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How Middle-Low Income Muslim Group Financially Reacts in Pandemic Crisis

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Abstract

The purpose of this study is to determine factors constituting financial behavior of middle - low income group living in the sub-urbs area in Indonesia during a pandemic. This paper employs Structural Equation Modeling Partial Least Square (SEM-PLS), with a selection of 150 respondents that meet the criteria, based on: jobs, income, and house location (purposive sampling). The findings indicate that Islamic financial literacy, locus of control, and attitudes affect positively and significantly the financial behavior of this segment. While locus of control serves the highest factor, it is pertinent to emphasize the findings that Islamic financial literacy shows the lowest value than other variables. This situation has a real implication, essentially for policymakers and religious scholars, to create a continuous program targeting on improvements of Islamic financial literacy in general aiming on building a responsible financial behavior for middle-low income Muslim groups particularly during the pandemic crisis.

Keywords: *financial behavior, financial literacy, financial attitude, locus of control*

1. Introduction

A responsible behavior is the key factor to improve prosperity (Mudzingiri et al., 2018). A better and more responsible financial management is pivotal to climb up income ladder, otherwise poor behavior causes difficulties thus tend to force a decline in the welfare status. It is often observed that poor people make poor decision in financial management (Moga Dass and Fazli Sabri, 2017; Malik et al., 2020). The poor decision is indicated by poor cash management, heavily indebted, or if this segment possessed fixed assets –then he/she will attempt to liquidate or put it as collateral in the financial institutions or money lenders. Poor financial behavior is a common gate to a vicious debt trap, particularly during the period of pandemic like today.

Plethora of studies indicated that there are at least three factors influencing one's financial decision. They are; financial literacy, financial attitude, and locus of control. First is financial literacy. It is said that financial literacy or illiteracy has a serious implication on the decision to impart a responsible or ineffective financial behavior (Allgood and Walstad, 2012; Strömbäck et al., 2017; Widyastuti et al., 2020). Low financial literacy would result in a perilous financial decision and ultimately lead to a debt trap and poverty. A study by Indonesian Financial Service Authority (OJK) shows that financial literacy is still low among population in Indonesia (OJK, 2019), thus indicating a relationship between financial literacy and financial behavioral problem in a developing country like Indonesia.

The second factor influencing behavior is financial attitude. Financial attitude relates to one's inclination towards a certain issue based on moral, culture, and personal opinion. By default, poor financial attitude i.e., negligence on financial management, would result in poor financial decision, or event led to a debt trap. The third factors affecting behavior is locus of control, that describes internal motivation and peer-reference influence. Middle-low income Muslim group living in the suburb area tend to see their neighbors as the valid source of reference (Bohnet et al., 2005). This segment would likely to be provoked by consumptive motives

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and consider debt trap as common. The situation is now worsened due to pandemic crisis.

In a suburb area of West Hadimulyo, Metro City, province of Lampung, Sumatera, Indonesia, based on our pre-survey, the majority of households are in debt today. There are about 128 of 250 households currently in debt with financial institutions and/or moneylenders. By profession, they are blue collar workers at traditional market with income less than 140 US Dollar (IDR 2.000.000) per month. As their income do not suffice the living costs, other source of living is from financial institutions and loan sharks. The majority of the people have bad credit records at bank and other microfinance institutions, thus letting creditors legally seize their collateralized assets. This is essentially in contrast with study of the World Bank (2016) that shows relationship between financial inclusion and literacy but excluding variables like asset-management behavior as important aspect. In developing nation where the issue of financial inclusion is continuously under a spotlight, the government and policy makers must also pay attention to build a more responsible financial management behavior to the less-able segment.

