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Islamic Fintech: A Solution for Financial Problem

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Abstract: This research aims to examine the role of Islamic fintech in solving users' financial problem. Furthermore, technology acceptance model (TAM) construct is used to explain individual acceptance on Islamic fintech. This research use self-administered survey including 185 Islamic fintech users spread all over Indonesia. This research provides empirical insights about user satisfaction on Islamic fintech product. It show that almost predictors have significant positive effect on user satisfaction. The TAM's construct can predict and assess user perceptions on the use of new technologies or products. Furthermore, Islamic fintech makes it easy for users to solve their financial problems. This research proves that Islamic fintech product can be an option in solving financial problem without worrying about halal status.

Keywords: *Satisfaction, Perceived Service Quality, Service Innovation, Perceived Easy of Use, Perceived Usefulness, and Attitude.*

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Introduction

The potential for Islamic financial technology (fintech) growth is huge in Indonesia. This is because Indonesia is a country with the largest Muslim population with a very large number of internet users. Islamic fintech features are not much different from conventional fintech. The difference lies in the principle used in various transactions on the products offered. Islamic fintech uses Islamic principles that are free from *riba* and *gharar*. Fintech has been used in almost all financial transactions, including lending, financial planning, retail investment, crowdfunding, remittance, and financial research. The development of Islamic fintech is not as big as conventional fintech. Data from International Islamic Fintech Forum show that there are about 100 sharia-based fintech in the world. As many as 46% are in Asia and 23% are in the Middle East and North Africa (MENA) countries. This amount is very small when compared with conventional fintech. Whereas, the potential of Islamic fintech in Indonesia is huge. Islamic fintech has the same product as conventional fintech but its existence still cannot replace conventional fintech.

In Southeast Asia, there are two largest Islamic fintech, namely Capital Boost and Ethis Crowd. For example, Ethis Crowd (Singapore Sharia Crowding Platform), established in 2014, successfully collected a collective fund of USD 362.44 million from institutions and investors in Southeast Asia and the Gulf region at the beginning of its development. In Indonesia, the development of local Islamic fintech began with Paytren startup which was established in 2013. In mid-2017, startup Islamic fintech in Indonesia began to appear, including SyarQ, Investree, Ammana, and Alami. For example, PT Ammana Fintek Syariah has disbursed financing of Rp2 billion to 500 small and medium enterprises (SMEs).

The rapid development of fintech becomes a concern to Bank Indonesia and the Indonesian Financial Services Authority (OJK) applied by forming various regulations. The strategic move taken by the current fintech company is by registering the company to the financial services authority. Until June 2020, there have been 158 fintech companies that have enrolled in financial services authority.

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Of these, there are 12 registered Islamic fintech in financial service authority. At least, Islamic fintech listed in financial services authority is due to the licensing registration process to the relevant authorities which is still time-consuming compared to the application of conventional fintech licensing. The licensing process is not only through the directorate of non-bank financial industry in the Financial Services Authority, but also to the Indonesian Council of Ulama for filing *fatwa*. One of the seriousness of businessmen in Islamic fintech is by establishing Islamic Fintech Association of Indonesia (SFAI) in October 2017 in Jakarta. SFAI stands as a startup congregation, institutional, academic, community, and sharia expert engaged in sharia-based technology financial services.

The role of Islamic fintech and conventional fintech is no different. The existence of Islamic fintech also supports users to solve their financial problems by providing various products, such as crowdfunding, lending, and investment. The difference lies in the principle used. Islamic fintech is safe and in accordance with Islamic principles. Islamic fintech products are free of *riba* and *grahar*. In addition, Islamic fintech also provides opportunities for charity through the humanitarian products they offer. One of the largest fintech in Southeast Asia, Kapital Boost, has social cammpaigns product that offers society to help various communities. In addition, Ethis Crowd also supports charity by investing in subsidized housing projects in various countries including Indonesia.

The role of Islamic fintech in solving financial problem should be measured quantitatively. This research needs to be done to determine the perceptions of Islamic fintech users regarding the products they use. User perception is proxied with users' satisfaction. Users' satisfaction is derived and is based on experience in using a product (Sahin et al., 2011). Satisfaction can also be interpreted through individual reactions after using product. Users' satisfaction is seen from the indicators of the usefulness, effectiveness, efficiency, and performance of a product (Mather et al., 2002). Fishbein and Ajzen (1975) proposed theory of reasoned action (TRA) as an appropriate model for explaining individual behavior. The TRA model explains the users' reaction and perception in information system that will determine their attitudes and behaviors. In its development, Davis in 1986 conducted research by adapting TRA and finally developing a model of technology acceptance model (TAM) which emphasizes the perception about ease of use and usefulness to predict attitudes in using information systems. TAM is one of the theories that is widely used in the adoption of information technology (Fatmawati, 2015). Chuang et al. (2016) also mention that TAM explores the relationship between attitudes and behavioral intentions. Therefore, the appropriate construct for measuring indicators that affect users' satisfaction with new technologies (Islamic fintech) is the technology acceptance model (TAM). The higher the value of the utilization of technology, the higher the level of satisfaction perceived by users.

The TAM's construct explains that perceived service quality (PSQ), service innovation (SI), perceived usefulness of use (PEoU), perceived usefulness (PU), and attitude are factors that affect the acceptability of individuals on a product (Huang & Kaewmee, 2011). Igbaria et al. (1995) in his research also mentions that TAM explains the role of PEoU, PU, and attitude as factors that encourage individuals to use a product. Individual acceptance of a product is evaluated by assessing their satisfaction after using the product. PSQ is determined based on whether perceived service exceeds or fails to meet Islamic fintech' expectations (Cronin and Taylor, 1992; Oliver, 1993; Zeithaml et al., 1993). Furthermore, the SI refers to a new changing service concept of an earlier service or service delivery process that adds value to clients through new solutions better to solve a problem (Huang & Kaewmee, 2011). In today's highly competitive marketplace with a rapidly changing business environment, all businesses use creativity and innovation to provide the best service for Islamic fintech to create business opportunities (Chen et al., 2016). Service quality and innovation become the individual determinant to feel the ease and usefulness of product. Therefore, PSQ and SI are predictors in determining PEoU and PU.

