



Analysis of the Influence of Financial Literacy on Investment Decisions Mediated by Financial Behavior: A Study on Students of the Faculty of Economics and Business, Jenderal Achmad Yani University

Frido Saritua Simatupang^{1,*}, Nugraha², Imas Purnamasari³

^{1,2,3} Faculty of Economic and Business Education, Universitas Pendidikan Indonesia, Bandung, Indonesia

*Corresponding author email: fridosimatupang@gmail.com

Abstract

Investment is the activity of saving current funds to obtain future profits with the aim of getting value for money that can compete with the prevailing inflation rate. Lack of understanding or knowledge regarding how to invest, high risks and very limited income have resulted in the reluctance of Indonesian people to invest. The aim of this research is to obtain empirical evidence regarding the influence of financial literacy on investment decisions mediated by financial behavior among students at the Faculty of Economics and Business, Jenderal Achmad Yani University. The variables in this research are (1) financial literacy, (2) financial behavior, and (3) investment decisions. The research method used is descriptive verification and the approach used is quantitative. The population of this research is active students majoring in management and accounting at Jenderal Achmad Yani University. The sampling technique used was purposive sampling. The data collection technique is carried out by distributing online questionnaires (g-form). The data analysis techniques used in this research are simple linear regression analysis, multiple linear regression analysis, and the Sobel test. The research results show that financial literacy has a positive and significant influence on investment decisions, financial literacy has no influence on financial behavior, financial behavior has no influence on investment decisions, and financial behavior does not mediate the influence of financial literacy on investment decisions

Keywords: Financial literacy, financial behavior and investment decisions

1. Introduction

As time goes by, human needs and desires are increasing, so they are required to be more productive. One way that can be taken to earn income or increase income, including investing. Investment in general is an activity of allocating funds carried out in the present with the hope of gaining profits in the future. Forms of investment are divided into two categories, namely investment in real assets and investment in financial assets (Widiantika et al., 2022). Investments in real assets consist of gold, property, land, machinery, factories, precious metals, and others. Meanwhile, investment in financial assets includes shares, bonds, mutual funds, deposits, and others. An investor of course has reasons to invest in a financial instrument in the capital market. Basically, the capital market is a meeting place for people who have excess funds and people who need funds (Rifqi et al., 2021).

According to Azis et al., (2015) the capital market is a market for short-term or long-term financial instruments used to purchase and promote both own capital and debt issued by the government, public authorities and private businesses. Each country has its own capital market, for example Indonesia has the Indonesian Stock Exchange, Malaysia has the Malaysia Stock Exchange, Canada has the Canadian Stock Exchange, and so on. Some of the instruments offered on the Indonesian Stock Exchange include shares. Shares are proof of ownership of a business, either individually or institutionally, for the capital investment allocated to the company. Next, namely bonds, bonds are debt securities where the issuer (issuer) borrows a certain amount of funds from investors for a certain period of time and will pay a certain amount of interest to investors every certain period of time. Next, namely mutual funds, mutual funds are a collection of shares, bonds or other securities owned by a group of investors and managed using professional funding organizations (Azis et al., 2015).

The average inflation growth in 2021 is 1.53%, then there is growth in investment instruments such as shares, namely 10.4%, bonds at 4.84%, and mutual funds at 2.41% (Badan Pusat Statistik, 2021). Therefore, investing in a financial instrument is very important for the public because it will provide profits for investors even though each instrument has a different level of risk. Investment in financial assets is an investment made through financial instruments such as shares, bonds and mutual funds. Each investment instrument of course has different return and

risk characteristics, and someone who wants to invest can choose one or several investment instruments according to their risk profile and needs. The involvement of Indonesian people in investing in the capital market is still very low, namely 5% compared to Malaysia 9% and Singapore 26%, causing the number of capital market investors in Indonesia to still lag behind Singapore and Malaysia due to a lack of understanding or knowledge regarding how to invest and income. still very limited.

