

How Does Islamic Financial Technology Influence Debtors' Preference in Islamic Rural Bank

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Abstract—This paper analyses the influence of Islamic Financial Technology on the change in Debtors' Preference for Bangun Drajat Warga Islamic Rural Bank Bantul, Special Region of Yogyakarta. The influence of Islamic Financial Technology is measured using several variables, comprising Perceived Financial Technology, Service Feature, Perceived Ease of Use and Perceived Risk. The paper, which is in the form of a case study on Bangun Drajat Warga Islamic Rural Bank Bantul, Special Region of Yogyakarta, was conducted from September to October 2018. Primary data were collected through the use of a questionnaire and interview and were processed using SPSS15 and analysed using Multiple Linear Regression. The results show that Perceived Financial Technology, Service Feature and Perceived Ease of Use partially have a significant and positive influence on the change in Islamic Rural Bank Debtors' Preference. The variable Perceived Risk was the only one to have an insignificant and negative influence on the change in Islamic Rural Bank Debtors' Preference. Overall, the independent variables simultaneously have a significant influence on the change in Islamic Rural Bank Debtors' Preference. The independent variables explained 63.3% of the dependent variables, with the remaining 36.7% explained by other variables outside the model.

Keywords—Financial Technology, Debtors Preference, Islamic Rural Bank

I. INTRODUCTION

Banks play a major role as financial intermediaries that collect deposits from surplus units and distribute financing to deficit units. The role of the credit and financing provided by banks has a positive impact on economic growth. An increase in credit or financing demand will increase purchasing power, promote greater entrepreneurship and support investment. Given the important role of credit, problems of financial inclusion have recently emerged due to limits to both the level of access to and the specific financing services that do not meet the needs of unbankable societies. Banks are perceived to prefer distributing funds to large bankable companies as opposed to Small and Medium-sized Enterprises (SMEs).

Islamic rural banks have helped SME actors to expand their businesses through Islamic financing products. According to data from the Indonesia Financial Service Authority, there are currently 55 conventional rural banks and 12 Islamic rural banks in Yogyakarta. Bangun Drajat Warga (BDW) Islamic Rural Bank is one of the Islamic Rural Banks operating in Yogyakarta Province to have recorded the greatest level of financing performance since 2016. This is reflective of the way in which BDW Islamic

Rural Bank has helped to promote financial inclusion in Yogyakarta.

However, amidst the rapid changes taking place in financial technology, technology innovation in financial markets has led to strong competition within the SME market. Given that customer satisfaction is the main goal of financial services, banks should consider adopting technology advancement in their financing services.

Technological advancement has hardly hit the banking sector to the same degree as the disruption caused by Financial Technology (Fintech) institutions. The Central Bank of Indonesia has explained that fintech creates new products, services or business models capable of impacting on monetary stability, financial system stability and sound payment systems. According to the Indonesia Fintech Landscape Report by Fintech Singapore (2018), in May 2018 there were 162 Fintech players engaged in activities in lending, payment, personal finance and wealth management, crowdfunding, insurtech, comparison, pos systems, cryptocurrency and blockchain, and the accounting sector. Based on that report, the transaction value of Fintech in Indonesia for 2018 was projected to be USD 22.338 million, with an expected annual growth rate of 16.3%. Fintech in payment and online lending saw the highest growth rates among other Fintech players, recording 38% and 31%, respectively. Hence, fintech has continuously endeavoured to break into the intermediary functions ordinarily provided by banks.

Indonesia Financial Service Authority Regulation (POJK) No.77/POJK.01/2016 explains Fintech online lending or Fintech Peer-to-Peer Lending. In this regard, fintech institutions act as a marketplace for lenders and borrowers to meet and conduct lending and borrowing agreements by an electronic system using the internet. Fintech Peer-To-Peer Lending allows individuals and companies to invest in a business without intermediation by banks (Vives, 2017). Fintech provides the ability to match lenders and borrowers directly using technology (Dermine, 2017). Based on its operation, Fintech Peer-To-Peer Lending in Indonesia could be divided into Conventional Fintech and Islamic Fintech. The main difference between Conventional Fintech and Islamic Fintech is the use of interest which leads to various contracts and financing products.

Islamic Fintech is suited to new technology that allows borrowers to select the financing they require and then complete the requirements using an online system.

