

# Acceptance Of Fintech Lending In Indonesia: The Borrower's Perspective

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## ABSTRACT

The high market demand for borrowing money through online platforms has led to the emergence of many fintech lending players in Indonesia. By investigating the role of third-party evaluation of behavioral intention, this study extends the relationship of third-party evaluation on behavioral intention in the context of the Indonesian fintech lending industry. A sample of 160 individuals who have used fintech lending services has been analyzed. SmartPLS 3.0 was used for the measurement model & the structural model analysis. The result shows an R<sup>2</sup> value 0.799. The behavioral intention to use fintech lending was influenced by performance expectancy, price value and habit. However, effort expectancy, social influence, facilitating conditions, hedonic motivation and third party evaluation did not affecting the behavioral intention of fintech lending. Based on the study, fintech lending practitioners could offer attractive or special programs to retain more customers, maintain the price, and highlight the benefit of using their services. For regulator, it is expected for continuous effort in building trust, provide a sense of security and communicate its role to all stakeholders

## Keywords

behavioral intention, fintech lending, third party evaluator, UTAUT 2

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## Introduction

Fintech has grown very rapidly in Indonesia in the last four years. Fintech refers to innovation and disruption using IT by non-financial companies to offer financial services (Ryu et al., 2018). According to the Indonesian Financial Services Authority (OJK), fintech in Indonesia includes digital payments, financing and investment; crowdfunding and peer-to-peer lending (P2P lending), account aggregators, information and feeder sites and personal finance (Consumer Defender Unit OJK, 2017). Fintech lending in Indonesia began in early 2015. The high market demand for borrowing money through online platforms has led to the emergence of many fintech lending players. This fintech lending is registered in Indonesian regulatory institutions, in this case the Ministry of Information & Technology (Communication and Information) and the Financial Services Authority (OJK). Apart from those registered at these institutions (regulated), there are also many fintech lending companies that are not registered but operate in Indonesia. This fintech lending is known as 'Illegal Lending' (unregulated). The number of illegal lending sources identified in 2019 has doubled from 2018. Despite effort from the Indonesia Financial Services Authority (OJK) to shut down this illegal lending it is still growing. Many theoretical research models have been developed and tested in different contexts and countries that discuss user acceptance and adoption of new information technology innovations with different focuses (Williams et al., 2015). Venkatesh et al. (2003) developed the unified theory of acceptance and use of technology (UTAUT), an alternative theory that provides new perspectives in examining user and innovation acceptance. The theory of UTAUT stated that behavioral intention and actual behavior was directly

influenced by four main constructs, namely: performance expectancy, effort expectancy, social influence, and facilitating conditions. In addition, it was stated that age, experience, and voluntariness of use moderated the four main constructs. Alalwan et al. (2017); Tak and Panwar (2017); Arenas-Gaitan et al. (2015); and Slade et al. (2013) used UTAUT as the basis for empirical research models in studies on user intentions and behavior towards technology adoption and diffusion. UTAUT was widely used in studies that discussed various technologies including the internet, websites, hospital information systems, tax payment systems and mobile technology. The studies were also carried out in different group contexts such as among students, professionals, and general users. Venkatesh et al. (2012) added hedonic motivation, price value, and habit variables to UTAUT and resulted in a new model of UTAUT2 to focus more on consumers (Tak et al., 2017).

Research that discusses consumer adoption of fintech technology is still limited because this field can be said to be relatively new. Financial services require a higher level of risk control and consumer motivation to ensure continuous use compared with other services, because these services are directly related to personal wealth and well-being. Understanding the factors that motivate consumers to adopt newly emerging high-risk technology is very important and urgent because this technology, although risky, is predicted to bring high value to consumers (Chang et al., 2016). Previous studies have discussed many factors that encouraged consumers to use fintech services (Chen et al., 2015; Kim et al., 2016; Ryu, 2018; Stewart & Jürjens, 2018; Pinochet et al., 2019). Park et al. (2010) and Kim et al. (2008) previous studies suggested that third-party evaluation, which was a form of assurance of the e-vendor provided by a third-party certifying body such as a bank,

consumer union, or computer company could influence trust which affected behavior intention. Xiao et al. (2016) encouraged future studies since previous studies on the effect of third-party evaluation provided inconsistent results. To fulfill this gap in the literature, we included third-party evaluation in the research model to explore the impacts of third-party evaluation on behavioral intention to use fintech lending.

This paper contributes to UTAUT 2 literature in fintech lending in several ways. First, this study provides an understanding of the role of third-party evaluation on behavioral intention in fintech lending, which extends our understanding of third-party evaluation and behavioral intention relationship in literature. Second, by investigating third party-evaluation dimensions empirically, this study provided meaningful insights with regard to explaining the 'illegal lending' phenomena that could shape the Indonesian fintech lending industry. The next section will introduce the conceptual background of this study, including UTAUT 2, and third-party evaluation within the fintech lending context. Section 3 will explain our research model and hypotheses. The research design and survey results will be discussed in the fourth and fifth sections. The final section will present the research discussion and conclusion.

