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The Islamic financial literacy and market discipline: Does gender have the moderating role?

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Abstract

This study contributes to examine the effect of Islamic financial literacy on market discipline and to confirm whether gender can employ as moderating variable in this model. The primary data was collected from 93 academicians who invest in Sharia mutual funds. Based on the data analysis, this study proved that there is a positive impact of Islamic financial literacy on investment's withdrawal behaviour which indicated the market discipline. Moreover, a multi group analysis results that Islamic financial literacy has higher influence for female Sharia mutual fund's investors in withdrawing their investments. But, the influence of Islamic financial literacy on market discipline among gender is not significantly different, therefore gender could not employ as a moderating variable in this model.

Keywords : Islamic financial literacy; market discipline; multi group analysis; withdrawal behaviour.
JEL Classification : G2, G23

1. INTRODUCTION

Nowadays, the advancement of technology leads the financial institutions to extend their market segmentation. According to Jaballah, Peillex, and Weill (2018), during the last two decades, the Islamic financial industry has been increasing rapidly. Some Islamic financial products were offered through digital platforms or were traded in the capital market, and the investors did not dominated by muslim society (Chong & Liu, 2009).

Naveed (2010) studied the effect of demografic factors in influencing customers' awareness of Islamic Banking Products (IBP), but customers who were aware about IBP would not automatically adopt it. Unfortunatelly, some of them feel dissatisfaction toward their services, therefore it will potentially lead to withdraw their funds. In the context of banking industry, there is one pilar in bank regulation that is called market discipline which represented the depositors' withdrawal as a concequence of the excessive risk taken by bank that make depositor perceived not fully protected (Barajas & Steiner, 2000).

As a part of banking regulation, market discipline has been studied widely in banking industry. Flannery (2001) stated that market discipline has been observed as one of the main topics in banking research since 1970's. Market discipline was explored by deriving the Efficient Market Hypothesis (EMH) theory to describe investor's or depositor's sensitivity to excessive risk that occured in the banking industry (Min, 2015). The excessive risk commonly capture from the many proxies of banking risk, using the data which was reported in the financial statement. Therefore, market discipline can be indicated from two mechanism: depositors' withdrawal or investor demanding a higher return (Kunt & Huizinga, 1999; Min, 2015).

Several studies explored market discipline by observing the excessive risk and the investors' sensitivity to risk from a behavioral finance perspective by focusing on depositors' or investor's withdrawal behavior. Based on primary data, market discipline represented the funds' withdrawal behavior that occured due to the excessive risk in banking (Abduh, 2014, 2020) and non banking industry (Soma, Primiana, Wiryono, & Febrian, 2016; Widyastuti, Febrian, Sutisna, & Fitrijanti, 2021).

The study conducted by Widyastuti et al. (2021) observed the Sharia mutual funds' investors sensitivity toward risk by withdrawing their funds from civil servants' perception. The extended model of the theory of planned behavior (TPB) had been developed to explain the antecedents of the investors' withdrawal behavior as a result of the investors' dissatisfaction on the investment manager who arrange the investment portfolio of their funds and breach the sharia compliance. Market discipline has not included yet as a part of regulation in Islamic financial institutions (IFIs) and still become a critical issue of discussion to explore further (El-Hawary, Grais, & Iqbal, 2007). Widyastuti et al. (2021) recommended about the inclusion of market discipline in IFIs regulation to mitigate the excessive risk and to encourage risk disclosure.

One factor which is important to be considered in investment and withdrawal behavior is financial literacy. Financial literacy could be developed as a different construct which is reflected its variables including subjective financial knowledge, financial skill, financial experience, financial awareness, financial goals, financial capability, financial behavior and even financial decision (Dewi, Febrian, Effendi, Anwar, & Nidar, 2020). Thus, the concept of Islamic financial literacy was developed from the definition of financial literacy. Ahmad, Widyastuti, Susanti, and Mukhibad (2020) categorized the dimensions of Islamic financial literacy into two components: the first, subjective knowledge about sharia compliance, while the second component is subjective knowledge about *riba* and profit sharing. Financial Services Authority (Otoritas Jasa Keuangan – OJK) reported the low level of Islamic financial index in Indonesia. Therefore, people's understanding about the concept of Islamic finance should be enhanced.