However, the lack of a Fintech element within their operations, compared to banks, is among the limitations of the financing offered by Islamic Fintech. Fintech Peer-To-Peer Lending provides short-term financing only, while banks have greater options for either long- or short-term financing. Rural banks have yet to adopt advanced technology, while Fintech continues to approach society with financing innovations. Although Islamic rural banks are able to provide greater options with regard to financing products, they need to be aware of the presence of Islamic Fintech since they are both targeting the same SME market and people generally welcome technological innovation.

Looking at the case of digital or internet banking in Indonesia, it has also been well accepted. Indonesia's Financial Service Authority recorded a total of 50.4 million e-banking users in 2016. Consumers' interest in the use of internet banking is affected by several factors, including perceived value, perceived risk, perceived ease of use, perception of information technology and product features (Amijaya, 2010; Widyarini, 2005). Reflecting on the previous research, there is also the possibility that people will accept Fintech in the financial market as both Fintech and internet banking have adopted advanced technology. Therefore, it is important to analyse the preferences, expectations and opinions of debtors in the event that banks adopt technology-based financing services, notably with regard to the debtors of Islamic Rural Banks. In this regard, Perceived Financial Technology, Service Feature, Perceived Ease of Use and Perceived Risk are chosen to measure the influence of Islamic Financial Technology on Debtors' Preference when choosing a financial service.

II. LITERATURE REVIEW

1. *Perceived Financial Technology*

Perception is a process that leads a person to choose, organise and interpret stimuli into a meaningful and complete picture. Consumer perception is thus a consumer's response to the existence of a chosen object or product (Wahyuni, 2008). Consumers show their behaviour once they have formed a perception in terms of the decision they will take in relation to buying a product. Similarly, debtor perception refers to a debtor's response to a process that makes debtors likely to choose, organise and interpret stimuli into a complete picture. Perceived financial technology is thus a process whereby debtors form a complete picture about fintech after they have organised and interpreted the stimuli about it. Debtors' perception of financial technology is related to their behaviour in making a decision to use a financing product.

2. *Service Feature*

A feature is a characteristic that provides an additional basic function to a product and forms one of the reasons for a customer to choose a product (Schmitt, 2010). A service feature for financial institutions, including banks, becomes one of the things capable of differentiating one institution from others. The availability of different features that meet the needs of users is thus one of the factors determining the success of financial service innovation (Gerrard & Cunningham, 2003). The provision of a good quality of banking service has become one of the key ways in which to attract banking customers (Suharini, 2008). A bank's

financial service is continuous as opposed to a one-off event; hence, it is essential for a bank to maintain good relations with its customers. Customer loyalty can be earned through product features and service excellence (Poon, 2008).

3. *Perceived Ease of Use*

Perceived ease of use is the degree to which a person expects that using a particular system will be free of effort. According to the Technology Acceptance Model, perceived ease of use and perceived usefulness of technology are related to a person's attitude to using the technology (Davis, 1989). A person's attitude, wherein they show an interest in a product or service, could be used to predict their intention to use a product or service (Amijaya, 2010). Perceived ease of use influences customer behaviour indirectly through perceived usefulness (Zhu & Lei, 2016) and their perception of usage risk (Featherman & Pavlou, 2003). If a customer perceives a product or service to be complex, it is also likely they will assume it is risky to use. Davis (1989) also stressed that the easier a technology is to use, the more useful it can be. Customers with higher perceived ease of use were found to be more likely to buy or use a product or service (Zhu & Lei, 2016).

4. *Perceived Risk*

Risk is defined as the consumer's subjective estimation of suffering losses in receiving the desired results (Chellappa & Pavlou, 2002). Risk comprises the uncertainty condition that people consider in deciding to conduct online transactions (Amijaya, 2010). Perceived risk mainly relates to customers searching for and choosing information on products and services prior to making a decision (Kesharwani & Bisht, 2012). The thought of perceived risk can be managed using information technology devices and thus impact on the customer's intention (Krauter & Faullant, 2008). If customers perceive product and services to be higher risk, then they may avoid using them as the result will be different from what they expected. In the case of internet banking, risks may arise from system and information exchange error or illegal access to the customer's account caused by imperfect verification (Fadare, 2016).

