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Islamic Financial Technology Usage: An Investing Perspectives On Generation Z

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ABSTRACT

Today, in Sharia Finance Sector, there was some a new model of sharia finance based on Financial Technology, it is called Islamic Financial Technology (I-Fintech). In other side, A Generation Z comes up as consumer of I-Fintech in the future. There is a big question like “do Generation Z accept I-Fintech in the future?”. Using Technology Acceptance Model with 3 proxy, it is Perceived Usefulness, Perceived Ease of Use, and Attitude Toward Using. The result of this research show that Perceived Usefulness and Perceived Ease of Use affect on Attitude Toward Using I-Fintech. The conclusion is Generation Z’s perceived on I-Fintech are depend on its usefulness and ease of use. This result implied on the development focus of I-Fintech in the future.

INTRODUCTION

The phenomenon of the emergence of a new Islamic Financial Institution based on Financial Technology (Fintech), is something interesting to study. The Islamic financial sector such as Islamic banking, Islamic capital markets and takaful show an aggressive innovation in their industry especially in the Fintech system. Thus today, many companies have started to enter the Islamic fintech industry including companies or entrepreneurs matching platforms that develop the Islamic FinTech ecosystem with investors, UAE-based zakat-based crowdfunding platforms, Qatar non-profit crowdfunding platforms that enable the formation of waqf for entrepreneurs micro finance, and started in Indonesia using Bitcoin in a crowdfunding effort to support microfinance (Sidlo, 2017). In addition, there are efforts being made by Salaam Bank working on “Islamic financial platforms that will give people from the United States to Jakarta, Dubai and London access to innovative Islamic financial options while creating banks outside borders” (Bank Dunia: IFSB, 2017: 129-132).

An IsDB report argues that Islamic finance has “strong potential in promoting financial stability, financial inclusion and shared prosperity, and infrastructure development that will establish an enabling environment for timely SDG implementation” and that “Islamic financial principles, if applied into financial system, can “minimize the severity and frequency of financial crises.” Fintech is a new innovation in promoting Islamic financial products and services, so Fintech is a possible key for business in the future (Bakar and Rosbi, 2018). Based on Fintech’s development criteria it can be illustrated that with innovative characteristics, FinTech Islamic startups play an important role in encouraging financial inclusion and reducing social problems in Indonesia by developing new technologies and new business models (Firmansyah and Ramdani, 2018). But innovation in implementing I-Fintech still needs to be studied more closely related to the user’s interest to use it.

Thus today, some I-Fintech presents investment programs such as investment on property business. One of them is Dana Syariah. This study uses the Dana Syariah as a representation of I-Fintech because the Dana Syariah has had applications downloaded in the appstore more than 100,000 and reviewed by more than 900 reviewers with an average rating of 3.6, while the other I-Fintechs

have not achieved that. This Dana Syariah uses the Murabahah Agreement in its implementation. Profit sharing simulations are also available in the Sharia Fund application. Until this research was conducted, the Dana Syariah was able to collect a total of funding that had begun to stand, amounting to Rp. 249.9 billion (look at Figure 1).



Figure 1. Funding Information

To see the survival of I-Fintech in Indonesia, it is necessary to predict the use of I-Fintech at the Generation Z level. This raises a question: are the people of Generation Z using I-FinTech? In answering these question, researcher need to determine the right model. There are several models used to predict people’s readiness to use a New Technology. One of them is the Technology Acceptance Model (TAM) which has 5 constructs. The constructs used are perceived usefulness, perceived ease of use, attitude, behavioral intention, and actual technology usage.(Febrianti, Hariadi, & Baridwan, 2019; Mustakini, 2007).

This research focuses on Generation Z’s point of view in investing. Generation gap theory explains that Generation Z is more familiar with technology since they were born. This Generation Z is made up of people born in 1995-present, it is easy to do multitasking activities such as browsing the internet via a PC, applying Social Media on a smartphone and listening to music at the same time (Putra, 2017). The result of Bencsik and Machova (2016)’s research shows that there are significant differences in characteristics between generation Z and other generations, one of the main factors that distinguishes is the mastery of information and technology. For generation Z information and technology are things that have become part of their lives, because they were born where access to information, especially the internet has become a global culture, so that it affects their values, views and life goals (Putra, 2017).