## Literature Review and Theoretical Framework

### 2.1 The Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) Applied to Fintech Lending

Venkatesh et al. (2003) developed UTAUT as a theoretical basis for researching the adoption of new information technology. UTAUT consists of four main constructs: performance expectancy, effort expectancy, social influence and facilitating conditions that affect behavioral intentions and ultimately, actual behavior. These main constructs were also moderated by gender, age, experience, and voluntary use. Because of its comprehensive model, UTAUT was eventually widely applied to predict adoption behavior in various technology-based applications and systems (Gupta et al., 2019). Even though the UTAUT model was more comprehensive, it also had its limitations; it was too complex. UTAUT was built on a number of technology acceptance models combined with other popular constructs related to IT adoption research therefore making its implementation difficult to evaluate (Bagozzi, 2007). Some researchers also asserted that UTAUT was developed to explore the mandatory use of technology; hence it had limitations to explain the voluntary use of technology, such as mobile applications, mobile banking, and mobile games (Van der Haijden, 2004).

Hedonic motivation, price values, and habits were new variables added as an extension of the UTAUT model to be UTAUT2. These external variables were added to further consider the use of technology by consumers, which was also the focus of this research. As UTAUT was the basis of UTAUT2 development it still had the innate limitations of UTAUT. Due to the UTAUT2 limitations in its implementation it was suggested to conduct further modification and revision (Venkatesh et al., 2012). Despite UTAUT-based research having reached its practical limit to explain the acceptance of individual technology and use

decisions in organizations, UTAUT-based research continued to evolve (Venkatesh et al., 2016). The development of a variety of new information systems such as company systems, technology collaboration in knowledge intensive companies, mobile internet for consumers, agile IS, e-government for citizens, and health IS in organizations and society encouraged the emergence of UTAUT-based new research. The number of studies related to UTAUT was actually still relatively low compared to other models (Abdullah et al., 2018).

Fintech as a new form of IT has garnered much attention in recent years. Fintech offered a different business model compared to traditional business models. Its business model offered more efficiency and economy and thus attracted attention. As a result fintech lending grew rapidly during 2017 (Pinochet et al., 2019). As per our understanding, there are not many studies related to UTAUT-based research in the context of fintech lending. Venkatesh et al. (2012) suggested future research built using UTAUT2 as a theoretical model in different countries, different age groups, and different technologies. In addition, identifying other relevant factors to be included in the model may help to increase the use of UTAUT2 in more diverse consumer technology use contexts.

### 2.2 Third-Party Evaluation

According to Gupta et al. (2019), UTAUT as a theory is widely used to explain technology adoption, but UTAUT cannot explain the unseen factors that are related to the voluntary nature of customers. Fintech services are new types of financial service in which information technology is the foundation. Fintech is a new distribution channel for the financial world. Interaction between the customer and the fintech company is carried out without any (or minimum) physical interaction between the two parties so that the customer's trust in the fintech company plays a significant role. Trust in the brand or service of the fintech firm has a positive effect on the tendency to use fintech according to Chang et al. (2016). Furthermore, he suggested that brand and service trust also affects the reuse of the service by customers.

Because trust is multidimensional, Kim and Tadisina (2007) demonstrated trust-building with customers by looking at three dimensions; disposition trust, institutional trust, and interpersonal user trust, with third-party evaluation as a contributor to the institutional trust dimension. Xiao et al. (2016) confirmed this argument that the presence or testimony of third parties had a significant positive impact in increasing consumer confidence. Seals of approval, a similar concept to third-party evaluation, have a purpose to give assurance for consumers that a website is a reliable and credible place to do business by placing the sign, logo, or seal of a trusted third party (TTP) on the website. A trusted third party can work as either privacy, security, or business credibility/reliability validators (Greenstein & Feinman, 2000). Firms that display a privacy seal deliver a message that they openly disclose and comply with certain standards for conducting business to consumers, and that this disclosure/compliance is assured by a credible third-party regulator. Third-party seals influence the purchase intention of the new shoppers by reducing risk and giving a

comfortable feeling when the online retailer displays the seals (Ozpolat et al., 2015). Lee et al. (2004) showed that the effect of third-party assurance seals, the same construct as third party evaluation, on behavioral intention was channeled through perceived risk, displaying the role of third-party assurance seals mediation in the e-commerce context. UTAUT2 does not include a third-party evaluation factor in its framework. This is related to the context of this study where in Indonesia many illegal fintech companies do not have licenses; we included a third-party evaluation variable, which is third-party evaluation given by the financial services authority (*OJK*) for further testing in the context of fintech lending.

### 2.3 Performance Expectancy

To what extent consumers can benefit from the technology used in performing their activities is defined as 'performance expectancy' (Venkatesh et al., 2012). Performance expectancy itself has been found to be a key factor for a user to accept technological financial services such as online banking, mobile banking, and mobile payments. Customers tend to be more motivated to use and accept new technology if they perceive that this technology is useful in their daily lives (Gupta et al., 2019). Zhou et al. (2010) concluded in their research on performance expectancy with the conclusion that it is possible to predict intention in the use of mobile banking technology.

### 2.4 Effort Expectancy

'Effort expectancy' is defined as the extent to which the ease of use of a technology can be attained by consumers and is the same construct as perceived ease of use (Venkatesh et al., 2003). An application would be more acceptable if it were easier to use (Davis et al., 1989). It was believed that perceived ease of use is a construct that can predict the adoption of technological innovations (Moore & Benbasat, 1991). Ghalandari (2012) stated that if e-banking service users feel comfortable using the service, then they will want to use it.

