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The Impact of Financial Literacy on Investment Decisions Between Saving and Credit: Studies on Sharia Bank Customers in the Special Region of Yogyakarta

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Abstract

Investment decision-making will involve cognitive, psychological, social and behavioral aspects. Financial literacy includes financial knowledge, financial behavior, financial awareness and financial attitudes. This study aims to analyze the impact of financial literacy on investment decisions of Sharia Bank customers. The sampling technique uses random sampling on Sharia Bank customers in the Special Region of Yogyakarta, Indonesia. Data analysis using multiple regression. The results reveal that 1) Financial knowledge has a positive effect on investment decisions. 2) Financial behavior has a positive effect on investment decisions. 3) Financial awareness has a positive effect on investment decisions. 4) Financial attitudes has a positive effect on investment decisions.

Keywords: Financial Knowledge, Financial Behavior, Financial Awareness and Financial Attitude

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Introduction

The development of digital banks is an illustration of the condition of the entire digitalization of the banking world nationally and internationally. A quick response is needed to ratify the financial inclusion and literacy program in the expansion of profit-sharing based banking services. Islamic banks are banks that carry out their business activities based on sharia principles. Islamic banks act as an intermediary institution (intermediary) between parties that experience a unit surplus and unit deficit (Salam,2018). The research reveals that financial inclusion is access,

community groups, and systems finance affects banking performance (Demirgüç-Kunt et al., 2008; Sarma & Pais, 2008; Sarma, 2008; Demirgüç-Kunt & Klapper, 2012). This will increase the ease with which people can use banking. On the other hand, increasing public financial literacy is urgently needed to improve financial and economic performance.

The development of the Islamic banking system in Indonesia is carried out within the framework of the dual-banking system framework of the Indonesian Banking Architecture (API). The characteristics of the Islamic banking system that operate based on the profit-sharing principle provide an alternative banking system that is mutually beneficial for the public and the bank. Emphasizing the aspects of fairness in transactions, ethical investment, togetherness and brotherhood values, and avoiding speculative activities in financial transactions.

The growth of the Islamic finance industry in DIY continues to show positive growth, it can be seen from the increasing number banking which opened a sharia business unit in the region. OJK recorded the number of sharia business units in DIY as many as 59 units. Until early 2019, there were 59 units in Yogyakarta with total assets reaching 6.3 trillion rupiahs so that the room for sharia banking, especially financing, is still wide open (OJK, 2020).

Joining as a Sharia Bank customer with the aim of saving and getting benefits such as: easy access to credit, dividends that can be received in favorable circumstances, plans for retirement, ease of arrangements for the purchase of housing or land, among others (Wameyo, 2015; Salam, 2018). However, these goals are often not met or partially met due to lack of financial literacy. A study in India by Bhushan (2014) on the relationship between investment behavior and financial literacy has found that with the new age, financial products, awareness and investment preferences largely depend on individual financial literacy. That is, the higher the level of understanding of financial knowledge, the higher the chances of making investment decisions.

Mian's (2014) research on the level of financial literacy and its effect on investment and other financial decisions, shows that there is a negative relationship between financial literacy and the need for investment decisions. In this study, financial literacy is shown by pension plans and stock market participation. The weakness of Mian's (2014) research is that the indicators are less precise, because the research ignores the fact that financial literacy is a comprehensive combination of an individual's behavior, attitudes, skills, knowledge and awareness. Tabiani and Mahdzan (2012) explored the impact of financial knowledge on saving in Malaysia. The results show that there is a significant positive relationship between financial literacy and the decision to save.

There is an inconsistency in the results of the relationship between financial literacy and investment decisions. Some studies have found a negative effect (Mian, 2014), others are positive (Mahfund, 2012; Tabiani & Mahdzan, 2012) and also no correlation (Atakora, 2013). Further research is needed to prove the nature of this effect, this relationship.

