EFFECTS OF PERCEIVED USEFULNESS, EASE OF USE, RISKS, AND INFORMATION QUALITY OF SALES PRODUCTIVITY APPS ON DSA'S BEHAVIOR

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Abstract

Technological advancements have brought innovation in the financial industry with various platforms. Although these platforms are easily accessible, some Indonesians are still reluctant to use them, hence the need for proper introduction and information delivery. Peer-to-peer (P2P) lending platforms need to develop and implement applications that can monitor the activities and increase the productivity of direct sales agents (DSAs) to gain the trust of potential borrowers. This study analyses the influence of perceived usefulness, ease of use, risk, and information quality on the actual behaviour of DSAs when using sales productivity applications with behavioural intention as an intervening variable to be statistically processed using the Structural Equation Method. The questionnaire was distributed to DSAs of Modalku platform. The results showed that DSA's actual behaviour in using the application was significantly influenced by intention to use, perceived usefulness, ease of use, risk, and information quality. Perceived risk has the highest influence.

Keywords: perceived usefulness; perceived ease of use; perceived risks

INTRODUCTION

The growth of current innovation in many business and financial sectors in Indonesia had been supported by the advance of information technology (Lestari, 2015). Financial technology (fintech) offers simplifying financial transaction at minimizing cost (I. Lee & Shin, 2018). One form of fintech that offered lending services is Peer-to-Peer Lending (P2P lending). P2P lending is crowdfunding platform without involving any financial institution as the intermediaries (Cinca et al., 2015) using an online technology (Ritter et al., 2009). Indonesia government expected that the fintech will be able to fill the gap of financing needs, increase financial inclusion for Indonesians who were un-bankable but had potential business and as an alternative source of financing (Abd Hamid et al., 2018).

As one of the populous country in the world, Indonesia economic was mostly supported by the ultra-micro segments who are characterized by their low daily income sales and having simple self-owned trading business. Indonesians have always been communal, in which they keep close-knit communities and the cultural values push forward principles of collectivism (Minkow, 2013). Many of them still had reluctance in using mobile phone in doing the financial transaction, included the lending and borrowing activities (Dellner, 2014).

Therefore, the P2P lending business platform still rely on the direct sales agents (DSA) to educate; to give appropriate information about the financial technology platform and to sell the product itself. One of the P2P lending platform (Modalku) initiated to develop the system (called The Worm) that can be used for the DSA in approaching prospect borrowers and maintaining the relationship with the existing borrowers. The innovative strategy was developed by Modalku using the direct agent sales (DSA) system in approaching the new lead prospective customers. Even P2P lending system is highly emphasized with the technology application and platform, Modalku chose to combine the existing system with the direct selling strategy. The system was expected to increase the DSA productivity, to manage the application process efficiently, to monitor the DSA activities and in the same time handling the borrower problems in a speedy time. The apps would be installed directly into each DSA smartphone app and integrated online directly with the system running in the Modalku headquarter. Therefore, the management of Modalku were able to get the necessary information real time.

The DSA of Modalku are expected to be able to play the role to give adequate information about the product and the platform and in the same time influencing the prospective borrower to apply the loan. The DSA act as an educator who will explain the benefit of the product to increase the borrower business performances. By using this mobile application, Modalku management is able to easily monitor the activities of their sales agent when meeting with the prospect customers in the exact location and in the same time having adequate knowledge about the business of prospect borrower. The mobile-based application provides the real-time information accurately and shorten the application processing time. The apps make it easier to handle the whole application process, increase efficiency, improve customer service, and increase the approval rate. Some benefits of the mobile-based application system are: easy coordination among the team member by sharing information and data accurately; keeping tracking the application process; simplify the reporting system and allocation of the resources.