### 2.5 Social Influence

'Social influence' is when some members of a social network positively influence other members' behavior along with interactions (Rice et al., 1990). Social influence is a direct determinant of behavioral intention and is recognized by various theories of reasoned action (TRA) (Fishbein & Ajzen, 1977), technology acceptance model (TAM/TAM2) (Davis, 1989; Venkatesh & Davis, 2000), and the theory of planned behavior (TPB) (Taylor & Todd, 1995) as subjective norms (Venkatesh et al., 2003). Social influence has a role in the acceptance of technology by individuals through three mechanisms: compliance, internalization and identification and the effects themselves are complex and influenced by various unexpected influences (see Venkatesh & Davis, 2000; Warshaw, 1980).

### 2.6 Facilitating Conditions

'Facilitating conditions' are conditions where an organizational and technical infrastructure exists to support consumers in using technology (Venkatesh et al., 2003). Compatibility which is the same construct as facilitating conditions incorporates aspects of technology and/or organizational environment to eliminate factors that hinder the use of a system or technology so that it is easy to use (Moore & Benbasat, 1991). The role of influence of facilitating conditions on the use of technology in the context of knowledge management system was validated by Isabelle and Sandrine (2009). The positive and significant relationship of facilitating conditions was also supported by Ghalandari (2012) in the context of e-banking services.

### 2.7 Hedonic Motivation

When consumers use technology driven by motivation to get pleasure and joy it is described as 'hedonic motivation' and it has been shown to play an important role in determining technology acceptance and use (Brown & Venkatesh, 2005). Perceived enjoyment, a similar construct to hedonic motivation has been shown as a direct determinant of technology acceptance and use (Van der Heijden, 2004; Thong et al., 2006). Likewise, Brown and Venkatesh (2005), and Childers et al. (2001) demonstrated hedonic motivation as a predictor of behavioral intention to use a technology.

### 2.8 Price Value

The thought process of an individual on a profit or loss or exchange rate between the perceived benefits of the applications and the costs of using it could be defined as price value (Venkatesh et al., 2012). Yu (2012) found price value affects behavioral intention in the internet banking environment. Similarly, Lewis et al. (2013), and Raman and Don (2013) validated the effect of price value on behavioral intention in e-learning adoption as well as other technologies, the travel advice web (Chong & Ngai, 2013) and the use of 3G technology (Mardikyan et al., 2012).

### 2.9 Habit

'Habit' as described by Venkatesh et al. (2012) is a condition in which people tend to perform behaviors automatically due to experience. Habit was found as a direct determinant on behavioral intention in an e-learning environment (Lewis et al., 2013; Raman & Don, 2013). Likewise, Chong and Ngai (2013) described similar results in travel advice web technology. Lee (2014) also strengthens the positive influence relationship of habit as an automatic behavior on behavioral intention.

### 2.10 Behavioral Intention to Use

'Behavioral intention' is defined as the extent to which a person has formulated a conscious plan to do or not perform some specified future behavior (Davis, 1989; Venkatesh et al., 2003; Venkatesh et al., 2012). In technology acceptance literature as well as its reference disciplines (Ajzen, 1991; Sheppard et al., 1988; Taylor & Todd 1995b), behavioral



intention has a critical and well-acknowledged role as a predictor of behavior (e.g., usage). Performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit are antecedents of behavioral intention to use according to the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2).

## Hypothesis Development

Performance expectancy has an effect on behavioral intention (BI), especially in the internet banking environment (Cheng et al., 2008; Cheng et al., 2009; Im et al., 2011; Martins et al., 2014; Foon & Fah, 2011; Yu, 2012; Yuen et al. 2010). The effect of a similar construct to effort expectancy i.e. perceived ease of use has been found to have a positive relationship with behavioral intention by Kim et al. (2016) in the context of fintech services. However, the effect of effort expectancy on behavioral intention had inconsistent results as found in previous study by Ramos (2017) in his research related to adoption of fintech services by Generation Y. In addition to performance expectancy and effort expectancy, Lu (2014) found social influence had a strong connection to post-adoption behavior in the context of mobile commerce. This study aligned with Chong (2013) who found customer adoption on technology could be predicted by social influence. Venkatesh (2003) also strengthens those statements. According to UTAUT (Venkatesh et al., 2016), the facilitating conditions set the use of technology. Even if the consumer is motivated to adopt the technology, minimal support and resources may hinder the previously demonstrated adoption of research (Alalwan et al., 2015). In addition, Thompson et al. (1991) validated the effect of facilitating conditions on the intention of a system. Therefore, this study suggests the following hypotheses:

H1: Performance expectancy has a positive effect on behavioral intention to use fintech lending services

H2: Effort expectancy has a positive effect on behavioral intention to use fintech lending services

H3: Social influence has a positive effect on behavioral intention to use fintech lending services

H4: Facilitating conditions have a positive effect on behavioral intention to use fintech lending services

As extended variables to UTAUT, hedonic motivation was found as an important factor that determined the behavioral intention in mobile banking adoption (Boonsiritomachai et al., 2017). Perceived enjoyment, playfulness, entertainment and fun are example of factors related to hedonic motivation that have been known as determinant variables of customers' intention to adopt IB (Curran & Meuter, 2007; Celik, 2008; Riffai et al., 2012). Escobar and Carvajal (2013) demonstrated the effect of price value on behavioral intention in the context of e-commerce. A similar construct to price value, which was another extended variable of UTAUT, proved to have a strong effect on adoption of a technology (Chan et al., 2008). For instance, in China SMS (short messaging service) was used more due to low price compared with other types of internet mobile applications. In the fintech lending context, the interest is considered as the price to use the technology. In addition to hedonic motivation and price value, habit was added to UTAUT which was found to have an effect on the use of technology

