Sharia Capital Market Participation: Factors Influence on Indonesian Students

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Abstract. The purpose of this study was to determine the effect of Islamic financial literacy and student sociodemography on Islamic capital market participation. The sample in this study were 482 student investors who were taken using a purposive sampling technique from the student population in Indonesia who filled out a data waqf survey conducted by KA-FoSSEI and FoSSEI. The analytical tool used in this study is logistic regression analysis. The results of the study found that the variables of Islamic financial literacy, gender, age, and study program had a positive and significant effect on Islamic capital market participation. Meanwhile, the university area has a negative and significant effect on Islamic capital market participation. In addition, study program variables have a dominant influence on Islamic capital market participation. Therefore, it is hoped that state and private universities will be able to open more Islamic economics study programs, so that they can contribute to increasing participation in the Islamic capital market among students.

Keywords: Islamic financial literacy; sharia capital market; sociodemography

1. Introduction

The growth of a country can be influenced by several things, one of which can be seen from the development of the Islamic capital market. Nurafiati (2019) in his study stated that the Islamic capital market has a positive influence on economic growth. This shows that when the Islamic capital market develops, the country's economy also develops. The capital market has an important role in improving the economy through several functions, namely as a means for companies to seek business capital and manage investment funds owned by people who have excess funds. Investment is a sacrifice made at present with the aim of obtaining greater benefits in the future (Basalamah & Haming, 2010) .

Many things or factors can influence an investor's decision. One of the influencing factors is the demographic factor. According to Lewellen *et al.* (1977) argue that age, gender, income, and education can influence investors' choices of desired returns, dividends, and overall returns.

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The current economic development is accompanied by the development of financial products offered to the public, especially Islamic financial products. The results of research conducted by Cheung *et al.* (2015) concluded that a low level of financial literacy is the cause of financial problems. What is meant by financial literacy is the knowledge possessed by a person regarding the existence of financial institutions, both the types of products and the advantages and disadvantages that may arise from these products.

Based on the National Financial Literacy and Inclusion Survey (SNLIK) in 2019 conducted by the Financial Services Authority (OJK), the Islamic financial literacy index in 2019 showed an increase, namely to 8.93% from the previous 8.1% in 2016. This meaning, out of every 100 residents in Indonesia, there are only 8 people who have knowledge of the Islamic financial services industry (Financial Services Authority, 2021) .

Students as the younger generation will not only face increasing complexity in financial products, services and markets, but they are more likely to have to bear financial risks in the future. From here it is necessary to have financial literacy that can help someone in planning and also making good financial decisions in order to achieve the desired goals, namely *financial well-being* in the future (Faidah, 2019) . Financial literacy can be formed from the learning process carried out in tertiary institutions, as research has conducted Widyawati (2012) that learning in tertiary institutions can increase student financial literacy.

Research conducted by Triana & Yudiantoro (2022) states that financial literacy influences student investment decisions in the Islamic capital market. However, Herdjiono & Damanik (2016) in their research found opposite results that financial literacy has no effect on investment decisions. From the differences in the results of previous studies, this study aims to determine the factors that influence Islamic capital market participation among students. In addition, the difference between this study and previous studies is that we used a wider sample of student investors in Indonesian universities.

2. Literature Review

Financial literacy is the level of knowledge, skills, and public confidence regarding financial institutions and their products and services as outlined in the index size parameter (Financial Services Authority, 2017) . Margaretha & Pambudhi (2015) stated that students will face new problems and environments that have never been experienced before and students must also be able to manage and manage their finances independently. There are four things that are most common in financial literacy, namely knowledge and ability regarding budgeting, savings, loans, and investments (Remund, 2010) . In addition, sociodemographic factors are also believed to have a relationship with capital market participation, especially stock investment (Humairo & Sartika, 2021) . Sociodemography is a science that studies the population of a region, especially regarding the number, structure, and development of the population over time (Putri & Rahyuda, 2017) .