It is important to understand how individuals decide upon his/her financial strategies, especially during a hardship like today. Therefore, it highlights the significance to understand the factors that affecting behavior of middle-low income groups in a developing nation. Understanding these factors will be crucial at least in two-folds. First, as the government prepare for an economic restart in the post-pandemic era, the government must first consider the debt trap effect due to the pandemic crisis. Based on our pre-survey, most of the middle-low income groups are able to survive due to credits and loans from money lenders. While servicing interest-debt potentially diminishes future consumption, an economic restart could not spark, or at least is less effective, if the middle-low income could not consume. Secondly, shaping people's behavior to become more conscious and responsible is a key gateway to prosperity. Lastly, in an event of pandemic, government, religious scholars, and society leaders must closely work together to maintain financially rationale community. Otherwise, it would be hard to rebuild the economy once the pandemic is under controlled.

At this junction, a better understanding on the phenomena on how middle-low income Muslim group make up their financial decision is as important as to show measures for assisting this segment regain control of their financial situation aftermath the crisis. Poverty is a socio-economic phenomenon of many developing countries (Mao et al., 2015) thus understanding factors affecting financial behavior are strategical keys to improve prosperity for all people.

2. Literature Review

Conceptually, financial behavior is related to human activities that relates to money management (Xiao, 2015). Financial behaviour includes consumption, credit and saving activities, investment decision, and cash management (Stolper and Walter, 2017). A person with good financial behavior will display a responsible financial management, where the outcome may range in the form of saving money and/or reducing debts. A responsible financial behavior is influenced by good understanding of financial literacy, a good financial attitude, and a positive locus of control.

Financial literacy measures one understanding and awareness on the financial products and risk management (OJK, 2013). The aspect involved comprehension towards individual's priority on the financial management given the limited financial resources (Herdjiono and Damanik, 2016). Many studies, such as Chen and Volpe (1998), Mandell and Klein (2009) and Lusardi and Mitchell (2013), find that there is no evidence to suggest education and financial literacy must correlate, and that welfare status (i.e., parental income) does not significantly affect literacy. In short, social status –indicated by income/education level, and wealth, are not the ex-ante factors for good financial literacy.

Despite such relationship, financial literacy is indeed the contributing factor to the prosperity (Margaretha and Pambudhi, 2015). Financial literacy enables individual to understand financial instruments, future planning, insurance, wise consumption, and managing unprecedented life events (Çera et al., 2020; Cohen and Nelson, 2011; Moga Dass and Fazli Sabri, 2017; Rousseau and Venter, 2019). A study by Purwidianti and Tubastuvi (2019) finds that financial literacy has a positive on financial behavior amongst Indonesian Small Medium Enterprises (SMEs). Studies by Allgood (2012) and Arifin (2017) indicate that financial literacy affects significantly and positively financial behavior. This suggests that the higher the level of financial literacy, the better one's personal financial management behavior. Otherwise, lower financial literacy signifies poor personal financial management behavior.

This paper introduces one novel aspect of financial literacy and behavior that is Islamic financial literacy. Islamic financial literacy covers the understanding and awareness of a Muslim towards Islamic financial principles and instruments (Abdullah et al., 2017). Islamic financial literacy is operationally indicated by understanding and priority of Islamic financial redistribution instruments, such as *infaq* (spend part of the property or income owned for interest and benefit that has been taught by Islam, *infaq* distributed to those in need, such as the poor fellow Muslims, *infaq* for natural disasters, etc.) and *sadaqah* (issuing assets or non-wealth by a person or business entity outside of *zakat* for the public benefit). By introducing Islamic financial literacy as a new variable, this study aims to gauge more information whether positive Islamic financial literacy will lead to a responsible financial behavior amongst middle-low income Muslim group. This makes the current study differs from past studies.

There are six concepts surrounding financial attitude, namely, obsession, power, effort, inadequacy, retention and security (Ameliawati and Setiyani, 2018; Dewi et al., 2020; Herdjiono and Damanik, 2016). Obsession entails one's paradigm or mindset on money management. Power refers to money as the medium for control and problem solving. Effort implies that money is earned by work. Inadequacy reflects the feeling of having not enough money. Retention tends to save money and not spend it all. Lastly is security, that refers to traditional mindset that money should be kept at own house (Herdjiono and Damanik, 2016).