The importance of Islamic financial literacy has been discussed in previous studies by exploring some factors as a concequence including intention to invest (Sumiati, Widyastuti, Takidah, & Suherman, 2021), personal financial planning (Setyowati, Harmadi, & Sunarjanto, 2018), decision to adopt Islamic financial services (Mehmood, Aftab, Siddique, & Ameen, 2017), and also financial behavior (Gunawan, Asmuni, & Siregar, 2021). However, there is a limited studies that observed Islamic financial literacy in the relationship with market discipline. This study explores market discipline that reflected withdrawal behavioral in non banking industry. This study will contributes to answer the impact of Islamic financial literacy on market discipline in the context of Sharia compliant, by observing academicians who participate in Sharia mutual funds investment.

2. HYPOTHESES DEVELOPMENT

Market discipline in a behavioral finance perspective could be defined as investors' withdrawal behavior that reflected their reaction on excessive risk indicated by non-Sharia compliance, both in Islamic banking (Abduh, 2012, 2014, 2020) and in Sharia mutual funds (Widyastuti et al., 2021). One of the antecedents which influenced investors to react and sensitive toward sharia compliance risk is Islamic financial literacy.

Previous studies proved that (Islamic) financial literacy has a significant impact on market discipline, in the context of withdrawal behavior. According to Soma et al. (2016), Widyastuti et al. (2021), people with a good understanding on (Islamic) financial concepts tend to react by withdrawing their investments, because they are conscious and aware that the products or services provided by IFIs has violated the sharia principles, therefore they will face a high risk. In this situation, investors effectivelly applied market discipline. Thus, people with high level of (Islamic) financial literacy decide to act the wise financial behavior including market discipline, which is defined as withdrawal behavior. Based on these references, this study develops the first hypothesis as follows:

H1 : Islamic financial literacy has a significant impact on market discipline.

In addition, the study conducted by Munir, Yue, Ijaz, Zaidi, and Hussain (2018) explained that the relationship between financial literacy and investment decision is moderated by gender. They also found that there is a different investment decision between males and females. Males who has a good understanding about financial literacy tend to invest more than females. While, Rahman and Arsyianti (2021) found that Islamic financial literacy could influence people financial behavior, but gender did not contributed in strengthening this relationship. Due to this contrary result, this study develops three hypotheses as follow:

H2a : Islamic financial literacy has a significant impact on market discipline in males group.

H2b: Islamic financial literacy has a significant impact on market discipline in females group

H2c : There is a significant different between males and females in the impact of Islamic financial literacy on market discipline.

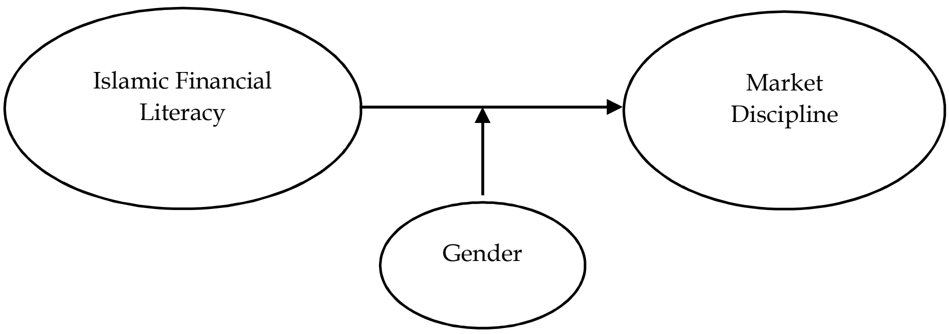

Figure 1. Conceptual Framework

Figure 1 depicts about the conceptual framework that explains the relationship between Islamic financial literacy and market discipline which is moderated by gender.

3. METHOD, DATA AND ANALYSIS

Method

This study applied a quantitative approach using Partial Least Squares - Multi Group Analysis (PLS-MGA). This method was used to compare the impact of Islamic financial literacy on market discipline between male and female, then we examine its difference. This method was appropriate to analyse the role of gender in moderating this effect. The Islamic financial literacy reflected the perception of sharia mutual funds' investor about their knowledge of sharia principles, while market discipline was defined as the investors' sensitivity toward risk that reflected from withdrawal behavior which happen when the investment manager breach the sharia principles. This study investigated 472 investors who invest in Sharia mutual funds. By implemented the purposive sampling technique to reach the sample who meet the requirement, this study collected the data from 93 academicians.

Data

The profile of respondents is presented in Table 1. The respondents were dominated by male, with the background of education were Master or post graduate level. The respondent were spreaded in four group of age, and more than one of third sample is classified in the group of 35-45 years old.