Setyaningsih, Murti, and Nugrahaningsih (2019) are able to understand Fintech: a threat or opportunities. Customers of Fintech more likely to use it when it help them to fulfil their financial needs and how is the risk of using Fintech's platform. Setyaningsih et al. (2019) stated that the decision to delay using this service has a greater tendency for people to still use it in the future. But there is a gap, those model doesn't specific to predict Islamic Fintech (I-Fintech) usage. Therefore, this research is expected to prove that TAM is able to predict Generation Z to use I-Fintech in investing. The implication of this research is to be able to direct the I-Fintech developers to pay more attention to the behavior of Generation Z in investing in the future.

Research with the Technology Acceptance Model (TAM) model has been carried out to predict whether an application is acceptable or not. TAM research itself was initially used by Davis, Bagozzi, and Warshaw (1989). His research use TAM to predict interest in using a computer. The results of his research indicate that the perception of usability and ease affects the user's intention to use the computer. In 1991, TAM research was carried out by Mathieson (1991) used to test interest in the use of computer systems. The results of his research show that Perceived Ease of Use influences Perceived Usefulness, while Perceived Ease of Use and Perceived of Usefulness itself have an effect on Attitude Toward Using.

On the other hand, Iqbal and Ahmed Bhatti (2015) tried to use the TAM model to predict the use of M-Learning. The conclusion obtained from the results of his research is the readiness to use M-learning is influenced by perceived ease of use (PEU) and perceived usefulness (PU). The research of Chuang, Liu, and Kao (2016) aims to test the interest in using Fintech. Chuang's (2016) research has the same unit of analysis as this study, but this research is more specific to the Sharia-based Fintech. The results of his research show that the use of Fintech is driven by the simplicity and usefulness of the Fintech application itself.

At the present time, Febrianti et al. (2019) trying to predict the use of SIMDA by using the TAM Model. The results of his research indicate that interest in using SIMDA is influenced by several factors such as perceived ease and perceived usefulness. The more easy to use and useful an application, the more it will increase the user's interest to use it.

Generation Z has been consuming technology from an early age. Technology is considered something that facilitates all their activities (Generation Z). In TAM theory, the use of technology is stimulated by the perception of ease of use and perception of benefits. The perceived benefits are also influenced by the perception of ease of use because the easier it is to use the system, the more useful it is (Venkatesh & Davis, 2000). Therefore the hypothesis in this study is:

- H1: Perceived ease of use affects Attitude toward using.
- H2: Perceived ease of use effects on Perceived Usefulness
- H3: Perceived usefulness affects Attitude toward using.
- H4: Perceived ease of use affects Attitude toward using through perceived usefulness

Generation Gap Theory

Lancaster and Stillman (2002) divide human characteristics into 3 groups of generations, namely: Baby Boomers, Generation X and Generation Y or more commonly known as Millennial. In their research, Lancaster and Stillman (2002) found that the attitudes of each generation were very different. Baby Boomers have an optimistic attitude, while Generation Xers have a skeptical attitude. On the other hand, Millennial Generation tends to be realistic. Strauss and Howe (1991) explain in more detail that the Baby Boomer is a generation that is time-oriented and was born in a time when technology was not quite so farmile. In contrast to Generation Xers, born during the development of personal computers (PCs), Cable TV, and even the Internet. This makes Generation Xers able to adapt to technological developments and accept changes very well (Jurkiewicz, 2000).

Table 1. Generation Gap

Year of Birth	Generation
1925 - 1946	Veteran
1946 - 1960	Baby boomer
1960 - 1980	Xers Generation
1980 - 1995	Y Generation
1995 - 2010	Z Generation
>2010	Alfa Generation

On the other hand, Generation Y or Millennial was born in the development of instant internet technology (Internet Booming). The technology for example is the existence of e-mail, SMS, and

even social media like Facebook and Twitter. Putra (2017) explains that the character of Generation Y depends on the economic and social strata of his family. This generation tends to talk more openly than other generations and social media addicts. After Generation Y, a new generation, namely Generation Z, was born in 1995 to 2010 (see table 1). Generation Z has characters like Generation Y but Generation Z tends to be more able to do multitasking activities. For example, Generation Z is able to use mobile phones to apply social media, browse with a computer and listen to music through a headset at the same time (Putra, 2017). This shows that Generation Z has mastered Information Technology very well. This is because, since childhood they have been consuming Information Technology.

Technology Acceptance Model

The Technology Acceptance Model (TAM) is a revision of the Theory of Reason Action (TRA) proposed by Fishbein and Ajzen (1975). TRA promotes sequential processes and causal relationships between constructs that affect human behavior. This theory assumes that human behavior is driven by intentions, attitudes and beliefs that are influenced by subjective norms to do something consciously. TRA then became the basic model of behavior that was widely adapted by research in the SI field.