5. *Customer's Preference*

The development of industries has led to changes in customer behaviour and preferences. In the integrated digital and physical world, customer preference for greater self-service has given rise to various players in the financial industry. Technology innovation has the ability to disrupt established players by attracting customers to favour their new solutions (Andersson & Holmgren, 2017). Customers have indicated their preference for conducting convenient transactions through mobile and the internet (Agrawal, 2017). According to Sohail and Shanmugham (2003), customers' preference for an internet-based banking service depends not only on the internet service but also on other social and psychological aspects. Banks thus need to measure customers' preference on digitalisation from the customer's perspective rather than from the bank's point of view (Jayamaha, 2016).

III. METHODOLOGY

A. Research Model

The emergence of Islamic Fintech in financial markets has presented a new challenge for Islamic financial institutions. This study proposes analysing how Islamic Fintech influences Debtors' Preference in using financing products in Islamic Rural Banks. Perceived Financial Technology, Service Feature, Perceived Ease of Use, and Perceived Risk are used as indicators to measure whether or not Debtors' Preference on Islamic Rural Banks has changed in response to the rapid development of fintech. The result is expected to analyse debtor acceptance on advanced technology adoption and the variety of financing products demanded by banks' debtors.

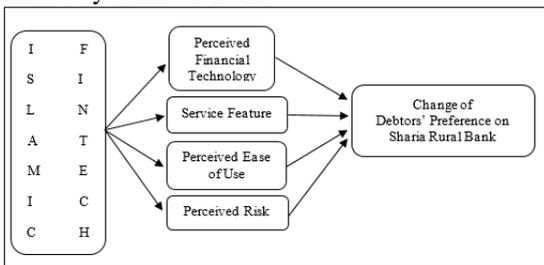


Figure 1. Research Framework on the Relationship between Debtors' Preference and its Independent Variables

Based on Figure 1, the hypotheses of this study are as follows:

- H1: Perceived Financial Technology has a significant and positive influence on the change of Debtors' Preference on the Islamic Rural Bank.
- H2: Service Feature has a significant and positive influence on the change of Debtors' Preference on the Islamic Rural Bank.
- H3: Perceived Ease of Use has a significant and positive influence on the change of Debtors' Preference on the Islamic Rural Bank.
- H4: Perceived Risk has a significant and negative influence on the change of Debtors' Preference on the Islamic Rural Bank.

B. Research Methodology

BDW Islamic Rural Bank Yogyakarta is used as a case study. Primary data were collected directly by the researcher using a questionnaire. The population in this study comprises the debtors of BDW Islamic Rural Bank in Yogyakarta Province. Purposive sampling was used as the sampling technique in order to obtain a truly representative sample from the population. Thus, the criteria for the sample in this study are: 1) Debtors of BDW Islamic Rural Bank, 2) Debtors using *Mudharabah* and *Musyarakah* financing services from BDW Islamic Rural Bank, 3) Debtors working as SME actors, and 4) Debtors categorised as technology and internet users. Based on the data collected from BDW Islamic Rural Bank, there are 178 customers of *Mudharabah* financing and 17 customers of *Musyarakah* financing. BDW Islamic Rural Bank thus has a total of 195 *Mudharabah* and *Musyarakah* financing customers. Using Slovin's Formula, the sample size for this study is calculated as shown below (Imran, 2017):

$$n = \frac{N}{Nd^2 + 1}$$

Where:

- n = sample size
- N = population size
- d = acceptable error value

So, the sample size for this study is:

$$n = \frac{195}{195((0,1)^2) + 1}$$

$$n = \frac{195}{2,97}$$

$n = 66,33$, thus the unanimous decision is a sample size of 66

a. Instrument and Data Quality Test

i. Validity Test

A validity test is conducted to determine whether the measurement tool selected is appropriate for obtaining the data and to measure the degree of validity (Basuki & Yuliadi, 2015). The Pearson Correlation is used when conducting the validity test, whereby an indicator is valid if $r_{\text{value}} > r_{\text{table}}$.

ii. Reliability Test

A reliability test is conducted to determine whether the indicators can be used more than once to produce consistent data. The results of the reliability test indicate the level of consistency (Basuki & Yuliadi, 2015). Cronbach's Alpha is used to measure reliability, whereby an indicator is reliable if the Cronbach's Alpha value ≥ 0.70 .

b. Classical Assumptions

i. Normality Test

A normality test is conducted to test whether the data collected are normally distributed. Data can be assumed to be normally distributed if they exceed 30 ($n > 30$) (Basuki & Yuliadi, 2015). However, the data should be tested using a normality test in order to obtain a picture of their normality. This study uses the Kolmogorov-Smirnov test to check for normality, wherein the residual can be stated to be normally distributed if the significance value is higher than α 5% ($\text{sig.} > 5\%$).

