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by Florentina Kurniasari

The Effects of Perceived Usefulness, Perceived Ease of Use, Perceived Security and Risk-Free on the Customer Decision to Borrow Using P2P Lending

Florentina Kurniasari[a], Prio Utomo[b], [a,b]Technology Management Department, Universitas Multimedia Nusantara, Indonesia, Email: [a]florentina@umn.ac.id, [b]prio.utomo@umn.ac.id

The advance of technology development today brings innovation in the financial industries. Financial technology continues to emerge in the sectors of payment, investment, and loans online and as we are familiar with the term, P2P Lending. The purpose of this research is to analyse the effect of perceived usefulness, perceived ease of use, and perceived risk-free and security in customer borrowing decisions on the P2P lending platform, using the Technology Acceptance Model approach. As quantitative research, the study distributed questionnaires to 266 respondents of ultra-micro segments, domiciled in East Java province. The data collection was further processed statistically using the Structural Equation Method (SEM). The study showed that the customer decision to borrow is significantly influenced by the trust variable, in which perceived ease of use had the most significant influence in creating the borrower's trust.

Key words: *Perceived Usefulness; Perceived Ease of Use; Perceived Security and Risk-Free; Trust; Borrowing Decision; P2P Lending Platform, Ultra-Micro Segment.*

Introduction

The advance of information technology has encouraged the increase of innovation in many business and financial sectors. As a new platform, financial technology (fintech) offers more than simplifying financial transactions, minimising cost and increasing financial services (Barras, 1990; Blohm et al., 2013). Peer-to-Peer Lending (P2P lending) is a form of crowdfunding without involving any financial institution as the intermediaries (Follain &

Zorn, 1990; Walchek, 2015) using an online platform (Moonsamy, 2018; Williams-Grut, 2016).

The fintech is expected to fill the gap of financing needs and increase financial inclusion for Indonesians who were un-bankable but had potential business. In the year 2018, the total financial technology market in Indonesia reached $US22 million, in which lending occupied 31% of the total industry. While the latest fintech is continually being introduced, the target number rate of the financial inclusion did not keep up at the same pace as possible on such changes. Indonesians are still reluctant to use a mobile phone in doing financial transactions, including lending and borrowing activities. Indonesians have always been communal, in which they keep close-knit communities, and the cultural values push forward principles of collectivism (Williams-Grut, 2016) and follow their inclusivity and friendliness (Zhu et al., 2012).

The success of the P2P lending platform relied on the social aspect, which was referred to as social networking (Venkatesh, 2009), in which families and friends played an essential role in this business model in creating mutual trust between lender and borrower (Littler & Melanthiou, 2006). In the technology acceptance model, the aspects of perceived usefulness, perceived ease of use, and perceived risk-free and security had a significant effect in creating customer trust in adopting the new technology platform (Lee, 2009; Zhang et al., 2017). Therefore, the purpose of this study is to analyse which variable of technology acceptance model had the highest effect in creating trust and finally influencing the customer decision to obtain a loan from the P2P lending platform.

Literature Review

Peer-to-Peer Lending

Fintech is defined as mobile-based technology to increase financial system efficiency (Li & Huang, 2009) and offered financial services (Blohm et al., 2013). The advancement of digital technology create value by using the Internet to make changes (Pateli & Giaglis, 2005; Walchek, 2015). The information technology was shown to change people's way of life, since social interaction networking and relationship was interconnected by the Internet and technology (Lim, 2003). Fintech is an innovative business model in financial services created from the increase in the sharing economy system, and the loosening of government regulation (Blohm et al., 2013). P2P lending is defined as all lending and borrowing activities among individuals using a technology platform without any intervention from a traditional financial institution (Blohm et al., 2013; Schierz et al., 2010) and related to Internet-based financing platform (Khosravi & Hussin, 2014). The P2P lending model involves borrowing and lending

activities using a digital technology platform (Meng, 2016), offers to unbundle financial services (Chen et al., 2014) and acts as an intermediary that connects the lenders and the borrowers (Schierz et al., 2010). The P2P lending platform analyses data and information both from the lender and borrower to control the risk, set-up the maximum loan nominal amount, the loan duration, and repayment scheme (Khosravi & Hussin, 2014).

Ultra-Micro Segment

Indonesia is renowned for its large-scale microfinance sector, with over 50 million small-medium enterprises (SMEs) with the contribution 30% of GDP growth in 2012 (Lim, 2003). However, many of these do not have adequate access to the bank financing they need to grow their businesses, particularly in rural areas. Most microlending has been located in the urban areas of Java and Sumatra, where the Indonesian population is concentrated (Kurniasari & Prihanto, 2019).

