The Role of Financial Self Efficacy in Moderating Relationships Financial Literacy and Financial Management Behavior

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ABSTRACT

This study aims to determine the effect of financial literacy on financial management behavior moderated by financial self-efficacy. The population in this study are all employees who work at BPJS Ketenagakerjaan Purwokerto. Sample selection is based on a simple random sampling method. The data used in this study were analyzed using Moderated Regression Analysis and performed with SPSS software. The results showed that financial literacy has a positive effect on financial management behavior. The results of the study also indicate financial self-efficacy moderates the relationship between financial literacy and financial management behavior.

Keywords : financial literacy, financial self-efficacy, financial management behavior.

1. Introduction

Everyone is required to have sufficient skills and knowledge to manage their finances and wealth. An individual who daily struggles with economic problems will most likely have more knowledge about finances and can make the right decisions on the financial resources he has to get the desired results.

Hilgert (2003) explains that a person's financial behavior will see how well a person manages savings and other expenses. Nababan and Sadalia (2012) suggest that behavioral indicators of financial management, in general, are behavior such as paying bills on time, making expenditure and expenditure budgets, recording expenses and expenditures, providing funds for unexpected expenses, saving periodically and comparing prices between stores.

Grohman (2018) found that in the middle class of developing countries in Asia, many goods financial products but not followed by a good knowledge of these products. The results of Grohman's (2018) research show that financially literate individuals are more likely to have assets such as savings accounts, fixed deposit accounts, and insurance. The results also show that middle-class respondents who have higher financial literacy tend to use a variety of financial services offered to them. Finally, there is a causal relationship between financial literacy to financial management behavior.

In other studies, Herdjiono and Damanik (2016) found that financial knowledge did no effect on financial management behavior. In line with Zahriyan (2016), someone who examined financial literacy does not have a significant influence on financial management behavior.
Self-efficacy can be manifest through various elements of personal behavior, such as how well a person survives adversity, whether they have an optimistic or pessimistic attitude about their future, and whether they think independently or weaken themselves. The social learning theory introduces by Bandura (1994) states that in the context of personal financial management, that individuals who have greater self-efficacy in financial management will see financial crises as challenges rather than obstacles. In line with the results of Farrell's (2015) research, it shows that financial self-efficacy has a positive influence on personal financial management behavior and is independently identify from factors of financial literacy. Higher financial self-efficacy is associated with investment and savings products, while lower financial self-efficacy is associate with debt-related products.

These aspects of financial attitudes and behavior provide the view that financial literacy is not only about knowing, being skilled in utilizing, and believing in financial product and service institutions, but also regarding the importance of changing one's attitudes and behavior to live more prosperously. The reason why there is a need for financial attitudes and behavior in financial literacy is that relying only on knowledge alone will not be able to change a person's behavior if they do not have the appropriate attitude and motivation.

BPJS Ketenagakerjaan is an employment social security administration as a public legal entity that is tasking with protecting all workers through 4 employment social security programs. BPJS Ketenagakerjaan Purwokerto employees certainly understand a variety of social security, but not necessarily all of them understanding other personal financial products such as insurance, deposits, investment instruments in the money market and capital markets as well as pension planning managed by private companies in Indonesia. Meanwhile, working in an institution that manages social security is closely related to cooperation with the government, private companies, banks, and other financial service companies as stakeholders. With this relationship, employees should have easy access to information on financial products, but not a few employees do not have confidence in managing personal finances in various financial instruments.

Based on the research gap and the phenomenon in BPJS Ketenagakerjaan Purwokerto, this study focuses on the financial literacy level of BPJS Ketenagakerjaan Purwokerto employees and self-confidence in individual financial management behavior. The research aims to find empirical evidence of the effect of financial literacy on financial management behavior moderated by the financial self-efficacy of BPJS Ketenagakerjaan employees in Purwokerto.

2. Literature Review

Having financial literacy is necessary to have a prosperous life. Proper right financial management behavior supported by high financial literacy, is expected to increase the standard of living. According to OJK (2013), financial literacy is a series of processes or activities to increase the knowledge, confidence, and skills of consumers and the public so that they can manage finances properly.

Lusardi (2010) defines financial literacy as knowledge of the basic concepts of finance, including compound interest, differences in nominal and real value, risk diversification, the time value of money, and others. Chen and Volpe (1998) found that low financial literacy in managing finances will limit the ability to make financial decisions. The results of Grohman's (2018) research show that there is a positive relationship between the level of financial literacy and financial management behavior in middle-class people in developing countries in Asia. The results of research by Mandell and Klein (2009) found that financial literacy has a positive effect on financial management behavior.