There are also studies indicated the dominance of financial attitude in affecting financial behavior. Yap et al. (2018) describes that moral, cultural, and personal values are components of financial attitude that affect one's financial decisions. (Yong et al., 2018) highlighted the importance of attitude towards financial behavior, that it has greater influence on behavior than literacy. Financial attitude also makes an important contribution in achieving success or failure in financial management. As a convention, one who demonstrates positive attitude will be more likely to display a responsible and sustainable financial behavior for the future (Ameliawati and Setiyani, 2018).

Another variable is locus of control. Locus of control is a psychological concept that captures individual beliefs on the causal relationship between their own behavior and life events (Cobb-Clark et al., 2016). There are two types of locus of control, external and internal (Arifin, 2017). Internal locus of control describes the presence of a controller within a person, and external locus of control is the environment and peer references that influence one's behavior (Thi et al., 2015). A good environment and peer reference will be likely to enforce positive internal locus of control, hence ultimately influence a responsible financial behavior (Budiono, 2020).

Financial behavior is the variable of interest of this study. Financial behavior tries to uncover and explain how individual make his/her decision. It also explains inconsistency of one's financial behavior (Arifin, 2017). Financial behavior has two perspectives; cognitive psychology and its limits of arbitrage. Cognitive psychology refers to how individual manage his/her financial in terms of their financial knowledge or literacy (Purwidianti and Tubastuvi, 2019). While limits to arbitrage, limitation of a person to take advantage for himself (Herschberg, 2012). There are four measurement indicators of financial behavior, namely; consumption, cash-flow management, saving and investment, and credit management (Dew and Xiao, 2011). Based on the financial behavior theory and literature previously stated, several hypotheses can be made as follows.

Hypothesis 1 : Islamic financial literacy affects financial behavior.
Hypothesis 2 : Financial attitude affects financial behavior.
Hypothesis 3 : Locus of control affects financial behavior.

3. Research Methodology

This study employs Structural Equation Modeling Partial Least Square (SEM-PLS). SEM-PLS is a second-generation multivariate data analysis method (SEM) that is intended for data-rich and theory-skeletal study (Hair et al., 2013) and has advantage of no assumptions about data distribution (Wong, 2013). PLS-SEM also attributed to a number of advantages: (1) applicable to non-normal data (2) small sample sizes (Wong, 2013), and (3) formative indicators (Hair et al., 2013). SmartPLS version 2 is used to conduct the analysis in this study.

This study underwent the following steps:

(1) model specification

(2) outer model evaluation. This is done by checking the quality of outer model through: (a) validity tests, which are; Convergent Validity, Discriminant Validity, and Average Variance Extracted (AVE), and (b) reliability tests using Composite Reliability Coefficient and Cronbach's Alpha
(3) inner model evaluation. The *t*-statistics and R-Square for measuring the relationships amongst the variables and goodness of fit of the model.

The sample used is 150 respondents. These respondents were chosen using purposive sampling (Kadilar and Cingi, 2012), with the following criteria: (1) This area is selected for the study because people from this village is known to be heavily indebted to bank or non-bank financial institutions and moneylenders – Figure 1, 2 show location of West Hadimulyo and (2) income under USD 140/month. The questionnaires are in the form of Likert Scale of 1-5 (1 is extremely disagree, and 5 is extremely agree). Before data collection to 150 respondents, this instrument has been tested and evaluated using 20 respondents with 45 indicators. From the findings, it is indicated that only 21 indicators that are valid and could be used as instruments for this study.

