transmitted. In the P2P lending context, hard credit information includes the credit profile of borrowers, such as a borrower's debt-income ratio, credit ratings, the number of credit inquiries made in the past, and the number of credit cards the borrower holds (Lin, 2009; Lin *et al.*, 2009; Lin *et al.*, 2012). In a typical online transaction, such as purchases at eBay.com, a buyer cannot easily obtain detailed information about the seller and hence has to judge the trustworthiness of the seller through some observable behaviors or signals (Bacharach & Gambetti, 2001).

Similarly, in the P2P lending setting, since lenders cannot obtain detailed information about the borrowers, lenders have to depend on the signals available to them to judge the creditworthiness of borrowers and make lending decisions accordingly. Studies have revealed that two features of signals are playing a vital role in the decision making of lending: the cost of obtaining signals and the difficulty in assessing signals (Collier & Hampshire, 2010; Spence, 1973). In P2P lending, borrowers' personal information and information in loan listings are considered important signals by lenders to evaluate borrowers' trustworthiness, assess borrowers' default risk, and set interest rates (Collier & Hampshire, 2010; Lin, 2009).

Borrower's Credit Rating

Through analyzing data collected from Prosper.com, Lin (2009) discovered that borrowing requests with lower credit ratings are less likely to be funded and more likely to default and end with higher interest rates. More interestingly, Lin *et al.* (2012) found that bank card utilization has a curve linear effect on lending outcomes: while bank card utilization at low and medium levels signals the creditworthiness of borrowers, very high utilization of bank cards leads to decreased funding probability and increased interest rates due to the risk of high leverages and vulnerability to shocks.

Further research (Iyer *et al.*, 2009) found that borrower's default rate, debt-income ratio, and the number of loan requests in the last six months have had a salient negative effect on a lender's decision.

Although there are no conclusive findings concerning the impact of credit rating on lending outcome for online P2P lending websites in China, Chen (2012) reported that credit rating in Ppdai.com in China is influential in determining funding probability, but less of a determinant for interest rates. However, default rate is much lower for borrowers with higher credit levels.

Information of Loan Listings

Research has shown that the success rate of a loan is negatively correlated with the interest rate. In practices, borrowers have to trade off between these two factors. Moreover, the size of loan is associated with lower success rate and higher interest rate; therefore, it is possible for borrowers to increase the success rate of a loan by paying higher interest rates and/or reducing the loan size (Collier & Hampshire, 2010). A loan request may be listed in a closed format, where the auction closes as soon as the total bid reaches the amount desired by the borrower at the borrower's asking rate, or in an open format, where lenders can continue to bid down the interest rate even if the requested amount is fully funded within a specified time window.

Research suggests that the auction format influences lender's judgment: loans with closed auction format may have a greater chance to be successfully funded, but with higher interest rates. However, no significant differences in the default rates are noted between loans with open and closed formats (Lin *et al.*, 2012; Puro *et al.*, 2010). In addition, the purpose of a loan carries some influences on a lender's decision: the success rate is lower and the interest rate higher for commercial loans than for debt consolidation loans (Wang *et al.*, 2009). Collier and Hampshire (2010) found that loan size, borrower's financial situation (i.e., debt-income ratio) and auction format have impacts on interest rates.

Studies have also revealed that lenders would use some subjective, non-standardized information to derive the borrower's credit ratings. For instance, the highest interest rate that the borrowers are willing to pay is a valuable, positive signal for potential lenders (Iyer *et al.*, 2009). For the lending websites in China, information asymmetry is found to moderate the impact of social capital on trust, which is critical to willingness to lend (Chen *et al.*, 2012).

Demographic Information

Studies indicate that the borrower's demographic information, such as gender, age, and race, may have great impacts on the lenders' willingness to lend (Ashta & Assadi, 2009a; Berger & Gleisner, 2007; Kumar, 2007). For instance, Barasinska (2009) found that the gender of lenders will affect their lending decisions: male lenders are more likely to choose risky borrowers than female lenders are. For the lenders in China, it is reported that the higher income a lender has, the more likely she will lend (Ding *et al.*, 2010).

In summary, research in this area remains limited. Since current empirical research has primarily used secondary data collected from Prosper.com (e.g., Lin *et al.*, 2009), it is rather difficult to generalize their findings to other settings. Different lending platforms may adopt different "hard credit information", and the impact of "hard credit information" on the lending outcomes needs to be further examined in other contexts.