Based on the explanation above, the hypothesis is:
H_1 : Financial literacy has a positive effect on financial management behavior.

In the social learning theory first introduced by Albert Bandura (1977), self-efficacy is an individual's belief in their ability to organize and carry out an action to display any skills.

Farrell (2016), explains that higher financial self-efficacy is associated with investment and savings products, while lower financial self-efficacy is associated with debt products. The results of his research show that financial self-efficacy has a positive influence on personal financial management behavior. Singh (2019) found that a high level of financial self-efficacy affects financial management behavior. The results of research by Amagir (2018), Arofah (2019) found that financial literacy and financial self-efficacy have a positive and significant effect on financial management behavior.

Based on the explanation above, the hypothesis is:
H_2 : Financial self-efficacy has a positive effect on financial management behavior.

Financial management behavior is also influenced by financial self-efficacy, which refers to the perceived ability of individuals to manage their finances. Lusardi (2010) explained that financial knowledge helps someone to plan better financial decisions, understand their rights and responsibilities as consumers of financial products, and be better able to manage risks.

According to Brandon and Smith (2009), financial self-efficacy is a positive belief in the ability to use financial knowledge to manage money. The results of his research, the better the financial self-efficacy of the knowledge they have, the better it is to use money properly so that the resulting behavior will be better.

Budiarto's (2018) research results explain that financial attitudes, financial literacy, and income have a significant influence on financial management behavior. Demirhan (2019) also found that financial literacy and belief in financial self-efficacy affect financial management behavior.

Based on the explanation above, the hypothesis is:
H_3 : Financial self-efficacy moderates the influence of financial literacy on financial management behavior

The research design model has illustrated in Figure 1.

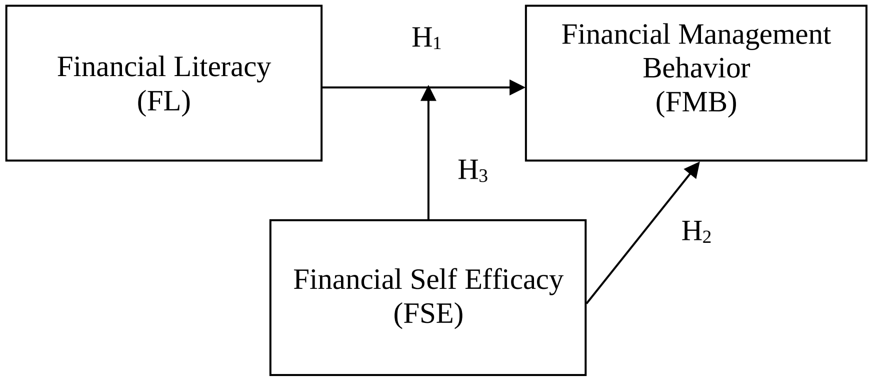

Figure 1. Research Model

3. Research Methodology

The research was conduct on BPJS Ketenagakerjaan employees in Purwokerto. Respondents of 35 employees were randomly selected using a simple random sampling technique. The unit analysis used is the employee. The questionnaire used in the study has a 5-point Likert scale, where scale one strongly disagrees, and scale five strongest agrees.

The measuring instrument used was adopt from Chen and Volpe (1998) that used 4 FL items; Bandura (1997) uses 3 FSE items; Xiao and Dew (2011) used 4 FMB items. FL as the independent variable, FMB as the dependent variable, and FSE as the moderator variable. Multiple linear regression analysis uses to determine the effect of FL and FSE on FMB. Moderated regression analysis used to know the role of FSE in moderates the relationship between FL and FMB. The t-test and the coefficient of determination used to test the effect between variables.

4. Results

4.1 Reliability and validity analysis

The principle of measuring reliability uses one shot and measure the correlation between the answers to the questions. A construct is said to be reliable if the Cronbach Alpha $\alpha > 0.70$. Table 1 shows that this model has met the reliability test.

Table 1. Reliability Test Results

	Cronbach's Alpha	**N of Items**
X	0,708	11
Z	0,858	8
Y	0,742	15

The validity test is measuring the bivariate correlation between each indicator score and the total construct score. A construct is said to be valid if the Pearson correlation > r table is 0.3120. Table 2 shows that this model has met the validity test.