PEoU is the ease of using or applying a product. Ease refers to the extent to which a person believes that using new technology is free from effort that is using less power and time (Chuang et al., 2016). Fintech is a full-featured new technology that can help users to apply transactions more easily. Unlike PEoU, PU refers to the extent to which individuals believe that using a particular system will improve their job performance (Davis, 1989; Premkumar & Bhattacherjee, 2008). The more useful a product, the more it can solve various problems for its users. PEoU and PU are influenced by PSQ and SI on Islamic fintech products (Huang & Kaewmee, 2011). Fintech offers a high quality of service as it provides a complete feature that can provide what users need including usage

instructions. In addition, fintech service innovation provides added value for being more efficient, cutting bureaucracy, and eliminating unneeded intermediaries, such as in fintech with conventional services. The advantages offered by PSQ and SI have an impact on the ease of using and usability of Islamic fintech products.

Hu et al. (1999) state that the more easily the Islamic fintech product is applied, the more products are useful for its users. Therefore, PEoU is also a predictor of PU. Mather et al. (2002) also mention that increased productivity (utility) arises from systems that require little effort (ease). The importance of PEoU factors in influencing user perceptions is a benchmark for business owners to create innovative products that are easy to use, so users can feel the benefits from the products they use.

PU and PEoU are the factors that encourage individual acceptance on technology. Wixom and Todd (2015) explains that PEoU and PU are behavioral belief that will affect behavioral attitude. Attitude is a positive or negative feeling or evaluation generated when a person uses a new technology (Chuang et al., 2016). A higher positive attitude toward the use of new technology is determined by PEoU and PU. Furthermore, attitude affects users' satisfaction on Islamic fintech products. Attitude is reflected in the trust and positive judgment of users on new technologies (Chau and Hu, 2002; Davis, 1989). Positive judgment has an impact on their satisfaction. Research conducted by Huang and Kaewmee (2011) mentions that satisfaction is the impact of positive attitude. The more positive feelings in using Islamic fintech products, the more satisfied users on the product.

The problem that occurs in Indonesia is the development and users of Islamic fintech not in accordance with their potential. Chuang et al. (2016), in the subsequent research, states that it is important to test fintech in different concepts with different norms to see the attitude of users. This becomes a motivation for researchers to conduct research on Islamic fintech. Based on the explanation, this study explores the role of Islamic fintech to solve users' financial problem.

Literature Review

Islamic Financial Technology (Islamic Fintech)

The National Digital Research Center in Ireland defines fintech as innovation in financial services. Another device of fintech was put forward by McAuley (2014) mentioning that fintech is an economic industry that uses technology to make financial services more efficient. Fintech has fundamentally changed the interaction between giver and receiver (Chen et al., 2016). Fintech changed the pattern of conventional transactions into a simple and modern that is by converging financial services and information technology. Various fintech products include payment, lending, financial planning (personal finance), retail investment, crowdfunding, remittance, and financial research. The presence of fintech has replaced the various functions of the bank and other financial institutions. Kim et al. (2015) state that fintech is an industry that uses gadget-centered information technology to improve the efficiency of financial system.

The development of conventional fintech encourages the growth of Islamic fintech. Products offered by Islamic fintech are generally the same as conventional fintech. The difference is Islamic fintech products use sharia principles. Users should not be afraid of the legal use of their products. The interesting thing in Islamic fintech is the humanitarian products. Humanitarian products provide facilities to people who want to become donors for various charitable activities. For example, Kapital Boost has a donation campaigns product that aims to raise humanitarian funds and give freedom to donors to choose the organizations to be funded. In Indonesia, Islamic fintech has a vast opportunity because Indonesia is one of the largest market shares for sharia-based products. The growing Islamic fintech business in Indonesia are Dana Syariah, Paytren, SyarQ, Investree, Ammana, Alami, and etc. One of the services offered is the sale and purchase services based on akad *wa'ad* and *murabahah*. The growing number of people who are getting interested in sharia products make Islamic fintech opportunities even greater. Government support on Islamic fintech is indicated by licensing through a regulatory sandbox. The regulatory sandbox is performed as a testing lab for fintech to be monitored and evaluated in terms of feasibility, domino effect, consumer protection, licensing aspects, and taxation on products before the product is released to the market (Pratama, 2017).

Technology Aceptance Model (TAM)

The technology acceptance model (TAM) was proposed by Fred Davis in 1986 and 1989 as a tool for evaluating and predicting user acceptance of new product development models (Davis, 1986; Davis, et al., 1989; Sancar-Tokmak, et al., 2014). The foundation of TAM is derived from theory of reasoned action (TRA) proposed by Fishbein and Ajzen in 1975. According to TRA, the involvement of a person in a particular behavior (the use of technology) is influenced by the intention to carry out the behavior. Furthermore, the intention is influenced by individual attitudes and subjective norms (Fishbein & Ajzen, 1975). The TAM model has been extensively used to understand human behavior regarding the use of information technology (Wixom & Todd, 2005). Behavioral constructs in TAM represent the thoughts, feelings, and attitudes of the individual when using information technology. TAM provides a basis for knowing the influence of external factors on beliefs, attitudes, and purposes of its users (Fatmawati, 2015).

Fintech is an innovative high-tech product. Using fintech as a research subject and using TAM to evaluate and explore users' perceptions and attitudes on fintech products is an important issue (Chuang et al., 2016). The TAM construct explains that external factors, PEoU, PU, and attitude predict subjective norms from users (Wixom & Todd, 2005). Huang and Kaewmee (2011) use PSQ and SI as external factors. Czepiel (1990) mentions that PSQ is a users' perception of how well a service meets or exceeds their expectations. Quality of service is generally noted as an important prerequisite and determinant of competitiveness to build and maintain satisfactory relationships with Islamic fintech. Furthermore, SI is a new service concept offered or a service delivery process that adds value to users through new solutions to solve various problems (Huang & Kaewmee, 2011). Innovation in fintech lies in methods of improving performance, service opportunities desired by consumers, the easiest way to use the service, and comfortable in using the service. Based on this definition, PSQ and SI become predictors for PEoU and PU.