In line with the thinking of Triandis (1979), Davis et al. (1989) then developed the TRA model by elaborating the construct of belief into the construct of perceived usefulness and the construct of ease of perceived use. The researchers then developed the TAM by increasing the perceived enjoyment construct in the basic model of TAM (Igarria, Zinatelli, Cragg, & Cavaye, 1997) and compared the utilitarian and SI aspects of pleasure (Chesney, 2006; Van der Heijden, 2004).

A number of empirical studies have found that TAM consistently explains most of the variance (around 40%) in intentions and usage behavior, and TAM compares it with alternative models such as Theory of Reasoned Action (TRA) and Behavior Plan Theory (TPB). TAM theory explains that the intention of an individual's behavior to use a system is determined by two beliefs, the first is perceived usefulness, ie the extent to which a person believes that using a system will improve its performance. Second, perceived ease of use is the extent to which a person believes that using the system will be free of effort. TAM also theorizes that the impact of external variables (for example, system characteristics,

development processes, training) on the intention to use is mediated by perceived usefulness and perceived ease of use. According to TAM, perceived usefulness is also influenced by perceived ease of use because, the easier it is to use the system, the more useful it is (Venkatesh & Davis, 2000). Based on the previous presentation, the framework of this study is as follows:

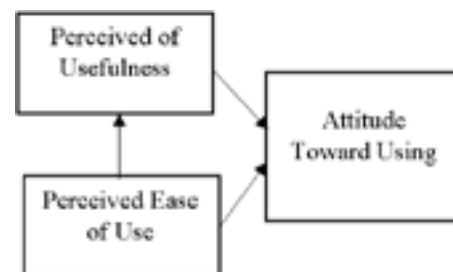


Figure 2. Research Framework

METHOD

This type of research is associative. The population of this study were respondents born in 1995 and above who were classified as Generation Z. The researcher used a sample of UMM students born in 1995 and above. The data collection method used is a questionnaire with the help of Google Form (bit.ly/i-fintech). The research stages used are as follows: Peneliti menjelaskan di kelas cara penggunaan aplikasi *I-Fintech* (Dana Syariah) mulai dari mendownload hingga melakukan investasi.

1. The questionnaire is distributed after the explanation is finished by sharing the Google form (bit.ly/i-fintech).
2. The questionnaire results are tabulated.
3. Carry out Outer Model testing.
Outer Model testing includes reliability and validity tests. Reliability test in this study uses Cronbach's Alpha. Cronbach's Alpha value must have a minimum magnitude of 0.7. Cronbach's Alpha is ideally rated 0.8 to 0.9. Reliability is also seen from the value of Average Variance Extracted (AVE). The AVE results must be > 0.7 to be reliable and > 0.5 for the convergent validity. Reflective indicators also need to be tested for discriminant validity by looking at cross loading.
4. Carry out Inner Model testing
The Inner Model is also called the structural model. To test the Inner Model, researchers look at the value of R² with the following criteria:
 - a. R² value of 0.67 is categorized as substantial,
 - b. R² value of 0.33 is categorized as moderate,
 - c. R² value of 0.19 is categorized as weak (Chin, 1988),

- d. R^2 value > 0.7 is categorized as strong (Sarwono).
5. Conduct Hypothesis Testing
Hypothesis testing in this study by looking at the value of the t-count and p-value. The results of the study are said to be influential if the t-value > 1.96 and p-value < 0.005 .

RESULTS AND DISCUSSION

Description of Responden

There are 94 results of the questionnaire that can be used for data analysis. The respondents of this study were UMM students with demographics as shown in the table

Table 2. Characteristic of Responden

Characteristic N=94			
Variable	Description	Frequency	Percentage (%)
Gender	Male	27	29%
	Female	67	71%
Year of Birth	1995	2	2%
	1997	6	6%
	1998	10	11%
	1999	26	28%
	2000	46	49%
	2001	3	3%
	2002	1	1%

Outer Model

Outer Model Testing is used to test Reliability and Validity. The following is the presentation of the results of the reliability and validity test using SMART PLS 3.0..

