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## DESCRIPTIVE OF QUANTITATIVE DATA | RESEARCH ARTICLE

## The Effect of Financial Education on Increasing Financial Literacy

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**Abstract:** That financial literacy is part of economic literacy that is important to develop through educational activities. Financial literacy is very important especially for individuals because this financial aspect is a determinant in finding individual life needs. although there are still individuals who have not implemented good financial literacy in their lives. As is the case with students of SMK Negeri 1 Tugala Oyo which is one of the vocational schools in Tugala Oyo District, North Nias Regency. This study aims to determine how much influence Financial Education has on improving Financial Literacy at SMK N 1 Tugala Oyo, North Nias Regency. This study uses a quantitative method, respondents are students of SMK Negeri 1 Tugala Oyo as many as 65 people, where researchers collect data using questionnaires, then conduct validity studies, and data reliability tests, correlation coefficients, classical assumption tests (normality test, multicollinearity test, heteroscedasticity test), simple linear regression, coefficient of determination, and t-test. The results of the study showed that the influence of financial education on increasing financial literacy at SMK Negeri 1 Tugala Oyo was 22.4% and 77.6% was influenced by other factors that were not influenced by this study

**Keywords:** Financial Education, Financial Literacy.

### 1. INTRODUCTION

Indonesia, as a part of Southeast Asia, is still classified as a developing country, with a significant gap in understanding effective financial management. The younger generation in Indonesia is increasingly engaging in activities that tend to be more consumptive. A critical concern is the need for the younger generation to manage their finances effectively, rather than indulging in excessive consumption. To address this, the government has appointed the Financial Services Authority (OJK) as a state institution responsible for providing financial literacy. According to the OJK, financial literacy involves a series of processes or activities aimed at enhancing the knowledge, skills, and confidence of consumers and the broader community, enabling them to manage personal finances effectively. Tohani (2018) asserts that financial literacy is a crucial component of economic literacy, which should be developed through educational activities. To foster good financial literacy, financial education is essential. Financial education is defined as a process or effort to improve individuals' knowledge, understanding, and skills in managing their finances. Rapih (2016) describes financial education as a capability-building process, where individuals enhance their understanding of financial products and concepts through information, instruction, and advice. This process aims to develop skills, confidence, and awareness of financial risks, enabling individuals to make informed financial decisions, understand financial flows, and take alternative actions to improve their welfare.

The relationship between financial literacy and financial education is evident, as financial literacy has become a necessity in daily life, representing the knowledge individuals need to manage their finances. Vocational High Schools (SMK) serve as educational institutions that provide students with knowledge, preparing them for higher education and real-life applications. It is expected that after graduating from SMK, students will possess greater financial literacy and be able to apply it effectively in their lives. However, based on research conducted among students of SMK Negeri 1 Tugala Oyo,

it was found that most students often neglect their finances, resulting in low financial literacy. This leads to greater expenses than income, such as scholarships (KIP) and pocket money from parents. Students tend to spend money on non-essential items rather than saving a portion of their scholarships. This situation arises because students at SMK Negeri 1 Tugala Oyo have not received adequate financial education, resulting in low financial literacy. They lack an understanding of basic financial concepts, such as the difference between savings and debt, and have insufficient knowledge in creating financial budgets. Consequently, students make poor financial decisions and struggle to plan their finances effectively.

Given the issues described, the researcher formulated the following problem statements: (1) Is there an effect of the importance of financial education on improving financial literacy among students of SMK Negeri 1 Tugala Oyo? (2) To what extent does the importance of financial education influence the improvement of financial literacy among students of SMK Negeri 1 Tugala Oyo?. The objectives of this research are: (1) To determine the effect of financial education on improving financial literacy among students of SMK Negeri 1 Tugala Oyo, North Nias Regency. (2) To assess the significance of financial education in enhancing financial literacy among students of SMK Negeri 1 Tugala Oyo, North Nias Regency.

The research findings are expected to be beneficial for various stakeholders. For researchers, this study aligns with the academic requirements for completing their studies at the Faculty of Economics, Nias University. For the Faculty of Economics at Nias University, the research serves as a valuable contribution to the study and knowledge development in financial management, particularly in management study programs. For the research subject, the findings will provide input for the school principal to enhance the effectiveness of learning methods related to financial education and offer training for teachers on integrating financial literacy education at SMK Negeri 1 Tugala Oyo, North Nias Regency. Lastly, the research can serve as a reference for future researchers interested in exploring the impact of financial literacy on financial education among students at vocational high schools (SMK) Negeri 1 Tugala Oyo.