Otto (2014) defines PEoU as a technology users believe that using a particular technology will have no effort or difficulty. The TAM construct explains that users should believe that new technology is easy to use. When a new technology is perceived by users to be easy to use, and requires less power and time, then new technology is more likely to be accepted by users (Chuang et al., 2016). In adopting new or innovative technologies, it is important for individuals to be aware of their ability to use them (Otto, 2014). The perception PEoU is influenced by PSQ and SI. Huang and Kaewmee (2011) mentioned that PSQ and SI are positively associated with PEoU. The better the service quality and service innovation offered by Islamic fintech products (e.g. usage instructions, simple features, complete features), the easier the use of the products. Based on the description, the hypothesis is formulated as follows.

H_{1a}: PSQ has positive effect on PEoU.
H_{1b}: PSQ has positive effect on PU.

Then, PSQ and SI also affect PU. PU refers to the number of people who believe that the new technology will improve its performance (Ren-Chuen & Hsi-Peng, 2009). PU is a usefulness of a product in meeting the needs of users. Hu et al. (1999) state that PU is a measure of individual subjective judgment on the utility provided by a new information technology product. In addition, Davis et al. (1989) define PU as users' confidence interpreted through the use of technology. The perception of a product's usability is influenced by the product itself. McAuley (2014) defines fintech as an economic industry consisting of companies that use technology to make financial services more efficient. Islamic fintech offers value-added products by replacing traditional transactions with modern transactions. PSQ and SI in Islamic fintech lie in application-based transactions that can be done anywhere and anytime, simple features, complete products (for business and humanity), and most importantly is lawful because the principles of transactions use sharia principles. Therefore, the better the service quality and service innovation offered by Islamic fintech products, the more useful the products are for users/users. Based on the description, the hypothesis is formulated as follows.

H_{2a}: SI has positive effect on PEoU.
H_{2b}: SI has positive effect on PU.

The TAM's constructs generally explain that PEoU affects PU. Some previous research results conducted by Davis (1989), Hu et al. (1999), Wixom and Todd (2005), Huang and Kaewmee (2011), Shipps and Phillips (2012), and Chuang et al. (2016) show that PEoU affects PU. TAM assumes that there is a PEoU effect on PU. In addition, the increase in PEoU contributes to improved performance, and PEoU has a direct effect on PU (Mariani et al., 2013). The easier the use of a product, the greater the perceived usefulness of the product. Therefore, the hypothesis is formulated as follows.

H_3: PEoU has positive effect on PU.

The acceptance of the new technology on Islamic fintech is explained in individual attitudes to use the product. Attitude is a feeling or mental reaction associated with a particular object (Huang & Kaewmee, 2011). The feelings can be positive or negative (Ajzen, 2002; Halilovic & Cicic, 2011). Chen et al. (2016) mention that PEoU and PU are constructs that influence the attitude. Several previous research results conducted by Wixon and Todd (2005), Shipps and Phillips (2012), Nam et al. (2016), and Chuang et al. (2016) show that PEoU and PU are positively related to attitude. Different findings are shown by Huang and Kaewmee (2011) who show that PEoU did not significantly affect attitude. Chuang et al. (2016) explain that when a new technology is user-friendly, then new technology is more likely to be accepted by users, and if users believe that new technology is useful, users will have a positive attitude toward new technologies. Therefore, the hypothesis is formulated as follows.

H_4: PEoU has positive effect on attitude.
H_5: PU has positive effect on attitude.

Satisfaction

Perceptions and positive attitudes of individuals on new products will affect users' satisfaction on the product. Satisfaction refers to an individual's attitude to the output of technology (Zohoori et al., 2012). Users' satisfaction becomes the benchmark of the usefulness of Islamic fintech products. Through the level of satisfaction, it can be seen how big the role of Islamic fintech products are in solving various financial problems and conducting humanitarian activities. Users' satisfaction is perceived as an object-based attitude (Ajzen & Fishbein, 1980). Wixom and Todd (2005) mention that completeness, accuracy, format, and the newness provided by technology are the elements that become individual information satisfaction factors. The element is found in Islamic fintech products. Mariani et al. (2013) state that information technology is a factor that affects the level of users' satisfaction. In addition, users' satisfaction is gained and is based on experience in using a product/technology (Sahin et al., 2011).

Users' satisfaction has been used by previous researchers to test positive users' behavior after using information technology-based products (Chiu & Wang, 2006; Dalcher & Shine, 2003; Szymanski & Hise, 2000; Wixom & Todd, 2005). Positive behavior is indicated by the attitude after using the Islamic fintech product. That is, attitude is a predictor for users' satisfaction. Previous research conducted by Al-Hawari and Mouakket (2010) and Shipps and Phillips (2012) shows that attitude has a positive effect on satisfaction. Therefore, the hypothesis is formulated as follows.

H_6: Attitude has positive effect on Satisfaction

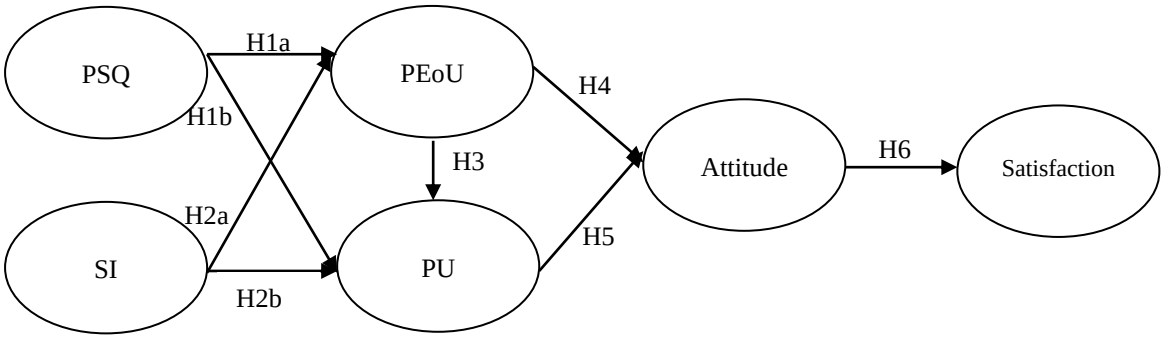

Figure 1. Research Model

Research Methodology

Research Design and Sample

The research method used in this research is survey through online survey. Furthermore, the primary data will be processed through statistical testing and will then be interpreted (Cooper & Schindler, 2011). The sample in this research is 185 Islamic fintech users spread all over Indonesia.