Table 1. Profile of Respondent

Characteristics	Number of respondent	Percentage (%)
Gender:		
Male	67	72
Female	26	28
Age:		
25-34	28	30
35-44	35	38
45-54	24	26
55-64	6	6
Education:		
Master	65	70
Doctor	28	30
Total respondent	**93**	**100%**

His study used the primary data which reflected the Islamic financial literacy and market discipline in the context of withdrawal behavior. The instruments were developed by Widyastuti et al. (2021) consist of seven indicators of Islamic financial literacy and eight indicators of market discipline. The instrument of Islamic financial literacy was adapted from Hidajat and Hamdani (2017) and Antara, Musa, and Hassan (2016). The variables were measured by 5 point Likert scale that indicated strongly agree to strongly disagree.

The loading factor for each indicator was presented in Table 2. If the loading factor is more than 0.6, it can be concluded that the indicator is valid and could be included in the data analysis (Hair, Hult, Ringle, & Sarstedt, 2016). The average variance extracted (AVE) is the second criterion that is used to test convergent validity. Another criterion to ensure that the constructs which is developed in this study is different each other, we conducted discriminant validity. Refers to the Fornell-Larcker criterion presented in diagonal line (see table 3), it could be concluded that each variable was totally different.

Table 2. Loading Factor

Variable Latent	Indicators	Loading factor
Islamic financial literacy	FLS 1	0.658
	FLS 6	0.756
	FLS 7	0.787
	FLS 8	0.816
	FLS 9	0.788
	FLS 10	0.755
	FLS 11	0.771
Market discipline	MD1	0.747
	MD2	0.691
	MD3	0.750
	MD4	0.798
	MD5	0.773
	MD6	0.825
	MD7	0.824
	MD8	0.840

The reliability test showed that the instruments were reliable. It indicated from the value of the composite reliability and Cronbach's Alpha. The value of composite reliability will meet the requirement if it is more than 0.5, while Cronbach's Alpha has a minimum value of 0.8. The reliability test concluded that all constructs were reliable (see table 4).

Table 3. Discriminant Validity - Fornell-Larcker Criterion

Variable Latent	Islamic financial literacy	Market discipline
Islamic financial literacy	0.763	
Market discipline	0.367	0.783

The reliability test showed that the instruments were reliable. It indicated from the value of the composite reliability and Cronbach's Alpha. The value of composite reliability will meet the requirement if it is more than 0.5, while Cronbach's Alpha has a minimum value of 0.8. The reliability test concluded that all constructs were reliable (see table 4).

Results

Based on the data analysis, this study found that there is a significant positive impact of Islamic financial literacy on market discipline. In a whole sample, it indicated that the path coefficient is 0.367 with the p-value 0.000 (see table 4). It means that the first hypothesis could be accepted at 5% level of significance.

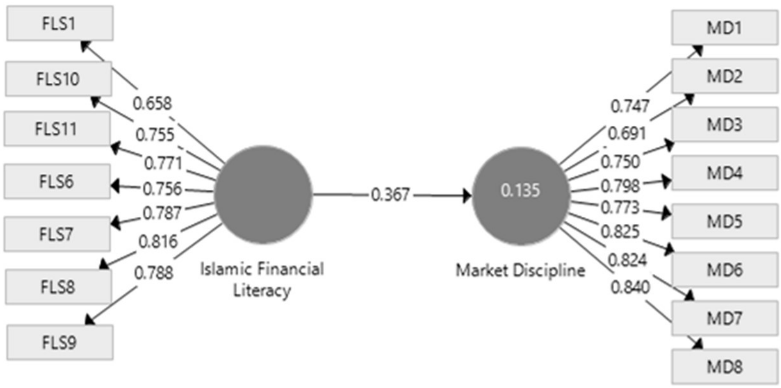

Figure 1. Conceptual Framework

To examine the impact of Islamic financial literacy on market discipline in each group of gender, the multigroup analysis is conducted by separating the sample into two groups. The results showed that Islamic financial literacy affects market discipline in the male group. The second hypotesis which was proposed in this research is statistically proved at 5% level of significance. The path coefficient for the male group is 0.296 which indicated that there is significant influence of Islamic financial literacy on market discipline.