Impacts of "Soft Credit Information" on Lending Outcomes

In contrast with "hard credit information", such as credit scores or the financial conditions of the borrowers, "soft credit information" refers to information that is fuzzy and hard-to-quantify about borrowers. In P2P lending, soft credit information may be obtained from social networks of borrowers (Collier & Hampshire, 2010; Iyer *et al.*, 2009; Katherine & Sergio, 2009; Lopez, 2009). Online P2P lending platforms not only disclose a borrower's personal and loan information, but also provide information about a borrower's social networks. Using Web 2.0 technology, lenders involving in P2P lending can easily retrieve soft credit information from a borrower's social networks (Lin, 2009). Micro-finance theory suggests that social networks can help reduce information asymmetry in the lending process, and hence motivate borrowers to pay back loans (Katherine & Sergio, 2009). The role of social networks also applies to the online P2P lending context (Lin *et al.*, 2012).

Information Asymmetry

The relational dimension of social networks can reduce information asymmetry in the transaction process. Using data collected from Prosper.com, Lin *et al.* (2009a; 2009b; 2012) studied how social networks play roles in improving the loan success rate and lowering interest rate and found that social networks can effectively reduce information asymmetry in the transaction process. Online social networks are also found to have played an important role in reducing information asymmetry and improving credit ratings (Everett, 2008; Wei *et al.*, 2010). Research has further suggested that becoming a member of a trusted group can improve the success rate of a loan and also help people with low credit scores to get their loans funded at affordable interest rates (Lopez, 2009; Lopez *et al.*, 2009). With the help of information technology, social networks could send out valuable signals to lenders; but the effectiveness of the signals depends on their reliability and verifiability (Katherine & Sergio, 2009).

Success Rate and Interest Rate

Social capital generally refers to the resources and connections associated with a social network. An individual's social capital can be assessed from her social network, including friends and colleagues (Burt, 1992), memberships or group affiliations in social networks (Portes, 1998). In P2P lending, social capital as a source of soft credit information may affect the success rate and interest rate of a loan. Greiner and Wang

(2009) found that the more social capital borrowers have, the greater chances their loans can be funded, and the lower interest rates they have to pay. When a borrower's credit score is low, lenders need more information to further assess the borrower's creditworthiness in order to reduce the lending risk. In this case, lenders depend on the borrower's social networks to obtain information for lending decision. Collier and Hampshire (2010) studied the impacts of social networks on lending behaviors based on signal theory, and found that by communicating frequently with the other members, involving proactively in transactions, and vouching frequently for others' lending, the borrowers could send strong signals to the lenders about borrowing trustworthiness. Lin *et al.* (2012) found that social capital produces an "informational externality", which can be utilized to facilitate online transactions, leading to reduced interest rates on funded loans. The publications concerning online P2P lending in Chinese context is limited. Chen *et al.* (2012) found that both structural and relational social capitals are influential on lending trust, and such relationship is stronger when perception of information asymmetry is stronger.

While the creation of a self-organized group may help the online P2P lending marketplace operate efficiently, empirical studies have revealed mixed findings: allowing the group leaders to reward in securitization (e.g., a fee for successful listing) is detrimental (Hildebrand *et al.*, 2010). Freedman and Jin (2008) found that return on investment of group loans was significantly lower than non-group loans. When a loan requires "endorsement" by friends, the loan default rates would be relatively low, but interest rates may increase.

Default Rate

With regard to the impact of social capital on loan defaults, research has also presented a mixed picture (Karlán, 2007; Katherine & Sergio, 2009; Ortega & Bell, 2008). While the total number of friends was found to be insignificant as a predictor of default, Lin (2009) estimated that friends in a borrower's social network with verified identities as lenders decreased the odds of default by 9% on average. The odds of default were further lowered if the borrower's friends join in bidding; this was particularly the case when a friend bid successfully, resulting in peer pressure for a borrower to repay the loan when friends take stakes in a borrower's listing. Berger and Gleisner (2007; 2009) provided further support for the effect of social capital on default rate based on group membership. From the perspective of information asymmetry, Berger explained that group leaders may have more private information about the borrowers than general lenders so that group leaders are more capable of selecting the right borrowers and more powerful in forcing borrowers to repay loans. In fact, group leaders are actually playing the role of a lending intermediary in the transaction process.

Some research, however, reports opposite results on the effects of social capital. Greiner and Wang (2009) found that, although lenders would take into account in the decision process the information of social capital, social capital had no significant effect in reducing borrowers' default rate since the reported explanatory power of social capital was very weak (only 0.3%) in predicting default rate. In addition, by analyzing 6-month secondary data on lenders, borrowers and loan repayments collected from Prosper.com, Kumar (2007) showed that credit grade and account verification were associated with lower probability of loan default while loan size was positively associated with default rate.

Interestingly, certain factors which affect interest rates and risk premiums, such as debt to income ratio, home ownership and group leader endorsement, demonstrated no significant effects on default rates.