The results of a preliminary survey conducted within the Faculty of Economics and Business, Jenderal Achmad Yani University, show that student financial literacy is very good, namely 78% of the respondents' statements regarding financial literacy variables, but implementation of investment decisions is still low, namely 10%, so this could indicate the existence of a phenomenon. where students should invest because they already have knowledge about investment. Baihaqqy et al., (2020) explained in their research that financial literacy has a positive influence on investment decisions, where the better a person's financial literacy, the better the impact on investment decisions. Someone who has good financial literacy will know the right decision to make an investment and someone who does not have good financial literacy will not be able to make the right investment decision. So based on the two things above, it can be concluded that financial literacy has a positive relationship with investment decisions.

Apart from being influenced by a person's level of financial literacy, there are other things that influence investment decisions, namely financial behavior. Hasibuan et al., (2018) said that financial behavior is a person's habits and behavior when managing their personal finances. Financial behavior grows from an understanding of good financial concepts so that it can guide a person towards financial actions in the future. The financial behavior carried out by students at the Faculty of Economics and Business, Jenderal Achmad Yani University can be stated to be quite good with a percentage of 65% who set aside money for saving so that this percentage can explain that the majority are good regarding financial behavior variables but there are some who do not routinely set aside money to save from respondents' statements regarding financial behavior variables, but implementation of investment decisions is still low, namely 10%. This indicates that financial literacy has a unidirectional influence on financial behavior but not investment decisions. Supported by the statement by the management of the FEB-Unjani Digital Investment Gallery (2022) that the number of students actively investing was recorded at 24 out of the total number of students at the Faculty of Economics and Business of 1942 people. The percentage of student involvement in investing in the Digital Investment Gallery is only 1.2%, which is still very small compared to the population.

Financial behavior is the main driver of financial decision making, even though the person knows and has a proper understanding of financial services and products. There are relevant problems for students at the Faculty of Economics and Business, Jenderal Achmad Yani University, with a deeper understanding of financial management and the existence of the first Digital Investment Gallery in West Java which can increase students' understanding of financial behavior and financial literacy in increasing their desire to invest. Based on the problems and phenomena described, the research title of this journal is "Analysis of the Influence of Financial Literacy on Investment Decisions Mediated by Financial Behavior (Study of Students at the Faculty of Economics and Business, Jenderal Achmad Yani University)."

2. Literature Review

2.1. Financial management

Financial or expenditure management is all business activities related to efforts or approaches to obtain a business company budget at low costs and the efforts made to use or allocate the budget effectively. Financial management is an activity related to how to obtain, how to fund, and how to manage an activity comprehensively. So it can be seen that financial management is an activity or activities related to obtaining funds by paying attention to the basics of management, namely effectively and efficiently. One way to get funds in financial management is by investing (Madura et al., 2018).

2.2. Investment

Investment is an activity to postpone current consumption to be allocated to productive assets within a certain period of time. Thus, based on the two definitions above, it can be seen that in essence investment is an activity to increase profits by allocating them to productive assets (Hani et al., 2020).

2.3. Financial Literacy

Herdinata & Pranatasari (2020) state that financial literacy is a series of methods or series of activities that include knowledge, skills and beliefs so that someone can control finances better. A person's financial literacy continues with the attitudes or actions they will take. People who know and are experts in the field of finance indicate a good attitude when it comes to economic transactions. The importance of financial literacy includes understanding financial products, their use for welfare, improving living standards, protection from fraud, and equitable distribution of wealth. In practice, financial literacy is seen through the variety of savings products, active participation of the community in the financial sector, awareness of saving from an early age, and the ability to use debt productively.

2.4. Behavioral Finance

According to Arianti (2018) financial behavior is a person's habits and behavior when managing their personal finances. Financial behavior includes a person's actions in managing their money in everyday life. This relates to the way a person organizes and utilizes available financial resources. Financial behavior also involves a person's financial responsibility in managing their finances effectively. Financial responsibility includes managing money and assets in a productive manner, as well as the use of financial processes and assets. Thus, financial behavior is the way a person treats, manages and utilizes their financial resources.