Figure 1: West Hadimulyo Location, Metro City, Lampung, Sumatera

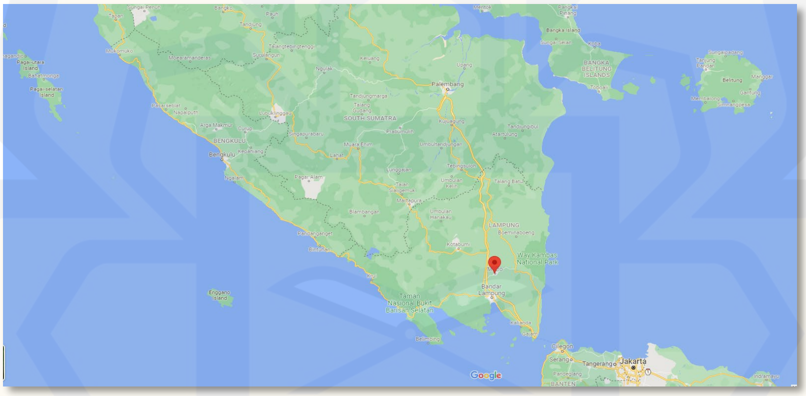


Figure 2: West Hadimulyo Location, Metro city

4. Results and Discussion

This study conducted validity and reliability test to measure how good the indicators reflect the inner model. Validity test is to measure the quality of the indicators reflecting the variables in this research (Taherdoost, 2018). The validity test employs convergent validity and discriminant validity tests. Convergent validity test assesses reflective validity to represent variables. This validity test could be observed from outer loading value, and is considered as valid if the test result has a loading factor above 0.5 (Vinet and Zhedanov, 2011). After the first trial using 21 respondents, the questionnaires consist of 21 valid indicators; in which 6 valid indicators represent Financial Literacy, 4 valid indicators represent Financial Attitude, and 4 valid indicators constitute Locus of Control, and 7 valid indicators represent Financial Behavior. Refer Appendix 1 for the detail of the variables (constructs) and its indicators.

Discriminant validity test is the extent to which latent variable discriminates from other latent variables. Discriminant validity means that a latent variable is able to account for more variance in the observed variables associated with it than a) measurement error or similar external, unmeasured influences; or b) other constructs within the conceptual framework (Taherdoost, 2018). Another method for testing discriminant validity can be done by looking at the AVE value. AVE is the main average value of the load squares of an indicator set (Hair et al., 2017). In short, the AVE suggests that the construct explains more than half the variance of the indicator. The recommended AVE value is 0.5(Ghozali and Latan, 2015) (The AVE value in this study is presented in Table 1.

Table 1: Discriminant Validity (AVE Test)

	AVE	Note
FA (Financial Attitude)	0.487149	Valid
FB (Financial Behaviour)	0.307136	Invalid
FL (Financial Literacy)	0.360569	Invalid
LOC (Locus of Control)	0.497719	Valid

Source: The result of data processing

In this study, the reliability test consisted of composite reliability and Cronbach alpha test. Composite reliability results will be satisfactory if the value is above 0.7 (Ghozali and Latan, 2015) The results of the composite reliability test, as shown in Table 2, reveals that the composite reliability value for all constructs is above 0.7 which determines that all constructs in the estimated model are reliable. And for the lowest composite reliability value is 0.74 for the FB construct. The recommended value of the Cronbach's alpha test is above 0.6 for reliable construction. In Table 2, the Cronbach's alpha values for all constructs are above 0.6 (Vinet and Zhedanov, 2011). The lowest value is 0.61 for the FB construct. The reliability test can also be strengthened by the results of the Cronbach's alpha test.

