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The Influence of Financial Literacy, Financial Behavior, and Income on Investment Decisions (2018 Student Case Study for Management Study Program Universitas Muhammadiyah Sumatera Utara)

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ABSTRACT

An investment decision is to set aside some stages to try to obtain investment returns or profits in the future. One of the factors needed to make an investment is capital or funds. The author's goal is to see the effect of financial literacy, financial behavior, income from decisions on students of the faculty of economics, management study program class of 2018. The number of samples in this study were 84 and using the Slovin formula. The technical analysis in this study uses multiple linear regression analysis, multiple correlation, termination, t test and F test. The results of this study indicate that financial literacy (X1) has a positive and significant effect on entry decisions (Y). Financial behavior (X2) has no effect on successful decisions (Y). Income (X3) has no effect on successful decisions (Y). Financial literacy, financial behavior, income simultaneously have a significant effect on investing decisions (a case study of students of the 2018 class of management study program at the Muhammadiyah University of North Sumatra).

Keywords: Financial Literacy, Behavior, Income, Investment Decisions.

INTRODUCTION

Investment is a sacrifice made in the present with the aim of obtaining greater benefits in the future. One of the factors needed to make an investment is capital or funds. Sources of funds can come from loans or personal funds. In addition to knowledge about finances, income and experience in investing also influence investment decisions, the more income a person has and experience in managing these finances, the better the way of managing his finances for the future by considering the risks that will occur and tolerating these risks. (Asrizal Efendy Nasution, 2019).

Based on the results of a World Bank survey, it shows that the level of financial literacy in Indonesia is only 20%. This is lower than ASEAN countries such as the Philippines at 27%, Malaysia at 66%, Thailand at 73%, and Singapore at 98%. Therefore, financial literacy is very much needed in improving the economy (Murviana Koto, Hastina Febriaty, 2019). Students as the younger generation will not only face increasing complexity in financial products, services, and markets, but they are more likely to have to bear financial risks in the future (Nel Arianty, 2019).

LITERATURE REVIEW

Investation decision

The investment decision is to estimate the expenditure and receipt of money that will be received from the investment in the future (Rambe, M. F., Gunawan, A., Julita, Parlindungan, R., & Gultom, 2017). Or in other words, investment is investment expenditure/expenditure to buy capital goods and production equipment to increase the ability to produce goods and services (Sukirno, 2004).

Investment decisions are spending money at the present time with calculations to obtain net cash inflows in the future. That means that future net cash inflows or cash inflows are uncertain(Julita Julita, 2019). Investment is essentially the placement of a number of funds at this time in the hope of obtaining profits in the future (Halim, 2005).

Financial Literacy

Literacy broadly means practice in social relations related to knowledge, language, and culture which includes how a person communicates in society. People with high levels of financial literacy have the potential to provide higher productivity values (Soetiono, K. S., & Setiawan, 2018).

Financial literacy is a combination of awareness and knowledge of business and finance, financial ability, financial management, and financial planning (Ismanto, H., Widiastuti, A., Muharam, H., Pangestuti, I. R. D., & Rofiq, 2019).

Financial Literacy is defined as knowledge in managing financial management, savings and loans, insurance and investment. The higher a person's level of financial literacy is reflected in financial behavior and wisdom in managing finances effectively (Jufrizen, J., Gunawan, A., Radiman, R., & Sari, 2019).

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Financial Behavior

Behavioral finance is studying how humans actually behave in a financial setting In particular, studying how psychology affects financial decisions, companies, and financial markets (Nofsinger, 2001).

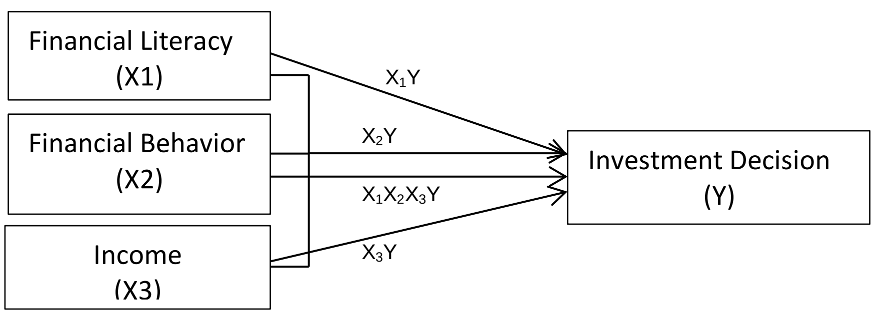
Financial behavior is a study that studies how psychological phenomena affect financial behavior. Thus it can be concluded that psychology is trying to understand how emotions and cognitive storage affect investor behavior (Shefrin, 2000).