Table 2. Validity Test Results

Person Correlation	**X.1**	**X.2**	**X.3**	**X.4**	**X.5**	**X.6**	**X.7**	**X.8**	**X.9**	**X.10**	**X.11**				
Financial Literacy (X)	,476	,489	,361	,531	,561	,603	,485	,465	,370	,617	,655				
Financial Self Efficacy (Z)	**Z.1**	**Z.2**	**Z.3**	**Z.4**	**Z.5**	**Z.6**	**Z.7**	**Z.8**							
	,500	,809	,787	,821	,629	,672	,818	,659							
Financial Management Behavior (Y)	**Y.1**	**Y.2**	**Y.2**	**Y.3**	**Y.5**	**Y.6**	**Y.7**	**Y.8**	**Y.9**	**Y.10**	**Y.11**	**Y.12**	**Y.13**	**Y.14**	**Y.15**
	,588	,674	,410	,364	,470	,395	,497	,525	,657	,581	,406	,321	,572	,336	,497

4.2 Ordinary Least Square

4.2.1 Normality test

The regression model said to normality distribute if the plotting data (dots) that describe the actual data follows a diagonal line. Figure 2 shows that the regression model is normality distribute so that it has met the normality test.

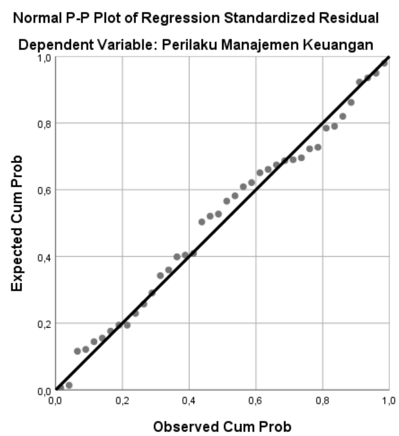

Figure 2. Normality test

4.2.2 Multicollinearity test

Multicollinearity can see from the tolerance value and variance inflation factor (VIF). There is no multicollinearity symptom if the Tolerance value > 0.10 and the VIF value < 10. Table 3 shows that this model has met the multicollinearity test.

Table 3. Multicollinearity Test of Independent Variables

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Collinearity Statistics**	
		B	**Std. Error**	**Beta**			**Tolerance**	**VIF**
1	(Constant)	-18,516	14,816		-1,250	,220		

	Financial Literacy	1,054	,180	,672	5,843	,000	,912	1,096
	Financial Self Efficacy	,913	,422	,249	2,165	,038	,912	1,096
a. Dependent Variable: Financial Management Behavior								

4.2.3 Heteroscedasticity test

There is no heteroscedasticity if there is no clear pattern (wavy, widened and narrowed) in the scatterplots image, and the dots spread above and below the number 0 on the Y-axis. Figure 4 shows that this model has met the heteroscedasticity test.

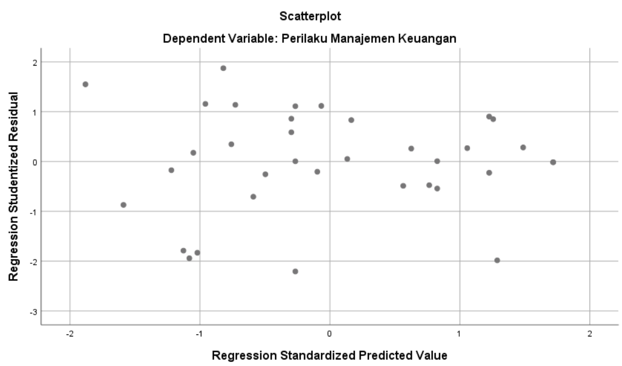

Figure 2. Scatterplots Heteroscedasticity Test

4.2.4 Autocorrelation test

There is no autocorrelation symptom if the Durbin Watson score is between du to (4-du). At the 5% significance level, the value of du = 1.6528. Table 4 shows that the Durbin Watson value is 2.194 and fulfills the decision "no autocorrelation" where du < DW < (4-dU) or 1.6528<2.1940<2.3411.