Several previous studies that have relevance to this research include Al-Tamimi & Kalli (2009) which tested the relationship of financial literacy to investment decisions. The results of this study indicate that there is a significant relationship between financial literacy and investment decisions. Meanwhile, Singh & Bhattacharjee (2010) findings show that gender influences equity investment decisions. The findings of Salem (2019) also state that men participate more in the capital market. This is because men are braver in taking investments with more risks (Jamil & Khan, 2016) . Then, the results of research conducted by Ikeobi & Arinze (2016) show that income and investor education have a significant effect on all investment objectives.

3. Research Method

This research is a quantitative study that aims to determine the determinants of Islamic capital market participation among students. The dependent variable in this study is Islamic capital market participation. Meanwhile, the independent variables consist of financial literacy and sociodemographic variables of students which include gender, age, study program, year of study, GPA, university area, and income.

The population in this study were all respondents to the Data Waqf Survey "Increasing Student Islamic Financial Literacy" organized by the Alumni Corps of the Islamic Economic Study Forum Alumni (KA-FoSSEI) and the Islamic Economic Study Forum Alumni (FoSSEI). The sample in this study was taken using a *purposive sampling technique*, namely with the criteria of students who have invested in the capital market in the form of stock assets, bonds/sukuk, money markets, and mutual funds. Based on these criteria, a sample of 482 student investors was obtained.

Furthermore, the analytical tool used is logistic regression analysis. Logistic regression is a model used to find relationships between the dependent variable on a dichotomous scale and the independent variables that are continuous or categorical (Faisol & Sujianto, 2020) . Logistic regression is also referred to as a *binary response* regression model, because the dependent variable is measured with a nominal scale of two categories, where in this study category 0 is for students participating in conventional capital markets, while category 1 is for students participating in Islamic capital markets and mixed Islamic-conventional. Then, for data processing using statistical software STATA. The econometric models in this study are as follows:

$$\text{Ln}\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \beta_5 X5 + \beta_6 X6 + \beta_7 X7 + \beta_8 X8$$

Note:

$\text{Ln}\left(\frac{p}{1-p}\right)$ = Islamic capital market participation (0 = conventional; 1 = sharia and mixed)
β_0 = Constant
β_1 -β_8 = Parameters
X1 = Islamic financial literacy (1 = *very low*; 2 = *below average*; 3 = *average*; 4 = *above average*; 5 = *very high*)
X2 = Gender (0 = female; 1 = male)
X3 = Age
X4 = Study Program (0 = outside of Islamic economics; 1 = Islamic economics)
X5 = Year of study (1 = first year; 2 = second year; 3 = third year; 4 = fourth year; 5 = fifth year and above)
X6 = GPA (1 = 0-2.25; 2 = 2.26-3.00; 3 = 3.01-3.50; 4 = 3.51-4.00)
X7 = University area (0 = outside Java Island; 1 = Java Island)
X8 = Income

4. Results And Discussion

4.1 Descriptive statistics

The characteristics of the sample studied have been summarized in the descriptive statistics in Table 1. In this case, female respondents dominated the total sample data which included 59.54%. The majority of respondents in the sample were aged 20 years (34.85%). Meanwhile, it was also seen that respondents from universities in Java Island were more dominant than students from universities outside Java Island. Meanwhile, for the study

program background, Islamic economics students dominated the composition of respondents in the sample, namely 352 people (73.03%).

Table 1. Sample Descriptive Statistics

Gender	Amount	Study Program Background	Amount
Man	195 (40.46%)	Outside Islamic Economics	130 (26.97%)
Woman	287 (59.54%)	Islamic Economics Group	352 (73.03%)
Age	**Amount**	**College Year**	**Amount**
18 years	16 (3.32%)	First year	69 (14.32%)
19 years old	85 (17.63%)	Second year	173 (35.89%)
20 years	168 (34.85%)	Third year	181 (37.55%)
21 years	138 (28.63%)	Fourth Year	54 (11.20%)
22 years	56 (11.62%)	Year Five and Over	5 (1.04%)
23 years	15 (3.11%)	**GPA**	**Amount**
24 years old	3(0.62%)	0 – 2.25	3(0.62%)
25 years	1(0.21%)	2.26 – 3.00	7 (1.45%)
University Territory	**Amount**	3.01 – 3.50	72 (14.94%)
Outside the island of Java	126 (26.14%)	3.51 – 4.00	400 (82.99%)
Java Island	356 (73.86%)	**Classification of Islamic Financial Literacy Scores**	
Income		Very Low	5 (1.04%)
Means	894389.6	Below Average	65 (13.49%)
Standard Deviation	742570.6	Average	133 (27.59%)
Minimum	0	Above Average	184 (38.17%)
Maximum	6800000	Very High	95 (19.71%)
Sharia Capital Market Participation			
Sharia and Mix	361 (74.90%)	conventional	121 (25.10%)

