The Effect of Financial Literacy on Malang District Society’s Financial Behavior

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Abstract

This study aims to analyze the effect of financial literacy on financial behavior in the community in Malang district. The design and approach used is the mix method. The data used in this study are primary in the form of literacy and financial behavior of the public, and secondary data in the form of financial institution information in the Malang Regency. Samples of farmers in 33 districts were selected using Multi Stage Random Sampling. Data was collected by observing, interviewing and distributing questionnaires. The result showed that the interaction between financial literacy and financial institution significantly affects financial behavior. Financial literacy is to have the ability and knowledge of concept and risk, and skill to make more effective decision in finance individually, in a family, and in society. The financial institution would help the society to know how to come into decision in managing their finance. It would change the society's behavior from having lack of knowledge, ability, and belief in financial products and services to having them comprehensively, including knowing features, risks, and advantages of financial products and services. Additionally, it is expected that the society would have ability in using the financial products and services.

Keywords: Financial Literacy, Finance Behavior, Financial Institution

JEL Classification: D43, L12, G32
INTRODUCTION

To grow the economy, we need a support from Financial Institution or finance sector that could help to bridge society’s needs and financial management. In economic system, the main role of Financial Institution is as a intermediation function that are giving back the fund gathered from the society to real business sectors to make the society’s business grow. In other words, through intermediation function, financial sector should be an agent to advance the economic establishment and growth that would increase the society’s welfare.

In Indonesia, until 2017, there were 116 commercial banks and 1,600 rural banks. Insurance companies have grown significantly, but not as high as the growth of banking companies. In the same year, there were 312 insurance companies. Now, it turns to 383 companies, consisting of 149 insurance and reinsurance companies, and 234 insurance support companies (www.bi.go.id). Financial Institution, bank or non-bank, in a small or large scale, would be redundant when there is no society's understanding on their functions and advantages. Without this understanding, Financial Institution is not able to work optimally.

To reach this understanding, we could educate them well. It is important since their understanding on Financial Institution is one of factors to advance the economic establishment that is by having good human resources. Knowledge on finance should be mastered by the society as they should have an ability to manage personal or family finance for their future. The society should understand about Financial Institution and finance products that are advantageous for managing their daily finance and financial planning for their future.

LITERATURE REVIEW

Financial behavior and financial literacy

Behavioral finance is a study concerning on how psychological phenomena affects financial behavior (Shefrin, 2000). Financial behavior focuses on how humans behave in a financial decision (Nofsinger, 2001). In the last two decades, behavioral finance theory has added some new aspects to the study of financial market by inserting psychological factors into finance and economy. Behavioral finance has been set as a new branch of theory by combining psychology, sociology, and other social sciences.

Financial behavior investigates the aspect of interaction in humans’ mind that must face the uncertainty in making financial decision. Financial
behavior is considered relatively easier to explain why an individual makes the decision while finding difficulty in measuring the effect of that decision to him/her. Financial behavior studies the effect of social, cognitive, and emotional factors in individual and institutional financial decisions as well as their consequences to resource allocation. The financial behavior does not focus on the decision maker’s characteristic, but non-equilibrium process that is the various actions done by agent with minimum rationality that might come from life experience and interaction with the surrounding.

**Literacy of the use of fund and source of expenditure**

To gain financial independence, everyone should have knowledge and a healthy personal financial practice. How deep someone's knowledge and how good someone's financial practice is called financial literacy. The degree of financial literacy depends on how far someone could make use of financial resource, determine source of expenditure, treat the risk of the asset, and prepare the security of financial resource that come in the future when he/she does not work or has been retired.

Financial literacy is important. Nevertheless, there are some worries on other factors of financial behavior, like materialism, the decision of asset buying, compulsive buying, and the tendency of being in debt. A research by Potrich and Vieira (2018) shows that financial literacy has the biggest influence to compulsive buying and has great effect to other behaviors. Thus, the more literate someone is, the more he/she has control over negative financial behavior and turn to productive financial behavior.

Financial Management Behavior is the ability of managing daily living cost. There are three important things in the practice of financial management: a) consumption, a household expense covering goods and services (Mankiw, 2003) b) savings, saving some household incomes and intending that not for consumption for certain periods of time (Case, 2007) and c) Investment, the allocation of resources owned today for advantages gained in tomorrow (Henry, 2009). Financial management emerges as a result of great eagerness of fulfilling the needs.

**Financial Inclusion in Fulfilling the Society’s Needs through Financial House**

*Strategi Nasional Literasi Keuangan Indonesia (SNLKI) 2013* has one pillar related to financial inclusion that is the development of financial products and services. This development is an effort to escalate the society's access by providing financial products and services suitable for their abilities and
needs. The effort of increasing financial inclusion does not only cover the
development of financial products and services, but also cover other four
financial inclusion elements that are the expansion of financial access, the
availability of financial products and services, the use of financial products
and services, and the increase of quality in the use of financial products and
services as well as quality of the financial products or services.