The implementation of the new application "The Worm" is changing the flow and business process of Modalku in acquiring new customers. The new application shortens the business process in measuring the performance of the direct sales agents (DSA). The DSA are able to download the Worm apps easily and login through their smartphone. The Worm enable them to record their attendance directly. By recording their attendance via apps, the DSA do not need to go to Modalku office every day. DSA also able to inform and give the reason to the office about their absence in the Worm apps. The new apps reduce the time needed for them to go to the office. They can start visit the prospect customers as soon as possible during the office hour that starting on 8 a.m. The apps system allows them to acquire more prospect borrowers and allocate their time to visit the existing borrowers. All the DSA activity will be recorded real-time and the Modalku management had the opportunity to monitor directly. Managing the time efficiently, the DSA have the opportunity to fulfill the target of new borrowers. If the DSA find any difficulties in achieving the target, the Modalku management is able to respond and solve the problem.

The successful implementation of this application was highly dependent on the actual usage of DSA in accessing the apps. A mobile-based application defined as a type of application software designed to run on a mobile device. The mobile application itself has the ability to utilize data from the GPS to ensure the location of the direct sales agent (Cinca et al., 2015). The mobile application also has the facility to read the item barcode using the camera to accelerate the input all necessary information and data.

Technology Acceptance Model (TAM) was a model that could be used to analyze which factors influence people in receiving the information and adopting the new technology. TAM introduced by Venkatesh and Bala (2009) to measure the individual ability to adopt and accept the new technology. TAM concept focused more on two factors which refered to perceived usefulness dan perceived ease of use (Venkatesh & Bala, 2009). Later, this theory was further developed into Unified Theory of Acceptance and Use of Technology (Phonthanukitithaworn et al., 2016). Some factors included the Perceived Usefulness, Perceived Ease of Use, Perceived Risk and Information Quality (Egbunike et al., 2018).

Perceived usefulness defined as user assumption that the technology was able to assist in completing the works (Davis, 1989). Perceived of usefulness is one of the important independent variables in TAM theory that predicts usage behavior and is defined as the extent to which a person believes that using information technology will improve his work performance (Venkatesh & Bala, 2009).

Perceived ease of use defined as an easiness in using and applying the technology (Venkatesh & Bala, 2009). If individual believed that the usage of new technology application was less effort and problem free, the customers were willing to adopt the technology easily (Lim, 2003). Perceived ease of use of a technological innovation has been found as one of the success factors for technology innovation (Blohm et al., 2013).

Mwiya et al. (2017) stated that information quality could be measured with the quality content of the information system. Alarcon-del-Amo et al. (2014) said the information quality was the function related with the value of information output of a system. A good information quality would bring customer trust in using the technology. Shipps and Phillips (2013) mentioned there was three main dimension of information quality, including: accuracy, timeliness and relevancy.

Each customer had an individual perception about all risks related in using the new technology (Liebana-Cabanillas et al., 2018). Perceived risk defined as individual perception in anticipating risks associated with the products or services consumption (Lim, 2003). Shipps and Phillips (2013) added that perceived risk represented individual perception about the potential negative in the processing usage of products and services. Mwiya et al. (2017) stated that individual less interested in adopting higher risk platform.

Intention to use the technology application was influenced by the user perception based on the previous experiences (Chawla & Joshi, 2018). The intention to use had a significant effect into user decision in using the technology application in the future (Bhattacherjee, 2001). The intention to use of the technology application also triggered by the accuracy and completeness information they had about that application (Stern et al., 2017).
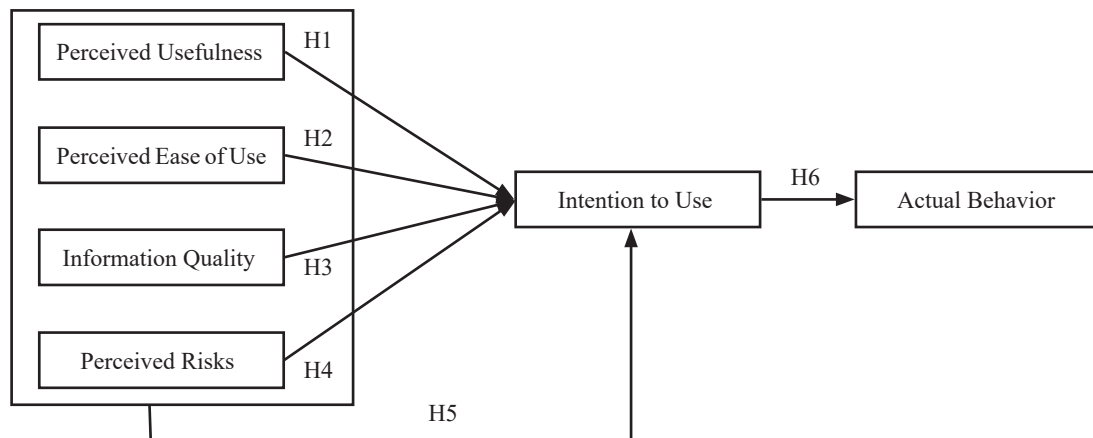