2.4. Investment decision

Investment decisions are policies taken regarding several alternatives with the hope of gaining profits in the future (Perwito et al., 2020). Meanwhile, according to Wulandari & Iramani (2014) an investment decision is a decision taken in making an investment to gain profits in the future. Tandelilin (2010) said that there are several considerations when someone wants to make an investment. The first reason someone invests is the expected return from an investment instrument. The second reason is risk, when someone wants a small risk, the return they get will also be small (linear). The final reason is how to control risk in investing. Filbert (2014) states that most people tend to invest in real assets because the profits they get tend to be greater than financial assets.

3. Methodology

3.1. Samples and Procedures

The research object in this research is located at the object in this research, namely the Faculty of Economics and Business, Jenderal Achmad Yani University. The independent variable in this research is the financial literacy variable (X), the intervening variable in this research is the financial behavior variable (Y) and the dependent variable in This research is the investment decision variable (Z). The population size in the study was 1376 students because students who had contracted financial management courses were the classes of 2020, 2019, 2018, and under 2018. The target population in this study were students at the Faculty of Economics and Business, Jenderal Achmad Yani University with certain criteria. The sampling technique used in this research is nonprobability sampling which is included in purposive sampling with the following criteria: Students have adequate financial literacy, namely having taken financial management courses, passed financial management courses. Next, to determine the sample size used in this research, use the Slovin formula so that the minimum sample size in this research is 93.22 respondents or rounded up to 94 respondents.

Sekaran & Bougie (2017) say that purposive sampling is a limited sampling technique with a specific purpose that can provide the required results. The sample size used in this research is the Slovin formula. The data type consists of primary data and secondary data. The data collection technique is by distributing questionnaires to research subjects who will then be analyzed. The questionnaire distributed included statements related to financial literacy variables, financial behavior and investment decisions. Questionnaires were distributed online using Google Form using a Likert scale.

3.2. Method

The data analysis techniques determined in this research are simple regression analysis, multiple regression analysis, and Sobel test. The method used to transform data is known as the successive interval method. The successive interval method is a method used to convert ordinal data to interval data. There are four hypotheses in this research, for the first hypothesis simple regression analysis will be used, for the second and third hypotheses multiple regression analysis will be used, and for the fourth hypothesis multiple regression analysis and Sobel test will be used. Simple and multiple regression analysis will be carried out using the Statistical Program of Social Science (SPSS) version 26 and the Sobel test will be carried out using the Sobel calculator which can be accessed online at www.danielsoper.com. Before testing the hypothesis, researchers will carry out validity tests, reliability tests and classic assumption tests consisting of normality tests, multicollinearity tests and heteroscedasticity tests.

4. Results and Discussion

4.1. Validity and Reliability Testing

The validity test is used to measure whether a questionnaire is valid or not. The results of the validity and reliability test of the research instrument using the Statistical Program of Social Science (SPSS) version 26 application are presented in Table 1.

Table 1: Validity and reliability test results

Statement	Instrument validity test results	Instrument reliability test results
	R Count (Pearson Correlation)	Cronbach's Alpha
	Financial Literacy (X)	
Statement 1	0.352	
Statement 2	0.779	
Statement 3	0.672	
Statement 4	0.547	
Statement 5	0.511	0.789
Statement 6	0.315	
Statement 7	0.798	
Statement 8	0.857	
	Financial Behavior (Y)	
Statement 9	0.798	
Statement 10	0.746	
Statement 11	0.613	
Statement 12	0.684	0.777
Statement 13	0.751	
Statement 14	0.626	
	Investment Decision (Z)	
Statement 15	0.621	
Statement 16	0.829	
Statement 17	0.660	
Statement 18	0.536	0.747
Statement 19	0.425	
Statement 20	0.678	
Statement 21	0.709	

Source: Data Processing (2022)

In Table 1 it can be explained that the statement in this research is said to be valid when the calculated R value is > 0.3061. Furthermore, the results of the reliability test show that all variables in the research are said to be reliable because the Cronbach's alpha value is more than 0.6, referring to the ideas put forward by Ghozali (2018), thus the measurement of the research instruments can be guaranteed even though they are carried out at different times.