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was a model that could be used to analyse which factors influence people in receiving the information and adopting the new technology (Venkatesh & Bala, 2009). TAM was introduced by Venkatesh and Bala (2009) to measure the individual's ability to adapt and accept the latest technology. The TAM concept focussed more on two factors that referred to perceived usefulness and perceived ease of use (Venkatesh & Bala, 2009). Later, this theory was further developed into the Unified Theory of Acceptance and Use of Technology (Phonthanukitithaworn et al., 2016). Some factors included the Perceived Usefulness, Perceived Ease of Use, Perceived Risk (Egbunike et al., 2018). Meanwhile, trust referred to the people's acceptance in adopting the new technology and belief that new technology would deliver more benefits to them (Lestari, 2015; Luo et al., 2010).

Perceived usefulness

Perceived usefulness referred to the capabilities of the technology in completing the works (Saadé & Bahli, 2005; Utomo & Budiastuti, 2019). Venkatesh and Bala (2009) stated that individuals would use the new technology only if given a positive contribution to the working performance. Phonthanukitithaworn, Sellitto, and Fong (2016) explained that perceived usefulness was the main factor in individual usage intention in using the new technology.

Perceived ease of use

Perceived ease of use is defined as easiness in using and applying the technology (Phonthanukitithaworn et al., 2016). If individuals believed that the usage of new technology application was less effort and problem-free, the customers were willing to adopt the technology easily (Zhang et al., 2017). Utomo & Budiastuti (2019) explained that perceived ease of use had i on using the new application.

Perceived Security and Risk-Free

Each customer had an individual perception of all risks related to using the new technology (Abd Hamida et al. 2018). Perceived risk is defined as individual perception in anticipating risks associated with the products or services consumption. (Abd Hamida et al., 2018). Lestari (2015) added that perceived risk represented individual perception about the potential negatives in the processing of usage of products and services. Khosravi & Hussin (2014) stated that individuals were less interested in adopting higher risk platforms.

Trust

Trust came if an individual had a secure feeling towards a technology program (Abd Hamida et al., 2018; Li & Huang, 2009). Trust is defined as a feeling of safety towards something (Schierz et al., 2010) and could be further classified as belief, confidence, attitude, expectation about other parties' reliability and behavioural intention. (Li & Huang, 2009). Trust was created if the borrower had extensive knowledge about the benefit of the platform and how the business model was able to solve the problem in providing the loan (Greiner & Wang, 2007; Meng, 2016). Based on the explanation above, the research was able to develop a theoretical framework in figure 1.
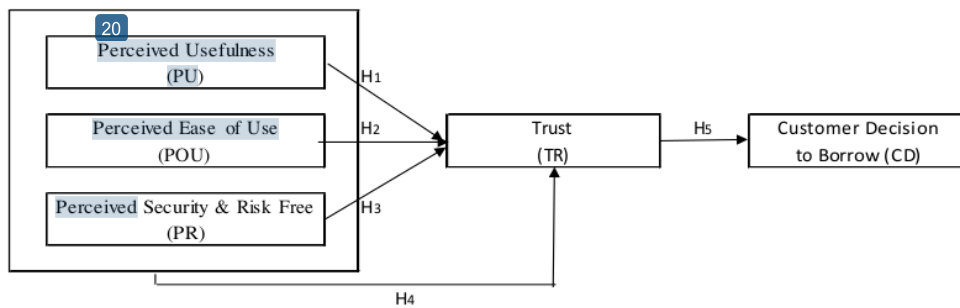

Figure 1. Proposed Research Framework

Based on the proposed framework in figure 1, the study was able to develop some hypotheses as follows:

H₁: Perceived Usefulness has a positive influence on customer trust. Defined that perceived usefulness was the main factor in developing trust in acquiring and using the new technology.

H₂: Perceived Ease of Use has a positive effect on customer trust. In which the perceived ease of use created borrower trust if the borrower felt easy in using the new application.

H₃: Perceived Security and Risk-Free influenced trust. Lower risk platforms would develop customer trust more easily. Borrowers in P2P lending platforms look for safety protection, which is measured by sufficient security to protect the user, transactional safety information, and secure financing transaction.

H₄: Perceived Usefulness, Perceived Ease of Use, and Perceived Security and Risk-Free together had a significant effect on trust. The borrower trust was developed if the platform would be able to deliver the usefulness, the ease of use of the platform, and at the same time giving a secure feeling or less risk in accessing the new technology.

H₅: Trust had a significant influence on the customer decision to borrow for ultra-micro segments in Indonesia's P2P lending platforms. Trust is able to reduce the perception of uncertainty, risks of digital financing and would influence the customer's decision to borrow.