(Kim & Malhotra, 2005). Similar findings by Kolodinsky et al. (2004) found internet banking adoption among U.S. customers was significantly connected with habit. Eriksson et al. (2008) also analyzed internet banking adoption in Estonia as a major link between habit and intention. Thus our study has the following hypotheses:

H5: Hedonic motivation has a positive effect on behavioral intention to use fintech lending services

H6: Price value has a positive effect on behavioral intention to use fintech lending services

H7: Habit has a positive effect on behavioral intention to use fintech lending services

Kim et al. (2008) maintained that third-party seals, a similar construct with third-party evaluation, influence purchase intentions and decisions by reducing a consumer's perceptions of risk. Kovar et al. (2000a) found that consumers who paid more attention to the seals and disclosures of web sites had a stronger intention to purchase online than their counterparts. Similarly, Cashell and Aldhizer (1999) confirmed online vendors who display a seal-of-approval on their websites may increase consumer confidence and sales. Nöteberg (1999) found the effects of trusted third party (TTP) provided more assurance (on the likelihood of purchase) than a website that did not display a seal. Therefore for the purposes of this study the following hypothesis is suggested:

H8: Third Party Evaluation has a positive effect on behavioral intention to use fintech lending services

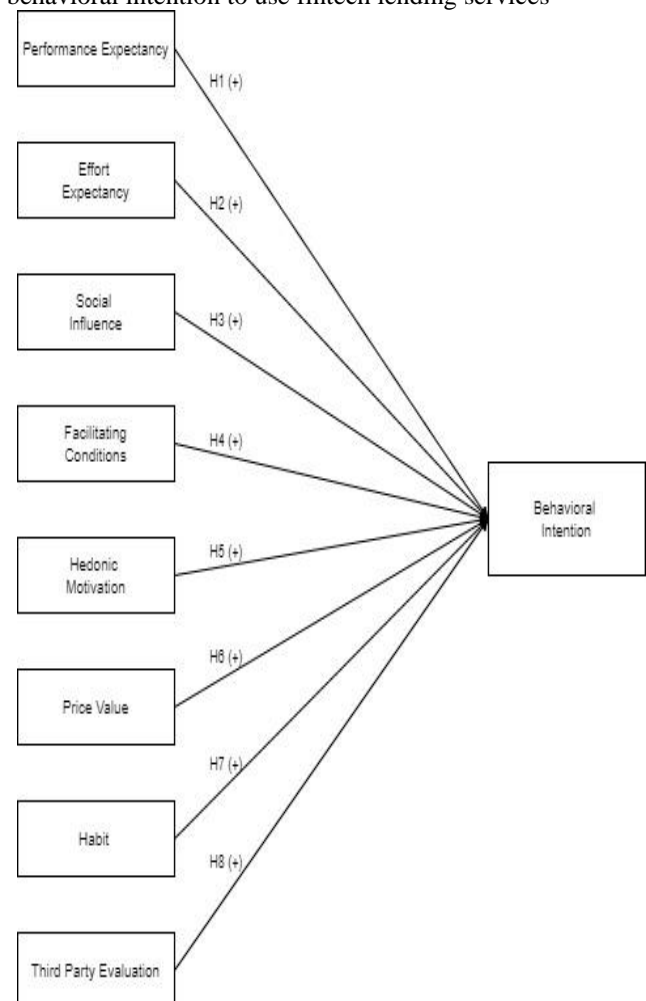


Figure 1: Research Model

## Research Methodology

### 4.1 Measurements

To measure the constructs in the research model, quantitative research was conducted. The measures of behavioral intention to use, performance expectancy, and effort expectancy, social influence, facilitating conditions, price value, habit and hedonic motivation were adapted from a study related to UTAUT-based research (Gupta et al., 2019). In this study, the measures of third-party evaluation were based on a previous study by Xiao et al. (2016). The survey was conducted in Bahasa Indonesia (the Indonesian national language) and carried out within Indonesia. For each construct, the respondent was asked to rate their opinions on a five-point Likert scale to rank from number 1 'Strongly Disagree' to number 5 'Strongly Agree'. All items are shown in Appendix A.

### 4.2 Location, Time of Research, Sample and Data Collection Procedure

The authors distributed online questionnaires in Google Forms via sms blast to individuals who have used fintech lending services. Data were collected through a survey for one month. 160 questionnaires were completed by fintech users. In practice, a research in marketing fields would have a significance level of 5%, a statistical power of 80%, and  $R^2$  values of at least 0.25 (Kwong & Wong, 2013). However, prior research suggests that a sample size of 100 to 200 is usually sufficient in performing path modeling (Hoyle, 1995). Therefore in this study the researcher had to take data from at least 100 samples. Additional demographic factors that were asked were: gender, age, education level, income, source of information, type of borrower, number of fintech used and usage frequency. Sampling was done by convenience sampling with the aim of facilitating data collection.

### 4.3 Data Analysis Technique

The model was tested using PLS-SEM (Structural Equation Model) to determine the relationship and contribution of variables in the research model. Performance expectancy, effort expectancy, social influence, facilitating conditions, habits, price value, hedonic motivation and third-party evaluation were examined for their effects on behavioral intention. The authors used PLS-SEM using SmartPLS software because of its advantages to enable us to maximize the explained variance or  $R^2$  value of all endogenous latent variables involved in the path diagram (Hair et al., 2014). Therefore, the use of PLS-SEM was predictively oriented, namely testing the predictive relationship between constructs by seeing whether there was a relationship or influence between those constructs. This method had the flexibility of almost no limiting assumptions regarding the model and data specifications. PLS-SEM also had relatively high statistical power making this method very adequate for SEM applications that aimed to predict or build theories such as in studies that focus on identifying critical success drivers (Hock & Ringle, 2010; Sarstedt & Schoderer, 2010).