The economic prospects in DIY are going well. Economic growth grew by 5.9% or above national. The economic growth in DIY, one of which is supported by the actors UMKM which amounted to nearly 98.4%. Currently, major economic challenges occur especially in the global market. This is due to uncertainty. The global economy is growing but not evenly. Not to mention the trade war between United States of America with China (OJK, 2020). Yogyakarta has a growth in Sharia-based third party funds that continues to increase. It is believed that this will increase the penetration and customer base of Islamic banking. Special Region of Yogyakarta too has great economic potential, especially to support the industrial sector, trade, processing and accommodation provision.

The main objective of this study is to examine the effect of financial literacy on investment decisions on customers of Islamic banks in Yogyakarta. More detailed objectives are as follows: 1) To examine the effect of financial knowledge on customer investment decisions. 2) To examine the effect of financial behavior on investment decisions. 3) To test the effect of financial awareness on investment decisions. 4) To test the effect of financial attitudes on investment decisions

The targeted findings of this study are: 1) Finding empirical evidence of influence financial literacy on

investment decisions. 2) Finding empirical evidence of a research model that is able to explain the influence of financial knowledge, financial behavior, financial awareness, and financial attitudes on investment decisions. 3) This study is aimed at making several useful contributions, namely the contribution of empirical evidence, managerial contributions and methodological contributions.

Literature Reviews and Hypotheses Development

Seeing the facts from the researchers, that financial decision making can be rational as well as irrational. Every investment decision making, including in the group of an investor, will involve cognitive, psychological, social and behavioral aspects (Elster, 1998; Hermalin and Isen, 2000 in Asri, 2013). Hogarth (2002) defines financial literacy as the way people understand and use basic knowledge of financial concepts to plan and manage financial decisions, such as in insurance, investing, saving, and budgeting. Financial literacy includes financial knowledge, financial behavior, financial awareness and financial attitudes. Mugo (2016) defines financial knowledge as a significant financial concept, such as inflation, calculation of interest rates and diversification of risk in a portfolio. Financial behavior is the ability to prepare a budget and obtain loans and savings (Amos, 2014). Financial awareness refers to an individual's ability to understand financial education and financial education resources (OECD, 2006; Mugo, 2016). Financial attitude is the ability to choose and invest and the preferences of some alternatives are over (Pankow, 2012).

Multiple Process Theory

Multiple process theory reveals that the decision-making process is influenced by intuition and cognitive processes (Asri, 2013; Mugo, 2016). This theory has been extensively researched in the field of behavioral finance. This theory reveals that bias, framing and heuristic factors are influenced by the system (Alós-Ferrer and Hügelschäfer 2012; Asri, 2013). Previous studies have shown that both systems are suitable for improvement and intervention in decision making (Reyna, 2004). Crusius, Horen, and Mussweiler (2012) argue that a need arises when someone evaluates and analyzes economic or financial aspects. Godek and Murray (2008) analyzed the role of rational and experiential processing modes on willingness to pay. Dual-process theory is useful in explaining whether investment decisions are based on intuitive thinking,

Planned Behavior Theory

The main proponent of planned behavior theory is Ajzen (1988) who analyzes individual behavior. Because behavior can be predictive or intentional. TPB argues that human behavior can be categorized as behavioral beliefs, normative beliefs and control beliefs. Behavioral beliefs are a possible consequence of individual behavior. Normative beliefs are expectations from others for our behavior and control beliefs for behavioral performance (Asri, 2013). Sharia Bank customers take actions that may be triggered by attitude, behavior and awareness. Theoretically, financial behavior, financial awareness and financial attitudes affect investment decisions in Islamic Bank customers (Salam, 2018).

Social Learning Theory

Bandura (1960) argues that the learning process can only occur through direct observation or instruction. This theory was developed to enhance the stimulus-response theory which explains how and why humans respond to certain attributes. Bandura argues that there are weaknesses associated with the learning process model which illustrates that social learning variables are related to certain responses found in human behavior (Asri, 2013). More than that, Rotter's theory reveals that behavior change is related to subjective expectations. This theory is suitable for this research, because most investment decisions can be made or linked to a learning process that can be formal or informal.

