

FinTech and MSMEs: The role of product knowledge

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Article Info

Article History

Received : 2022-05-15

Revised : 2022-06-30

Accepted : 2022-07-24

Published : 2022-08-15

Keywords:

Islamic financial literacy, Islamic FinTech, MSMEs, TAM

DOI:

<https://doi.org/10.20885/AJIM.vol4.iss1.art2>

JEL Classification:

D22, L2, O14

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Paper type:

Research paper

Abstract

Purpose – This study examines the effect of knowledge of Islamic FinTech products and services of Micro, Small, and Medium Enterprises (MSMEs) actors on their intentions to adopt it.

Methodology – This study adopts a quantitative method with primary data filled in by MSME actors in Indonesia. A hundred samples were analyzed using Partial Least Square - Structural Equation Modeling (SEM) by SmartPLS software.

Findings – The results showed that both Perceived Usefulness (PU) and Perceived Ease of Use (PEoU) were empirically proven to have a significant positive effect on Attitude Toward Behavior (ATB). Likewise, ATB has been proven to be significant in mediating PU and PEoU on the Behavioral Intention (BI) of MSME actors in using Islamic FinTech products and services. The main finding in this research is that the higher the knowledge/literacy of Islamic finance by MSMEs, the more they will strengthen their intention to use FinTech products.

Implications – The socialization of Islamic FinTech products and services by regulators such as the Financial Services Authority through collaboration with the industry players, professional and expertise organizations, the Muslim entrepreneur community, and universities need to be continuously to improve Islamic financial literacy. In addition, amid ongoing business digitalization, MSMEs are expected to be integrated with FinTech, not only in terms of funding but also in improving business performance regarding operations, finance, human resources, and others.

Originality – This paper extends TAM with product knowledge on objects in the form of MSME actors in Indonesia.

Cite this article:

Majid, R., & Mawaddah, H. (2022). FinTech and MSMEs: The role of product knowledge. *Asian Journal of Islamic Management (AJIM)*, 4(1), 15-24. <https://doi.org/10.20885/AJIM.vol4.iss1.art2>.



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Introduction

With the high level of business and investment activity that has made the need for digitalization to support economic activity, FinTech is increasingly rampant around the globe. FinTech has a way to benefit from innovative financial service transactions as a solution for traditional banking, insurance, and asset management, especially in global business developments and technological sophistication (Majid, 2021). In general, FinTech has broad potential benefits for society concerning financial intermediation costs, which in Philippon (2016)'s calculations, can reach 2 percent of GDP in certain economic sectors (Aaron et al., 2017). By 2022, 60% of the total global Gross Domestic Product (GDP) will be digitized. Growth in each industry will be driven by digital offerings, operations, and adaptive relationships (Findexable, 2019).

The development of FinTech, including Islamic FinTech in Indonesia as the country with the largest Muslim population, has shown a positive trend, especially since it was regulated and supervised through the Financial Services Authority (POJK) Regulation Number 77/POJK.01/2016 concerning Information Technology-Based Lending and Borrowing Services in 2016. In 2021, Indonesia contributed 23% of the total FinTech industry in Southeast Asia, followed by a trend of increasing the number of players and business models (Singapore Fintech Association, 2021). It can be seen from the increase of the members of the Indonesian Fintech Association (AFTECH), which was 256 at the end of 2019 to 352 in Q4 2021 (AFTECH Indonesia, 2021).

The FinTech landscape in Indonesia, including Islamic FinTech, is dominated by FinTech peer-to-peer lending (40%), followed by payment-based FinTech (34%), market aggregators (9%), wealth management (5%), equity and securities crowdfunding (4%), insure tech and analytics as well as artificial intelligence (each at 2%) (Financial Services Authority, 2020). In its development, in 2021, equity/security-based crowdfunding FinTech has started operating, including those operating with sharia principles such as Shafiq.id, specifically to fund or finance MSMEs with its products in the form of shares and Sukuk. The presence and development of Islamic FinTech with its kind of products and services itself is a momentum that opens great potential for new alternative financing in accordance with sharia principles outside the conventional sector which is intended to accommodate market needs and transactions as well as to increase financial inclusion, both for individuals and especially for business actors, namely micro, small and medium enterprises (MSMEs) which are the majority of Indonesian Business landscape (Majid, 2021).