In summary, there has been extensive research on the roles that social networks are playing in facilitating the online P2P lending process. However, current studies are still subject to several limitations: 1) current studies are mainly focusing on secondary data obtained from Prosper.com without much knowledge about lending behaviors, which may be better understood using other research methodologies, such as questionnaires, structured surveys, in-depth interviews, and experiments; 2) Current studies are mainly focusing on commercial platforms such as Prosper.com, without taking into consideration many other successful online P2P lending platforms which adopt different business models with various structures and working mechanisms; 3) Since social and cultural environments vary with countries, social networks may play different roles in different countries. It is wise to study different lending platforms in different social and cultural contexts; 4) Current studies only take into account some easily quantifiable information obtained from social networks, excluding a loan's comments from other users and the text description of a loan, which turn out to be important in understanding the lending behaviors.

Other Related Research in P2P Lending

Research on Loan Interest Rate

Micro-loans made through social networks demand much higher interest rates than those made by commercial banks due to relatively high transaction costs. Ashta and Assadi (2009b) reported that while most of the online P2P lending sites act as intermediaries in transactions, both lenders and borrowers rarely contact each other directly. Therefore, it is not easy for a lender to find an appropriate loan listing. In fact, only a few sites, such as "Virgin Money" and my089.com, allowed both sides to make direct contacts (Galloway, 2009). Garman *et al.* (2008b) found that borrowers needed to pay "search premiums" because lenders usually needed to search extensively before making a final decision.

Research on Efficiency of Online P2P Lending Marketplace

Current studies are mainly focusing on whether lenders behave rationally by analyzing secondary data from Prosper.com. In online P2P lending market, higher interest rates may imply higher risk premiums, and hence lenders are still facing serious risk of adverse selection (Garman *et al.*, 2008a; Garman *et al.*, 2008b). It seems that lenders are not able to well comprehend all the signals sent by the social network, resulting in wrong decisions in bidding loan listings. But this situation is changing as lenders continue to learn and draw lessons from failures. However, Lopez *et al.* (2009) found that only a few members benefited from the use of social networks, and most borrowers did not utilize social networks to update their credit profiles. Berger and Gleisner (2007; 2009) concluded that lenders were not entirely rational, and their investment behavior was something like "Herd Instinct." Further research also found that strategic herding behavior existed in loan auctions (Herzenstein *et al.*, 2011).

In summary, studies suggest that not all the lenders' behaviors are rational, and those irrational behaviors result in increased transaction costs and decreased operational

efficiency. Therefore, it's of utter significance to fully understand the borrower's behaviors in order to improve the designs of online lending platforms.

DISCUSSIONS AND DIRECTIONS FOR FUTURE RESEARCH

We find that although there are differences for operation modes of online P2P lending in USA and China, both "hard" and "soft" credit information may have impacts on lending outcomes in both countries. This study may enhance our understanding of online lending marketplaces and provide directions for further research.

Online P2P lending is still at its infant stage, and academic research in this field is rather limited since most of the literatures are in the form of working papers and conference proceedings. Based on signal theory and social capital theory, current research has examined lending behaviors from the perspective of information asymmetry, but been limited to the analysis of secondary data obtained from Prosper.com. Therefore, current research findings should be cautioned before generalized to other contexts. In addition, since discrepancies exist in research findings, it is beneficial to study the phenomena from different perspectives and across countries.

Given the limitations of the current research and the need to further our understanding of online P2P lending, we have identified three promising directions in future research: (1) comparison of business models across different lending platforms, (2) exploring critical factors influencing users' adoption of P2P lending platforms, and (3) investigating P2P lenders' behaviors.

Business model comparisons

The success of a P2P lending platform largely depends on its creative business model. In-depth examination of the business models of different online P2P lending platforms not only helps us better understand the nature of online lending, but also provides insights into the improvement of these platforms and the design of new business modes. While this current research compares online P2P lending practices in USA and China, future research benefits greatly from collecting data from other developed economies and emerging markets.

Adoption studies

Users' acceptance and actual use of a lending website are critical for the success of a lending website (Legris *et al.*, 2003). Although there are a large number of theoretical lenses explaining the adoption and diffusion of technologies (Chen *et al.*, 2010; Venkatesh *et al.*, 2003) and customers' intentions of online purchase of products (Harris *et al.*, 2005; Jones and Leonard, 2008; Kim *et al.*, 2008), theories that are specifically focusing on P2P lending are scarce. Due to different characteristics between online product purchases and online P2P lending, the extant theories in the field of electronic commerce cannot be simply applied to the P2P lending context. As online P2P lending is still not widely accepted, exploring critical factors that influence the acceptance and actual use of P2P lending websites are important for the development of P2P lending theory and practice.

Studies on lenders' behaviors

Based on analysis of secondary data obtained from Prosper.com, current studies have provided support that a borrower's hard and soft credit information, including credit ratings, income, banking information, loan amount, and information of social networks, may affect the success rate of getting funded, and interest rates and default rates of a loan (Freedman and Jin, 2008; Lin, 2009; Puro *et al.*, 2010). However, the influences of critical factors on lenders' behaviors and the final outcomes need to be further examined using transaction and other behavioral data collected from different lending websites employing different business models.

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