Financial behavior relates to one's financial responsibilities related to how to manage finances (Pulungan, 2020). Financial behavior is a person's ability to manage (planning, budgeting, checking, managing, controlling, disbursing and storing) daily financial funds (Nel Arianti, 2016).

Income

Income is a number of results obtained by the community for their work performance in a certain period, either daily, weekly, monthly or yearly (Sukirno, 2006). Income is an increase in company wealth in order to run a normal business (Rudianto, 2009).

Income is the total income (money and not money) of a person or a household in a certain period (Rahardja, 2001). Income is an increase in economic benefits during a certain accounting period in the form of income or an increase in assets or a decrease in liabilities resulting in an increase in equity, which does not come from investment contributions (Soemarso, 2009).



Conceptual Framework Drawing

Hypothesis

The hypotheses in this study are as follows:

1. Financial literacy affects investment decisions
2. Financial behavior affects investment decisions
3. Income influences investment decisions
4. Financial literacy, financial behavior and income simultaneously affect investment decisions.

RESEARCH METHOD

This type of research is survey research, (Sugiyono, 2017) states that "one of the quantitative research methods is the survey method, but the data studied are data from samples taken from the population, to find relative events, distributions, and relationships between sociological and psychological variables".

Variable Operational Definition is an effort made to detect variables related to research problems and to facilitate understanding in research.

1. Validity Test
validity has other names such as sahih, precise, true". Testing validity means testing the extent to which the accuracy or correctness of an instrument as a measuring instrument for research variables (Juliandi, A., Irfan., I., & Manurung, 2015).
2. Reliability Test
It was explained that "reliability has various other names such as trust, reliability, stability. The purpose of reliability testing is to see whether the research instrument is a reliable and trustworthy instrument, so the research results can also have a high level of confidence.

Data analysis technique
1. Normality Test
The normality test of the data was carried out to see whether in the regression model, the dependent and independent variables had a normal distribution or not. If the data spreads around the diagonal line and follows the direction of the diagonal line, the regression model fulfills the assumption of normality (Juliandi, A., Irfan., I., & Manurung, 2015).

2. Multicollinearity Test
This test aims to test whether the regression model found a correlation between the independent variables and the independent variables. A good regression model should be free from multicollinearity tests or there is no correlation between independent variables.

3. Heteroscedasticity Test
Heteroscedasticity is used to test whether in the regression model, there is an inequality of residual variance from another observation. A good model is that there is no heteroscedasticity. If there is no clear pattern, and the points (points) spread below and above the number 0 and the Y axis, then there is no heteroscedasticity".

Multiple linear regression
Regression is a method to determine cause and effect between one variable and other variables. In general, the multiple regression formula is as follows:

$$Y = \beta + \beta 1X1 + \beta 2X2 + \beta 3X3 + e$$

Information:
Y: Investment Decision
X1: Financial Literacy
X2: Financial Behavior
X3: Income
A : Konstanta
β1, β2 dan β3: Koefisien regresi

Hypothesis testing
Hypothesis testing is the most important data analysis because it plays a role in answering the formulation of research problems, and proving research hypotheses

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a. Partial Test (t Test)
The t-test was conducted to test whether there is a partial effect between the independent variable (X) on the dependent variable (Y) to test the significance or not between the independent variables on the dependent variable, the probability value can be seen.
b. Uji F
The F test basically shows simultaneously whether the independent variable or dependent variable (X) has a positive or negative influence, and is significant on the dependent variable or dependent variable (Y).

Coefficient of Determination
The coefficient of determination is used to determine whether there is an influence between the independent variable and the dependent variable, namely by squaring the coefficients found.

RESULTS

1. Normality Test
The purpose of testing the normality of the data is to see whether in the regression model the dependent and independent variables have a normal or abnormal distribution.
Table 1. Normality Test One-Sample Kolmogorov-Smirnov Test

		Unstandardized Resiual
N		84
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.46416424
Most Extreme Differences	Absolute	.095
	Positive	.052
	Negative	-.095
Test Statistic		.095
Asymp. Sig. (2-tailed)		.060[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
Source: 2021 Data Processing Results

Based on the results of table 1, the magnitude of Kolmogrof-Smirnov is 0.052 and significant is 0.60, which means that the significant value is greater than 0.05, then the residuals are normally distributed.

2. Multicollinearity Test
Multicollinearity testing of this variable through independent tests between independent variables can be seen and the results of statistical collinearty analysis. Multicollinearity has a goal, namely to see whether the variables do not have a high correlation, it is necessary to do a hypothesis, namely that H is accepted if the VIF < 10 and the toleration number is close to 1, and H is rejected if the VIF value is > 10 and the tolerance value is close to 0. The results of the interdependence test between the variables in This research can be seen in the following table:
Table 2. Uji Multikolinearitas Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std Error	Beta			Tolerance	VIF
1 (Constant)	10.154	4.162		2.440	.017		
Financial Literacy	.403	.109	.408	3.691	.000	.854	1.171
Financial Behavior	.029	.114	.027	.251	.803	.928	1.078
Income	.020	.144	.015	.138	.891	.909	1.100

Dependent Variable: Investment Decision
Source: 2021 Data Processing Results

The data from the multicollinearity test table above can be understood that the three independent variables are financial literacy (X1), financial behavior (X2), and income (X3).