Variable Measurements

Satisfaction is an individual reaction to the product they use. Users' satisfaction is measured using instruments from Sahin et al. (2011). The instrument consists of eight question items using a 6-point Likert scale. Then, technology acceptance model (TAM) is a construct that describes some factors that cause individuals to benefit from using a product. PSQ (six questions) and SI (seven questions) were measured using instruments developed by Huang and Kaewmee (2011). PEoU, PU, and attitude are measured using an instrument developed by Davis (1989) and used also by Davis et al. (1989), Mathieson (1991), and Hu et al., (1999). PEoU and PU are measured using six question items, and attitude is measured using three question items. Each variable is measured using a 6-point Likert scale.

Data Analysis

The research model was tested using structural equation model-partial least squares (SEM-PLS). PLS is a common method for estimating path models involving indirect latent constructs measured using several indicators (Chin & Newsted, 1999). The structural model in SEM-PLS is evaluated by using R^2 for the dependent construct and the path or t-values coefficient value for the significance test between constructs in the structural model (Hartono, 2011). PLS has the advantage of being able to perform simultaneous testing. Through the structural model, the level of significance and beta value of the variables tested for each variable relationship can be seen so that conclusions about the hypothesis proposed can be drawn. SEM-PLS also displays the output of the validity and reliability tests simultaneously. SEM-PLS is very suitable for testing complex research models.

Results

Respondents

Respondents in this study are 185 Islamic fintech users from all over Indonesia. Respondents come from various cities and companies. Online instruments are delivered to Islamic fintech users, then the researcher will sort out respondents in accordance with the criteria of the researcher. More detail of these characteristics can be seen in Table 1.

Validity and Reliability Testing

The validity testing is performed to determine the instrument's ability to measure what should be measured from a concept (Cooper & Schindler, 2011). Validity is determined by testing the convergent validity and discriminant validity of each indicator. Convergent validity is determined using three criteria estimates. First, the outer loading should be greater than 0.7 (> 0.7). Second, commonality should be greater than 0.5 (> 0.5). Third, the average variance extracted (AVE) value should be greater than 0.5 (> 0.5). Discriminant validity is determined using the square root of AVE whose value must be higher than the correlation between latent variables in the same column. Fulfillment of assumptions seen from the value of cross-loading is greater than 0.7 (> 0.7). Outer loading between 0.40 - 0.70 is still considered to be maintained. Hair et al. (2013) mentioned that loading below 0.40 should be removed from the model. In the indicator with outer loading between 0.40 to 0.70, the impact of the eradication of indicators on the AVE and composite reliability will be analyzed. If the result does not improve AVE and composite reliability above the limit, the indicator with outer loading between 0.40 - 0.70 should be maintained. Table 2 shows the result of testing the convergence validity and discriminant validity.

Table 1. Demographic Characteristics of Respondents

Information		Frequency	Percentage	Total Frequency	Percentage of Total
Gender	Male	107	57,84%	185	100%
	Female	78	42,16%		
Duration of using Islamic fintech	< 1 year	65	35,14%	185	100%
	> 1 year	120	64,86%		
Age	< 25	76	41,07%	185	100%
	26 – 30	48	25,95%		
	31 – 35	29	15,68%		
	36 – 40	18	9,73%		
	> 40	14	7,57%		
Job	Private Employees	62	33,51%	185	100%
	College Students	30	16,22%		
	Government Employees	18	9,73%		
	Entrepreneurs	75	40,54%		

Based on Table 2, it is known that latent variables have loading above 0.7 (> 0.7). Indicators with outer loading between 0.40-0.70 are maintained as the result does not improve AVE and composite reliability above the limit, in accordance with a statement from Hair et al. (2013). That is, the first convergence validity criterion is met. In addition, AVE values meet the assumption of convergent validity that is above 0.5 (> 0.5). Table 2 also shows the result that the convergent validity for reflective constructs is supported with significant p-values (<0.001). Indicators having loading below 0.7 (> 0.7) remain included in the analysis. This is done to maintain the validity of data. Indicators that do not meet the assumption of convergent validity are PSQ1, SI7, PU1, and Sat 8. Based on Table 3, it is known that the research instrument meets the assumption of discriminant validity. The result shows that cross loading value is lower than the construct. For example, the discriminant validity of PSQ construct has been fulfilled because the root of AVE 0.839 is greater than 0.596, 0.263, 0.355, 0.167, and 0.102.

Reliability testing is done to see the reliability accuracy of the measuring instrument to know the consistency of the result from the measurement (Hartono, 2008). The reliability testing is performed using Cronbach's alpha and composite reliability. The value of Cronbach's alpha must be greater than 0.7 (> 0.7) for the indicator to be reliable. In addition, the composite reliability must be greater than 0.7 (> 0.7). Table 4 shows the reliability of the instruments used in this study. Table 4 shows that the research instrument meets the assumption of reliability. Cronbach's alpha and composite reliability values are greater than 0.7 (> 0.7). It means that the research instrument has reliability accuracy for measuring perceived service quality, service innovation, perceived ease of use, perceived usefulness, attitude, and satisfaction.