Source : Processed data, 2022.

In addition, the majority of students in the sample are studying in their third year (semester 5 and semester 6). Then, as many as 400 respondents also have a GPA *range of* 3.51 to 4.00. It was also found that the lowest income of the respondents was Rp. 0, while the respondent who has the highest income is Rp. 6,800,000. Overall, the Islamic financial literacy score of the majority of 38.17% of respondents is in the *above average category*, 27.59% is in the *average category*, 19.71% is in the *very high category*, 13.49% is in the *below average category*, and 1.04% is in the *very low* category. Furthermore, of the total respondents, as much as 74.90% of respondents have participated in the Islamic capital market.

4.2 Logistic Regression Results

The results of the logistic regression analysis are presented in Table 2. These results indicate that the variables of Islamic financial literacy, gender, age, and study program give a positive value to Islamic capital market participation with a coefficient value of 0.5810242 for each variable; 0.4761726; 0.3238474; and 1.10117. While the variables of year of study, GPA, university area, and income show a negative value on Islamic capital market participation with a coefficient value of -0.1010054 for each variable; -0.1549599; -0.7051344; and -0.0924978. So the logit equation is obtained as follows:

$$\text{Ln}\left(\frac{p}{1-p}\right) = -5.840551 + 0.5810242X1 + 0.4761726X2 + 0.3238474X3 + 1.10117X4 - 0.1010054X5 - 0.1549599X6 - 0.7051344X7 - 0.0924978X8$$

Table 2. Logistic Regression Results

Number of obs	= 482		
LR chi ^{2} (8)	= 71.43		
Prob > chi ^{2}	= 0.0000		
Pseudo R ^{2}	= 0.1315		
Variable	Coefficient	Standard Error	P>|z|
LKS	0.5810242	0.1244219	0.000*
Gender	0.4761726	0.2461048	0.053***
Age	0.3238474	0.1533364	0.035**
Study program	1.10117	0.2439375	0.000*
College Year	-0.1010054	0.1881699	0.591
GPA	-0.1549599	0.2496096	0.535
University Territory	-0.7051344	0.2869034	0.014**
Income	-0.0924978	0.0615691	0.133
Constant	-5.840551	3.140799	0.063

Note: *significant at 0.01; **significant at 0.05; ***significant at 0.1
Source: Processed data, 2022.

4.3 Odds Ratio (OR)

odds ratio value of the Islamic financial literacy variable is 1.787869 which means > 1, so that students' opportunities to participate in the capital market will increase. The gender variable with an *odds ratio value* of 1.609901 which means > 1, means that male students are more likely to participate in the Islamic capital market. Then, the *odds ratio value* for the age variable is 1.382436 or > 1, so that every time a student's age increases, the opportunity for students to invest in the Islamic capital market will increase. Meanwhile, the study program variable has an *odds ratio value* of 3.007682 which means > 1, so the opportunities for Islamic economics students to participate in the Islamic capital market will increase.

Table 3. Odds Ratio

Variable	*Odds Ratio*
LKS	1.787869
Gender	1.609901
Age	1.382436
Study program	3.007682
College Year	0.9039282
GPA	0.8564495
University Territory	0.4940422
Income	0.9116512
Constant	0.0029072

Source: Processed data, 2022.