Research on FinTech as a whole has begun to be widely carried out in the academic literature. However, research examining the intention to use Islamic FinTech products and services is still rare. Even if there is, the object of research is still a general user and has not been devoted to MSMEs, which are among the most significant users of Islamic FinTech products and services. Chuang et al. (2016), Darmansyah et al. (2020), Purwantini et al. (2020), and Shaikh et al. (2020) each examined the intention to use FinTech products including Islamic FinTech with an object, namely the individual who uses the technology. Dospinescu et al. (2021) also examined the intention of millennials and Generation Z as users in relation to the determinants of intention to use FinTech services. Likewise, Niswah et al. (2019) and Kasri and Chaerunnisa (2020) tested millennials' intentions for cash waqf through online platforms. However, the previous research above has not yet examined what factors influence MSME actors as the second largest user in adopting Islamic FinTech. This study fills the gap by focusing on MSME actors as the object of research using the technology acceptance model (TAM) theory which is extended by using product knowledge variables.

Literature Review and Hypotheses Development

Technology of Acceptance Model (TAM)

The technology acceptance model is the most widely used model related to the adoption and use of information technology (IT) (Venkatesh & Bala, 2008). TAM was introduced by Davis (1989) as an adaptation of TRA. In TAM, an individual's behavioral intention to use information technology is influenced by two beliefs. First perceived usefulness, namely the extent to which individuals believe that using IT will affect their work performance improvement. Second, perceived ease of use is the extent to which individuals believe using IT will make it easy to complete work (Venkatesh & Bala, 2008; Venkatesh & Davis, 2000). It further theorizes that the effect of external variables such as design characteristics on behavioral intention will be mediated by perceived usefulness and perceived ease of use (Venkatesh & Bala, 2008).

Hypotheses Development

Perceived Usefulness and Perceived Ease of Use

Based on TAM, perceived usefulness (henceforth PU) is also influenced by perceived ease of use (PEOU) due to other things being equal. It means that the easier the system, the more useful it can

be (Venkatesh & Davis, 2000). Each individual has different capacities and abilities in using technology. This means how easy technology will increase an individual's ability to use internet applications and services. Purwantini et al. (2020) found empirically that all attributes related to innovation, namely the decomposition of PU and PEOU on attitude toward behavior (ATB), have a significant effect on ATB. Similarly, the same thing was also found by Jerene and Sharma (2020), Thaker (2018), and Chuang et al. (2016). In this study, the easier the work carried out by using Islamic FinTech, the higher the behavior to use it by MSME actors.

H1: The Perceived Ease of Use (PEOU) of MSME actors positively affects the Perceived Usefulness (PU) of adopting Islamic FinTech products and services.

H2: Perceived Ease of Use (PEOU) of MSME actors positively affect Attitude Toward Behavior (ATB) to adopt Islamic FinTech products and services.

This study decomposes ATB into PU and PEOU. PU measures how human perception of technology will improve their job performance. A sophisticated system in PU, in turn, will increase the intention to use and positive performance because it can increase user trust (Davis, 1989). If consumers' views about services using FinTech are increasingly useful, then the general attitude towards using FinTech services will increase (Kim et al., 2016). In their study, Thaker et al. (2019) also found that PU affects the intention to adopt Islamic mobile banking services for its users. The proven effect of PU on ATB was also found in a study conducted by Darmansyah et al. (2020), Jerene and Sharma (2020), Majid (2021) as well as Majid and Nugraha (2022). Therefore, in this study, the more benefits perceived by MSME actors for sharia FinTech products and services, the greater intention and behavior (ATB) to adopt Islamic FinTech products and services

H3: Perceived Usefulness (PU) of MSME actors positively affects Attitude Toward Behavior (ATB) to adopt Islamic FinTech products and services.