## Results

### 5.1 Characteristics of Respondents

The respondents' profiles are presented in this chapter and are included in our discussion. Table 1 shows details of the sample's gender, age, income, and educational level. It was found that more than half of the respondents were male (51%), while females represented 49 percent of the sample. In terms of age range, the sample represented various age groups; <25 to >50 years. Most of the sample was 26-30 (33%) and most respondents were high school graduates (47%). Most respondents had a monthly income of less than Rp 5 million (46%). As for the sources of awareness about fintech lending, most respondents knew about fintech lending from social media (46%), ads on the internet (38%) and 13 percent of them were recommended by family or friends. These result may indicate that social media and online ads should be used to build awareness by fintech lending.

**Table 1.** Demographic Profile

Characteristics	n	%
Gender		
Male	81	51
Female	79	49
Age		
<25 years	17	11
26-30 years	52	33
31-35 years	33	21
36-40 years	30	19
41-45 years	22	14

46-50 years	3	2
>50 years	3	2
Income		
<Rp 5,000,000	73	46
Rp 5,000,000 – 10,000,000	70	44
Rp 10,000,001 – 15,000,000	8	5
Rp 15,000,001 – 20,000,000	2	1
>Rp 20,000,000	7	4
Education		
SMA (high school graduates)	75	47
D1/D3 (academy graduates)	24	15
S1 (university graduates)	57	36
S2 (post-graduates)	4	3

## 5.2 Evaluation of Measurement Model

The analysis of the measurement model preceded the analysis of the relationships between the constructs or the latent variables. The assessment of the reflective measurement model had to be based on their reliability and validity. Reflective latent variables assessment was based on loading indicators to the corresponding latent variables. Chin (1998) stated that the loading value must be checked to determine the feasibility of an indicator. The actual loading value stated the correlation between the indicator and its latent variable. Furthermore, Hair et al. (2011) said that the assessment of reflective measurement models dealt with their reliability and validity. Construct reliability assessment focuses on composite reliability while validity of the latent variables included convergent validity and discriminant validity. This validity test aimed to ensure that the instruments used were valid and reliable.

### Convergent Validity and Reliability

The first criterion that was tested was the level of validity and reliability of indicators of each latent variable used. A standard rule stated that the loading of each indicator to the corresponding latent variable was at least 0.7 (Hair et al., 2011). If it was less than 0.7 then this indicator would be eliminated from the proposed path diagram because it meant

that the indicator had a poor level of reliability and validity. On the first iteration through model estimation, an indicator of Facilitating Condition (FC4) showed a factor loading below 0.7 and it was removed from the path diagram; thus, once this was removed from the final model this contributed to better results.

Reliability assessment focused on composite reliability as an estimate of the construct's internal consistency reliability and its value needed to be at least 0.7 to 0.9 to be regarded as satisfactory (Hair et al., 2011). Composite reliability is a combination of all reliability indicators to the corresponding latent variables. Another way of looking at internal consistency is to look at the Cronbach's Alpha value, which had a minimum value of 0.7 (George & Mallery, 2003). Table 2 shows the variances of the extracted means (AVE), composite reliability and Cronbach's Alpha of the models presented in Figure 1. The values of composite reliability and Cronbach's Alpha obtained in this study indicated that the results were met the requirement and regarded as satisfactory.

The assessment of a reflective measurement model's validity should be focused on convergent validity and discriminant validity. To assess convergent validity, it was necessary to examine the average variance extracted (AVE). All AVE values in Table 2 were greater than 0.50 which reached the criteria of Chin (1998) to indicate the existence of convergent validity.

**Table 2.** Convergent Validity & Reliability

Variable	Indicator	Factor Loading	Mean	AVE	Composite Reliability	Cronbach's Alpha
Performance Expectancy						
	PE1	0.954	0.953			
	PE2	0.934	0.934			
	PE3	0.949	0.948	0.887	0.969	0.958
	PE4	0.931	0.929			
Effort Expectancy						
	EE1	0.907	0.906			
	EE2	0.926	0.926			
	EE3	0.906	0.904	0.834	0.953	0.934
	EE4	0.913	0.911			
Social Influence						
	SI1	0.962	0.962			
	SI2	0.977	0.977	0.938	0.978	0.967
	SI3	0.966	0.965			
Facilitating Conditions						
	FC1	0.917	0.916			
	FC2	0.943	0.941	0.853	0.946	0.914
	FC3	0.911	0.909			
Hedonic Motivation						
	HM1	0.958	0.958	0.914	0.970	0.953

	HM2	0.955	0.954			
	HM3	0.955	0.953			
Price Value						
	PV1	0.935	0.933			
	PV2	0.948	0.948	0.888	0.960	0.937
	PV3	0.944	0.944			
Habit						
	HT1	0.902	0.899			
	HT2	0.830	0.827			
	HT3	0.907	0.906	0.788	0.937	0.910
	HT4	0.909	0.909			
Third Party Evaluation						
	TPE1	0.882	0.881			
	TPE2	0.975	0.974			
	TPE3	0.973	0.972	0.888	0.969	0.957
	TPE4	0.937	0.935			
Behavioral Intention to Use						
	BI1	0.879	0.878			
	BI2	0.947	0.945	0.861	0.949	0.919
	BI3	0.957	0.956			



**Discriminant Validity**

Discriminant validity was assessed at the level of latent variables by looking at the Fornell-Larcker criteria, namely by comparing the root value of the AVE of a latent variable with the correlation between a latent variable with all other latent variables. If the root value of AVE of a latent variable

was greater than the correlation with all the other latent variables, the discriminant validity was considered feasible. Table 3 shows the discriminant validity testing at the variable level. The root value of AVE marked by shade indicates the value was greater than the correlation with all the other latent variables, thus indicating the existence of discriminant validity.