ii. Multicollinearity Test

Multicollinearity indicates the existence of a linear relationship between the independent variables in a Multiple Linear Regression Model (Basuki & Yuliadi, 2015). The aim of the multicollinearity test is to identify whether there is a high correlation between the independent variables in the regression model. There should be no correlation between the independent variables in a good regression model. The existence of multicollinearity is indicated by the value of a Variance Inflation Factor (VIF), whereby a VIF value < 10 indicates no multicollinearity between independent variables.

iii. Heteroscedasticity Test

Heteroscedasticity shows the unequal variance from a residual towards all observations in a

regression model. A heteroscedasticity test is conducted to detect deviation in the variance and fulfil the classical assumption requirements in a regression model (Basuki & Yuliadi, 2015). A credible regression model contains homoscedasticity, wherein the variance of a variable in the regression model has a constant value. The Glejser test is used to measure heteroscedasticity; it can be stated that there is no heteroscedasticity if the sig. value is > 0.05.

c. Multiple Linear Regression

Linear Regression Analysis aims to set a model and then analyse the influence of one or more independent variables on one dependent variable. A regression equation is used to measure the value of the dependent variable and determine the direction and magnitude of the influence of the respective independent variables on that dependent variable. A regression equation is formulated as shown below:

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \dots + \beta_n X_{nt} + e_t$$

Where:

- Y_t = dependent variable
- X_{1t} = independent variable 1 at period t, X_{2t} = independent variable 2 at period t, and so on
- β_1 = coefficient of X_1 , β_2 = coefficient of X_2 , and so on
- e_t = residual / error at period t

Thus, the multiple linear regression equation for this study is formulated as given below:

$$DP_t = \beta_1 PFT_t + \beta_2 SF_t + \beta_3 PEU_t + \beta_4 PR_t + e_t$$

Where:

- DP_t = Debtors' Preference at period t
- PFT_t = Perceived Financial Technology at period t
- SF_t = Service Feature at period t
- PEU_t = Perceived Ease of Use at period t
- PR_t = Perceived Risk at period t
- β_1 = coefficient of Perceived Financial Technology
- β_2 = coefficient of Service Feature
- β_3 = coefficient of Perceived Ease of Use
- β_4 = coefficient of Perceived Risk
- e_t = residual / error at period t

d. Coefficient of Determination (R^2)

The coefficient of determination is used to assess the goodness of fit from the regression model. Particularly for regression analysis, it shows the proportion of the dependent variable that can be explained by the independent variables in the model. R^2 in the regression equation is susceptible to additional independent variables, wherein the more independent variables are involved, the greater the R^2 value. Adjusted R^2 is used as an indicator to assess the goodness of fit of the regression model for the analysis of multiple linear regression. A regression model is deemed to be good if the adjusted R^2 has a high value (Basuki & Yuliadi, 2015).

e. Hypothesis Test

i. T-Test

The T-test is used to analyse the influence of each independent variable on the dependent variable partially. A positive value of Unstandardised Coefficient B for an independent variable indicates a positive relation between the independent variable and the dependent variable, and vice versa.

H_0 = Variable X_1 does not have a significant influence on the dependent variable.

H_1 = Variable X_1 has a significant influence on the dependent variable.

If the significance value > 0.05, then Do Not Reject H_0 , which means that Variable X_1 does not have a significant influence on the dependent variable. If the significance value < 0.05, then Reject H_0 , which means Variable X_1 has a significant influence on the dependent variable.

ii. F-Test

The F-test in multiple linear regression aims to analyse the influence of independent variables on the dependent variable simultaneously.

H_0 = Independent variables simultaneously do not have a significant influence on the dependent variable.

H_1 = Independent variables simultaneously have a significant influence on the dependent variable.

If the significance value > 0.05, then Do Not Reject H_0 , which means that the independent variables simultaneously do not have a significant influence on the dependent variable. If the significance value < 0.05, then Reject H_0 , thus meaning the independent variables simultaneously have a significant influence on the dependent variable.

