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Islamic Financial Literacy and Inclusion on *Personal Finance Behavior* with Socio-Demography as a Moderating Variable

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Abstract:- The development of the Indonesian Islamic finance industry in the past decade has shown a positive increase. The positive achievements of the Indonesian Islamic finance industry can be seen from several aspects, namely institutional aspects and supporting infrastructure, regulatory aspects, monitoring system aspects, awareness aspects and aspects of the level of public literacy towards their services (Alanshori, 2016). Indonesia is a developing country and is trying to expand its financial inclusion. This is an effort to remove all forms of barriers to public access in utilizing financial services. One of the factors influencing the success of financial inclusion is the level of public financial literacy. The purpose of this study was to find out 1) How does Islamic financial literacy affect *personal finance behavior* , 2) How does Islamic financial inclusion affect *Personal Finance Behavior*, 3) How does Islamic financial literacy affect personal *finance behavior* with sociodemography as a moderating variable, 4) How does Islamic financial inclusion affect personal finance behavior with sociodemography as a moderating variable. The research used quantitative methods by distributing online questionnaires through social media so that 345 respondents were obtained using *Smart PLS data analysis.* the results of this study 1) Islamic financial literacy (X1) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.618, and significant, with a P-Value <0.001 , 2) Islamic financial inclusion (X2) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.301, and is significant, with a P-Value <0.001, which means <0.05. 3) Islamic financial literacy has an effect on personal finance behavior with sociodemographics having no effect as a moderating variable, in this case the sociodemographic value is 0.087 > 0.05, so it is not significant 4) Islamic financial inclusion has an effect on personal finance behavior with sociodemographics mediating no effect of P Value 0.024 <0.05.

Keywords:- *Islamic Financial Literacy, Islamic Financial Inclusion, Personal Finance Behavior , Sociodemography*

I. INTRODUCTION

According to the Organization for Economic Co-operation and Development (OECD), financial literacy is a combination of awareness, knowledge, skills, attitudes and behaviors needed to make sound financial decisions and ultimately achieve individual financial well-being (INFE, 2011). Financial literacy is the ability to understand and use information related to finance (Huston, 2010; Lusardi & Mitchell, 2014).

The development of the Indonesian Islamic finance industry in the past decade has shown a positive increase. The positive achievements of the Indonesian Islamic finance industry can be seen from several aspects, namely institutional aspects and supporting infrastructure, regulatory aspects, monitoring system aspects, awareness aspects and aspects of the level of public literacy towards their services (Alanshori, 2016).

Fig 1 National Survey

National Financial Index	Year 2013	2016 year	2019 year
Islamic Financial Literacy	21.84%	29.7%	38.03%
Islamic Financial Inclusion	59.74%	67.8%	76.19%

Source: OJK, 2019.

The 2019 National Financial Literacy and Inclusion Survey (SNLIK) showed a Financial Literacy Index of 38.03% and a Financial Literacy Index of 76.19%. This suggests that although financial literacy is an important skill in the context of community empowerment, personal well-being, consumer protection, etc., Indonesians generally do not fully understand the characteristics of the various financial products and services offered. indicates that you do not understand We promote financial inclusion through formal financial services institutions.

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The development of the financial sector and services is important for economic growth and poverty alleviation (Levine, 2005). The increasing variety of financial products and services as well as global economic instability has led to an increase in the complexity of financial decisions and has also caused society to be faced with challenges in the economic and financial fields. Financial literacy helps economic development in dealing with economic complexity and instability. *Financial well-being* and financial literacy are two important factors in determining an individual's quality of life (Mahdzan & Saleh, 2013). However, research shows that the financial literacy of people in the world, especially in developing countries, is still lacking and this becomes an obstacle because they are unable to deal with financial complexity and are unable to make the best decisions as needed because they do not have adequate information (Remund, 2010).

Indonesia is a developing country and is trying to expand its financial inclusion. This is an effort to remove all forms of barriers to public access in utilizing financial services. One of the factors influencing the success of financial inclusion is the level of public financial literacy. Financial literacy or literacy *shows* the ability or level of public understanding of how money works (Amiruddin, 2017).

Financial inclusion is the availability of access to various institutions, products and services according to the needs and capabilities of the community in order to improve people's welfare. This availability is not only from access that can be utilized but also the availability of financial products and services that suit the needs of the community. The suitability of these financial products and services can provide greater benefits to society and can be used optimally ((OJK), 2016).