Hypothesis Testing

Structural Model (Hypothesis Testing)

The structural model in SEM-PLS is evaluated by using R^2 for the dependent construct. Next is to look at the value of path coefficients or t-values to see the significance in hypothesis testing (Hartono, 2011). The value of R^2 is used to measure the level of variation of the independent variable changes to the dependent variable. Figure 2 shows the result from SEM PLS output.

The next result is the direct influence between independent and dependent variables. Table 5 shows the correlation between variables. The first correlation between perceived service quality to perceived ease of use has a positive and not significant relation with coefficient 0.05 ($p = 0.23$) and $R^2 = 0.46$. These results indicate that H_{2a} is not supported. The relationship is the only non-significant relationship. The results of testing relationships among other variables showed significant results. That is, H_{1b}, H_{2a}, H_{2b}, H_3, H_4, H_5, and H_6 are significantly supported. It means that the TAM construct

can explain the respondents' perception of Islamic fintech products. Consumers are satisfied because the product used has complete features and have benefits in solving financial problems.

Table 2. Convergent Validity Testing

	PSQ	SI	PEoU	PU	Att.	Satisf.	SE	P-Value
Perceived Servive Quality (PSQ), AVE = 0.703								
PSQ2	**(0.908)**	0.018	-0.031	0.082	0.067	-0.081	0.061	<0.001
PSQ3	**(0.871)**	0.073	-0.017	0.048	0.099	-0.129	0.062	<0.001
PSQ4	**(0.837)**	-0.122	0.183	0.168	-0.276	0.148	0.062	<0.001
PSQ5	**(0.764)**	-0.028	0.065	-0.114	-0.061	0.148	0.063	<0.001
PSQ6	**(0.806)**	0.053	-0.199	-0.212	0.162	-0.063	0.063	<0.001
Service Innovation (SI), AVE = 0.561								
SI1	-0.048	**(0.483)**	0.063	-0.113	-0.426	0.269	0.067	<0.001
SI2	-0.088	**(0.834)**	-0.043	0.035	0.125	0.070	0.062	<0.001
SI3	-0.136	**(0.858)**	-0.098	0.077	0.136	0.006	0.062	<0.001
SI4	-0.082	**(0.866)**	-0.031	0.172	-0.291	0.107	0.062	<0.001
SI5	0.252	**(0.677)**	0.286	-0.063	0.093	-0.150	0.064	<0.001
SI6	0.163	**(0.700)**	-0.111	-0.209	0.249	-0.264	0.064	<0.001
Perceived Easy of Use (PEoU), AVE = 0.642								
PEoU1	-0.332	0.432	**(0.577)**	-0.003	-0.295	0.169	0.066	<0.001
PEoU2	0.153	-0.138	**(0.861)**	-0.057	0.137	-0.011	0.062	<0.001
PEoU3	0.057	-0.021	**(0.852)**	0.025	0.221	-0.017	0.062	<0.001
PEoU4	0.010	-0.036	**(0.865)**	0.092	-0.267	0.087	0.062	<0.001
PEoU5	0.009	-0.115	**(0.825)**	0.062	-0.043	0.014	0.062	<0.001
PEoU6	-0.006	0.017	**(0.790)**	-0.127	0.166	-0.203	0.063	<0.001
Perceived Usefulness (PU), AVE = 0.540								
PU2	-0.247	0.244	-0.097	**(0.767)**	0.272	0.046	0.063	<0.001
PU3	-0.048	-0.080	-0.005	**(0.880)**	-0.089	0.044	0.062	<0.001
PU4	0.070	0.017	-0.026	**(0.890)**	-0.204	0.126	0.062	<0.001
PU5	0.429	-0.399	0.425	**(0.451)**	-0.109	-0.003	0.067	<0.001
PU6	-0.041	0.083	-0.154	**(0.583)**	0.172	-0.318	0.065	<0.001
Attitude (Att), AVE = 0.483								
Att1	-0.012	0.411	-0.574	-0.059	**(0.586)**	-0.305	0.065	<0.001
Att2	0.221	-0.101	0.177	-0.107	**(0.771)**	0.102	0.063	<0.001
Att3	-0.229	-0.229	0.281	0.164	**(0.715)**	0.141	0.064	<0.001
Satisfaction (Sat), AVE = 0.416								
Sat1	0.229	-0.201	0.075	-0.040	-0.152	**(0.807)**	0.063	<0.001
Sat2	-0.155	0.508	-0.258	0.181	0.134	**(0.669)**	0.064	<0.001
Sat3	-0.146	-0.009	0.053	0.147	-0.135	**(0.740)**	0.063	<0.001
Sat4	0.220	-0.151	-0.029	0.129	-0.316	**(0.709)**	0.064	<0.001
Sat5	-0.105	-0.010	-0.077	-0.019	0.229	**(0.569)**	0.066	<0.001
Sat6	-0.190	0.120	0.000	-0.246	0.298	**(0.474)**	0.067	<0.001
Sat7	0.043	-0.246	0.295	-0.347	0.186	**(0.464)**	0.067	<0.001

Open Question Analysis

The researcher gave an open question to the respondents to know the perception and the reason they used Islamic fintech products. Furthermore, the researchers grouped the answers into several factors based on the similarity of respondents' intentions. Analysis of open questions can be seen in Table 6.