Table 4. Reliability and Hypotheses Testing

		All	**Group 1 (male)**	**Group 2 (female)**
Latent Variables:				
Islamic financial literacy	Composite reliability	0.907***	0.908***	0.884***
	AVE	0.582***	0.587***	0.525***
	Cronbach's Alpha	0.880***	0.884***	0.846***
Market discipline	Composite reliability	0.926***	0.923***	0.834***
	AVE	0.612***	0.600***	0.389***
	Cronbach's Alpha	0.911***	0.908***	0.772***
Sample size (n)		93	67	26
Path coefficient:	Islamic financial literacy => market discipline	0.367***	0.296**	0.727***
t-statistics		4.251	2.201	2.430
p-value		0.000	0.028	0.015
R-square		0.137***	0.088*	0.569***

Notes: * p > 0.05,** p < 0.05,*** p < 0.01

The third hypothesis examined the impact of Islamic financial literacy on market discipline in the female group. The result proved that there is a positive significant impact of Islamic financial literacy on market discipline. The path coefficient is 0.727 with the t-statistic 2.430 and p-value 0.015 which indicated that the hypothesis is significant at 5% level of significance.

Refers to Henseler (2012), the differences of path coefficient in multi group analysis could be tested using three criterions including parametric test with homoscedasticity (equal variances assumed), parametric test with heteroscedasticity, and non-parametric PLS-MGA. To examine whether any difference in path coefficient betweeen two groups of gender, this study analized data based on bootstraping re-sampling using 5,000 samples.

Table 5 presented the result of statistical test to answer the hypothesis the difference in path coefficient between group.

Table 5. Test of Difference based on Multi Group Analysis: Male vs Female

Hypothesis	Statistical test	p-value (one-sided)
Islamic financial literacy => Market discipline	Parametric test - homoscedasticity	0.140
	Parametric test - heteroscedasticity	0.153
	Non-parametric PLS-MGA	0.972

The fourth hypothesis proposed to examine whether there is a difference between path coefficient of two groups of gender. Table 5 showed the result of hypothesis testing based on three criterion. The empirical result showed that the p-value of each criterion were more than 0.05 (level of significance). It means that the null hypothesis is accepted. It could be interpreted that there is no significant difference in path coefficient between group of gender. Gender could not provide a moderating effect in the relationship between Islamic financial literacy and market discipline.

4. DISCUSSION

This study proved that Islamic financial literacy could explained market discipline, both for male and female investor. This result is supported by some previous research including Soma et al. (2016) and Widyastuti et al. (2021). People who have a good understanding of Islamic financial literacy will tend to withdraw their investment, because she/he knows that the investment manager breach the Sharia principle.

This study emphasized on non-sharia compliance by measuring the investors' perception toward many types of violation on Sharia principle including the products contain uncertainty (*gharar*), usury (*riba*), speculation (*maisir*), and non-*halal* products. When they are aware of these violation, they will tend to react by withdrawing their investments. This study also strengthen the findings from Abduh (2020), Abduh (2014), Abduh (2012) who observed the withdrawal behavior in Islamic bank in many countries. These studies highlighted the major cause of withdrawal behavior in Islamic banking is issue regarding the non sharia compliance.

In addition, based on the path coefficient in each group, it could be concluded that the impact of Islamic financial literacy on market discipline in the perspective of female is greater than male. This result did not in line with the empirical evidence which showed that women, on average, are less likely to understand about numerous financial instruments and implements than men (Filipiak & Walle, 2015). But in this case, women are more reactive to withdraw their funds than men in the context of the investment manager breach the sharia compliance, so women are more sensitive toward excessive risk in Sharia mutual funds. On the other hand, gender has not a moderating role in this model and there is no significant different for these groups. This findings did not in line with the previous literature which proved that gender has a moderating role in the relationship between financial literacy and investment behavior (Munir et al., 2018). This finding showed that the model did not cover the sensitivity to risk in the financial decision (e.g. withdrawal behavior), both in male or female group. While, previous research proved that financial risk tolerance was related to the financial decisions, especially market discipline (Widyastuti et al., 2021).

5. CONCLUSION

This study aims to answer the impact of Islamic financial literacy on market discipline from the perspective of academicians who invest in Sharia mutual funds. This study shown that there is a positive significant influence between Islamic financial literacy and market discipline in the context of withdrawal behavior. In addition, this study also proved that Islamic financial literacy affect directly on market discipline among gender. However, both of the direct effect did not have a significant different between male and female, therefore gender could not be a moderating variable in this model. The women's sensitivity to risk might be explore further to answer this finding in the future research.

6. SUGGESTION

Market discipline is the important element to mitigate the excessive risk in banking industry, therefore it included in banking regulatory. While in non banking industry, market discipline should has to be included in the non banking regulatory to encourage the financial institutions in conducting risk disclosure. In addition, the Islamic financial literacy should be enhance by educate the investors about the Sharia principle as well as financial literacy.

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