Table 2: Reliability Test (Composite Reliability dan Cronbach's Alpha)

Variable	Composite Reliability	Cronbach's Alpha	Note
FA (Financial Attitude)	0.774466	0.638588	Reliable
FB (Financial Behaviour)	0.746795	0.613964	Reliable
FL (Financial Literacy)	0.766727	0.651627	Reliable
LOC (Locus of Control)	0.794344	0.661750	Reliable

Source: The result of data processing

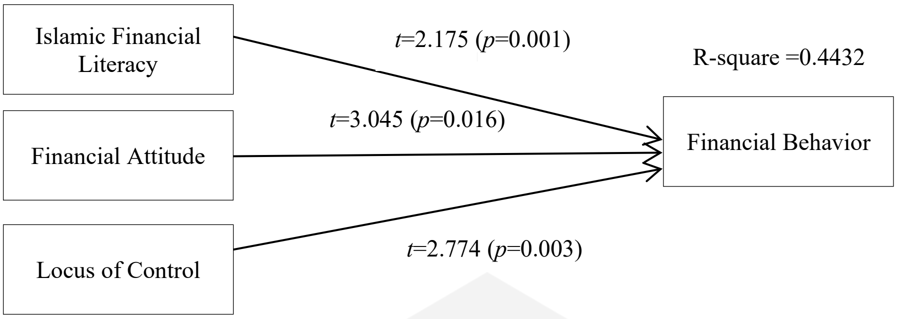
Based on the hypothesis test (*t*-statistics), the effect of the independent variable on the dependent variable (FB) is significant as stated in the result of the *t*-statistic which is greater than 1.96 (at the 5% significance level).

Table 3: Hypothesis Testing

Hypothesis	Beta-Coefficient (β)	*t*- Statistic	*p*- value	Note
FL → FB	0.226	2.175	0.001	Accepted
FA → FB	0.272	3.045	0.016	Accepted
LOC → FB	0.344	2.774	0.003	Accepted

Source: The result of data processing

Regarding the test on the coefficient of determination, this test examines the inner model to observe the relationship between variables, using the R-square as a parameter provided that the R-square value is 0.75 (very strong), 0.5 (strong), and 0.25 (weak) (Hair et al., 2017).



The result shows that the effect of financial literacy on financial behavior is significant, with a *t*-statistic value of 2.175 (greater than 1.96), and has positive direction with beta coefficient of 0.226. It also demonstrates the effect of financial attitude on financial behavior is significant, with a *t*-statistic value of 3.045 (greater than 1.96), and has positive direction with beta coefficient of 0.272. Lastly, the effect of locus of control on financial behavior is significant, with a *t*-statistic value of 2.774 (greater than 1.96), and has a positive direction with beta coefficient of 0.344. The coefficient of determination (R-square) shows that FA, FL and LOC can be used simultaneously to explain FB by 44.32%. It indicates that the research model is appropriate to be used in understanding factors determining financial behavior of low-income Muslim group in West Hadimulyo, Metro City.

The coefficient of determination (R-square) shows that FA, FL and LOC can be used simultaneously to explain FB. It indicates that the research model is appropriate to be used in understanding factors determining financial behavior of middle-low income segment. This study took the sample of 150 respondents who were categorized as middle-low income Muslim group who resided in the suburb area of Metro City, Sumatera, Indonesia. The test results show that all independent variables have a significant effect on the dependent variable (financial behavior). The effect of Islamic financial literacy on financial behavior indicates positive and significant relationship. It shows middle-low income Muslim group has a modest understanding of Islamic financial products and is expected to be more prudent in their financial management. Nevertheless, literacy sits at the lowest position, referring to the Beta-coefficient, in comparison to other variables (FA and LOC). Therefore, despite demonstrating a positive and significant influence on behavior, this middle-low income Muslim group suffers from debt and credit. This finding is in line with (Purwidianti and Tubastuvi, 2019; Allgood and Walstad, 2016) who reported financial literacy has a positive effect on financial behavior.