Figure 1. Proposed Research Framework

Actual behaviour referred into the DSA actual decision in using the application (Davis, 1989). Once the DSA felt comfortable in using the application, they will decide to use it. The actual technology usage referred to the familiarity or the frequency in using the application. Based on the explanation, the objective of the research is to analyze the effect of perceived usefulness, perceived ease of use, perceived risks and information quality into the DSA actual behavior of application using behavior intention to use as an intervening variable.

METHOD

This research was a descriptive research with single cross-sectional data collection since the data collection was done once within the specific period of time (Malhotra, 2010). Nunnaly (1978) stated that the minimum sample that can be tested statistically is 30. The research mainly focuses on direct sales agent of Modalku. The number of targeted sample used in this research was 100 respondents. The respondents would choose the best answer provided in the questionnaire that was designed in the Likert scale. As a quantitative research, all the primary data collection had been analysing statistically using Algorithm PLS. The research was testing all the hypotheses developed in the conceptual framework.

The variable of perceived usefulness (PU) was measured with some indicators, such as: effective transaction (X_1); outstanding loan (X_2) and rapid transaction (X_3) (Bank Indonesia FinTech Office, 2017). The variable of perceived ease of use (PE) was measured by easily operate (X_4); flexible to use (X_5) and simple and understandable (X_6) (Michael et al., 2015). Meanwhile, information quality variables were indicated by relevance (X_7); accurate (X_8) and complete information (X_9) (Liu et al., 2017). The perceived risks variables were explained by the risks itself (X_{10}) and security issues (X_{11}) (Perner, 2017). McDaniel and Gates (2015) stated that the intention to use was related with the planning (Z_{11}) and learning (Z_{12}) to use the application which finally influence their actual behavior to use the application (Y_{11}) since it bring more benefit to them (Y_{12}) (Khosravi & Hussin, 2014).

RESULTS

Quantitative data analysis was conducted using a questionnaire distributed randomly to 124 respondents. The number of indicators used for organizational culture, competence, and organizational commitment variables are 16, 16, and 18, respectively.

Table 1. Validity and Reliability Constructs

Var	Cronbach's Alpha	rbo A	Composite Reliability	Avarage Variance EExtraction
PU	O.911	1.017	0.956	0.915
PE	0.865	0.882	0.898	0.598
IQ	0.718	0.788	0.824	0.546
PR	0.761	0.818	0.891	0.603
IU	0.882	0.898	0.901	0.695
AB	0.893	0.927	0.927	0.915

Table 2. Statistics Collinearity

	AB	UI	PU	PE	PR
UI	1.331				
PU		1.331		1.000	
PE		1.765			1.000
IQ		1.851	1.000		
PR		1.886			

In this study, validity test was used to determine the extent to which the variables of organizational cul
The statistics collinearity would explain the positive and strong relationship between each variable. Hair et al. (2013) explained that the minimum score of the collinearity was 0.900. Each the independent variable in this research had strong relationship with intervening and dependent variable. The perceived risks had the strongest collinearity into intention to use (with the score of 1.886) and the perceived usefulness had the weakness collinearity into intention to use (score of 1.331). Other two independent variables, namely information quality and perceived ease of use had score of 1.851 and 1.765. Meanwhile intention to use had a positive collinearity with the variable of actual behaviour (with score = 1.000). With all the score higher than 0.900, it could be concluded that there was multi-collinearity among the variables.