Table 3. Discriminant Validity Testing

Latent Variable Correlations

Variable	PSQ	SI	PEoU	PU	Att.	Sat.
PSQ	**(0.839)**	0.596	0.263	0.355	0.167	0.102
SI	0.596	**(0.749)**	0.629	0.313	0.301	0.052
PEoU	0.263	0.629	**(0.801)**	0.148	0.208	-0.205
PU	0.355	0.313	0.148	**(0.735)**	0.121	-0.012
Attitude	0.167	0.301	0.208	0.121	**(0.695)**	0.327
Satisfaction	0.102	0.052	-0.205	-0.012	0.327	**(0.645)**

P-Values for Correlations

Variable	IR	ER	PsyCap	Perform.		
PSQ	**1.000**	<0.001	<0.001	<0.001	0.023	0.169
SI	<0.001	**1.000**	<0.001	<0.001	<0.001	0.482
PEoU	<0.001	<0.001	**1.000**	0.045	0.004	0.005
PU	<0.001	<0.001	0.045	**1.000**	0.101	0.872
Attitude	0.023	<0.001	0.004	0.101	**1.000**	<0.001
Satisfaction	0.169	0.482	0.005	0.872	<0.001	**1.000**

Table 4. Reliability Testing

Indicator	PSQ	SI	PEoU	PU	Attitude	Satisfaction
Chronbach's alpha	0.893	0.834	0.885	0.770	0.459	0.758
Composite reliability	0.922	0.881	0.914	0.847	0.735	0.828

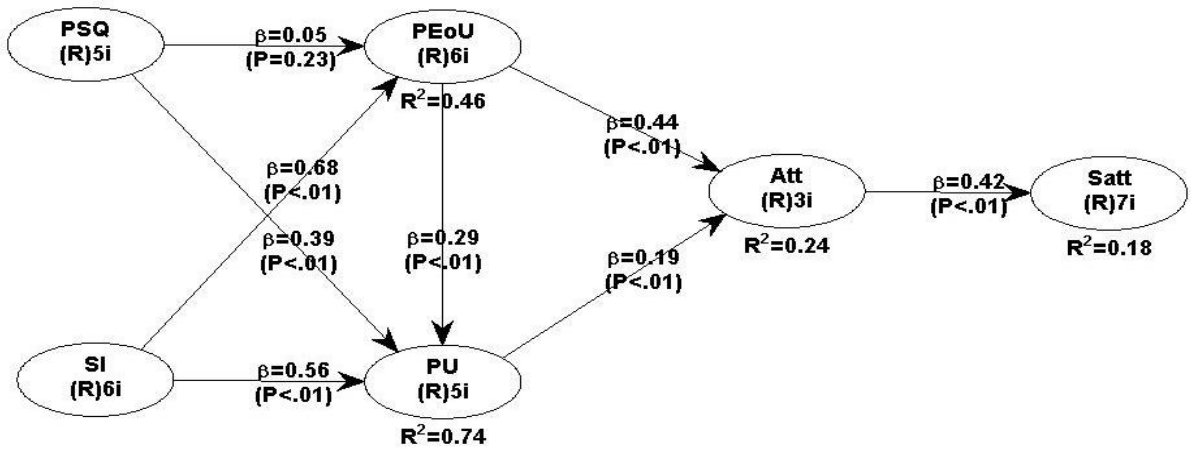

Figure 2. Research Model Testing

Table 5. Hypothesis Testing

Path	Path Coeffisient	P-Values	R-Squared	Information
PSQ – PEoU	0.05	0.23	0.46	Not Supported
PSQ – PU	0.39	<0.01	0.74	Supported significantly
SI – PEoU	0.68	<0.01	0.46	Supported significantly
SI – PU	0.56	<0.01	0.74	Supported significantly
PEoU – PU	0.29	<0.01	0.74	Supported significantly
PEoU – Att.	0.44	<0.01	0.24	Supported significantly
PU – Att	0.19	<0.01	0.24	Supported significantly
Att. – Sat.	0.42	<0.01	0.18	Supported significantly

Table 6 shows that the reason of respondents using Islamic fintech at most is to facilitate the transaction (payment, crowdfunding, lending, etc.). The other reason is that Islamic fintech products have almost the same benefits as the conventional fintech that is easy and practical to use. Furthermore, the users admit the superiority of Islamic fintech products because the products offered

are complete. In addition to being a complete product, users feel that Islamic fintech supports the business they run. Users can offer investment or seek investment to grow the business through peer-to-peer lending.

Table 6. Open Question Response

Question Items	Factors
Reasons for using Islamic fintech	Halal
	Practical
	Easy transaction
	Ease of funding and lending
	Ease of Alms or donors
The superiority of Islamic fintech	Effective and efficient
	Flexible
	Complete product
	Supporting business
	Data transparency

Table 7. Islamic Fintech Products

Islamic fintech Company	Products
Kapital Boost	SME Crowdfunding
	Private Crowdfunding
	Donation Crowdfunding
	Peer to Peer Landing
Ethis Crowd	Social project
	Real Estate Crowdfunding
	Business Crowdfunding
	Investment
	Donation
Paytren	Payment
	SaveTren (deposit products)
	InvesTren (investment products)
	ProTren (protection/insurance products)
	Financial Planning
SyarQ	Online Installment
	Crowdfunding
Investree	Peer to Peer Lending
	Crowdfunding
Ammana	Crowdfunding
	Peer to Peer Lending
	Digital Wakaf
Alami	Peer to Peer Lending

Table 7 shows some of the Islamic fintech that are widely used in Southeast Asia especially in Indonesia and the products they offer. Based on the information in Table 7, it can be seen that most of Islamic fintech offers crowdfunding products. In addition, Islamic fintech focuses a lot on SMEs in which they play a role in improving the economy by helping to provide access to finance for SMEs to solve their financial problems. Bank financing has many procedures including guarantees. Therefore,

Islamic fintech comes with providing solutions for business people to get funding without complicated requirements. The advantage of Islamic fintech is the sharing of transparent results for various transactions. In addition, some Islamic fintech also provide humanitarian products. Many communities have been assisted through donations and social projects. For example, Ethis Crowd has helped poor communities to own homes with subsidies including in Indonesia. Social project is a new product offered by Islamic fintech, and this is a great opportunity for fintech to help various communities and individuals in need.

Conclusion

Conclusions and Implications

This study examines users' perceptions on Islamic fintech products using the TAM's construct. TAM is widely applied to understanding individual attitudes toward the use of technology or is used to predict the adoption of the use of information technology (Islamic fintech product). Davis (1986) proposed TAM and used this model to discuss the effects of external variables on personal internal beliefs and attitudes. The TAM's construct explains that external factors, PEoU, PU, and attitude are the variables that can predict and assess individual perceptions on the use of new technologies or products. Individual perceptions are assessed by measuring their satisfaction after using Islamic fintech products.