The intention to use a product can be significantly influenced by a person's ATB (Ajzen et al., 1982). ATB is a specific component that is relevant and has a positive and significant influence on the intention to use Islamic-based FinTech, as has been proven in previous studies. Darmansyah et al. (2020), in their research, found that ATB, which is a component of TPB, has a positive influence on the intention to use Islamic FinTech in Indonesia. Yuspita et al. (2019), who directly examined public perceptions of using FinTech services provided by Islamic financial institutions, found that ATB has a positive effect. Therefore, in this study, the larger the ATB of MSMEs, the more they will increase their intention to adopt Islamic FinTech services. On this basis, the fourth hypothesis in this study is as follows.

H4: Attitude Toward Behavior (ATB) of MSME actors positively affects Islamic FinTech products and services.

Product Knowledge

Consumers will generally acquire product-related knowledge through searching for information, using, or having experience with related products. Attitudes towards appropriate behavior and intentions to use a particular product can be significantly influenced by known situational information (Ajzen et al., 1982). Thus the content regarding knowledge can be explained in several terms, such as trade names or trademarks that are known to consumers; knowledge of product attributes; and the ability to distinguish between product alternatives and product evaluation (Johan et al., 2020). Ajzen and Fishbein (1970) stated that a person's attitude towards any object could be predicted accurately based on the knowledge of the person's beliefs about the object and evaluation of the aspects he believes in. In their research, Majid and Nugraha (2022) found that the higher the Islamic financial literacy that users/investors have of FinTech securities crowdfunding sharia products, the more they will increase their intention to use Islamic financial products. On this basis, the fifth hypothesis in this study is proposed.

H5: Product Knowledge of MSME actors positively affects Islamic FinTech products and services adoption.

Based on this explanation, the model for this research is displayed in Figure 1.

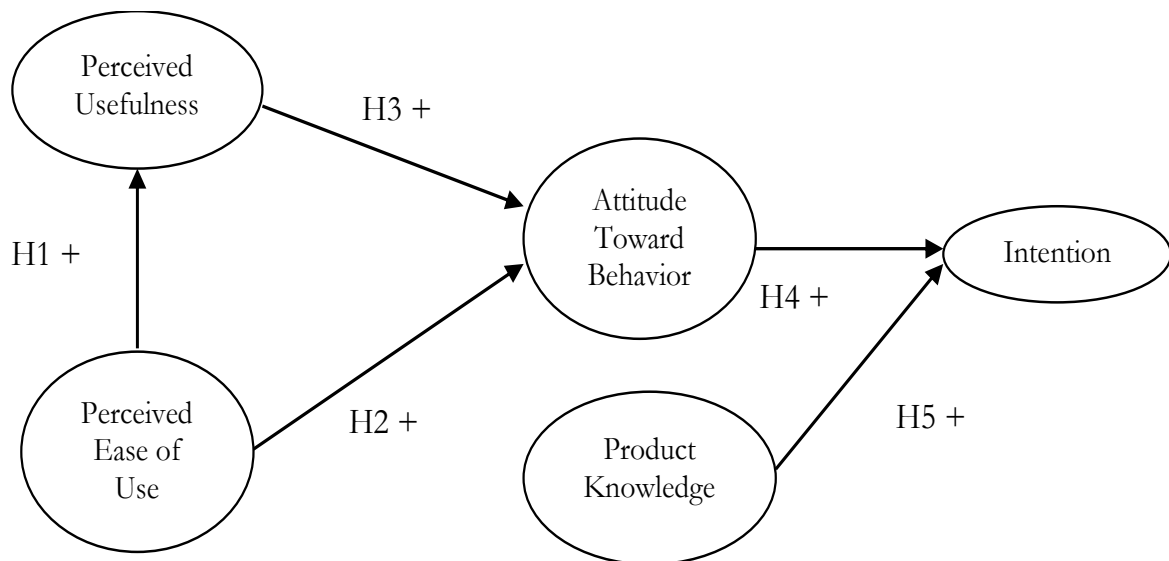


Figure 1. Research Framework

Research Methods

The data in this study were collected through online questionnaires distributed through social media such as WhatsApp, Instagram, and Facebook from November 2020 to January 2021. The questionnaire has been tested for reliability and validity before being distributed to be filled in to ensure that all respondents have adequate internet access to FinTech services and services. The sample criteria in this study are owners or managers of MSME who are Muslim, both male and female, and they have access to Islamic FinTech services using smartphones in various demographics and geographic areas in Indonesia. Thus, this study uses a purposive sampling type (judgment sampling), which is a sampling technique based on the characteristics determined by the target population elements that are adjusted to the objectives or research problems.