4.2. Classical Assumption Testing

This classic assumption test includes the normality test, multicollinearity test, and heteroscedasticity test.

4.2.1. Normality test

The results of the normality test using the Kolmogorov-Smirnov test will be presented in table 2.

Table 2: Normality test results		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residuals
	N	104
Normal Parameters, ^b	Mean	0.000000
	Std. Deviation	3.00174954
Most Extreme Differences	Absolute	0.071
	Positive	0.071
	Negative	-0.054
Statistical Tests		0.071
Asymp. Sig. (2-tailed)		0.200 ^{c,d}

Source: Data Processing (2022)

Based on Table 2, it can be explained that data is said to be normally distributed if the significance value is ≥ 0.05 . In the simple regression normality test carried out above, it can be seen that the significance value is $0.200 \geq 0.05$, which means the data used is normally distributed.

4.2.2. Multicollinearity Test

The results of the multicollinearity test using the Variance Inflation Factors (VIF) test will be presented in table 3.

Table 3: Multicollinearity test results

		Coefficients ^a	
		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)		
	Financial_Literacy	0.993	1,007
	Financial_Behavior	0.993	1,007

Source:Data Processing (2022)

Based on Table 3, it can be explained that the criteria for data to be free from multicollinearity is when the Tolerance value is ≥ 0.1 or the VIF value is < 10 . The tolerance value in this test is $0.993 > 0.10$ and the VIF value in this test is $1.007 < 10$, which means the data in this study is free from multicollinearity or there is no correlation between the independent variables in the regression model.

4.2.3. Heteroscedasticity Test

The results of the heteroscedasticity test using the Glejser test will be presented in table 4.

Table 4: Heteroscedasticity test results

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.258	1.841		-0.683	0.496
	Financial_Literacy	0.091	0.048	0.186	1.895	0.061
	Financial_Behavior	0.035	0.061	0.055	0.566	0.572

Source:Data Processing (2022)

Based on Table 4, it can be explained that the data criteria are free from heteroscedasticity, namely when the significance value is > 0.05 . Based on testing the financial literacy and financial behavior variables on investment decisions above, it can be seen that the significance value of the independent variables is 0.061 and $0.572 > 0.05$. In this way, the data in the research is free from heteroscedasticity or there is no inequality of variance from the residuals of one observation to another.

4.3. Simple Regression Testing

The purpose of the simple regression test is to determine the direct impact of financial literacy variables on financial behavior which will be presented in Table 5.

Table 5: Simple regression test results

Variable	Standardized Coef. Beta	t	R Square	sig
Financial Literacy (FL)	0.084	0.847	0.007	0.399

Source:Data Processing (2022)

Based on the results of the simple regression test in table 5, the significance value is 0.199 ($0.399/2$) which is greater than 0.05 . Thus it can be seen that the Financial Literacy variable has no effect on Financial Behavior.

$$PK = 0.084 FL + 0.996 \epsilon 1 \tag{1}$$

The R Square value in this regression equation is 0.007 , where it can be seen that the contribution of Financial Literacy to Financial Behavior is 0.7% and the remaining 99.3% is influenced by other variables outside the research. To find the value of $\epsilon 1$, it can be calculated using the formula $\epsilon 1 = \sqrt{1 - Rsquare}$. Thus the error in the equation is 0.996 .

4.4. Multiple Regression Testing

The purpose of the multiple regression test is to determine the direct impact of the Financial Literacy & Financial Behavior variables on Investment Decisions which will be presented in Table 6.