Reliability and Validity Testing

Reliability testing in the study was conducted by looking at the value of Cronbach's Alpha. Cronbach's Alpha (CA) value in this study (each variable) shows the number 0.966 for Attitude Toward Using, 0.969 for Perceived Ease of Use and 0.966 for perceived of Usefulness. The value is > 0.7 which means that the test results indicate that it passed the reliability test (reliable). Reliability Tests besides using CA values can also use CR values. CR value > 0.7 indicates internal consistency, which is a high composite reliability value showing the consistency value of each indicator in measuring its construct. CR value expected > 0.7 . In table 1 the value of each variable is above 0.7.

Table 3. Cronbach's Alpha, Composite Reliability and Average Variance Extracted

Variabel	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Attitude Toward Using	0.966	0.978	0.937
Perceived Ease of Use	0.969	0.977	0.914
Perceived of Use	0.966	0.975	0.906

Validity Testing in PLS has two types, namely Convergent Validitas and Discriminant Validity. Convergent Validity Testing can be done by looking at the Average Variance Extracted (AVE) value. AVE value must be at least greater than 0.5 to be able to meet the Convergent Validity. In table 1 the values of each variable are Attitude Toward Using at 0.937, Perceived Ease of Use at 0.914, and Perceived of Usefulness at 0.906. All AVE values indicate > 0.5 which means that the test results are valid. If it passes the Convergent Validity test it can be said that one latent variable is able to explain more than half (50%) of the variance of the indicators in the average. The second validity test is Discriminant Validity. This test is done by looking at the value of cross loading. The expected value is that each indicator has a higher loading for the measured construct compared to the value loading to the other constructs.

Table 4. Cross Loading Value

Variabel	ATT	PE	PU
AT1	0.962	0.914	0.909
AT2	0.967	0.889	0.873
AT3	0.975	0.903	0.890
PE1	0.852	0.947	0.838
PE2	0.889	0.963	0.839
PE3	0.901	0.958	0.841
PE4	0.921	0.956	0.859
PU1	0.803	0.801	0.923
PU2	0.906	0.862	0.957
PU3	0.900	0.859	0.969
PU4	0.890	0.838	0.959

Inner Model

The Inner Model in PLS is also called the structural model. The structural model is a model that tries to connect latent variables. Structural

model measurements on PLS can be concluded that if R2 of 0.33 is categorized as moderate, R2 of 0.19 is categorized as weak, and R2 of > 0.7 is categorized as strong.

Table 5. R Squared

Variable	R2	Category
ATT	0.912	Strong
PU	0.779	Strong

Hypothesis Testing

Hypothesis Testing Results can be seen in table 4. The relationship between PE-AT has a t-statistic

Table 4. The Result of Hypothesis Testing

Hipotesis	Var	Original Sample	Original Sample	T Statistik	P-Values	Decision
H1	PE-AT	0.543	0.543	5.398	0.000	Accepted
H2	PE-PU	0.883	0.883	22.715	0.000	Accepted
H3	PU-AT	0.441	0.441	6.674	0.000	Accepted
H4	PE-PU-AT	0.389	0.389	5.150	0.000	Accepted

The test results also showed that Perceived of Usefulness had a significant positive effect on Attitude Toward Using. This is indicated by the Statistical T value that exceeds 1.96 and P-Values less than 0.05. The relationship between the two variables is showing a positive relationship marked by the Original Sample value of 0.441. Therefore the decision of testing Hypothesis 3 is accepted.

level > 1.96 which is equal to 5.398 and P-Values < 0.05. This means that Perceived Ease of Use has a significant effect on Attitude Toward Using with the Original Sample value showing a positive directional relationship of 0.543. Therefore, Hypothesis 1 in this study was accepted. For the results of Hypothesis 2 testing shows that Hypothesis 2 is accepted. This is because the T-Statistics value shows the value of 22,715 (> 1.96) and the P-Value < 0.05. Meanwhile, the Original Sample value shows a positive value of 0.883. Based on this, it can be concluded that the Perceived Ease of Use has a positive effect on the Perceived of Usefulness.