Table 3. R-Square

Variable	R Square	Adjust R Square
AB	0.040	0.031
IU	0.687	0.532
PU	0.005	0.256
PE	0.237	0.334
IQ	0.369	0.418
PR	0.462	0.252

This research used the statistical calculation of R-square the show the determination coefficient and interrelation of the variables (Hair et al., 2013). The R-square measure the degree in which the all the independent variables explained the intention to use and actual behavior. Table 3 showed that the intention to use had the highest score (0.687). It meant that 68.7% sales agent actual behaviour in using the mobile application was influenced by the variable of intention to use. Meanwhile, the sales agent intention to use the mobile application itself were determined by the perceived risks (46.2%).

Table 4 showed the importance role of intervening variable intention to use. Perceived usefulness, perceived ease of use, information quality and perceived risks variables did not have any direct effect into DSA actual behaviour in using the mobile application.

Table 4. Indirect Effect

	AB	IU	PE	IQ	PR
IU					-0.036
PU	-0.015	-0.014			
PE	-0.040	0.289			
IQ	-0.077	0.051	-0.048		-0.024
PR	-0.117				

The following table of path coefficient showed that from the effect of perceived risks had the highest score of t-values 6.692 into DSA intention to use the mobile application, followed by the information quality (2.836), perceived usefulness (0.853) and perceived ease of use (0.691).

Table 5. Path Coefficient

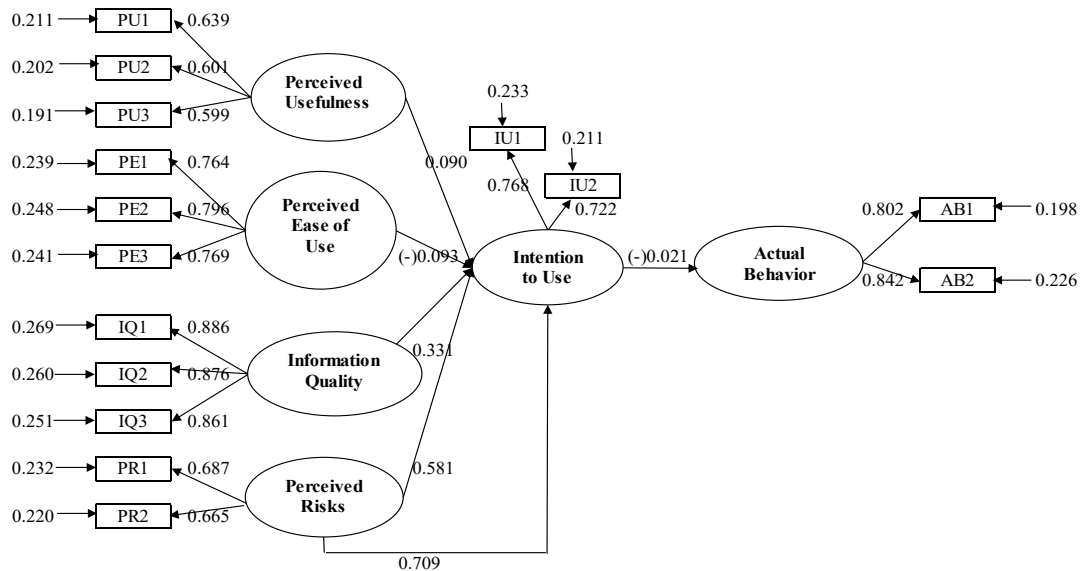|	Sample Mean	Standard Deviation	T-Values	P-Values
IU → AB	-0.025	0.090	2.233	0.026
PU → IU	0.102	0.103	0.961	0.490
PU → PE	-0.080	0.086	0.832	0.406
PE → IU	-0.103	0.109	0.853	0.394
PE → PR	0.503	0.073	6.820	0.000
IQ → IU	0.336	0.117	2.836	0.005
IQ → PU	0.692	0.078	8.725	0.000
PR → IU	0.587	0.087	6.692	0.000