Financial literacy as a combination of awareness, knowledge, skills, attitudes, and behaviors that are important in making personal financial decisions which ultimately leads to achieving financial well-being (Bhabha et al, 2014). Financial literacy can be conceptualized in two dimensions, namely the understanding dimension (knowledge of personal finance) and the usage dimension (implementation of personal finance concepts and products). Financial literacy is divided into four categories, namely the basics of personal finance, loans, savings and investments and protection of resources (Lestari et al, 2022). There is a lot of research on Islamic financial literacy that influences *personal finance* (Lestari et al, 2022; Remund, 2010).

Hypothesis 1 : Islamic Financial Literacy influences *personal finance behavior*

Financial inclusion is the provision of access to financial services to all residents, especially the poor and other smallest populations (Ozili, 2018). Everyone has the right to get access and full services from financial institutions in a convenient, informative, affordable and timely manner, without discrimination and fully upholding their dignity. These services are provided to mostly disadvantaged and low-income groups.

Hypothesis 2 : Sharia Financial Inclusion influences *personal finance* behavior

Islamic financial literacy and Islamic financial inclusion are important things to know about understanding or knowledge of Islamic finance and facilitating Islamic bank product services to the public so that they feel comfortable, informative and timely in terms of planning individual financial management which can be strengthened by sociodemographics. Sociodemography is everything that is pleasing to the community, there are several characteristics, namely age, gender, education, employment, and income. In this case, sociodemography can strengthen the influence of Islamic financial literacy on personal finance. This is in accordance with research results (Bushan & Medury, 2013 ; Yusnita & Abdi, 2018) .

Hypothesis 3 : Islamic financial literacy has an effect on *personal finance behavior* with sociodemography as a moderating variable

Hypothesis 4 : Islamic financial inclusion has an effect on *personal finance behavior* with sociodemography as a moderating variable.

II. METHOD

This study uses a quantitative method. Data collection was carried out through an online survey using a closed questionnaire. Responses about the variables used such as literacy, Islamic financial inclusion, *personal finance behavior* and sociodemographics were collected from a sample of 345 respondents.

The questionnaire consists of 29 which cover all variables, such as literacy variables (20), Islamic financial inclusion (9), personal finance (10) and sociodemographics (5). All items were measured with a 5 Likert scale ranging from strongly agree, agree, neutral, disagree and strongly disagree. All items are valid and reliable because the value of the validity test shows r table above 0.361 and Cronbach's alpha in the statistical reliability table above 0.600. Data were analyzed using SEM PLS (Hair, 2014; Sholihin & Ratmono, 2013). The analysis includes descriptive statistics such as frequency and percentage to present the main characteristics of the respondents.

III. RESULT AND DISCUSSION

1) *Outer Model Evaluation (Measurement Model) : Validity and Reliability Testing*

Convergence validity is part of the measurement model, commonly referred to as the extrinsic model in SEM-PLS, but as confirmatory factor analysis (CFA) in covariance-based SEM (Sholihin & Ratmono, 2013). There are two criteria for assessing whether the external model (measured model) meets the convergence validity requirement of the reflecting structure. 2014). However, in some cases, especially for newly developed surveys, load requirements above 0.7 are often not met. Therefore, strains between 0.40 and 0.70 should be considered for conservation (Sholihin & Ratmono, 2013). The following suggestions are made by (Hair, 2014) in deciding whether to keep or remove reflex indicators.