IV. RESULTS AND ANALYSIS

The purpose of conducting multiple linear regression is to analyse the influence of more than one independent variable on a dependent variable. Multiple linear regression is carried out to indicate the direction and magnitude of independent variables towards the dependent variable. Based on data processing using SPSS15, the multiple linear regression analysis is explained as follows:

Table 1. Result of Multiple Linear Regression

Variables	B	Sig.
Perceived Financial Technology (β_1)	0.324	0.007
Service Feature (β_2)	0.337	0.008
Perceived Ease of Use (β_3)	0.330	0.003
Perceived Risk (β_4)	-0.060	0.574

Source: Primary Data processed using SPSS15

The regression equation in this study is formulated as shown below:

$$DP_t = \beta_1 PFT_t + \beta_2 SF_t + \beta_3 PEU_t + \beta_4 PR_t + e_t$$

$$DP_t = 0,324PFT_t + 0,337SF_t + 0,330PEU_t - 0,060PR_t$$

Where:

- DP_t = Debtors' Preference at period t
- PFT_t = Perceived Financial Technology at period t
- SF_t = Service Feature at period t
- PEU_t = Perceived Ease of Use at period t
- PR_t = Perceived Risk at period t
- β_1 = coefficient of Perceived Financial Technology
- β_2 = coefficient of Service Feature
- β_3 = coefficient of Perceived Ease of Use
- β_4 = coefficient of Perceived Risk
- e_t = residual / error at period t

Based on Table 1 Service Feature (SF) influences the Debtors' Preference (DP) with a coefficient of 0.337, followed by Perceived Ease of Use (PEU) with a coefficient of 0.330 and then Perceived Financial Technology (PFT)

with a coefficient of 0.324. Perceived Risk (PR) is the variable with the least influence on DP with a coefficient of 0.060 and thus has a negative influence. Perceived Financial Technology (PFT), Service Feature (SF) and Perceived Ease of Use (PEU) have a positive influence on Debtors' Preference (DP).

The coefficient of determination (R^2) in regression analysis indicates the proportion of the dependent variable that can be explained by the independent variables. Based on Table 2, the adjusted R^2 value is 0.633, which means that Perceived Financial Technology, Service Feature, Perceived Ease of Use and Perceived Risk can explain 63.3% of the variation in Debtors' Preference. The remaining 36.7% is explained by other variables outside the model.

Table 2. Result of the Coefficient of Determination

R-squared	Adjusted R-squared
0.656	0.633

Source: Primary Data Processed using SPSS15

The influence of each independent variable on the dependent variable can be partially analysed using the T-test. The T-test result can be determined by looking at the significance value of each variable. If the significance value exceeds 0.05, then Do Not Reject H_0 , but if the significance value is below 0.05, then Reject H_0 .

Table 3. Results of T-Test

Variable	Sig.
Perceived Financial Technology	0.007
Service Feature	0.008
Perceived Ease of Use	0.003
Perceived Risk	0.574

Source: Primary Data processed using SPSS15

Based on Table 3, the significance values of Perceived Financial Technology, Service Feature and Perceived Ease of Use are 0.007, 0.008 and 0.003, respectively. The significance values of these independent variables are thus lower than 0.05 ($\text{sig.} < 0.05$). Therefore, it can be concluded that H_1 is accepted. This means that Perceived Financial Technology, Service Feature and Perceived Ease of Use partially have a significant and positive influence on the change of Debtors' Preference on the Islamic Rural Bank. The significance value of Perceived Risk is 0.574, which is higher than 0.05 ($\text{sig.} > 0.05$), so H_4 cannot be accepted. This means that Perceived Risk has an insignificant and negative influence on the change of Debtors' Preference on the Islamic Rural Bank.

The influence of the independent variables on the dependent variable simultaneously can be analysed using the F-test. The result of the F-test is determined based on the significance value (sig. F). Thus, if the significance value is higher than 0.05, then Do Not Reject H_0 . If the significance value is below 0.05, then Reject H_0 .

Table 4. Result of F-Test

F	Sig. F
29.078	0.000

Source: Primary Data processed using SPSS15

According to Table 4, the significance value (sig. F) is 0.000, which is lower than 0.05 ($0.000 < 0.05$); thus, H_1 is accepted. This means that Perceived Financial Technology, Service Feature, Perceived Ease of Use and Perceived Risk simultaneously have a significant influence on the change of Debtors' Preference on the Islamic Rural Bank.