This study also tries to examine the role of the mediation variable Perceived of Usefulness on the effect between Perceived Ease of Use and Attitude Toward Using. Based on table 4, shows the existence of indirect effects. This means that hypothesis 4 is accepted. The following picture is a hypothesis testing model using smart pls 3.0:

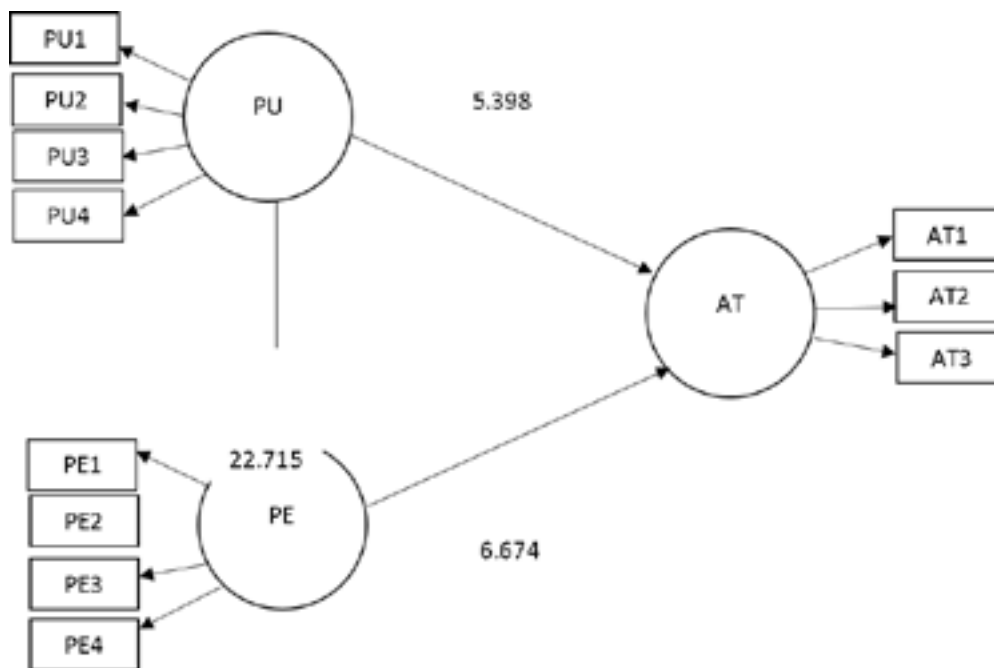


Figure 3. Output of Hypothesis Testing

The results of this study indicate that Perceived Usefulness and Perceived Ease of Use have a positive effect on Attitude Toward Using. This means that the greater the usefulness and ease of using an application, the greater the user's interest to use it. The results of this study support the research of Febrianti et al. (2019) who tested this effect on the use of SIMDA. The same research results found by Chuang et al. (2016) and also Iqbal and Ahmed Bhatti (2015), namely the perception of usefulness and convenience has a positive effect on attitudes to use new technology. In line with the TAM theory, that the user's attitude towards new technology (I-Fintech) to accept or reject is greatly influenced by the ease and usefulness of the technology itself. In other words, I-Fintech must be able to offer a variety of ease and usefulness in using it. The results of this study also support the Generation Gap theory, that the nature of Generation Z is easily attracted to something that has simplicity and usefulness in their lives, encouraging them to use the technology. This is because since childhood they are accustomed to technology that facilitates all their activities, such as listening to music through a smartphone which is certainly easier than using Tape.

Another finding is that Perceived Usefulness affects Attitude Toward Using I-Fintech through Perceived Ease of Use. This result is supported by the argument of Venkatesh and Davis (2000) that Perceived usefulness is also influenced by perceived ease of use, which means the easier it is to use the system (technology or application), the more useful the system will also encourage the user to use the system. The test results can be concluded that the

use of a new technology (in this case I-Fintech) will attract the interest of users if the technology is easy to use or apply. Generation Z who are respondents in this study are able to represent a prediction that I-Fintech will be one of their choices in investing in the future. The results of this study will have implications for the development of I-Fintech in the future by focusing on the level of Generation Z.

CONCLUSION

In this section the researchers found that the prediction results using the TAM Model indicate that the use of I-Fintech by Generation Z in the future is strongly influenced by Perception of Ease and Perception of Usefulness. These results are in line with the results of previous studies. Ease Perception affects the attitude to use I-Fintech through the Perception of Usefulness. This result is supported by the argumentation of Vamketesh and Davies (2000) that Perceived usefulness is also influenced by perceived ease of use because the easier it is to use the system, the more useful it is. More usefull and easy to use I-Fintech, more tendention of Generetaion Z to use it.

Future research can develop the TAM model by including the "Generation Z" role to assist the Baby Boomer Generation in using Financial technology. This is due to the phenomenon of the Baby Boomers' fear of being using new technology. In addition, further research can compare Acceptance from a Cross-Generation perspective. The I-Fintech study is also very broad to study, for example about the disclosure of information, performance and so on.

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