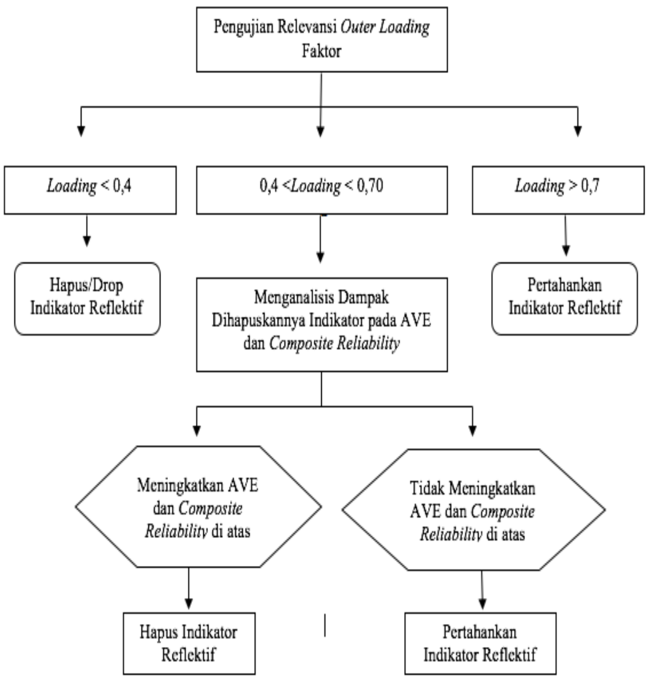

Fig 1 Reflective Indicator Analysis Procedure

Any metric with a load less than 0.40 should be removed from the model. However, for indicators with loadings between 0.40 and 0.70, we need to analyze the impact of the decision to remove these indicators on average sampling variance (AVE) and combined reliability. Measures with loads between 0.40 and 0.70 can be removed if they can increase the average sample variance (AVE) and combined reliability above that threshold (Mahfud and Ratmono, 2013). The AVE cutoff is 0.50 and the combined reliability is 0.7. Another consideration when removing indicators is the effect on the validity of the content of the constituent. Indicators with low loading may be retained as they contribute to the effectiveness of the component content (Sholihin & Ratmono, 2013).

Table 1 Validity Testing based on Factor Loading and Average Variance Extracted (AVE) and Reliability Testing based on Composite Reliability (CR)

	loading	**Average Variance Extracted(AVE)**	**Construct Reliability (CR)**
X1.1	0821		
X1.2	0811		
X1.3	0.819		
X1.4	0.844		
X1.5	0.83		
X1.6	0821	0.679	0.975
X1.7	0.824		
X1.8	0.812		
X1.9	0837		
X1.10	0.831		
X1.11	0837		
X1.12	0.834		
X1.13	0.822		
X1.14	0837		
X1.15	0.81		
X1.16	0.804		
X1.17	0.82		
X1.18	0.831		
X1.19	0.81		
X1.20	0.817		
X2.1	0.838		
X2.2	0837		
X2.3	0.818		
X2.4	0.841		
X2.5	0.827	0.693	0.953
X2.6	0.832		
X2.7	0.84		
X2.8	0.842		
X2.9	0.819		
Y1	0.835		
Y2	0.848		
Y3	0.846		
Y4	0.84		
Y5	0.844	0.712	0.961
Y6	0.854		
Y7	0.855		
Y8	0.824		
Y9	0.846		
Y10	0.848		
Z1	1	1	1
Z2	1	1	1
Z3	1	1	1
Z4	1	1	1
Z5	1	1	1

Checking the plausibility of the stress coefficients in Table 1, all stress values are > 0.7, meaning that they meet the plausibility requirement based on the stress values. In addition, validity tests based on mean variance sampled values (AVE) and reliability tests based on combined reliability (CR) were performed. Additionally, a plausibility check was performed using the AVE value approach. The recommended AVE value is 0.5 or higher (Sholihin & Ratmono, 2013). All AVE values were found to be > 0.5, meaning they meet the validity requirements based on AVE. In addition, a validity check is performed using the CR value approach. The recommended CR value is 0.7 or higher (Mahfud and Ratmono, 2013). All CR values were found to be > 0.7, meaning they meet the reliability requirements based on CR. In addition, discriminant validity checks were performed using the Fornell-Larcker approach. Table 2 shows the results of the discriminant validity test.

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Table 2 Discriminant Validity Testing

Variables	X1	X2	Y	Z1	Z2	Z3	Z4	Z5
X1	(0.824)							
X2	0.182	(0.833)						
Y	0.458	0.427	(0.844)					
Z1	0.184	0.162	0.004	(1)				
Z2	-0.053	-0.016	0.066	0.173	(1)			
Z3	0.074	0.112	0.104	0.109	-0.13	(1)		
Z4	0.199	0.156	0.009	0.208	0.07	-0.155	(1)	
Z5	0.223	0.271	0.213	0.037	0.061	-0.049	0.02	(1)

Note: The value between "( )" is the AVE Square Root

In testing discriminant validity, the AVE square root value of a latent variable is compared with the correlation value between that latent variable and other latent variables. It is known that the AVE square root value for each latent variable is greater than the correlation value between the latent variable and other latent variables. So it is concluded that it meets the requirements of discriminant validity.