The results of the regression model show that all of the independent variables, comprising Perceived Financial Technology, Service Feature, Perceived Ease of Use and Perceived Risk, simultaneously have a significant influence on the change of the Islamic Rural Bank's Debtors' Preference. According to the results, Perceived Financial Technology, Service Feature and Perceived Ease of Use partially have a positive and significant influence on Debtors' Preference. Whereas Perceived Risk has a negative and insignificant influence on Debtors' Preference. Thus, the greater a debtor's understanding of Fintech, the more they will feel convinced when deciding to use financing services. The better the features of the financing service offered by an institution, the more it influences a debtor's decision to use that financing service. The greater the level of ease offered by a product, the more it influences a change in Debtors' Preference. In contrast, if a debtor perceives high potential losses from the financing service, they will be unsure as to whether to use the financing service.

Practically, fintech improves customers' understanding of fintech products and their risk profile through the use of updated and organised data (Arner, et al., 2015). Based on the EY Global Banking Survey (2017) previously conducted in Indonesia, along with other several countries such as the US, UK, Germany, Singapore, Hong Kong, India and Brazil, 41% out of a total of around 55,000 respondents anticipated the emergence of new online providers that would compete with existing banks. Zhu and Lei (2016), in their study, found that greater perceived ease of use will create greater potential for customers to buy or use a product or service. A previous study by Sohail and Shanmugham (2003) on e-banking and customer preference also found that while concerns about e-banking security had a negative influence, this influence was not significant with regard to e-banking usage. Peter and Ryan (1976) stated that customers' expectation of losses served to prevent them from purchasing a product. Hence, Perceived Risk could be minimised using the advance of information technology (Krauter & Faullant, 2008).

Overall, the results of this study demonstrate that Islamic Financial Technology influences debtors' perception of the Islamic Rural Bank when using a financing service, especially with regard to *Mudharabah* and *Musyarakah* financing. Debtors of Islamic Rural Banks, especially the *Mudharabah* and *Musyarakah* financing debtors of BDW Islamic Rural Bank, mostly accept the ease of using Islamic Fintech financing services in a positive way and also demand new technology. This is because the debtors of *Mudharabah* and *Musyarakah* financing in BDW Islamic Rural Bank are SME actors who need large amounts of financing to develop their businesses. Debtors of BDW Islamic Rural Bank, especially for *Mudharabah* and *Musyarakah* financing, also still prefer face-to-face interaction when they encounter difficulties or problems. These elements, which are unavailable with Islamic Fintech, provide the greatest advantages for Islamic Rural Banks,

meaning they are able to offer various short- to long-term financing and prioritise direct interaction between the bank and its debtors.

V. CONCLUSION AND RECOMMENDATION

1. Conclusion

The variables Perceived Financial Technology, Service Feature and Perceived Ease of Use have a positive and significant influence on the change of Debtors' Preference on Sharia Rural Banks. Meanwhile, the variable Perceived Risk has a negative influence and does not significantly influence the change of Debtors' Preference on Sharia Rural Banks.

It can also be concluded that when debtors have a better understanding of Fintech, and there are better financing service features and high ease of use, debtors will be more convinced to use a financing service by Fintech and bring a positive impact to the change on Debtors' Preference. In contrast, if a debtor perceives there to be a risk of incurring high losses from a financing service, they will become unsure as to whether to use a financing service. The indicators used to measure the influence of Fintech in this research have been proven to explain as much as 63.3% of the dependent variable, which means that in general, Sharia Fintech can significantly influence the change of Debtors' Preference on Sharia Rural Banks.

2. Recommendation

It would be better for Sharia Rural Banks, as established financial institutions, to instigate the creation of a new system that implements new advanced technology and then conduct socialisation among their debtors in order to maximise the performance of the new system they offer. By using advanced technology, Sharia Rural Banks can create new service features and financing products that could help debtors from the aspects of time efficiency and service cost. Sharia Rural Banks must also be able to guarantee the legality factor, the confidentiality of debtor data and customer protection in order to retain customers' trust. Sharia Rural Banks can seek to build partnerships with Sharia Financial Technology providers to combine their various financing services and the application of advanced technology.