Table 4. Autocorrelation Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,783[a]	,613	,589	3,740	2,194

a. Predictors: (Constant), Financial Self Efficacy, Financial Literacy

b. Dependent Variable: Financial Management Behavior

4.3 Moderated Regression Analysis

To show the effect of financial literacy and financial self-efficacy on financial management behavior is carried out multiple linear regression analysis with the following equation:

$$FMB = \propto + \beta 1FL + \beta 2FSE + \varepsilon$$

Table 5. Multiple Linear Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-18,516	14,816		-1,250	,220
	Financial Literacy	1,054	,180	,672	5,843	,000
	Financial Self Efficacy	,913	,422	,249	2,165	,038

a. Dependent Variable: Financial Management Behavior

The results showed that there was a positive influence between financial literacy on financial management behavior with a significance value of the LK variable on PMK of 0.000 < 0.050. Table 5 shows that the first hypothesis is accepted. The results of this study are in line with Grohman (2018) show that there is a positive relationship between the level of financial literacy and financial behavior in middle-class people in developing countries in Asia. When someone has goods financially competent, they tend to manage well their savings, personal assets, and expenses.

The results also show that there is a positive influence between financial self-efficacy on financial management behavior with a significance value of the FSE variable on PMK of 0.038<0.050. Table 5 shows that the second hypothesis is accepted. The results of this study are in line with Farrel's (2016) research shows that financial self-efficacy has a positive influence on personal financial management behavior. Singh (2019) found that a high level of financial self-efficacy affects financial management behavior. Someone with confidence in their financially competent will be more confident in seeing obstacles as challenges and have an optimistic attitude in every financial decision making.

Then to show the role of financial self-efficacy in moderating the influence of financial literacy on financial management behavior, a Moderated Regression Analysis with the following equation:

$$\mathrm{FMB} = \propto + \beta 1\mathrm{FL} + \beta 2\mathrm{FSE} + \beta 3\mathrm{FL} * \mathrm{FSE} + \varepsilon$$

Table 6. Moderated Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	43,401	28,905		1,502	,143
	Financial Literacy	-,223	,551	-,143	-,406	,688
	Financial Self Efficacy	-,819	,812	-,223	-1,009	,321
	Financial Literacy * Financial Self Efficacy	,036	,015	1,085	2,437	,021

a. Dependent Variable: Financial Management Behavior

The results of the interaction test show that financial self-efficacy moderates the relationship between financial literacy and financial management behavior with a significance value of 0.021<0.050. Table 6 shows that the third hypothesis is accepted, so it can conclude that the financial self-efficacy variable is a moderator variable. The results of this study are in line with Budiarto (2018) explaining that attitudes, financial literacy, and income have a significant influence on financial management behavior. Demirhan (2019) also found that financial literacy and belief in financial self-efficacy affect financial management behavior.

Table 7. Coefficient of Determination

Before Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,783[a]	,613	,589	3,740

a. Predictors: (Constant), Financial Self Efficacy, Financial Literacy

After Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,822[a]	,676	,644	3,480

a. Predictors: (Constant), Financial Literacy * Financial Self Efficacy, Financial Self Efficacy, Financial Literacy

Table 7 shows that financial literacy and financial self-efficacy have a positive effect on financial management behavior. The contribution value of 58.9% and the rest is influence by other factors. From the results of the interaction test above, the correlation coefficient (R) is 0.822, which means that the resulting correlation is strongest. The coefficient of determination (R2) is 0.644 means that the variable financial management behavior is influence by financial literacy, financial self-efficacy, and interactions between financial literacy and financial self-efficacy of 64.4%. The result shows that the financial self-efficacy variable strengthens the relationship between financial literacy and financial management behavior.

5. Discussion

This study found that there is a positive relationship between financial literacy (FL) and financial management behavior (FMB). The results of this study are in line with the research of Grohman (2018) and Mandel and Klein (2009). Financial self-efficacy (FSE) has a positive and significant effect on financial management behavior (FMB). The results of this study support the research of Singh (2019) and Amagir (2018). The results of this study indicate that financial self-efficacy (FSE) is a moderating variable for the relationship between financial literacy (FL) and financial management behavior (FMB).

6. Conclusion

From the results of this study, it can seem that financial literacy influences financial management behavior, as well as financial self-efficacy, affects financial management behavior. The results also show the influence of the interaction between financial literacy and financial self-efficacy as a moderating variable on financial management behavior. This result also seems that with high financial literacy, someone can perform effective financial management behavior. Furthermore, a person with confidence in one's competence can form-wise financial management behavior through skills and self-confidence in making financial decisions.

The limitation of this study is that there are similarities in several questionnaires that direct respondents to provide ambiguous answers the moderator variable is an element of psychology and the number of populations of all ages. Further research recommended using variables other than psychological factors to produce a dominant effect in the application of financial management tools, expand the study population, and avoid questions that are similar to one another.

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