**Table 3.** Fornell-Larcker Criterion

Variable	BI	PE	EE	SI	FC	HM	PV	HT	TPE
BI	0.928								
PE	0.717	0.942							
EE	0.443	0.611	0.913						
SI	0.722	0.700	0.489	0.969					
FC	0.571	0.700	0.760	0.574	0.924				
HM	0.812	0.778	0.558	0.791	0.634	0.956			
PV	0.795	0.651	0.454	0.725	0.560	0.812	0.942		
HT	0.830	0.661	0.501	0.685	0.564	0.795	0.726	0.888	
TPE	0.359	0.397	0.506	0.291	0.519	0.396	0.311	0.350	0.942

**5.3 Evaluation of the Structural Model**

After evaluating the overall model and the measurement model, the authors examined the target endogenous variable variance ( $R^2$ ), also known as the coefficient of determination, predictive relevance and path coefficients of the causal relationship between constructs, which would validate the hypothesized effect.

**Coefficient of Determination**

The  $R^2$  is a measure of the model’s predictive accuracy and is an indication of how well the model fits the data obtained (Weinberg & Abramowitz, 2002). The coefficient of determination represents the exogenous variable’s combined effect on the endogenous variable(s). The  $R^2$  values ranged from 0 to 1 with values close to 1 indicating a greater predictive accuracy. In terms of marketing research, a value of  $R^2$  of 0.75 is regarded substantial, 0.5 is moderate, and 0.25 is weak (Wong, 2013). The result of this study showed an  $R^2$  value 0.799. This means that the eight variables (performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value, habit and third-party evaluation) substantially explained 79.9% of the variance in behavioral intention.

**Predictive Relevance ( $Q^2$ )**

Another criterion used to evaluate structural models is the value of  $Q^2$  (Geisser, 1974) which is called predictive relevance. The greater  $Q^2$  value indicated the smaller the

difference between predicted and original values, thus the model had a predictive accuracy. A value of  $Q^2$  that was greater than zero for a given endogenous construct signified a path model’s predictive relevance for this construct.  $Q^2$  values of 0.02, 0.15 and 0.35 indicated an exogenous construct had a small, medium, and large predictive relevance for endogenous latent variables, respectively. The result of this study’s pointing value of  $Q^2$  was 0.672. This meant the research model had a large predictive relevance for the behavioral intention variable.

**Hypothesis Testing**

The model proposed in this research was estimated using the bootstrapping technique using SEM PLS. Adding the original sample with a system generated sample was created and the sample’s T-test was performed. Path coefficient, T-stat and P-values described the relationship between variables. These values were interpreted below and were set out in Table 4.

**Table 4.** Hypothesis Test Results

Hypot hesis	Path	Path Coefficie nt	T- Stats	P-Values	Conclusi on
H1	PE -> BI	0.178	2.169	0.031	Accepted
H2	EE -> BI	-0.144	2.633	0.009	Rejected
H3	SI -> BI	0.065	0.841	0.401	Rejected
H4	FC -> BI	0.037	0.672	0.502	Rejected
H5	HM -> BI	0.103	1.082	0.28	Rejected
H6	PV -> BI	0.269	3.193	0.001	Accepted
H7	HT -> BI	0.423	5.139	0.000	Accepted
H8	TPE -> BI	0.050	1.149	0.251	Rejected

Using a two-tailed T-test with a significance level of 5%, the path coefficient would be significant if the T-statistics was larger than 1.98. Another measurement could be used, the P value. In measuring a P value, if it was less than 0.05, it illustrated that the variable was significantly influenced by the variables. Path coefficient describes the relationship between variables whether the relationship reinforces or contradicts each other. Positive values described that variables are reinforced by each other, but vice versa for negative values.

## Discussion

The aim of this study was to extend the UTAUT 2 by integrating third party evaluation to investigate the factors that affected the customers' intentions to adopt fintech lending in Indonesia. Unlike previous studies (Chen et al., 2015; Kim et al., 2016; Ryu, 2018; Stewart & Jürjens, 2018; Pinochet et al., 2019), which explored consumer adoption to use fintech services on various theories, this study investigated the ability of all the constructs of UTAUT 2 by adding one additional variable, 'third-party evaluation' to explain the behavioral intention of customers to adopt fintech lending services in Indonesia. The positive direction of relationships on performance expectancy, social influence, facilitating conditions, habit, hedonic motivation, and price value as suggested by UTAUT 2 were confirmed in this study. However, social influence, facilitating conditions and hedonic motivations showed an insignificant relationship to behavior intention.