3. Heteroscedasticity Test

The heteroscedasticity test in this study aims to see whether the variables have the same variance or not. Heteroscedasticity means that one observation to another is different. One of the methods used to test whether or not heteroscedasticity will result in the estimation of the regression coefficients being inefficient. The basis for the analysis of heteroscedasticity data in this study is as follows:

a. If there is a certain pattern such as the existing dots form a certain regular pattern (Wavy, widen, then, narrowed). So there has been heteroscedasticity.
b. If there is no clear pattern, and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity.

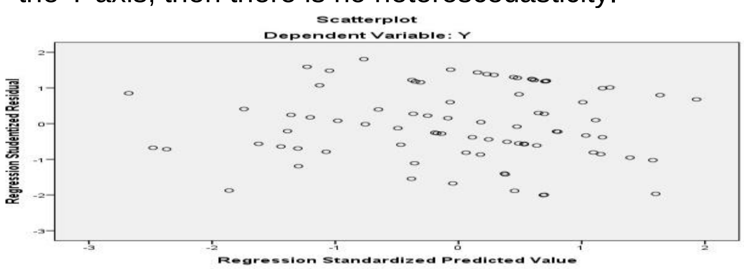

Figure 1. Heteroscedasticity Test

Multiple Linear Regression Analysis

Data analysis in this study used multiple regression analysis. In this study, there are three independent variables, namely financial literacy, financial behavior, and income and one dependent variable, namely investment decisions.

Tabel 3. Uji Analisis Regresi Linear Berganda Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	10.154	4.162		2.440	.017
Financial Literacy	.403	.109	.408	3.691	.000
Financial Behavior	.029	.114	.027	.251	.803
Income	.020	.114	.015	.138	.891

Dependent Variable: Investment Decision

Source: 2021 Data Processing Results

Based on the calculations performed using SPSS above, it can be seen that the multiple regression equation is as follows:

$$\mathbf{Y = 10{,}154 + 0{,}403\ X_1 + 0{,}029\ X_2 + 0{,}020\ X_3}$$

The meaning of the multiple linear regression equation above is:

1. The constant of 10,154 states that Financial Literacy, Financial Behavior, and Income are considered constant or unchanged (equal to zero), so the investment decision is 10,154.
2. Regression coefficient (b1) Financial Literacy is 0.403 with a positive direction stating that every 1 unit increase in financial literacy variable will cause an increase in investment decisions by 0.403 assuming other independent variables are held constant.
3. Regression coefficient (b2) Financial Behavior is 0.029 with a positive direction stating that any increase in the financial behavior variable will cause an increase in investment decisions by 0.029 with the assumption that other independent variables are held constant.
4. Regression coefficient (b3) Income is 0.020 with a positive direction stating that every increase in income variable will cause an increase in investment decisions by 0.020 assuming other independent variables are held constant.

Hypothesis Test

1. T test (Partial Test)

In this test the criteria for acceptance/rejection of the hypothesis are as follows:

1) If Sig > 0.05, then H0 = accepted, so there is no significant effect between the independent and dependent variables.

2) If Sig < 0.05, then H0 = rejected, so there is a significant effect between the independent and dependent variables.

Tabel 4. Uji t Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	10.154	4.162		2.440	.017
Financial Literacy	.403	.109	.408	3.691	.000
Financial Behavior	.029	.114	.027	.251	.803
Income	.020	.114	.015	.138	.891

Dependent Variable: Investment Decision

Source: 2021 Data Processing Results

The tcount value for the Income variable is 0.138 and the ttable with = 5% is 1.98932. Thus, the value of tcount ttable (-1.98932 0.138 1.98932) and a significance value of 0.891 (greater than 0.05), it can be concluded that H0 is accepted and Ha is rejected, which means that partially income does not have a significant effect on the decision Invest.

2. F Test (Simultaneous Test)

To test financial literacy, financial behavior, and income simultaneously on investment decisions, in this study using the F test through the SPSS program and the following test results:

Tabel 5. Uji F ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig
1 Regression	197.524	3	65.841	5.288	.002[b]
Residual	996.036	80	12.450		
Total	1193.560	83			

a. Dependent Variable: Investment Decision
b. Predictors: (Constant), Income, Financial Behavior, Financial literacy
Source: 2021 Data Processing Results

The results of the F test can be concluded where the magnitude of F_{count} = 5.288 > F_{table} = 2.72 with a significance level of 0.002 (less than 0.05). Based on these results, Ha is accepted and H0 is rejected, which means that together Financial Literacy, Financial Behavior, and Income have a significant effect on student investment decisions.