The questions are filled in Indonesian and use a five-point Likert scale from strongly disagree (scale 1) to strongly agree (scale 5). Questionnaire data were analyzed based on the Structural Equation Method (SEM). Structural Equation Method-Partial Least Squares (SEM-PLS) is a type of structural equation method based on variance, which is appropriate for explanatory and predictive research (Khan et al., 2019). PLS can also be used for abnormal data, small sample sizes, and formally measured constructs (Hair et al., 2014)

Results and Discussion

Sample Profile

Table 1 shows that the number of respondents is dominated by MSME actors whose owner is male, with the majority of the age being 20-40 years old. The number of respondents with a bachelor's degree is more than half of the total respondents. Respondents with micro-enterprise ownership dominate the frequency, followed by small and medium-sized enterprises. More than half of the respondents have treated their business between 1-5 years. It is the answer to the question by Reviewer 2 about distributing the questionnaire, when, and the sampling criteria.

Table 1. Respondent Demographic

Variables	Freq	(%)
Gender		
Male	80	80%
Female	20	20%
Age		
<20 years old	1	1%
20-40 years old	81	81%
>40 years old	18	18%
Education Level		
Senior High School – Diploma	21	21%
Bachelor Degree	64	64%
Master Degree	15	15%
Business Scale/Type		
Micro-Enterprises	54	54%
Small-Enterprises	31	31%
Medium-Enterprises	15	15%
Duration of Business operational		
1-5 years	73	73%
5-20 years	26	26%
> 20 years	1	1%

Measurement Model Test

This study uses loading factors (FL), Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha to assess convergent validity. Table 2 and figure 2 show that the FL and AVE values support convergent validity and the CR and Cronbach's alpha values, which also support the reliability of each question item. It can be seen from the values of CR (>0.70), Cronbach's alpha ($\alpha > 0.70$), LF (>0.50), and AVE (>0.50), which are more than the recommended values.

Table 2. Analysis of Factor on All Measurement Items Constructs

Construct	Code	Indicators	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Perceived Usefulness	PU1	Speed up work	0.933	0.955	0.968	0.882
	PU2	Make work more effective	0.960			
	PU3	Make work easier	0.930			
	PU4	Useful	0.933			
Perceived Ease of Use	PEoU1	Easy to learn	0.832	0.856	0.902	0.697
	PEoU2	Clear and easy to understand	0.806			
	PEoU3	Flexible to use	0.804			
	PEoU4	Easy to use	0.895			
Attitude Toward Behavior	ATB1	Comfortable to use	0.795	0.783	0.873	0.697
	ATB2	This is a good idea to use	0.875			
	ATB3	Liked the idea to use it	0.834			
Product Knowledge	PK1	Know about the use of the product	0.855	0.842	0.904	0.758
	PK3	Knowledge that the product provides benefits (profit rate) inline with sharia tenets	0.840			
	PK4	Receive fluctuating returns even losses	0.917			
	BI	Intention to invite people to use	0.895			
Behavioral Intention	BI1	Intention to use in the near future	0.901	0.938	0.956	0.844
	BI2	Intention to use	0.943			
	BI3	Intention to reuse the product	0.935			
	BI	Intention to invite people to use	0.895			