The results of this study indicate that PSQ has no relationship with PEoU. These results do not support the research conducted by Huang and Kaewmee (2011). The quality of service provided does not determine the ease of use of a product. This is because the perception of being easy or difficult to use a product depends on the condition of the users. PEoU refers to the extent to which a person believes that using new technology is free from effort that is using less power and time (Chuang et al., 2016). There are differences in the understanding and cognitive abilities in applying or using a product between one user and another user. In contrast, PSQ has a positive relationship to PU. These results also do not support the results of the research conducted by Huang and Kaewmee (2011). The quality of service provided on Islamic fintech products provides benefits and meets expectations for its users. This is consistent with Cronin and Taylor, (1992), Oliver, (1993), and Zeithaml et al. (1993) stating that the PSQ is determined based on whether perceived service meets, exceeds, or fails to meet users' expectations.

In contrast to PSQ, SI has a positive relationship with PEoU and PU. SI on Islamic fintech supports clients through new better solutions to solve a problem. SI refers to fintech as a new and modern service product. Chen et al. (2016) state that in the current era, to create a creative and innovative service is an opportunity for businessmen. This is because the community has moved to do various activities by relying on technology. These results support the research from Huang and Kaewmee (2011). The better service innovation in a product can give a positive effect on PEoU and PU.

The ease of use of Islamic fintech products determines the usability of the users. In accordance with the results of this study, it is indicated that PEoU becomes a predictor of PU. When people are able to use Islamic fintech services (can use the product without difficulty), people can feel the benefits. This result is consistent with the study by Davis (1989), Hu et al. (1999), Wixom and Todd (2005), Huang and Kaewmee (2011), Shipps and Phillips (2012), Mariani et al. (2013), and Chuang et al. (2016) who state that PEoU affects PU.

The next result shows that PEoU and PU are the determinants of attitude. Users believe that the benefits provided by Islamic fintech products are useful (can quickly complete the job) and easy to use (can use without guidance of others). This is consistent with that conveyed by Chuang et al. (2016) that there are times when consumers believe that Islamic fintech products are more useful for their work or easy to use. Their attitude toward the use of fintech services is also higher. These results support the results of the research conducted by Wixon and Todd (2005), Shipps and Phillips (2012), Nam et al. (2016), and Chuang et al. (2016) who state that attitude is determined by PEoU and PU.

Finally, individual satisfaction on Islamic fintech products is influenced by attitude. Mather et al. (2002) mention that TAM is a valid construct to explain users' satisfaction. Users' satisfaction has been used by previous researchers to test positive users' behavior after using technology-based products (Chiu & Wang, 2006; Dalcher & Shine, 2003; Szymanski & Hise, 2000; Wixom & Todd,

2005). Positive perceptions determine their satisfaction perceptions on Islamic fintech products. These results support the research conducted by Al-Hawari and Mouakket (2010) and Shipps and Phillips (2012) who state that attitude positively affects satisfaction.

The result of open question analysis shows that people use Islamic fintech because it facilitates payment transactions, funding, lending, halal, practical, and can channel donations directly. In addition, the benefits of Islamic fintech are the products offered are complete, helping them run their business, effective, efficient, flexible, and the data transparency exists. Based on these results, it can be seen that most users use fintech to make payments, funding, and lending. Islamic fintech can be an alternative for the community to move from the banking sector to the non-banking sector. Islamic fintech services also provide added value by cutting complicated procedures on conventional transactions, saving time, efficiency, and cutting bureaucracy. Then, Islamic fintech also plays a role in social welfare using their humanitarian products.

The results of this study indicate that Islamic fintech can be an alternative and an option for the community to advance their business with funding, lending, and investment products that are guaranteed halal. In addition, Islamic fintech also provides a way for the community to care more about the welfare of others who need it by donating to various communities. Islamic fintech products are based on sharia principles so that they are free from *gharar* and *riba*. There are six current fintech trends: a strong synergy between banking and fintech that is widespread in reaching non-banking Islamic fintech, utilizing automated personalization, voice user interface technology (VUI), making Asia a home for fintech investments, mobile technology innovation, and challenges security, privacy and trust.

This research provides some important contributions both practically and theoretically. Practically, this study provides important information to businesses that there is a market share waiting for Islamic fintech products that can simplify their business processes and solve their financial problems. This is an opportunity for businessmen to create new business (startup) in accordance with current issues. Government needs to issue the right policies to avoid problems in the development of Islamic fintech for both business owners and consumers. One way is to provide a number of regulations for business owners and provide education for costumers. Theoretically, this study contributes in literature by conducting TAM's construct test on Islamic fintech. There is no previous research linking the two topics so that the results of this study provide new knowledge in the academic world.

Limitation and Future Research

This research uses Islamic fintech user sample, so it cannot conclude the perspective of non-users perception on Islamic fintech products. This study does not distinguish between samples that only use Islamic fintech or use both Islamic and conventional fintech. Then, the subsequent research can perform testing using different samples. Further research can add other external variables that may affect the variables in the TAM construct. In addition, the use of trust variables in the TAM model is also important to explore because trusts can be predictors of decisions using new technologies or products.

References

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, *32*(4), 665-683.

Ajzen, I., & Fishbein, M. (1980), *Understanding attitudes and predicting social behavior*. Englewood Cliffs, Prentice-Hall.

Al-Hawari, M. A., & Mouakket, S. (2010). The influence of technology acceptance model (TAM) factors on students' e-satisfaction and e-retention within the context of UAE e-learning. *Education, Business and Society: Contemporary Middle Eastern Issues*, *3*(4), 299-314.

Chau, P. Y. K., & Hu, P. J. H. (2002). Investigating healthcare professionals' decisions to accept telemedicine technology: an empirical test of competing theories. *Information and Management*, *39*(4), 297-311.