REFERENCES

- [1] Agrawal, R. (2017). Disruption in Banking in Emerging Market Economy: An Empirical Study of India. *Economic Analysis Vol. 50, No. 3-4*, 20-31.
- [2] Amijaya, G. R. (2010). Pengaruh Persepsi Teknologi Informasi, Kemudahan, Resiko Dan Fitur Layanan Terhadap Minat Ulang Nasabah Bank Dalam Menggunakan Internet Banking (Studi Pada Nasabah Bank BCA).
- [3] Andersson, O., & Holmgren, J. (2017). *Clients' Lost Interest in Banks The Business Model Development of a FinTech Start-Up*. Lund: Lund University School of Economics and Management.
- [4] Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). The Evolution of Fintech: A New Post-Crisis Paradigm? *University of Hong Kong Faculty of Law Research Paper No. 2015/047; UNSW Law Research Paper No. 2016-62*.
- [5] Basuki, A. T., & Yuliadi, I. (2015). *Electronic Data Processing (SPSS 15 dan EVIEWS 7)* (Edisi Revisi ed.). Yogyakarta: Danisa Media.
- [6] Chellappa, R. K., & Pavlou, P. A. (2002). Perceived information security, financial liability and consumer trust in electronic commerce transactions. *Logistic Information Management Volume 15 Number 5/6*, 358-368.
- [7] Chrismastianto, I. A. (2017). Analisis SWOT Implementasi Teknologi Finansial Terhadap Kualitas Layanan Perbankan di Indonesia. *Jurnal Ekonomi dan Bisnis*, 20(1), 133-144.
- [8] Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly, Vol. 13, No. 3*, 319-340.
- [9] Dermine, J. (2017). Digital Disruption and Bank Lending. *European Economy - Banks, Regulation, and the Real Sector*, 3(2), 63-76.
- [10] EY Global Organization. (2017). *Customer experience: innovate like a Fintech - Part of a series of articles exploring key themes from the EY Global Consumer Banking Survey*. EYGM Limited.
- [11] Fadare, O. (2016). A Survey on Perceived Risk and Intention of Adopting Internet Banking. *Journal of Internet Banking and Commerce, vol. 21, no. 1*.
- [12] Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: a perceived risk facets perspective. *Int. J. Human-Computer Studies* 59, 451-474.
- [13] Fintech Singapore. (2018). *Indonesia Fintech Landscape Report | May 2018*. Singapore: Fintech Singapore.
- [14] Floh, A., & Treiblmaier, H. (2006). What Keeps the E-Banking Customer Loyal? A Multigroup Analysis of the Moderating Role of Consumer Characteristics on E-Loyalty in the Financial Service Industry. *Journal of Electronic Commerce Research*, 7(2), 97-110.
- [15] Gerrard, P., & Cunningham, J. B. (2003). The diffusion of internet banking among Singapore consumers. *International Journal of Bank Marketing* 21/1, 16-28.
- [16] Gregorio, M., & Araume, C. (2017). *Fintech and Entrepreneurial Finance: what's coming next?* Castelló de la Plana: Universitat Jaume I.
- [17] Imran, H. A. (2017). PERAN SAMPLING DAN DISTRIBUSI DATA DALAM PENELITIAN KOMUNIKASI PENDEKATAN KUANTITATIF. *JURNAL STUDI KOMUNIKASI DAN MEDIA*, 21(1), 111 - 126.
- [18] Jayamaha, R. (2016). Thriving in A Digital World: Non-Banks Have Challenged Retail Business of Banks. *28th Anniversary Convention*, 22-49.
- [19] Kasnodihardjo. (1993). Langkah-langkah Menyusun Kuesioner. *Media Litbangkes, III(2)*, 21-26, 42.
- [20] Kesharwani, A., & Bisht, S. S. (2012). The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model. *International Journal of Bank Marketing Vol. 30 No. 4*, 303-322.
- [21] King, B. (2010). *Bank 2.0 : How Customer Behaviour and Technology Will Change The Future of Financial Services*. Singapore: Marshall Cavendish Business.
- [22] Krauter, S. G., & Faullant, R. (2008). Customer acceptance of internet banking: the influence of internet trust. *International Journal of Bank Marketing Vol. 26 No. 7*, 483-504.
- [23] Lacasse, R. M., Lambert., B. A., Osmani, E., Couture, C., Roy, N., Sylvain, J., & Nadeau, F. (2016). A Digital Tsunami: Fintech and Crowdfunding. *International Scientific Conference on Digital Intelligence*. Quebec.
- [24] Navaretti, G. B., Calzolari, G., & Pozzolo, A. F. (2017). FinTech and Banks: Friends or Foes? *European Economy - Banks, Regulation, and the Real Sector*, 3(2), 9-30.
- [25] Nicoletti, B. (2017). *The Future of FinTech Integrating Finance and Technology in Financial Services*. Rome: Springer Nature.
- [26] Okumus, H. S., & Genc, E. G. (2013). INTEREST FREE BANKING IN TURKEY: A STUDY OF CUSTOMER SATISFACTION AND BANK SELECTION. *European Scientific Journal*, 9(16), 144-166.
- [27] Oshodin, O., Molla, A., Karanasios, S., & Ong, C. E. (2017). Is FinTech a Disruption or a New Eco-system? An Exploratory Investigation of Banks' Response to FinTech in Australia. *Australasian Conference on Information Systems*. Hobart.
- [28] Peter, J. P., & Ryan, M. J. (1976). An Investigation of Perceived Risk at the Brand Level. *Journal of Marketing Research* 13, 184-188.
- [29] Pollari, I. (2016). The rise of Fintech opportunities and challenges. *JASSA The Finsia Journal of Applied Finance*(3), 15-21.
- [30] Poon, W.-C. (2008). Users' adoption of e-banking services: the Malaysian perspective. *Journal of Business & Industrial Marketing* 23/1, 59-69.
- [31] Pujihastuti, I. (2010). Prinsip Penulisan Kuesioner Penelitian. *CEFARS: Jurnal Agribisnis dan Pengembangan Wilayah* , 2(1), 43-56.