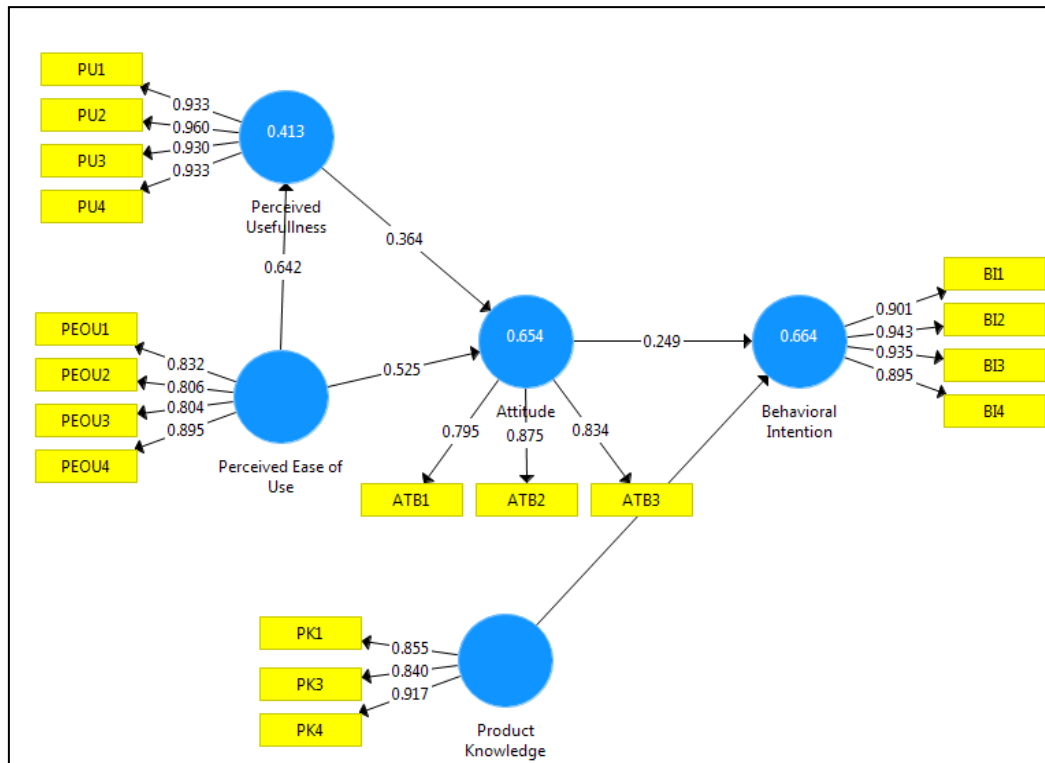


Figure 2. Path Diagram t-Value

Structural Model Test

The R-Square (R²) value is the determinant coefficient on the construct of this study's endogenous variables, namely BI, ATB, and PU. The value of R² is grouped into three, namely strong (0.67), moderate (0.33), and weak (0.19). Based on the table above, it can be concluded that ATB has an R² value of 0.654 which means that ATB is an endogenous variable that can be explained by its exogenous variables, namely PU and PEOU of 65.4%, and other variables explain the remaining 34.6% outside of this study. Next, BI has an R² of 0.664, which means that BI's endogenous variables can be explained by its exogenous variables, namely ATB and PK 66.4%, and other variables outside this study explain the remaining 33.6%. Lastly, PU has an R² of 0.413, which means that PEOU as the exogenous variable can explain PU by 41.3% and the remaining 58.7% by other variables outside the model. It shows that the research model is considered good.

Table 3. R-Square (R²) Test Results

	R-Square	R-Square Adjusted
Attitude Toward Behavior	0.654	0.647
Behavioral Intention	0.664	0.658
Perceived Usefulness	0.413	0.407

Based on the results of statistical tests using bootstrapping analysis, it is known that all the hypotheses raised are empirically proven to have significant results with a standard error of 1%.

Table 4. Summary of Hypotheses Test

Hipotesis	Path	Original Sampel (O)	T Statistics (O/STDEV)	P Values	Result
H1	PEoU → PU	0.642	10.428	0.000	Supported
H2	PEoU → ATB	0.525	5,687	0.000	Supported
H3	PU → ATB	0.364	3.087	0.002	Supported
H4	ATB → BI	0.249	2.952	0.003	Supported
H5	PK → BI	0.620	7.779	0.000	Supported

Discussion

This study uses the extension of TAM in assessing what factors influence the intentions of MSME actors in adopting Islamic FinTech products and services. All hypotheses built in this study proved to have a significant effect. First, PEOU is proven to influence PU, which means that the easier features and services and access to obtaining Islamic FinTech products increase the usefulness value for MSME actors for the services provided. It is also found in the research conducted by Sulaeman (2021), which examines the user's intention to use the Islamic Crowdfunding platform.