Expected Utility Theory

Individual preference for one investment over other investments, basically because the utility expected is higher than the alternative investment. Investors expect to maximize utility. Davis, et.al (1997) and Asri (2013) reveal that utility theory can be explained in a situation when the decision-maker chooses between a risky prospect and the utility value that is expected to be realized. The decision is obtained by evaluating the utility of the expected outcome multiplied by the probability. Theory uses the assumption that the decision-maker is sure of the probability of each outcome.

Neumann and Morgenstern (1944), Asri (2013) show that the normative problem is rationality. Rationality is the choices and desires that individuals have. Although what individuals choose based on rational choice theory, further research and evidence is needed for the consistency of the theory. Expected Utility Theory can also be interpreted as the behavior of rationality by following certain substantive rules. This theory is relevant in research to examine the effect of human financial behavior on investment decisions.

Empirical Overview

This literature review presents studies on the effects of financial knowledge management, financial behavior, financial awareness and financial attitudes on investment decisions.

Financial Knowledge and Investment Decisions

Greenspan (2002) concluded that financial knowledge that is applied appropriately by individuals can obtain maximum utility from resource planning and utilization. Greenspan (2002) argues that when a person has increased financial knowledge, there is an increased chance of being able to make budgets, save for the future and make investment decisions. Using an Internet-based survey, Robb and Sharpe (2009) sampled undergraduate and graduate students electronically on financial knowledge in credit card use decisions. The results showed that financial knowledge is the main factor that determines how credit card decisions are.

Rooij, Lusardi and Alessie (2007) revealed that financial knowledge is related to financial instrument differentiation and portfolio risk diversification. This study also concludes that there is a need to increase financial knowledge in order to make wise financing decisions. Financial knowledge influences what will be stored and what will be invested. Lusardi (2008) argues that a person needs financial knowledge and financial concepts to make decisions about saving and investment.

Financial Behavior and Investment Decisions

Tyrimai (2013) found that the majority of households were involved in saving because of fear and unexpected events. The customer wants to protect against reduced income or emergency expenses. Financial behavior as a need to address financial literacy problems. Brown and Graf (2012) reveal that there is an influence on financial behavior and household investment in Switzerland. Financial behavior is measured by lending by individuals, retirement planning and mortgages. The empirical results of 1,500 households show a strong correlation between levels of financial behavior, and participation in financial markets, pension savings and mortgage loans. The results of this study are consistent with research by Lusardi et.al (2011) in Germany and Mahdzan and Tabiani (2012) in Malaysia. Uma, et.al, (2014), Mugo (2016) concluded that aggregate saving behavior is a prerequisite for making investment decisions.

Financial Awareness and Investment Decisions

Bhushan (2014) examined the effect of financial literacy and investment behavior on individuals who receive monthly salaries from government and non-government in Indonesia and India. Financial literacy is assessed in three dimensions of financial attitudes, behavior, knowledge and awareness on a 5-likert scale. The results reveal that high levels of financial literacy create financial awareness. Investment decisions become wiser. Individuals with low financial knowledge will choose and invest in limited traditional products. Duflo and Saez (2003, 2004), Madrian and Shea (2001), Al-Tamimi and Kalli (2009) found evidence that individuals who have financial

awareness will be wiser in investing. Investors who have work experience in banking or have a high degree of education and are trained in financial matters will make investments easily.

Financial Attitudes and Investment Decisions

Ibrahim and Alqaydi (2013) examined the effect of financial attitudes on investment in the United Arab Emirates. The results show that there is an improvement in personal financial attitudes. There is a reduction in dependence on the use of credit cards. This study used a convenience sampling technique to increase the chance of non-representation bias. Ghauri et. al (1995) revealed that Singaporeans have a healthy financial attitude because of high financial literacy. So that financial problems, financial planning and management in investment decisions are better.

Based on the theoretical description ethical and various empirical studies, hence its hypothesis will tested are: H1) Financial knowledge has a significant effect on investment decisions. H2) Financial behavior has a significant effect on investment decisions. H3) Financial awareness has a significant effect on investment decisions. H4) Financial attitude has a significant effect on investment decisions.