This research empirically found that performance expectancy, price value and habits were factors that significantly influenced consumers to use fintech lending. It is in line with Cheng et al. (2008); Cheng et al. (2009); Im et al. (2011); Martins et al. (2014); Foon and Fah (2011); Yu (2012); Yuen et al. (2010) who showed that performance expectancy had a positive influence on behavioral intention. Habit was stated to be a key predictor of behavioral intention. This was consistent with similar studies conducted by Kim and Malhotra (2005); Kolodinsky et al. (2004); Lee (2014). As explained in the literature review and theoretical

model of this paper, previous research showed that price value was a predictor of behavioral intention (Escobar & Carvajal, 2013; Chan et al., 2008). Our research results also concurred.

This study found that social influence did not have a significant influence on behavioral intention. French and Raven (1959), and Warshaw (1980) stated that social pressure had an effect on individual behavioral intentions only if socially (other influential parties) had a reward and punishment function. This argument was supported by Hartwick and Barki (1994) who found that an individual must submit to the influence of other parties to have the existence of social influence; in short, mandatory use was deemed necessary. Meanwhile, if it was done in voluntary settings, it can be said that there was no social influence on behavioral intention (Venkatesh, 2003). In addition, Taylor and Todd (1995) strengthened these arguments that social influence was only important when it was in mandatory settings and in the initial stages of the experience.

This study did not find the influence of facilitating conditions on behavioral intention. Venkatesh (2000) argued that the effect of facilitating conditions became predictive of intention when it was fully mediated by effort expectancy. This argument was also supported by the model of PC utilization theory (MPCU) (Thompson et al., 1991) and innovation diffusion theory (IDT) (Moore & Benbasat, 1991) which stated that facilitating conditions did not have a significant effect on the prediction of intention. Our empirical result was in line with this argument. In addition, Venkatesh (2003) vindicated our study by stating that if the constructs of performance expectancy and effort expectancy were in the research model, the effect of facilitating conditions became insignificant in predicting intention.

The results did not indicate an influence of hedonic motivation on behavioral intention. Van der Heijden (2004) argued if there were utilitarian and hedonic benefits aspects to a system both would be important determinants of its use; however, hedonic benefits would tend to have a greater impact on behavioral intentions if the system was more inclined towards hedonic values. The influence of novelty which was an important factor contribute of hedonic motivation would decrease as experience increased and consumers would use a system or technology with more practical intentions (Venkatesh et al., 2012). For example, in internet banking environment the utilitarian aspect was more dominant than its hedonic benefits (Ndubisi & Sinti, 2006). Arenas-Gaitan et al. (2015) confirmed this finding that hedonic motivation did not show a positive effect on behavioral intention in the context of adoption of internet banking.

Third-party evaluation was also confirmed to have a positive relationship with behavioral intention although the relationship was not significant. This indicated the impact of the third party evaluation variable still could not be confirmed. This result was in line with research by Head and Hassanein (2002) who said that third-party certification did not greatly affect purchasing behavior, although this third-party certification aimed to provide assurance to consumers that this technology was safe to use and could be trusted. The reason may be that many who saw the third-party seal did not know what it signaled, or even had negative perception toward the fintech lending sources who used the

*OJK* seals. It could be that the consumers perceived that the lending source was only trying to make it appear that it guarded consumer's safety and security whether it did or not (Mcknight et al., 2004). This needs further research, as symbols only convey trust when the organization represented by the symbol is understood and trusted (Grandison & Sloman, 2000).

Finally, the causal relationship between effort expectancy and behavioral intention was found not accepted (the coefficient value was negative). This indicated that effort expectancy had a negative relationship with behavioral intention. However, effort expectancy was found to have had a significant influence on behavioral intention. It implied that the easier it was to use, the lower the customer's intention to use fintech lending. A plausible reason for the result was negative for effort expectancy, was that the easier it is to use, the more it would encourage users to borrow and get into debt. In the long run, debt can lead to a condition where an individual will become mentally burdened. According to Davis (1989), individuals believe that using a particular system or technology should be free of effort, both physically and mentally. Radner and Rothschild (1975) explained that effort was a limited resource that a person could allocate for various activities for which they thought were responsible. So although a system is useful, if the effort in using the system exceeds the performance benefits of system's usage, it is perceived that the system is difficult to use. Furthermore, ease of use or a similar construct with effort expectancy is a person's subjective measurement of performance and effort in their own right which functions as a behavioral determinant (Davis, 1989). This may help explain the negative coefficients for effort expectancy and behavioral intention in these findings.

## Conclusion

The authors formulated this research model to find out what factors influenced user intentions to use fintech lending. In this study we used the following variables: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit from the research results of Venkatesh et al. (2012) and an additional third-party evaluation variable, from the study of Xiao et al. (2016). The results confirmed that the model used in this study was valid according to the data analysis conducted above. However, only three variables signified substantially strong predictors of behavioral intention, namely performance expectancy, price value, and habit while effort expectancy, social influence, facilitating conditions, hedonic motivation and third-party evaluation did not predict behavioral intention directly. This study found the key factors that drove the users' intention to use fintech lending, but the results of this study could not confirm the positive impact of third-party evaluation on the intention to use fintech lending. Therefore, this study could not explain the relationship the third-party evaluation had with the phenomenon of illegal lending in Indonesia. One possible explanation, even without the Indonesia Financial Services Authority (*OJK*) seals or certification, is that people will still use this fintech lending service because: they are accustomed to using it; it is felt that it provides

many benefits; and is in accordance with the value of the money spent on using the service.