Coefficient of Determination Test

The determination test is carried out to determine the magnitude of the coefficient value which indicates the magnitude of the variation in the dependent variable which can be explained by the independent variable. The coefficient of determination is used to measure how far to explain the dependent variable. The value of the coefficient of determination is determined by R square as can be seen in the table below.

Tabel 6. Uji Koefisien Determinasi Model Summary[b]

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	.407[a]	.165	.134	3.52852

a. Predictors: (Constant), Income, Financial Behavior, Financial literacy
b. Dependent Variabel: Investment Decision
Source: 2021 Data Processing Results

DISCUSSION

The Effect of Financial Literacy on Investment Decisions

Financial literacy has a significant effect on investment decisions in Management Study Program students, Muhammadiyah University of North Sumatra, this shows that the more students understand financial literacy, so they are more confident and braver to make investment decisions because financial literacy includes knowledge and awareness where students have received learning about financial literacy and have understanding related to investment in financial management learning.

This results in self-confidence to invest. Based on the results of the T-test that was carried out partially financial literacy on investment decisions, it was obtained that tcount was 3.691 while ttable was 1.98932 and a significance value of 0.000 <0.05, it can be concluded that H0 is rejected**.**

The Influence of Financial Behavior on Investment Decisions
Financial Behavior (X2) has no significant effect on investment decisions in Management Study Program students, University of Muhammadiyah North Sumatra. This is indicated by the positive regression coefficient of 0.251 while the t table is 1.98932 and the significance value is 0.803>0.05, it can be concluded that H0 is accepted. Financial behavior has no effect on investment decisions. This means that in this case the indicators contained in financial behavior, financial planning, financial budgeting, and financial storage do not make a major contribution in their role in influencing investment decisions (Murviana Koto, Hastina Febriaty, 2019).

The Effect of Income on Investment Decisions
Income does not have a significant effect on investment decisions for students of the Management Study Program, Muhammadiyah University of North Sumatra, meaning that the lower the income, the lower the investment decisions. This can be seen from the significance of the t effect of the income variable on investment decisions of tcount 0.138 <1.98932 t table (Sig 0.891) greater than = 0.05. This shows that income has no significant effect on investment decisions.

Based on these results, it can be concluded that partially income does not affect the investment decisions of students in the management study program at the Muhammadiyah University of North Sumatra.

The Influence of Financial Literacy, Financial Behavior and Income on Investment Decisions
Financial literacy, financial behavior and income simultaneously have a significant effect on investment decisions by students of the management study program at the Muhammadiyah University of North Sumatra, which can be accepted or proven. Based on the results of the analysis, it is known that the F test value is 5.288 with a significant value of 0.002 or less than 0.05. By having adequate financial literacy, financial behavior, and income, it is hoped that students will understand and be more thorough with currently circulating financial information and be able to capture opportunities and see risks in making investment decisions.

Simultaneously, the variables of financial literacy, financial behavior, and income have an influence in determining investment decisions. This explains that a person's knowledge about managing his personal finances is a major factor in determining an investment decision. The importance of this is a big task for educational institutions to students, especially students who have a steady income in the form of a monthly salary, students must have financial knowledge from an early age so that they can become smart students, can manage finances well, and can have a prosperous life. do not experience financial difficulties and in the future (Fitrianti, 2018).

CONCLUSION

The conclusion of this research is as follows:
1. Partially Financial Literacy has a significant positive effect on Investment Decisions in Management Study Program Students, University of Muhammadiyah North Sumatra.

This shows that the better the level of financial literacy, the better the investment decisions.
2. Partially, Financial Behavior has no effect on Investment Decisions for Management Study Program Students, University of Muhammadiyah North Sumatra. This shows that the indicators contained in financial behavior, financial planning, financial budgeting, and financial storage do not make a major contribution in their role in influencing investment decisions.
3. Partially, income has no effect on investment decisions for students in the Management Study Program, University of Muhammadiyah North Sumatra. This shows that the level of income is not a benchmark for making an individual investment.
4. Simultaneously, Financial Literacy, Financial Behavior, and Income have a significant effect on Investment Decisions in Management Study Program Students, University of Muhammadiyah North Sumatra.

LIMITATION
The phenomenon in this study is the low level of financial literacy, and financial behavior that occurs among students.

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DECLARATION OF CONFLICTING INTERESTS
We declare that we have no conflict of interest with the BEFIC Bali 2022 committee or staff from AIBPM or any conflict regarding this article

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