This study is aimed at making several useful contributions, namely theoretical contributions, managerial contributions and methodological contributions. 1) Contribution to the empirical literature, that is: a) This study expands the determinants investment of Sharia Bank customers in using banking products. b) Development of financial literacy factors as independent variables. 2) Contribution managerial, that is: a) provide managerial input to Sharia Banks in an effort to improve products and services to customers. b) Provide managerial input regarding the importance of paying attention financial literacy and deep macroeconomic conditions improvement of products and services to Sharia Bank customers. 3) Methodological contribution, namely the use of regression models binary logistics in testing the research hypothesis to be tested.

Research Method

Research Data and Samples

The research was designed using an approach causality through hypothesis testing and data analysis primary. The research design refers to the theory and results of empirical studies that support the hypothesis to be tested. The researcher conducted a theoretical review and the results of empirical studies in order to map the theory according to the research objectives and the research conceptual framework. After the data collection was successful, the questionnaire was coded, input data, analyzed and concluded. The binary logistic regression model is used to show how dependent and independent variables are related as follows (Greene, 2012; Wooldridge, 2013):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$$

Where;

- Y = Investment decision
- X 1 = Financial knowledge
- X 2 = Financial behavior
- X 3 = financial awareness
- X 4 = Financial attitude
- μ = error term

Identification and Operational Definition of Research Variables

Identification and operational definitions are used to clarify and refine the focus research in order to get the right results. Operational identification and definition describes the variables research, namely the dependent variable, variable is independent. Questionnaire using 5 Likert scale.

Financial knowledge is understanding significant financial concepts such as inflation, calculating interest rates and diversifying risk in a portfolio. Using 7 Likert scale items (A. Gina, Akoto and Despard, 2012; Mugo, 2016). Financial behavior is the knowledge ability to prepare budgets and obtain loans and savings. Using 9 items on the Likert scale (Amos, 2014; Mugo, 2016). Financial awareness refers to an individual's ability to understand financial education and financial education resources. Using 7 Likert scale items (OECD, 2006: Mugo, 2016). Financial attitude is the ability to choose and invest with the preferences of several people. Using 12 Likert scale items (Pankow, 2012, Mugo, 2016). Investment decisions are awareness of alternative investment opportunities, investing in securities and the realization of the benefits that come with investing. Using 6 Likert scale items (Musundi, 2014, Mugo, 2016).

Model Specification Testing

In uni research using multiple regression. Testing model specifications to determine the best equation model and can be used to draw conclusions using validity, reliability, normality test, classic assumptions.

Result and Discussion

Based on data obtained from a questionnaire of 225 Sharia Bank customers in the Special Region of Yogyakarta. Respondents came from customers of Sharia BRI, Sharia BNI, Sharia Bank Mandiri, Sharia BPD Yogyakarta. Reliability test and validity test shown in Table 1. The results of the validity test indicate that the questionnaire is valid. This is indicated by the Pearson Correlation test quantity > 0.60 . Reliability test shows that each research variable is reliable. This is indicated by the amount of Cronbach's Alpha > 0.80 .

Table 1. Reliability and Validity Test

	Cronbach's Alpha	Pearson Correlation	N of Item
Financial knowledge	0,840	$> 0,680$	7
Financial behavior	0,891	$> 0,550$	9
Financial awareness	0,875	$> 0,744$	7
Financial attitude	0,925	$> 0,719$	12
Investment Decision	0,805	$> 0,693$	6

Table 2 it can be concluded that the model is good enough to take analysis and take conclusions. The regression equation is able to explain the effect of the independent variable on the dependent variable by 62.8%. The F-statistic is 92.01 with a probability of 0.000.