Chen, M. C., Chen, S. S., Yeh H. M., & Tsaur, W. G. (2016). The key factors influencing internet finances services satisfaction: an empirical study in Taiwan. *American Journal of Industrial and Business Management*, *6*(6), 748-762.

Chin, W. W., & Newsted P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. In R. Hoyle (Ed.), *Statistical strategies for small sample research* (pp. 307-341). Sage.

Chiu, C. M. H., & Wang, T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems, 42*(2), 1872-1888.

Chuang, L. M., Liu, C. C., & Kao, H. K. (2016). The adoption of fintech service: TAM perspective. *International Journal of Management and Administrative Sciences, 3*(7), 1-15.

Cooper, D. R., & Schindler, P. S. (2011). *Business research methods* (5th ed.). McGraw Hill.

Cronin, J. J. Jr., & Taylor, S. A. (1992). Measuring service quality: A re-examination and extension. *Journal of Marketing, 56*, 405-20.

CzepieI, J. A. (1990). Service encounters and service relationships: Implications for research. *Journal of Business Research, 20*, 13-21.

Dalcher, I., & Shine, J. (2003). The new technology acceptance model to measure the end user information systems satisfaction in a mandatory environment: A bank's treasury. *Technology Analysis and Strategic Management*, *15*(4), 441-455.

Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982-1003.

Fatmawati, E. (2015), Technology acceptance model (TAM) untuk menganalisis penerimaan terhadap sistem informasi perpustakaan. *Jurnal Iqra'*, *9*(1), 1-13.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research.* Addison-Wesley Pub. Co.

Hair, J., Hult, T., Ringle, C., & Sartstedt, M. (2013), *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage.

Halilovic, S., & Cicic, M. (2011). Antecedents of information systems user behaviour: Extended expectation-confirmation model. *Behaviour and Information Technology, 32*(4), 359-370.

Hartono, J. M. (2008), *Metodologi penelitian sistem informasi* (1st ed.). Andi Offset.

Hartono, J. M. (2011), *Konsep dan aplikasi structural equation modeling berbasis varian dalam penelitian bisnis*. UPP STIM YKPN.

Hu, P. J., Chau, P. Y. K., Sheng, O. R. L., & Tam, K. Y. (1999). Examining the technology acceptance model using physician acceptance of telemedicine technology. *Journal of Management Information Systems*, 16(2), 91-112.

Huang, Y. Y., & Kaewmee, K. (2011). *The impact of service quality and service innovation on technology acceptance model* (BAI International Conference on Business and Information, Bangkok, Thailand).

Igbaria, M., Guimaraes, T., & Davis, G. B. (1995). Testing the determinants of microcomputer usage via a structural equation model. *Journal of Management Information Systems, 11*(4), 87-114.

Kim, Y. J., Park, Y. J., Choi, J., & Yeon, J. (2015). An empirical study on the adoption of fintech service: Focused on mobile payment services. *Advanced Science and Technology Letters*, *114*, 136-140.

Mariani, M. G., Curcuruto, M., & Gaetani, I. (2013). Training opportunities, technology acceptance and job satisfaction: A study of Italian organizations. *Journal of Workplace Learning, 25*(7), 455-475.

Mather, D., Caputi, P., & Jayasuriya, R. (2002, Is the technology acceptance model a valid model of user satisfaction of information technology in environments where usage is mandatory? *Enabling Organisations and Society through Information Systems,* 1241-1250.

Mathieson, K. (1991). Predicting user intention: Comparing the technology acceptance model with theory of planned behavior. *Information Systems Research, 2*(3), 173-191.

McAuley, A. (2014). Digital health interventions: Widening access or widening inequalities? .*Public Health, 128*, 1118-1120.

Nam, K., Lee, Z., & Lee, B. G. (2016). How internet has reshaped the user experience of banking service? *KSII Transactions on Internet and Information Systems*, 10(2), 684-702.

Oliver, R. L. (1993). Cognitive, affective, and attribute bases of the satisfaction response. *Journal of Consumer Research, 20*, 418–430.

Otto, V. (2014). *Technology initiative assessment through acceptance and satisfaction: A case study* (All Theses, Dissertations, and Other Capstone Projects, Paper No. 379).

Pratama, B. (2017). *Perspektif hukum siber dalam menangkap fenomena disruptive innovation* (Seminar Nasional Disruptive Innovation: Kajian Ekonomi dan Hukum, Yogyakarta).

Premkumar, G. & Bhattacherjee, A. (2008). Explaining information technology usage: A test of competing models. *Omega, 36*(1), 64-75.

Ren-Chuen, T., & Hsi-Peng, L. (2009). Exploring the emotional, aesthetic, and ergonomic facets of innovative product on fashion technology acceptance model. *Behaviour and Information Technology, 28*, 311-322.

Sahin, A., Zehir, C., & Kitapçi, H. (2011). The effects of brand experiences, trust and satisfaction on building brand loyalty: An empirical research on global brands. *Procedia Social and Behavioral Sciences, 24*, 1288-1301.

Sancar-Tokmak, H., Surmeli, H., & Ozgelen, S. (2014). Preservice science teachers' perceptions of their TPACK development after creating digital stories. *International Journal of Environmental and Science Education*, *9*(3), 247-264.

Shipps, B., & Phillips, B. (2012). Social networks, interactivity and satisfaction: Assessing socio-technical behavioral factors as an extension to technology acceptance. *Journal of Theoretical and Applied Electronic Commerce Research, 8*(1), 35-52.

Szymanski, D. M., & Hise, R. (2000). E-satisfaction: An initial examination. *Journal of Retailing, 76*(3), 309-322.

Wixom, B. H., & Todd, P. A. (2005). A theoretical integration of user satisfaction and technology acceptance. *Informaton System Research*, *16*(1), 85-102.

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1993). *Delivering quality service: Balancing user perceptions and expectations.* New York Free Press.

Zohoori, M., Nabuzadeh, D., Asgharian R., & Nia, N. B. (2012). User satisfaction in green technology/processes. *Interdisciplinary Journal of Contemporary Research in Bussiness, 4*(7), 842-848.