Financial attitude shows a positive and significant relationship with financial behavior. This study captures that attitude as the determinant affecting financial behavior. Studies by Yap et al. (2018) and Herdjiono et al. (2016) the finding of this study also unveils the positive and significant relationship of locus of control as the most affecting variables towards financial behavior. Financial attitude is a state of mind, opinion, and someone's assessment of personal finances where behavior is generally influenced by the environment and social interactions (Budiono, 2020). His/her thoughts, opinions, and judgments about personal financial situation determine what action he/she could take or attempt. Considering that this study is underwent during a pandemic and economic recession, it can be understood that self-opinion/judgment on personal financial situation is what matter most.

The finding of this study also unveils the positive and significant relationship of locus of control on financial behavior, in line with the study of Dwiastanti (2017). External locus of control affects financial behavior (Thi et al., 2015), for example, if the neighborhood did not exercise savings, thus it would make him/her do not prioritize savings. This finding implies that a member of the group will see his/her peer and neighbors as the reference before deciding upon financial matter.

Considering that this study is conducted during a pandemic and economic recession, it becomes more apparent that improving financial literacy for the middle-low income group is not sufficient. Pandemic and economic recession impair the efficacy of knowledge on one's decision on financial strategies. The logic is that a rational individual would decide upon their knowledge, and not by the locus of control. However, by demonstrating that locus of control is the most dominant driver and literacy is the least determinant for behavior, the result of this study confirms that people from this group tend to be less rationale in managing and making strategies.

The effect of the "less rationality" on financial behavior is often underrated. At the moment of crisis, less rationality tends to force this group into a vicious debt cycle that might jeopardize this group economic position once economic is restarted. The middle-low income Muslim group who are now forced to take loans from moneylenders in order to survive, must serve the interest payment to capital owners afterwards. In another words, an outflow of cash from this group consumption in the form of interest payment is expected. This situation would give a sluggish recovery, if government and policy makers did not take any actions now on correcting the capital accumulation problems.

4. Conclusion

The finding of this study demonstrates that locus of control, financial attitude, and Islamic financial literacy, have positive and significant effect to financial behavior, in that sequenced-order. It shows that during a crisis, middle-income Muslim group demonstrates a distinct characteristic that locus of control matters most in terms of his/her financial decision, followed by self-opinion, and knowledge on Islamic financial instruments

The fact that this community understands financial products, the attitude and locus of control play significant and positive role in shaping financial behavior. It explains the debt trap phenomena that this segment still looks upon subjective personal judgment and behavior of others before deciding to take a loan either from the financial institution or money lenders. In particular, during a difficult situation or crisis, this group of people is prone to accept loan. This fact could justify the reason as to why the group is indebted and thus is vulnerable prey of loan sharks. It suggests that improving financial knowledge is the key to shape a better and more responsible financial behavior of middle-low income Muslim group.

This study suggests at least one policy recommendation. That is, for government and policy makers to examine and to set up a mechanism based on Islamic financial structures that are potential to absorb/ameliorate the risks of middle-low income Muslim group, while also undertaking a series of financial literacy programs to enhance and to enforce people's knowledge on financial instruments and its social implications. Islamic financial structures, such as *zakat*, *infaq*/*sadaqah*, and *waqf*, among others, are instruments of redistribution that are trusted to improve the current capital accumulation problem.

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Appendix 1. Pilot Study

	FA	FB	FL	LOC	Note
FL.1			0.6234		Valid
FL.2			0.4958		Invalid
FL.3			0.4955		Invalid
FL.4			0.6931		Valid
FL.5			0.6469		Valid
FL.6			0.6760		Valid
FA.1	0.8203				Valid
FA.2	0.7217				Valid
FA.3	0.8171				Valid
FA.4	0.4948				Invalid
LOC.1				0.6160	Valid
LOC.2				0.5774	Valid
LOC.3				0.7242	Valid
LOC.4				0.8679	Valid
FB.1		0.5875			Valid
FB.2		0.6652			Valid
FB.3		0.6213			Valid
FB.4		0.5459			Valid
FB.5		0.5571			Valid
FB.6		0.5247			Valid
FB.7		0.5801			Valid