It is supported by some definitions of financial inclusion from some
sources. Sarma (2008) defines financial inclusion as the process of
ensuring the easy access, availability, and use of formal financial system
used by the society as economic members. Consultative Group to Assist the
Poor (CGAP, 2016) explains that financial inclusion is an access for
household and business to an effective use of financial products and
services. The availability of financial products and services should be
sustainable and well-regulated.

Center for Financial Inclusion (CFI, 2016) states that financial
inclusion is as an access to suitable financial products, including credit,
savings, insurance, and payment. Additionally, it is also a qualified access
to convenient, affordability, suitability, and consumer protection. Their
availability is for everyone. Besides, the society is expected to have
information and be able to make good decision in financial management.
CFI also suggests the importance of various providers of services, and
competitive market with strong infrastructure and clear regulatory
framework.

METHODS

Research Design

This research used descriptive quantitative design that described a
phenomenon focusing on examining theories through variables in
numbers and analyzing data by using statistical procedure and mathematic
modeling.

Location

The research conducted in Malang District that has 33 sub-districts. Among
the 33 sub-districts, three of which are closer to Malang city are chosen as
the place where the research was conducted. They were Kepanjen,
Tumpang, and Wagir sub-districts.
Data Collection and Data Resources

The data used in this research were divided into primary data and secondary data. The primary data is the depiction of the society’s financial literacy and behavior, while the secondary data were information from Financial institution located in Malang District. The data collection method used in this research was survey research. The primary data were obtained by doing observation, conducting interview, and distributing questionnaires. The secondary data were obtained from Badan Pusat Statistik (BPS), Malang District, 2018, that could be accessed from www.Malangkab.bps.go.id.

Population and Research Sample

The population in this research was sub-district in Malang District. Based on www.Malangkab.go.id, there have been 33 sub-districts in Malang District since 2018. Research sample was obtained by using Multi Stage Random Sampling method that is done gradually based on working area division in an administration. In this case, the number of districts/cities, sub-districts, urban villages, villages, hamlets, and neighborhoods.

This method is useful for some great populations (more than 100). The sample collection was not done in all sub-districts that is why the researcher used purposive sampling technique that is based on criteria owned by the sub-districts. The criteria were the highest population density and in the sub-urban area of Malang city. From these criteria, the sub-districts chosen were Kepanjen, Tumpang, and Wagir sub-districts.

Analysis Tool

Moderation regression analysis is the analysis on causal and effect that involves moderation variables in term of the relation of all variables presented in the research (Solimun, et.al, 2018). Moderation variable is the variable that influences the direction and/or the strength of independent and dependent variables relation (Thompson, 2006). The effect of moderation variable is actually the effect of new variable constructed by the researcher by multiplying the score of independent variable and the score of moderation variable. (Creswell, 2014).

The moderation variable of this research is Financial Institution. The Financial Institution, in this research, is assumed to be the moderation variable that is able to influence the direction and/or the strength of
financial literacy variable in influencing financial behavior. The equation model of moderation regression in this research is:

\[
\text{Financial Behavior} = \beta_0 + \beta_1 \text{Financial Literacy} + \beta_2 \text{Financial Institution} + \beta_3 \text{Financial Literacy} \times \text{Financial Institution} + \epsilon
\]

**RESULTS**

*The Level of Knowledge (Financial Literacy) of Malang District Society*

The description of financial literacy variable showed the difference of financial literacy of Malang District society based on type of work, income, and level of education factors. The result was presented in a form description of questionnaire answers and interview to the respondents. The respondents or the research object were farmers in Wagir, Tumpang and Kepanjen sub-districts. The data presented in a table of level of financial literacy of Malang District is as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>84</td>
<td>84%</td>
</tr>
<tr>
<td>Medium</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>High</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: processed data

Table 1 showed that the level of society financial literacy was low that was 84 percent or 84 people in number. The cause was they did not understand about the advantages of doing simple financial planning. They were not interested to invest, too. It was because they felt that it was enough for them to have fields as a support to get income even though it was unstable. They did not know specifically about the advantages of having financial records, saving money, investing or having insurance.

*The Performance of Household Financial Management of Malang District Society*

In the description of household financial management of Malang District society, there were factors, like saving money, saving money in the bank, and investment. The respondents were Malang District society in three sub-districts, Wagir, Tumpang, and Kepanjen sub-districts, that most of them were farmers. The data were presented in a table of performance of household financial management in Malang District society is as follows:
Table 2. The Level of Household Financial Management of Malang District Society

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Medium</td>
<td>72</td>
<td>72%</td>
</tr>
<tr>
<td>High</td>
<td>22</td>
<td>22%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: processed data

Based on Table 2, it was known that household financial management of Malang District society was medium that was 72% or 72 people had done household financial management quite well. It is because most of them had investment although it was not financial investment. The investment was in the form of land, livestock, and few had savings in bank as they thought that the good insurance for their future was that that were able to use daily.