In this case, PEOU and PU have also been shown to affect ATB, which means that the ease and usability enjoyed can be a trigger to encourage MSME actors to adopt Islamic FinTech products and services. Moreover, Islamic FinTech comes with various product bases, such as financing. For example, there are equity (shares) or liability (Sukuk) based products, Islamic SCF products, or other types of products in payment mechanisms and other types of financing. It is in line with what was also found empirically in the research conducted by Darmansyah et al. (2020), Majid (2021), and Majid and Nugraha (2022).

Next, ATB as a variable that mediates PU and PEOU has proven to have a positive and significant effect on MSME actors in using Islamic FinTech products and services. It clearly shows that the ease and usability of feature services, including easy-to-understand displays and designs for various Islamic FinTech products, is a driving force that strengthens behavior and intentions to use Islamic FinTech features and services. It is in line with the research found by Aji et al. (2020) that ATB to do infaq using donation platforms is empirically proven to affect the intentions. Likewise, the results of this study are supported by the research of Darmansyah et al. (2020). They found that ATB affected user intentions to use sharia FinTech types of P2P lending, payment, and crowdfunding.

Product knowledge is the last and primary factor that positively influences the intention to use Islamic FinTech by MSME actors. It depicts how well MSME actors understand the types, criteria, and consequences of Islamic FinTech products consisting of peer-to-peer lending, crowdfunding, and digital payment innovation. It shows that the higher the knowledge of MSME actors towards sharia FinTech products/services, including an understanding of the Sharia tenets and potential violations such as indications of usury (*riba*), *gharar* (uncertainty, *maysir*, or *dzulm* (unfair) in terms of the implementation of financing contracts including clarity of profit sharing and the consequences of the contract, the higher the intention to use Islamic FinTech. In other words, it can be concluded that MSME actors consider that the services and services offered by Islamic FinTech are in line with sharia principles as they understand it.

These results align with research conducted by Sardiana (2016), which found that Islamic financial literacy significantly influences the intention to use Islamic financial products. In more detail, he also found that knowledge as one of the dimensions of Islamic financial literacy also significantly affects the use of Islamic financial products, including Islamic FinTech. The same thing was also obtained by Majid and Nugraha (2022) that focused on examining the intentions of potential investors to invest through Sharia FinTech SCF, that the better Islamic Financial Literacy a user has, the greater the intention to adopt sharia FinTech products offered. Likewise, this study's results also support what Marzuki and Nurdin (2020), and Usman et al. (2021) found that knowledge of fiqh and sharia compliance has proven to be significant in influencing user intentions in using sharia FinTech products.

Conclusion

This study examines the factors that influence the intention to use Islamic FinTech by MSME actors in Indonesia, namely by using a TAM that has been extended with the product knowledge variable. Based on the theoretical point of view, it is proven that all hypotheses have been proven to have a significant positive effect on the intentions of MSME actors in adopting Islamic FinTech products and services, thus supporting previous research. The main finding of this study shows that a comprehensive understanding of Islamic FinTech products is one of the primary and critical factors in attracting corporate consumers to the Islamic FinTech industry in Indonesia.

This research theoretically contributes to strengthening TAM as a solid theory in explaining users' intention to use a new technology product, including for the use of Islamic FinTEch products and services. In addition, practically, this research has implications for regulators such as OJK and Islamic FinTech industry players to continue collaborating to improve Islamic financial literacy and inclusion, especially regarding the contracts and contracts that underlie Islamic FinTech products and services. However, this study has limitations in terms of the limited number of samples used. Further research can increase the number of samples and focus on one type of FinTech, such as FinTech Securities Crowdfunding or Sharia P2P Lending, considering that each Islamic FinTech has different products and contracts. The use of the religiosity variable is also recommended.

Author Contributions

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Investigation: Rifaldi Majid

Methodology: Rifaldi Majid

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Writing – original draft: Rifaldi Majid

Writing – review & editing: Rifaldi Majid, Herti Mawaddah

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