- [32] Raharja, U., Harahap, E. P., & Devi, R. E. (2018). Pengaruh Pelayanan dan Fasilitas pada Raharja Internet Cafe Terhadap Kegiatan Perkuliahan pada Perguruan Tinggi. *Jurnal TEKNOINFO*, 12(2), 60-65.
- [33] Schmitt, B. (2010). Experience Marketing: Concepts, Frameworks and Consumer Insights. *Foundations and Trends in Marketing Vol. 5 No. 2*, 55-112.
- [34] Shih, Y.-Y., & Fang, K. (2004). The use of a decomposed theory of planned behavior to study Internet banking in Taiwan. *Internet Research*, 14(3), 213-223.
- [35] Silalahi, T. (2018). *Ekonomi Digital dan Fintech*. Medan: Bank Indonesia.
- [36] Sohail, M. S., & Shanmugham, B. (2003). E-banking and customer preferences in Malaysia: An empirical investigation. *Information Sciences*, 150, 207-217.
- [37] Suharini, M. (2008). Persepsi Nasabah terhadap Penerapan Sistem Layanan Produk dan Jasa E-Banking. *Bisnis & Birokrasi, Jurnal Ilmu Administrasi dan Organisasi, Volume 15, Nomor 3*, 168-177.
- [38] Tam, L. T., & Hanh, L. N. (2018). Fintech for Promoting Financial Inclusion in Vietnam: Fact Findings and Policy Implications. *Business & Social Science Journal (BSSJ)*, 3(1), 12-20.
- [39] Umar, A. I. (2017). Index of Syariah Financial Inclusion in Indonesia. *Buletin Ekonomi Moneter dan Perbankan*, 20(1), 99-126.
- [40] Vives, X. (2017). The Impact of Fintech on Banking. *European Economy - Banks, Regulation, and the Real Sector*, 3(2), 97-106.
- [41] Wahyuni, D. U. (2008). Pengaruh Motivasi, Persepsi dan Sikap Konsumen Terhadap Keputusan Pembelian Sepeda Motor Merek "Honda" di Kawasan Surabaya Barat. *Jurnal Manajemen dan Kewirausahaan*, 10(1), 30-37.
- [42] Widyarini, L. A. (2005). Analisis Niat Perilaku Menggunakan Internet Banking di Kalangan Pengguna Internet di Surabaya. *Jurnal Widya Manajemen & Akuntansi*, 5(1), 101-123.
- [43] World Economic Forum Project Team. (2015). *The Future of Financial Services: How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed*. World Economic Forum.
- [44] Zhu, Q., & Lei, M. (2016). The Impact of Characteristics of B2C Retailer on Purchasing Intention - Based on TAM Model. *Open Journal of Business and Management*, 4, 784-798.
- [45] Rafique, Z., & Khoo, S. L. (2018). Role of community-based organizations (CBOs) in promoting citizen participation: A survey study of local government institutions of Punjab, Pakistan. *International Journal of Sociology and Social Policy*, 38(3/4), 242-258.