Methods

As a descriptive research design with a single cross-sectional data collection (Knottnerus & Muris 2003; Malhotra et al., 2012), the purposive sampling method was used to learn the sample that could be used as a research target (Tongco, 2007). This study was distributed to 166 respondents as ultra-micro segments who were located in the administrative region of East Java. The stratified random sampling method was used to represent and get the generalisation from the population. Like quantitative research, the respondents were asked to answer close-ended questions with a 1-5 Likert scale. All the primary data was further tested statistically using the Structural Equation Model with Lisrel 8.80 software.

Results and Discussion

Demographic data explained the profile of the respondents; 55% of respondents were female, with the majority being 21-25 years old (53%); 62% of respondents had monthly income between 1-4.9 million Rupiah. The major financial transaction (63%) was asking for a loan to expand the business (73%), with the loan duration maximum one year (47%) with average loan nominal around three million Rupiahs (22%). Most found difficulties in providing the collateral (35%) and prefer to choose the platform that could offer shortened approval time in processing the loan (28%). Using the Pearson correlation method and pre-test, it found that the critical value of $t > 0.671$ showed that all indicators had a strong correlation. The reliability test using Cronbach's Alpha coefficient showed a number of 0.911, which meant that this research is valid. The Confirmatory Factor Analysis (CFA) was used to measure the suitability of the research model. Analysis of the structured model was used to see the correlation toward the latent variable. Table 1 showed that only the AGFI indicator had a value of < 0.90, and there were perfect theories in this research. The value of R Square and Adjusted R Square for each variable is shown in table 2.

Table 1. Design Summary for Goodness for Fit Testing Model

GOF Indicator	Estimated value	Testing Result	Conclusion
Absolute Fit Value			
GFI	GFI ≥ 0.90	0.90	Good Fit
RMSEA	RMSEA < 0.08	0.048	Good Fit
Incremental Fit Value			
NNFI	NNFI > 0.90	0.98	Good Fit
NFI	NFI > 0.90	0.97	Good Fit
AGFI	AGFI > 0.90	0.89	Marginal Fit
RFI	RFI > 0.90	0.96	Good Fit
IFI	IFI > 0.90	0.98	Good Fit

Source: Data Analysis using LISREL 8.80

Table 2. R-Square and Adjusted R-Square

Variables	R-Square	Adjusted R-Square
Perceived Usefulness	0.040	0.031
Perceived Ease of Use	0.361	0.334
Perceived Security & Risk-Free	0.005	-0.005
Trust	0.862	0.783

Source: Data Analysis using LISREL 8.80

Meanwhile, the result of hypothesis testing using a path diagram could be explained as follows in figure 2 and figure 3.
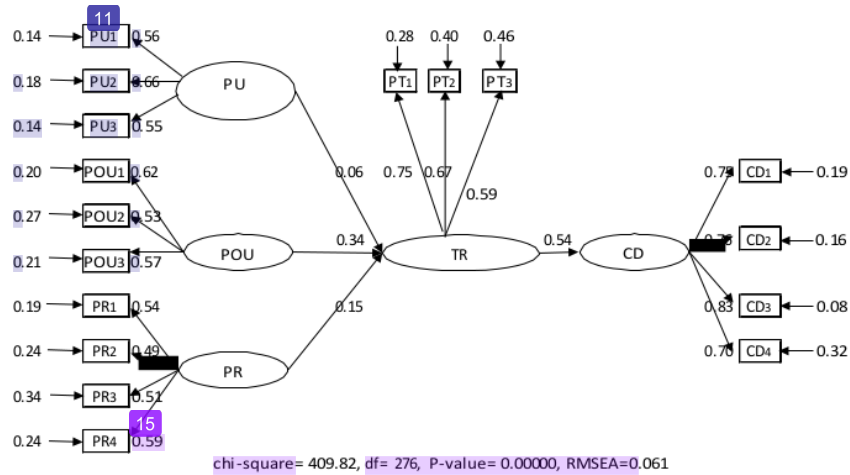

chi-square= 409.82, df= 276, P-value= 0.00000, RMSEA=0.061

Figure 2. Structural Diagram (Standardised)