## 2. RESEARCH DESIGN AND METHOD

The type of research used in the study is quantitative research. This study consists of two types of variables, namely financial education (X) and financial literacy (Y). For data collection techniques in this study this researcher used:

- a. Observation can provide objective and accurate data because it is done directly on the object of research. However, it should be noted that sometimes observations can be affected by researcher bias.
- b. Questionnaires can provide extensive data and are easy to process because they can be given to many respondents at once. However, it should be noted that what is obtained can be influenced by factors such as respondent honesty, understanding of statements, and habits to give the same response.

The data collected will be analyzed using statistical methods and regression analysis (quantitative data analysis methods), regression analysis will be used to test the relationship between financial education and financial literacy.

### 2.1. Research Variables

According to Ali (2015) research variables are components that have been determined by researchers to be examined in order to obtain answers that have been formulated in the form of conclusions. Variables are the main component in research, so the variables in this study are the effect

of financial education on increasing financial literacy among vocational high school students (SMK) Negeri 1 Tugala Oyo, North Nias Regency. where the variables used in this study are financial education (X), which is the independent variable and financial literacy (Y), which is the dependent variable, based on the explanation below:

- a. The independent variable (X) in this study is financial education with the following indicators Level of financial education, Participation in financial products, Level of personal financial management, Spending behavior.
- b. The dependent variable (Y) in this study is financial literacy with indicators of basic knowledge of personal finance, financial skills, beliefs about attitudes and behavior, financial management to achieve sustainable financial well-being.

## 2.2. Data Analysis Technique

According to Sugiyono (2019) the research results are valid if there is a similarity between the data collected and the data that actually occurs on the object under study. A valid instrument means that the measuring instrument used to obtain the data is valid. Reliability Test According to Sugiyono (2019) is used to show the level of reliability, accuracy, skill, accuracy and consistency of the indicators in the questionnaire. So that a good research besides having to be valid must also be reliable so that it has accuracy value when tested in different periods.

### a. Correlation Coefficient

According to Sukardi (2018), the correlation coefficient is a study that shows a linear relationship between two variables. The correlation coefficient can be used to measure the strength and direction of the relationship between two variables.

### b. Classical Assumption Test

The classic assumption test is a statistical requirement that must be carried out on the analysis of the data that has been collected. Before conducting a linear regression analysis test on the research hypothesis, it is necessary to first test the classical assumptions that will be processed consisting of 3 parts, namely:

- Normality assumption test. According to Ghazali (2018) the normality test aims to determine whether the confounding or residual variables are normally distributed.
- Multicollinearity test. According to Ghazali (2018) the multicollinearity test aims to test whether the regression model found a correlation between the independent variables.
- Heteroscedasticity Test. According to Ghazali (2018) the Heterokedastisitas test aims to test whether there is an inequality of *variance* from the residuals of one observation to another.

### c. Linear Regression

Simple linear regression is a type of regression analysis used to describe the linear relationship between one dependent variable (Y) and one independent variable (X).

### d. Determinant Coefficient

The coefficient of determination analysis according to Ghazali (2018: 97) is essentially to measure how far the model's ability to explain variations in the dependent variable. The coefficient of determination is used to determine the contribution of variable X to variable Y, also called the determining coefficient which is denoted by KD. So in this study, the coefficient of determination is used to measure the weight of variable X on Y.

*e. Hypothesis Test (t test)*

According to Ghozali (2018) Hypothesis testing is a procedure for making decisions about research hypotheses using data obtained from samples. The t test is used to test the effect of each independent variable partially on the dependent variable.

**3. RESULT AND DISCUSSION***3.1. Statistical Result**a. Validity Test***Table 1. Validity test results (X)**

Variables	Item	r-calculated	r-estimated	p-value	Description
Financial Education	x1	0,497	0,244	0.000	Valid
	x2	0,391	0,244	0,001	
	x3	0,475	0,244	0.000	
	x4	0,277	0,244	0,025	
	x5	0,287	0,244	0.020	
	x6	0.430	0,244	0.000	
	x7	0,315	0,244	0.011	
	x8	0.248	0,244	0.047	
	x9	0,391	0,244	0,001	
	x10	0,03	0,244	0,006	
	x11	0,337	0,244	0,006	
	x12	0,335	0,244	0,006	
	x13	0,248	0,244	0,047	
	x14	0,285	0,244	0.021	
	x15	0,311	0,244	0,012	
	x16	0,263	0,244	0,034	
	x17	0,281	0,244	0,023	
	x18	0,342	0,244	0,005	
	x19	0,307	0,244	0,013	
	x20	0,33	0,244	0,007	
Financial Literacy	Y1	0,597	0,244	0.000	Valid
	Y2	0,374	0,244	0,002	
	Y3	0,311	0,244	0,012	
	Y4	0,523	0,244	0.000	
	Y5	0,403*	0,244	0.001	
	Y6	0,386	0,244	0.002	
	Y7	0,403	0,244	0.001	
	Y8	0,345	0,244	0.005	
	Y9	0,597	0,244	0.000	
	Y10	0,413	0,244	0.001	
	Y11	0,324	0,244	0,008	
	Y12	0,571	0,244	0.000	
	Y13	0,300	0,244	0,015	
	Y14	0,485	0,244	0.000	
	Y15	0,523	0,244	0.000	
	Y16	0,523	0,244	0.000	
	Y17	0,597	0,244	0.000	
	Y18	0,502	0,244	0.000	
	Y19	0,502	0,244	0.000	
	Y20	0,253	0,244	0,042	