## 7.1 Managerial Implications

Based on the point of view of acceptance and use of technology, this research has expanded the use of UTAUT2 in the context of fintech lending. Through this research, important factors affecting behavioral intention were identified. This study showed that performance expectancy, price value and habits were substantially strong predictors of behavioral intention in customer acceptance and use of fintech lending. Habit was the strongest predictor of behavioral intention compared with performance expectancy and price value in the context of fintech lending; therefore, fintech lending practitioners could offer attractive or special programs to retain more customers. By doing so the customers would become accustomed to using the services. When the experience is conditioned it would be expected to become habitual. Price value was said to be the second strongest predictor; therefore, fintech lending practitioners should maintain the price for the consumers. There is urgency for fintech lending practitioners to keep the cost of business low to deliver low prices. The third predictor of behavioral intention is performance expectancy. Fintech lending practitioners could highlight the benefit of using their services to the consumers. It is time for them to build more brand awareness and communicate consistently their services rather than hard selling.

The results also have implications for regulatory institutions. The findings indicated that third-party evaluators had no positive effect on behavioral intention to use fintech lending. This had several implications; first, that the regulator may have promoted its familiarity and educated the public more about its role in financial services, and that financial firms operating in Indonesia must obey and comply with the regulations set by the regulator, in this case the Indonesia Financial Services (*OJK*). However, its efforts have not reached the general public. Thus, the regulator should 'go the extra mile' for their communications to properly disseminated. The second implication is that the public knows about the regulator but does not acknowledge its roles, which indicates distrust of the regulator. For this, the regulator must continuously build trust and provide a sense of security to all its stakeholders.

## 7.2 Limitations and Suggested Further Research

Although the research model in this study showed good prediction accuracy and relevance, this research had limitations. First, extending UTAUT 2, this study focused on the impact of third-party evaluation on behavioral intention. The research model did not consider the precedents of third-party evaluation. The lack of understanding of the role of the *OJK* and the obligation of fintech lending that operates in Indonesia toward consumer's protection which includes legality and submission under *OJK* supervision makes it hard to claim that significant causality of third-party evaluation is shown. Head and Hassanein (2002) presented some factors said to have an impact on third-party evaluation such as familiarity and awareness level. Further research considering other

mediating factors to strengthen the relationship of third-party evaluation with behavioral intention may explain the behavioral intention on fintech lending with regard to illegal lending phenomena.

Second, this study relied on self-reported usage which has a tendency to be biased. Self-reported usage is known to be subject to the common method bias; meaning distortion and the exaggeration of the causal relationship between independent and dependent variables more than it should be is likely the outcome (Agarwal & Karahanna, 2000; Podsakof & Organ, 1986, as cited in Lee et al. 2003). Another plausible reason is that fintech lending users who have used and had negative experiences will be more likely to give negative answers than those who have had positive experiences. Third, in addition to different statistical assumptions, future researchers can test the model, adding moderating variables like age, gender, experience and voluntariness of use or the latent variables to strengthen the relationship between latent variables (Venkatesh, 2003).

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### Appendix A

Factor	Items ( <i>Likert scale of strongly disagree to strongly agree</i> )
<i>Performance Expectancy</i>	PE 1 I find fintech lending useful in my daily life. PE 2 Using P2P lending increases my chances of achieving things that are important to me. PE 3 Using P2P lending helps me accomplish things more quickly. PE 4 Using fintech lending increases my productivity.
<i>Effort Expectancy</i>	EE 1 Learning how to use fintech lending is easy for me. EE 2 My interaction with fintech lending is clear and understandable. EE 3 I find fintech lending easy to use. EE 4 It is easy for me to become skillful at using fintech lending.
<i>Social Influence</i>	SI 1 People who are important to me think that I should use fintech lending. SI 2 People who influence my behavior think that I should use fintech lending. SI 3 People whose opinions that I value prefer that I use fintech

	lending.
<i>Facilitating Conditions</i>	<p>FC 1 I have the resources necessary to use fintech lending.</p> <p>FC 2 I have the knowledge necessary to use fintech lending.</p> <p>FC 3 Fintech lending is compatible with other technologies I use.</p> <p>FC 4 I can get help from others when I have difficulties using fintech lending.</p>
<i>Habit</i>	<p>HT 1 The use of fintech lending has become a habit for me.</p> <p>HT 2 I am addicted to using fintech lending.</p> <p>HT 3 I must use fintech lending.</p> <p>HT 4 Using fintech lending has become natural to me.</p>
<i>Hedonic Motivation</i>	<p>HM 1 Using fintech lending is fun.</p> <p>HM 2 Using fintech lending is enjoyable.</p> <p>HM 3 Using fintech lending is very interesting.</p>
<i>Price Value</i>	<p>PV 1 Fintech lending is reasonably priced in interest.</p> <p>PV 2 Fintech lending is a good value for the money.</p> <p>PV 3 At the current interest, fintech lending provides good value.</p>
<i>Third Party Evaluation</i>	<p>TPE 1 Prefer to buy from fintech lending that carry such an endorsement (OJK).</p> <p>TPE 2 Third-party seals (OJK) make me feel more comfortable.</p> <p>TPE 3 Third-party seals (OJK) make me feel more secure in terms of privacy.</p> <p>TPE 4 Third-party seals make me feel safer in terms of the transaction.</p>
<i>Behavioural Intention</i>	<p>BI 1 I prefer fintech lending to other service (e.g. banking, friends, family, credit cards).</p> <p>BI 2 I intend to use fintech lending services in the future.</p> <p>BI 3 I believe it is worthwhile for me to use fintech lending services.</p>