Table 2. Multiple Regression Results

Variables	Coefficient	Std. Error	t-statistics	Sig.
C	3,805	1,242	3,063	0.002
Financial knowledge	0.091	0.039	2,344	0.020
Financial behavior	0.186	0.026	7,076	0,000
Financial awareness	0.289	0.052	5,526	0,000
Financial attitude	0.087	0.026	3,370	0.001
R2	0.791			
Adjusted R2	0.628			
F-Statistics	92.01			
Prob.	0,000			

* Dependent Variable: Investment Decision

Hypothesis Testing 1

The test results show that financial knowledge affects the investment decisions of Islamic Bank customers. This is indicated by the t-statistic magnitude of 2.344, a significant amount of 0.020. The results can be concluded that the increased financial knowledge of customers, the more investment decisions will be increased. The results are

consistent with the findings Greenspan (2002), Robb and Sharpe (2009), Mugo (2016). High financial knowledge will increase the capacity of budgeting, saving and investing.

Hypothesis Testing 2

The test results show that financial behavior affects the investment decisions of Islamic Bank customers. This is indicated by the t-statistic magnitude of 7.076, a significant amount of 0.000. The results can be concluded that the increasing financial behavior of Islamic Bank customers, will increase investment decisions. The results of this study are consistent with the findings. Duflo and Saez (2003, 2004), Madrian and Shea (2001), Al-Tamimi and Kalli (2009). Individuals who have financial awareness will be wiser in investing. Investors who have higher education, work experience in banking will make investments easily.

Hypothesis Testing 3

The test results show that financial awareness affects the investment decisions of Islamic Bank customers. This is indicated by the t-statistic amount of 5.526, a significant amount of 0.000. The results indicate that the higher the customer's financial awareness, the more investment decisions will be increased. The results of this study are consistent with research by Mugo (2016), Lusardi et. al, (2011) in Germany and Mahdzan and Tabiani (2012) in Malaysia. Uma, et.all, (2014) concluded that saving behavior has an effect on making investment decisions.

Hypothesis Testing 4

The test results show that financial attitudes affect the investment decisions of Islamic Bank customers. This is indicated by the t-statistic amount of 3,370, a significant amount of 0.01. The results can be concluded that the higher the customer's financial attitude, the more investment decisions will be increased. Mugo (2016), Ghauri et al (1995) revealed that a healthy financial attitude due to high financial literacy will facilitate investment decisions. Financial problems, financial planning and management in investment decisions are getting better. Financial monitoring has become tighter and more controlled.

Conclusion

This study aims to examine the effect of financial literacy on investment decisions of customers of Sharia or Islamic Banks in Yogyakarta Special Region. Financial literacy uses measures in the form of financial knowledge, financial behavior, financial awareness and financial attitudes. A sample of 225 Islamic Bank customers. The analysis technique uses multiple regression. The results showed that financial literacy has an effect on investment decisions.

Managerial Suggestions and Implications

Based on the results of this study, the authors provide suggestions, as follows:

1. Sharia banks should provide concessions to customers according to POJK No.11 / POJK.03 / 2020 concerning National Economic Stimulus as a Counter cyclical Policy on the Impact of the Spread of Coronavirus Disease. The POJK is in effect from March 13, 2020 to March 31, 2021. The regulation states that banks can provide relaxation to financing facilities for customers affected by the Covid-19 virus pandemic in the form of postponement of payments and / or provision of margin relief/profit sharing over a period of time and conditions. the terms are adjusted to the economic sector, criteria and customer conditions by still referring to OJK regulations.
2. Required Concrete programs as the implementation stage of the Sharia Bank strategy include the following: a) A new sharia banking imaging program that includes aspects of positioning, differentiation, and branding. The new position of Islamic banks as a mutually beneficial banking for both parties. Differentiation aspect with competitive advantage with diverse, ethical and transparent products and schemes. 2) Creating a new mapping program that is more accurate to the potential of the Islamic banking market. 3) product development programs aimed at a wide variety of products. 4) Service quality improvement program supported by competent human resources and the provision of high information technology. 5) Broader and more efficient public outreach and education programs through various means of direct communication, or indirectly. Various media are used, such as: print media, electronic, online / website.

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