From table 1, it is known that the value of  $r$ -calculated on each item is greater than  $r$ -estimated, which is 0.244, so it can be concluded that the X and Y variable statement items are all Valid.

*b. Reliability Test*

**Table 2. Reliability Test (X)**

Reliability Statistics	
Cronbach's Alpha	N of Items
.771	20

The reliability test results in table 2, show that all x variables have Cronbach- alpha values that exceed the 0.60 threshold, which means that all variables can be considered as reliable.

**Table 3. Reliability Test (Y)**

Reliability Statistics	
Cronbach's Alpha	N of Items
.763	20

The reliability test results in table 1, show that all Y variables have Cronbach- alpha values that exceed the 0.60 threshold, which means that all variables can be considered as reliable.

*c. Correlation coefficient*

**Table 4. Correlation t-test**

Correlations			
		financial education (x)	Financial Literacy (Y)
financial education (x)	Pearson Correlation	1	.485**
	Sig. (2-tailed)		.000
	N	65	65
Financial Literacy (Y)	Pearson Correlation	.485**	1
	Sig. (2-tailed)	.000	
	N	65	65

\*\*, Correlation is significant at the 0.01 level (2-tailed).

The correlation between financial education (x) and financial literacy (Y) of 0.485 has a moderate correlation relationship because the degree guidelines are between 0.41 to 0.60.

*d. Normality Test*

In this study, the normality test was carried out through a statistical test using Kolmogorov-Smirnov, with a significance value of more than 0.05 to indicate that the data follows a normal distribution. This can be seen from table 4, where the significant value is  $0.200 > 0.05$ , so the data is normally distributed.

**Table 5. One-Sample Kolmogorov-Smirnov Test**

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		65
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	5.43759573
Most Extreme Differences	Absolute	.094
	Positive	.050
	Negative	-.094
Test Statistic		.094
Asymp. Sig. (2-tailed)		.200 <sup>c,d</sup>

e. *Multicollinearity Test Results*

**Table 6. Multicollinearity test**

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	36.281	7.215		5.029	.000		
	Financial education (x)	.518	.118	.485	4.407	.000	1.000	1.000
a. Dependent Variable: financial literacy (Y)								

From table 6, it can be seen from the VIF value < 10 and tolerance > 0.10. For religious variables or financial education has a tolerance value of 0.1000 and a VIF of 1.000. Based on the above results, it can be seen that the independent variable (Financial Education) is not exposed to multicollinearity problems.

f. *Heteroscedasticity Test Results*

**Table 7. Heteroscedasticity Test**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	14.055	3.791		3.707	.000
	Financial education (x)	-.156	.062	-.304	-2.531	.014
Dependent Variable: ABS_RES						

Based on table 7, it can be concluded that variable X (financial education) does not occur heteroscedasticity because the significant value is 0.014 > 0.05 so that there are no symptoms of heteroscedasticity.

g. *Linear Regression Test Results*

**Table 8. Linear Regression Test**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.281	7.215		5.029	.000
	Financial education (x)	.518	.118	.485	4.407	.000
a. Dependent Variable: financial literacy (Y)						

From the table 8, it explains that the constant value is 36,281 while the value of financial education (X) is 0.518, so the equation can be written as follows:

$$Y = a + bX.$$

$$Y = 36.281 + 0.518 X$$

The equation can be translated as follows:

- The constant of 36.281 means that the consistent value of the financial education variable (x) is 36.281.

- The regression coefficient X 0.518 says that every 1% increase in the value of financial education, the value of financial literacy increases by 0.518, the regression coefficient is positive.

Based on the output of the table above, it is known that the significance value (Sig) of 0.00 is smaller than the probability of 0.05, so it can be concluded that H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, which means that "there is an effect of financial education (X) on financial literacy (Y)".