Meanwhile, the college year variable has an *odds ratio value* of 0.9039282, which means <1, so the opportunity for participation in the Islamic capital market will decrease. Furthermore, the *odds ratio* value of the GPA variable is 0.8564495 or <1, so the opportunity for participation in the Islamic capital market will decrease. Next, the *odds ratio value* for the university area variable is 0.4940422 which means <1, so the opportunity or possibility of students from universities in Java to participate in the Islamic capital market will decrease. Then, the *odds ratio value* of the income variable is 0.9116512 which means <1, then the opportunity to participate in the Islamic capital market will decrease.

4.4 Marginal Effects

the marginal effect test are summarized in Table 4. For the Islamic financial literacy variable, it shows that for every 1 increase in Islamic financial literacy scores, the probability of participating in the Islamic capital market will increase by 9.8%. Then, the gender variable shows a higher probability of participating in the Islamic capital market of 7.8% if you are male. The age variable shows that every one year increase in student age will increase the opportunity for participation in the Islamic capital market. Next, the study program variable shows a higher probability of participating in the Islamic capital market of 21.1% if the student has a background in the Islamic economics study program.

Table 4. Marginal Effects

Variable	dy/dx
LKS	0.0984564
Gender	0.0786126
Age	0.054877
Study program	0.2112604
College Year	-0.0171157
GPA	-0.0262585
University Territory	-0.1082705
Income	-0.0156741

Source: Processed data, 2022.

Meanwhile, the study year variable shows that for every o1 year increase in college, the opportunity to participate in the Islamic capital market will decrease by 1.7%. For the GPA variable, for every 1 unit increase in GPA, the probability of participating in the Islamic capital market decreases by 2.6%. The university area variable indicates that the probability of participating in the Islamic capital market will decrease by 10.8% if the university area is located on the island of Java. Meanwhile, the income variable shows that every average increase in income will reduce the opportunity for participation in the Islamic capital market by 1.5%.

4.5 Model Fit Testing

To test the feasibility of the model using *the Hosmer-Lemeshow Test* (see Table 5) and *Prediction* (see Table 6). Based on the results of the *Hosmer-Lemeshow Test*, a *chi-square value* of 7.51 was obtained with a probability of 0.4832. Because the probability value is greater than the significance level of 0.05, the logistic regression model meets the feasibility or in other words there is no difference between the model and the data. So, it can be used for further analysis.

Table 5. Hosmer-Lemeshow Test

Number of observations	*Number of groups*	*Hosmer-Lemeshow chi* ^{2}	*Prob > chi* ^{2}
482	10	7,51	0.4832

Source: Processed data, 2022.

Next, from the results of the *prediction analysis* (Table 6) it can be seen that it is *correctly classified* at 77.39%, this shows that the observations were made with the variables of Islamic financial literacy, gender, age, study program, year of study, GPA, university area, and income of 77.39% is correct/correct.

Table 6. Predictions

classified	D	~D	*Total*
+	343	91	434
-	18	30	48
Total	361	121	482

Classified + if predicted Pr(D) >= .5

True D defined as investment_type! = 0		
Sensitivity	Pr (+| D)	95.01%
Specificity	Pr (-|~D)	24.79%
Positive predictive value	Pr (D| +)	79.03%
Negative predictive value	Pr (~D| -)	62.50%
False + rate for true ~D	Pr (+|~D)	75.21%
False - rate for true D	Pr (-| D)	4.99%
False + rate for classified +	Pr (~D| +)	20.97%
False - rate for classified -	Pr (D| -)	37.50%
Correctly classified		77.39%

Source: Processed data, 2022.

4.6 Partial Significance Test

Based on Table 2, the variables that partially have a significant effect on Islamic capital market participation are Islamic financial literacy, gender, age, study program, and university area. The *probability* value of each variable, namely Islamic financial literacy is 0.000 (<0.01), gender is 0.053 (<0.1), age is 0.035 (<0.05), study program is 0.000 (<0.01), and the university area of 0.014 (<0.05).