2. Model Fit Test (Goodness of Fit)

Figure 4.3 presents the results of the WarpPLS for the *goodness of fit test* .

Model fit indices and P values

APC=0.176, P<0.001
ARS=0.447, P<0.001
AVIF=2.254, Good if < 5

Fig 4.3 Model Fit Test (Goodness of Fit)

Based on Figure 4.3, it is known that the probability values (*p-values*) of APC and ARS are significant, namely P < 0.001 which means < 0.05 and P < 0.001 which means < 0.05, and the AVIF value = 2.254 is less than 5. This means that the proposed model is fit.

3. Significance of Influence Test

Table 3 presents the results of the path coefficient and the significance test of the direct effect. While Figure 1 is presented the value of the path coefficient along with the *p-value* .

Table 3. Significance effect test results

Path	Path Coefficient	P-Value	R-Square
X1 -> Y	0.618	<0.001	0.45
X2 -> Y	0.301	<0.001	
X1*Z1 -> Y	-0.107	0.236	
X1*Z2 -> Y	0.134	0.087	
X1*Z3 -> Y	0.192	0.071	
X1*Z4 -> Y	0.086	0.202	
X1*Z5 -> Y	0.027	0.414	
X2*Z1 -> Y	0.293	0.024	
X2*Z2 -> Y	0.14	0.102	
X2*Z3 -> Y	0.14	0.097	
X2*Z4 -> Y	-0.002	0.495	
X2*Z5 -> Y	-0.076	0.244	

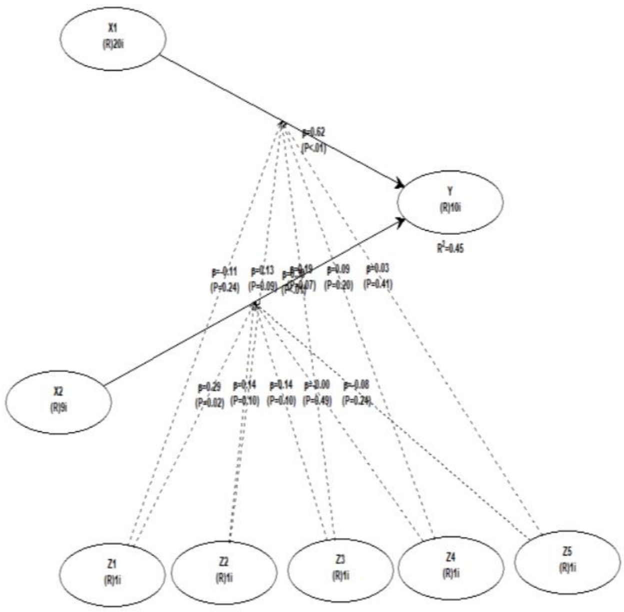

Fig 2 Path Coefficient and P-Value

Based on table 3 and figure 2 regarding the variable significance test to answer the research hypothesis as follows:

1) *Financial Literacy influences Behavioral personal finance*

Islamic financial literacy (X1) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.618, and is significant, with a P-Value <0.001, which means <0.05. Financial literacy is an individual's understanding of having broad insight and knowledge of understanding financial management and regulation individually and in organizations and or in the business sector. In this case financial literacy has a significant effect on personal finance behavior of 0.618, which underlies significantly from the results of Islamic financial literacy research on the indicator of basic knowledge of Islamic finance getting a high score of 0.844, it can be concluded that the response already understands the benefits of basic knowledge of Islamic finance and products and sharia

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financial services, including features, benefits and risks, rights and obligations related to sharia financial products and services, as well as having skills in using sharia financial products and services.

Islamic financial literacy is expected to be able to encourage an increase in the use of financial products and services that are in line with the needs of the Muslim community in particular and Indonesian society in general. sharia which encourages increased utilization of financial products and services that are in line with the needs of the Muslim community in particular and the Indonesian community in general. this will motivate the industry in the Islamic financial services sector in accordance with the ever-developing needs of society. Before explaining the strategy for developing Islamic financial literacy, it is better to first explain the meaning, goals and benefits of financial literacy, including the vision and mission of the national financial literacy movement carried out by the financial services authority.