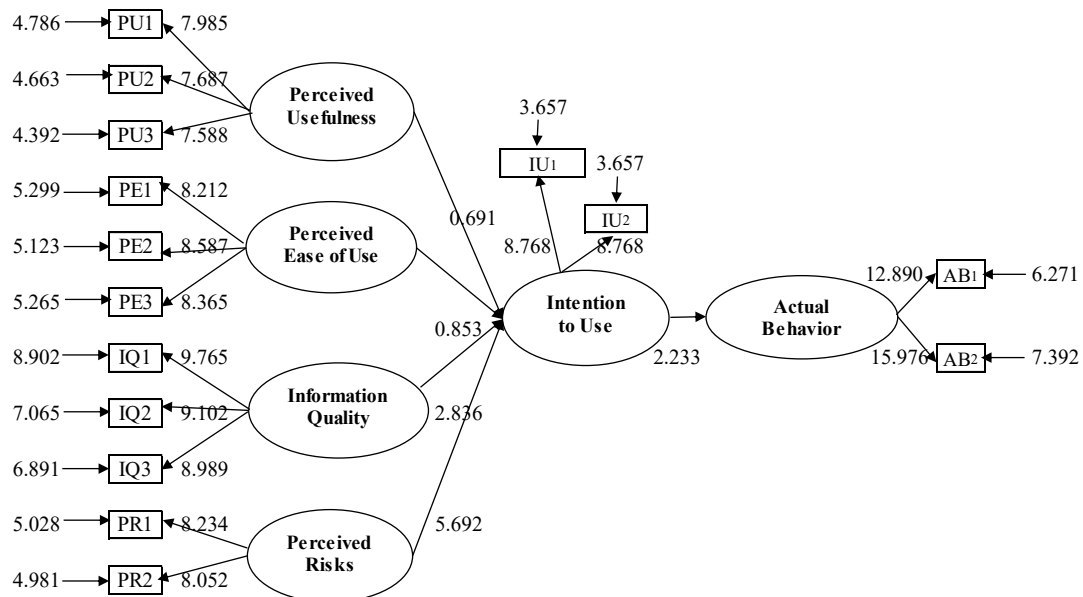Figure 2. Structural Diagram (Standardized)

Figure 3. Structural Diagram (t-Value)

The result of hypotheses testing could be explained as follows:

Table 6. The Result of Hypotheses Testing

Hypotheses	Variables	Coefficient Standard	t-Value	Statistical
H1	PU → IU	0.090	0.691	Data Supported
H2	PE → IU	-0.093	0.853	Data Supported
H3	IQ → IU	0.093	2.836	Data Supported
H4	PR → IU	0.581	5.692	Data Supported
H5	PU, PE, IQ and PR → IU	0.709	9.972	Data Supported
H6	IU → AB	-0.201	2.233	Data Supported

DISCUSSION

Hypothesis 1: The perceived usefulness had positive effect into DSA intention to use the mobile application since the t-value rate was only 0.691 at the level of effect 9%. This result supported the previous research which stated that the perceived usefulness was the major factor in developing trust in acquiring and using the new technology (Bachmann et al., 2011). Using the mobile application would assist DSA in better manage and keep track of their existing and prospect borrowers. The research also showed that the actual behavior of DSA in using the application was influenced by the ability of the apps itself in handling the transaction rapidly in more effective ways.