4.7 Simultaneous Significance Test

Table 2 also shows the *LR chi-square value* of 71.43 with a probability value of 0.0000 <0.05. Therefore, it can be concluded that the independent variables in this study simultaneously affect Islamic capital market participation.

4.8 Dominant Variable Test

Referring to Table 2 and Table 3, it can be seen that the variable with the highest coefficient and *odds ratio* is the study program variable. These results indicate that the variable that has the most dominating influence on Islamic capital market participation is the study program variable. In this study, the study program has a positive and significant effect, meaning that if students are students of the Islamic economics group, the decision to participate in the Islamic capital market is higher than non-Islamic economics students.

4.9 Discussion

The results of the analysis show that Islamic financial literacy has a positive and significant influence on Islamic capital market participation. That is, the higher the level of understanding of students' Islamic financial literacy, the probability of participating in the Islamic capital market will increase compared to students who have a low understanding of Islamic finance. Someone with a good level of understanding of Islamic finance tends to be able to manage finances well, one of which is investing in the Islamic capital market. Thus, financial literacy has an important role for individual financial sustainability (Swiecka *et al.* , 2020) .

Furthermore, Kadoya *et al.* (2017) argues that financial literacy can increase people's understanding of investment risk return behavior which will help them to make investment decisions. The results of this study are consistent with research conducted by Kadoya *et al.* (2017), Khan *et al.* (2020), and Thomas & Spataro (2018) which prove that financial literacy has a positive and significant effect on capital market participation.

Meanwhile, the variable that is proven to have an influence on Islamic capital market participation is gender. These results indicate that women's participation in the Islamic capital market is lower than that of men. Several studies have shown that female investors are more risk averse (Anbar & Eker, 2010) and thus less confident (Barber & Odean, 2001) . This finding supports previous research conducted by Almenberg & Dreber (2015) and

Salem (2019) which found that men participate more highly than women in the capital market.

Furthermore, age is also proven to be positive and significant to Islamic capital market participation. These results indicate that as students get older, their participation in investing in the Islamic capital market will increase. These findings confirm the results of a study conducted by van Rooij *et al.* (2011) which states that capital market participation increases with increasing age.

The results of the study also found that the study program had a positive and significant effect on Islamic capital market participation. In this case, students with a background in Islamic economics study programs will increase their participation in the Islamic capital market. Moreover, the results of the analysis show that the student study program is the most dominant variable, thus indicating a close relationship between the Islamic economics study program and participation in the Islamic capital market. This phenomenon occurs because more knowledge and understanding related to Islamic finance and investment is given to Islamic economics students compared to those with non-Islamic economic backgrounds. Thus, investment practices in the Islamic capital market will be more dominated by those from the Islamic economic family.

Finally, the university area variable shows a negative and significant effect on Islamic capital market participation. This means that students from universities on the island of Java will participate less in the Islamic capital market than students from universities outside Java. It can be seen that 80.95% of the sample of students from universities outside Java have participated in the Islamic capital market. Meanwhile, the sample of students from universities in Java who participated in the Islamic capital market was 72.75%.

5. Conclusion

Based on the results of the analysis that has been done, this study shows that the variables of Islamic financial literacy, gender, age, and study program have a positive and significant influence on Islamic capital market participation. Meanwhile, the university area variable has a significant negative effect. From these results, the implications that can be given are that we recommend that both state (PTN) and private (PTS) universities open more Islamic economics study programs, so that they can contribute to increasing Islamic capital market participation among students. Meanwhile, stakeholders are expected to focus on designing policies that can increase Islamic financial literacy, especially among students and Indonesian society in general.

Then, this study still has some limitations such as the absence of data on psychological factors such as *self-control*, deliberative thinking, risk profile, and others. In addition, the population coverage is still limited to student investors. Therefore, future research is expected to be able to add a number of other variables, because there are still many variables outside this research model that have not been analyzed, as can be seen from the *pseudo value of* R^2 which is still low (13.15%). Then, further research is also expected to use a wider and more diverse range of population, such as investors in Indonesia in general with more diverse age ranges and more varied incomes, so as to produce informative findings about investor behavior in general towards the Islamic capital market.

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