Good personal financial management is important because it can determine short-term and long-term life (Farrell et al. 2015). Personal financial management is a form of intelligence in managing personal financial assets. Good financial planning needs to be balanced with the realization or implementation to achieve the planned goals. Financial behavior is formed from childhood to adulthood. Financial education at an early age determines a person's financial behavior (Montoya and Soledad 201 (Farrell, L, & Risse, 2015).

Financial behavior is considered as the most important element of financial literacy (Organization for Economic Co-operation and Development (OECD), 2012). Financial behavior is formed from childhood to adulthood. Financial education at an early age determines a person's financial behavior (Montoya and Soledad, 2017). Bulte, Lensink, and Sayinzoga (2016) also stated that *financial literacy* is an important determinant factor in the formation of *financial behavior* , especially in developing countries because *financial training* and other financial support activities will increase financial knowledge and will ultimately affect *financial behavior* . (Bulte et al. 2016).

2) *Islamic Financial Inclusion affects personal finance Behavior*

Islamic financial inclusion (X2) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.301, and is significant, with a P-Value <0.001, which means <0.05. Based on this, a person's Islamic financial inclusion is influenced by personal finance behavior, because someone who treats, manages, and uses his financial condition properly will understand that Islamic financial institutions or Islamic banking is one of the most appropriate places, because Islamic banking can treat finance owners properly, can be redistributed and will get results in the form of profit sharing for those who have excess funds with those who need funds. So that someone's behavior can reflect someone's understanding of the importance of an Islamic financial institution in managing their money. This is in line with research conducted by (Tsalitsa & Rachmansyah, 2016) which states that financial behavior has a positive effect on financial inclusion, reinforced by research (mahdzan & Tabiani, 2013 : Huston, 2010). steps taken by sharia banks to make it easier for people to access sharia banking, namely increasing attractive features for the whole community, educating and outreach to the public so that people are literate about sharia banking, increasing the human resources of sharia banks and support from the government and OJK in the form of financial assistance such as BUMN in general.

3) *Financial Literacy affects Personal Finance Behavior with sociodemographics as a moderating variable*

Financial literacy has an effect on personal finance behavior with sociodemography having no effect as a moderating variable, in this case the sociodemographic value is 0.087 > 0.05, meaning it is not significant. So that Islamic financial literacy has an effect on personal finance behavior but sociodemography does not mediate these variables, which is in accordance with the results of research from (Bushan & Medury, 2013). Whereas sociodemographic Islamic financial literacy has no effect, because these indicators have no effect on the respondent's understanding of Islamic financial literacy on a person's financial behavior because this is not influenced by age, gender, level of education and one's income.

Someone who is *financially literate* is someone who has some basic knowledge of financial concepts. So that if someone has basic knowledge of financial concepts he will be considered *literate* in financial terms, with this much and extensive knowledge of finance, someone will behave financially better because he knows what to do to achieve his financial goals and short-term financial plans. nor length (Organization for Economic Co-operation and Development (OECD), 2012).

4) *Islamic financial inclusion has an effect on personal finance behavior with sociodemographics as a moderating variable*

Islamic financial inclusion has an effect on personal finance behavior with no sociodemographic effect of P Value 0.024 <0.05. This shows that a person's Islamic financial inclusion influences a person's personal finance bahavior but sociodemographics do not mediate respondents, in the sense that respondents' access to Islamic finance is not mediated by a person's gender, education, income and age.

Islamic financial inclusion means that someone who treats, manages and uses his financial situation well will understand that Islamic financial institutions or Islamic banking is one of the most appropriate places, because Islamic banking can treat the owner's finances well, can be channeled back and will get results in the form of profit sharing for those who have excess funds with those who need funds. So that someone's behavior can reflect someone's understanding of the importance of an Islamic financial institution in managing their money. This is in line with research conducted by (Farrell, L, & Risse, 2015).

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IV. CONCLUSION

➢ *Based on the results of research that has been done as follows:*

1. Islamic financial literacy (X1) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.618, and is significant, with a P-Value <0.001
2. Islamic financial inclusion (X2) has a positive effect on Personal Finance Behavior (Y), with a path coefficient value = 0.301, and is significant, with a P-Value <0.001, which means <0.05.
3. Islamic financial literacy has an effect on personal finance behavior with sociodemographics having no effect as a moderating variable, in this case the sociodemographic value is 0.087 > 0.05, so it is not significant
4. Islamic financial inclusion has an effect on personal finance behavior with sociodemographics mediating no effect of P Value 0.024 <0.05.

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