Hypothesis 2: Perceived ease of use had small effect into DSA intention to use the application. The research showed that the t-value rate was only 0.853 with the negative coefficient standard. Eisingerich and Bell (2008) stated that the perceived ease of use created DSA trust if the DSA felt easy in using the new application. This data showed that the majority of DSA agreed that the application was flexible to use (Khosravi & Hussin, 2014). The research finding supported the previous research which explained that perceived ease of use had a significant effect into behavior intention to use (Alarcon-del-Amo et al., 2014; Liebana-Cabanillas et al., 2018; Mwiya et al., 2017). The less effort in using the apps would encourage the DSA to use it more frequently (Shipps & Phillips, 2013). If users found difficulties in accessing the digital platform, it would also influence their reluctant behaviour in adapting the new technology (Lim, 2003). One key success factor for the P2P lending platform to attract the DSA was the ability to provide the user interface (UI) and user experience design (UX) (Chen et al., 2014). Most DSA were willing to use the apps if they felt that the apps were easy to use, flexible, simple and understandable.

Hypothesis 3: There was a positive effect between information quality into DSA intention to use the application. The t-value of this relationship showed 2.836 with the level of effect 33.1%. DSA need to be more updated to get complete and clear information about their borrower loan status, the interest rate, the duration of payment and any other issues. This data showed that the DSA belief that all the information and its content provided in the apps was relevance with the current situation. The finding was supported to research by Chen et al. (2014) who explained that information quality had positive and significant effect to DSA behavior intention to use the application.

Hypothesis 4: There was a strong effect between perceived risks and DSA intention to use the application with the t-value rate of 5.692 and the level of effect reached 58.1%. Perceived risks had the highest effect into DSA intention to use. Lower risk platform would develop the DSA trust easier (Chen & Han, 2012). DSA look for safety protection, which is measured by sufficient security to protect the user, safety transactional information and secured financing transaction (Meng, 2016). The DSA intention to use the application was developing if the platform would be able to deliver the usefulness, the easiness of use about the platform and in the same time giving secure feeling or less risky in accessing the new technology. It meant that the DSA realized that there was some risk related with the security issues when using the apps. A higher safety protection level would increase the level of actual usage of the apps. The result supported previous study that explained that the safety protection had significant effect in the P2P lending platform business (Chen et al., 2014; Meng, 2016). This finding aligned with the study of Lee et al. (2015) who mentioned that security guarantee was the major factor in the online payment system.

Hypothesis 5: All variables of perceived usefulness, perceived ease of use, information quality and perceived risks together had the strongest effect into into DSA intention to use the application. with the t-value rate of 9.972 and the level of effect reached highest score 70.9%. The findings also supported the research explained by Diemers et al. (2015) who explained that all these variables were played an important role in creating DSA intention in adapting the new mobile application system which finally would lead into the actual behaviour in using the mobile application.

Hypothesis 6: The DSA intention to use the application had also a positive small effect into their actual behaviour with the t-value rate 2.233. The more fintech information that customers received from the internet and other social media would increase their familiarity about the fintech which finally would affect them in using fintech in doing their financial transactions (Anothai & Beise-Zee, 2014).

CONCLUSION

Even all the variables such as perceived usefulness, perceived ease of use and perceived security and risk free had positive impact in developing the DSA intention to use apps, perceived risk was proven had the highest effect in influencing their intention. The DSA actual behaviour in using the new mobile application was highly related with their intention to use that apps.

The mobile application platform should develop innovation that focus more on secure, user-friendly features and experiences using more understandable languages and symbols. Therefore, the researcher suggested that the Repayment apps had to provide interactive feature with more User Experience (UX) or User Interface (UI) design. Both the P2P lending platform and DSA had to maintain long relationship with the borrowers and ensure that they were able to develop an integrative system that could protect data security of their customers.

The lack of involvement of a wider range of variables and subjects is a limitation in this study. Therefore, in further research should consider other variables that could make the mobile application more successfully adapted and implemented, such as: government regulation (Lim, 2003). The government regulation could reduce the uncertainty or risks and gave guarantee or protection for all the customers in terms of financial procedures, such as: interest rate, administrative procedures and default settlement.

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