DISCUSSION

The Test Result of Classical Assumption

The test of regression model assumption covers the test of normality and heteroscedasticity assumptions on regression equation model that is the effect of independent variable to dependent variable that is moderated by moderator variable. The equation of moderation regression model is as follows:

\[ \text{Financial Behavior} = \beta_0 + \beta_1 \text{Financial Literacy} + \beta_2 \text{Financial Institution} + \beta_3 \text{Financial Literacy} \times \text{Financial Institution} + e \]

The Result of Normality Test

In moderator regression analysis, the data used must be the one that has normal distribution. To test this assumption, residual plot is carefully observed. If residual scores spread close to prediction line (p-p plot), the data would spread normally. Otherwise, if residual scores spread far from prediction line and were uneven, the data would not spread normally.
Based on the test using p-p plot in the residual of moderation regression model, it was found that residual plot was around prediction line, so the data spread normally. Thus, normality assumption was fulfilled either in equation of model 1 regression or model 2 regression.

The Result of Heteroscedasticity

This test aimed to test what residual variants of this regression model were. A good regression model is the one that has various residual that are not too big (has homoscedasticity characteristic). The way how to test homoscedasticity is by noticing the plot between the prediction score dependent variable (ZPRED) with its residual (SDRESID). If there were certain patterns, like dots shaping even certain patterns (wavy, widen to narrowed down), heteroscedasticity would occur (the assumption is not fulfilled). Meanwhile, if there were no clear pattern and spread above and below 0 number in Y axis, heteroscedasticity would not occur (the assumption is not fulfilled).
In the scatterplot in figure 2, dots spread randomly. Thus, heteroscedasticity does not occur and the assumption is fulfilled.

The Result of Moderator Regression Analysis

In this research, the researcher would examine the effect of Financial Literacy (X) to Financial Behavior (Y) with Financial Institution (M) as moderation variable. Thus, moderation regression analysis is done among Financial Literacy (X), Financial Behavior (Y), and Financial Institution (M), as moderation variable. From the analysis, the result obtained is as follows:

**Table 3. The Summary of the Result of Moderator Regression Analysis**

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>t</th>
<th>Significance</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Constant</td>
<td>5.993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>-0.147</td>
<td>-0.876</td>
<td>0.382</td>
<td>Not Significant</td>
</tr>
<tr>
<td>M</td>
<td>-0.697</td>
<td>-0.854</td>
<td>0.394</td>
<td>Not Significant</td>
</tr>
<tr>
<td>X*M</td>
<td>0.199</td>
<td>2.024</td>
<td>0.044</td>
<td>Significant</td>
</tr>
<tr>
<td>α : 0.050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>0.092</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. F</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R : 0.303</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Calculate</td>
<td>13.351</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-Calculated</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 3, the equation of moderator regression obtained is as follows:

\[
Y = 5.993 - 0.147 X - 0.697 M + 0.199 X*M
\]

Based on the result of regression analysis, in multiple linear regression analysis, coefficient of determination (R2) obtained it has a linearity with the previous research was 0.092%. It showed the percentage of the effect of independent variable (Financial Literacy (X)) with the presence of moderation variable, Financial Institution (M) that described 9.2% of the Finance Behavior (Y) variety. Meanwhile, the rest that is 90.8% was described by other factors not explained in this research. It has a different result from previous research by Potrich and Vieira (2018).

Viewed from the description of the characteristics of the respondents, the people in Malang district have a medium level of lottery which tends to be low, this can be seen from the view of the people who think that financial knowledge for them is sufficient only about how to
manage their income and the outcome of their income. As long as it is deemed able to meet family needs, financial management activities are deemed unnecessary.

CONCLUSIONS

From the result of this research, it could be concluded:

1. Financial Literacy does not significantly affect Financial Behavior. Financial knowledge Malang district community does not always indicate his/her behavior in making financial decision. Financial behavior is related to how someone treats, manages, and uses financial resources he/she owns.

2. Financial Institution does not significantly affect Finance Behavior. Financial Institution would not contribute a lot when the society do not know about the functions and advantages of Financial Institution. Whether or not Financial Institution exists, it would not give direct effect to the individual when he/she does not have eagerness in understanding financial behavior. Without the society’s understanding, Financial Institution would not work optimally.

3. The interaction between Financial Literacy and Financial Institution significantly affect Financial Behavior. Financial literacy covers the ability and knowledge on concept, risk, and skill to make effective financial decision individually, in family and society scales. Financial Institution helps the society to be well-informed of how to make decisions in relation to financial management. It turns the society to be well-informed, able, and have a belief in relation to financial products and services covering their features and risks, and the investor’s rights and duties. Additionally, it changes the society to have ability in using financial products and services.

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