#### *h. The Result of The Coefficient of Determination Test*

**Table 9. Coefficient of Determination Test Results**

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.485a	.236	.224	5.481
a. Predictors: (Constant), financial education (x)				
b. Dependent Variable: financial literacy (Y)				

Based on the results of the coefficient of determination test in the table 9, the R Square value is 0.224 (22.6%). It can be concluded that the magnitude of the financial education variable on the Financial Literacy variable is large (22.6%).

#### *i. Hypothesis test result*

**Table 10. Hypothesis Test**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.281	7.215		5.029	.000
	Financial Education (X)	.518	.118	.485	4.407	.000
a. Dependent Variable: financial literacy (Y)						

From the table 10, it can be concluded that the significance value of the variable is 0.00 which is smaller than 0.05, so H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, meaning that there is an effect of financial education on financial literacy.

### *3.2. Discussion*

#### *a. The effect of financial education on improving financial literacy among vocational high school students (SMK) Negeri 1 Tugala Oyo, North Nias Regency*

Financial literacy is the knowledge and skills possessed by individuals to manage finances regularly and well. Financial literacy is also a person's ability to read, analyze, manage personal finances that affect welfare. This illustrates that the higher a person's literacy level, the better his saving behavior, because the higher a person's literacy level, the more he understands the importance of saving for the future, and is more familiar with his finances effectively and efficiently. Based on the results of research conducted by researchers with the help of the SPSS version 22 program, it shows that financial education has an effect on increasing financial literacy among vocational high school students (SMK) Negeri 1 Tugala Oyo, North Nias Regency. This can be seen from the data analysis obtained through the t test that has been carried out by researchers by comparing the t count and t table where the sig value is 0.000 < 0.05 and t count 4.407 > t table 1.998, This statement is reinforced by Soetiono (2018) which states that "Financial literacy is an individual's ability to make informed judgments and make effective decisions and about using and managing money.

This is in line with research conducted by I Wawan Yasa Adi Upadana (2020), the results of the study show the influence of financial literacy on student investment decisions. Silviana Veriwati et al (2021), in the results of their research stated that there is a significant influence between financial literacy on the financial management behavior of students of the STKIP economic education study program. When viewed from the correlation count, financial education has a strong relationship with the level of financial literacy. Where the amount of correlation is 0.485% or 48.5%. This is inversely proportional to the research conducted by Arih Wahyu Leksono (2020) where the results of his research prove that there is no insignificant effect of financial education on students of PGRI 4 Jakarta high school students due to the absence of basic financial education when they are still at the primary or secondary level, financial education is only recognized but not contained in the curriculum.

*b. The magnitude of the effect of financial education on increasing financial literacy among vocational high school students (SMK) Negeri 1 Tugala Oyo, North Nias Regency.*

In research conducted on students of SMK Negeri 1 Tugala Oyo, North Nias Regency, researchers needed 65 respondents who participated in providing information through data collection by filling out a questionnaire or questionnaire that had been distributed. The data obtained from respondents through questionnaires has returned to the researcher and then the researcher verifies the data and processes the data with the aim of knowing the validity of each questionnaire data from respondents so that the validity test is proven and declared valid and reliable. The questionnaire statements filled out by respondents were 40 statements divided into 20 financial education variables (X) and 20 financial literacy variable statements (Y).

The test results of this study indicate that financial education has an effect on increasing financial literacy among vocational high school students (SMK) Negeri 1 Tugala Oyo District, North Nias Regency. This can be seen from the analysis of the data obtained through the help of the SPSS version 22 program which shows that the test results of the determinant coefficient of financial education have an effect of 0.224 or 22.4% on increasing financial literacy at SMK Negeri 1 Tugala Oyo, North Nias Regency so that it can be concluded that the effect of the independent variable (financial education) affects the dependent variable (financial literacy) by 22.4%, while the other 77.6% is influenced by other variables not included in this study. These other factors can be in the form of pocket money, peers, age and low student interest in reading financial books so that student awareness of saving is reduced and limited. This is in line with research conducted by Asriana et al. (2023) where the results of his research state that financial management education has an effect on increasing financial literacy for SMA N 7 North Luwa students.

#### 4. CONCLUSIONS

Based on the research results on the effect of financial education on improving financial literacy at SMK Negeri 1 Tugala Oyo, North Nias Regency, it can be concluded that financial education has a significant impact on students' financial literacy, with a t-test value of 4.407, indicating significance greater than 0.05. The influence of financial education on improving financial literacy is 22.6%, with the remaining percentage influenced by other variables not included in the study. Based on these findings, the researcher suggests that future studies incorporate additional independent variables to explore other factors affecting financial literacy. For students or respondents, it is recommended that they manage their finances well and effectively, distinguish between debt and savings, and reduce excessive or consumptive spending. Schools are also encouraged to provide better and more effective materials or lessons to enhance students' financial literacy or improve financial management.

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