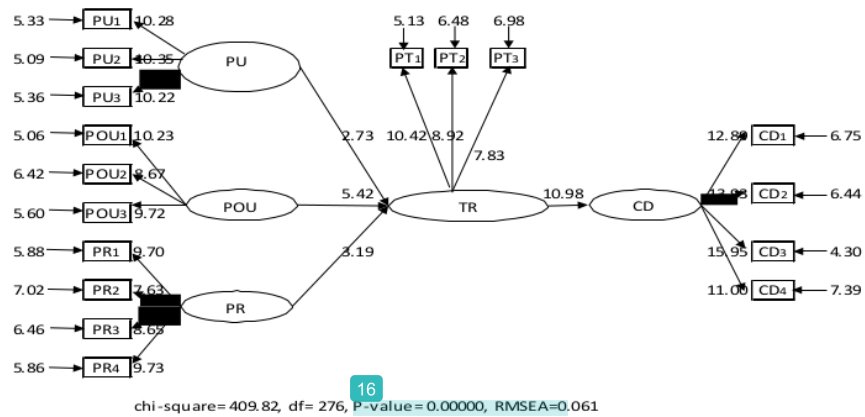chi-square= 409.82, df= 276, P-value= 0.00000, RMSEA=0.061

Figure 3. Structural Diagram (t-value)

The result of the hypotheses testing is explained in table 3.

Table 3. Result of Hypothesis Testing

Hypotheses	Variables	Coefficient Standard	t-Value	Statistical Conclusion
H_1	PU → TR	0.06	2.73	Data Supported
H_2	POU → TR	0.34	5.42	Data Supported
H_3	PR → TR	0.15	3.19	Data Supported
H_4	PU, POU, PR → TR	0.33	8.15	Data Supported
H_5	TR → CD	0.54	10.98	Data Supported

The researchable to create a structural equation model is as follow:

$$TR = (0.06 \times PU) + (0.34 \times POU) + (0.15 \times PR)$$
$$CCC = (0.54 \times$$

$$TTT)$$

The result of hypotheses testing could be explained further:

H_1: Perceived Usefulness had an effect on customer trust, with the t-value > 2 (2.73> 2), with the effect value of 0.06. The finding was contrary to the previous research conducted by (Egbunike et al., 2018), who stated that perceived usefulness did not statistically lean significantly toward trust. The research showed that the borrower intending to choose the P2P lending was influenced by the effective loan application administrative process that encourages a shorter approval time. This finding supported the previous research done by (Li & Huang, 2009), who mentioned that borrowers preferred to get financing from the P2P lending that could offer better services.

H_2: Perceived Ease of Use had a positive effect on customer trust, with the t-value of 5.42 and the effect value of 0.34. The result supported the previous research that mentioned that trust was influenced by the perceived ease of use (Li & Huang, 2009). If users found difficulties in accessing the digital platform, it would also influence their reluctant behaviour in adopting the new technology (Egbunike et al., 2018). The result of this research also aligned with the previous study of (Chen et al., 2014), who explained that one key success factor for the P2P lending platform to attract users was the ability to provide the user interface (UI) and user experience design (UX).

H_3: Perceived Security and Risk-Free influenced trust, with the t-value of 3.19 and the effect value of 0.15. Some risks related to the P2P lending were the unapproved loan application, failure to meet the government regulation, higher interest rate, and default rate (Li &Huang, 2009). The finding also supported the research done by Walchek (2015), who explained the secure platform would maintain the customer secrecy .

H4: Perceived Usefulness, Perceived Ease of Use, and Perceived Security and Risk-Free together had a significant influence on trust, with the t-value of 8.15 and the effect value of 0.33. Trust played an essential role in the borrower's decision. The P2P lending platform had to deliver excellent service quality. The finding aligned with the research of Walchek (2015), who found that customer trust was significantly influenced by excellent service quality.

H5: Trust had the strongest and most significant influence on the customer decision to borrow for ultra-micro segments in Indonesia's P2P lending platforms, with the t-value of 10.98 and the effect value of 0.54. The finding supported the previous study that mentioned trust as the primary factor in creating customer perception (Egbunike et al., 2018). The customer preferred to choose the platform that had positive credibility in public image Walchek (2015). Customers preferred to do business with authorised P2P lending. In Indonesia, P2P lending had to register and get a licence from the government body (OJK). The study aligned with the research result from (Li & Huang, 2009), who stated that every business organisation must meet and follow government regulations.

Conclusion

Trust had the highest effect on influencing customer decisions to borrow. Meanwhile, all the variables, such as perceived usefulness, perceived ease of use, and perceived security and risk-free, had a positive impact on developing the borrower's trust. The application platform should develop innovation (Lestari, 2015) that focusses more on user-friendly features and experiences using more understandable languages and symbols. The R-square of this research showed the value of 0.862. It meant that even trust had a positive impact on a customer's decision to borrow with an 86.2% effect. There might be other variables that could be considered in influencing trust, such as social networking and customer knowledge (Abd Hamida et al. 2018). But there's an urgency to encourage the support of the technology financial ecosystem, including the government in initiating a precise regulation to protect the stakeholders and, at the same time to deliver the highest standard of service quality to attain firm competitiveness and performance (Utomo & Budiastuti, 2019).

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