Table 6: Multiple regression test results

Variable	Standardized Coef. Beta	t	R Square	sig
Financial Literacy (FL)	0.218	2.239	0.051	0.027
Behavioral Finance (BF)	0.044	0.456		0.649

Source:Data Processing (2022)

Based on the results of the multiple regression test in table 6, it can be seen that the significance value of financial literacy is 0.013 (0.027/2) less than 0.05, meaning that financial literacy has a positive and significant effect on investment decisions, while the significance value of financial behavior is 0.324 (0.649/2) more. greater than 0.05 means that financial behavior has no influence on investment decisions.

$$ID = 0.218 FL + 0.044 BF + 0.974 \epsilon_2 \tag{2}$$

The R Square value in this regression equation is 0.051, where it can be seen that the contribution of Financial Literacy and Financial Behavior to Investment Decisions is 5.1% and the remaining 94.9% is influenced by other variables outside the research. To find the value of ϵ_2 , it can be calculated using the formula $\epsilon_2 = \sqrt{1 - Rsquare}$. Thus the error in the equation is 0.974. The magnitude of the direct influence of the Financial Literacy variable is 0.047 (0.218²). The magnitude of the direct influence of the Financial Behavior variable is 0.001 (0.044²). The magnitude of the indirect influence of the Financial Literacy variable on Investment Decisions through Financial Behavior is by multiplying $pzx * pzy * pxy$. Thus, the result obtained is 0.0008 (0.218 * 0.044 * 0.084).

4.5. Sobel Testing

The aim of the Sobel test is to determine the role of financial behavior variables in mediating the indirect influence of financial literacy variables on investment decisions which will be presented in Table 7.

Table 7: Sobel test results

Variable	Sobel Test (Sig.)	The Role of Financial Behavior as a Mediator
Financial Literacy on Investment Decisions	0.3448	Not mediating

Source:Data Processing (2022)

Based on the results of the Sobel test, it can be seen that 0.3448 > 0.05 or a significance value > 0.05, which means that financial behavior does not mediate the influence of financial literacy on investment decisions.

4.6. Hypothesis test

The number of hypotheses in this research is four and aims to answer problem identification. The basis for decision making used in this research is using the t table. The df value in this study is 104-3 = 101, with a significance level of 0.05 so that the t table is 1.66008. Below is an interpretation of the results of the hypothesis test:

- a). The Influence of Financial Literacy on Student Financial Behavior
The calculated t value of the financial literacy variable on financial behavior is 0.847 < 1.660, which means that the null hypothesis (H0) is accepted and thus financial literacy has no effect on financial behavior.
- b). The Influence of Financial Literacy on Student Investment Decisions
The calculated t value of the financial literacy variable on investment decisions is 2.239 > 1.660, which means that the null hypothesis (H0) is rejected and thus financial literacy has a positive and significant effect on investment decisions.
- c). The Influence of Financial Behavior on Student Investment Decisions
The calculated t value of the financial behavior variable on investment decisions is 0.456 < 1.660, which means that the null hypothesis (H0) is accepted and thus financial behavior has no effect on investment decisions.
- d). The Influence of Financial Literacy on Student Investment Decisions Mediated by Financial Behavior
The calculated t value of the financial behavior variable in mediating the financial literacy variable on investment decisions is 0.399 < 1.660, which means that the null hypothesis (H0) is accepted and thus financial behavior does not mediate the influence of financial literacy on investment decisions.

5. Conclusion

Based on the results of the hypothesis test carried out, it can be seen that financial literacy has no effect on financial behavior, financial literacy has a positive and significant effect on investment decisions, financial behavior has no effect on investment decisions and financial behavior cannot mediate the relationship between financial literacy and student investment decisions. Financial behavior does not mediate the relationship between financial literacy and investment decisions because the respondent's financial behavior is not good. Within the financial behavior variable there are financial planning indicators. This indicator states that respondents or students tend not to be good at planning their finances. Good financial literacy does not guarantee someone's financial behavior, financial behavior is related to what has been done. In this case, respondents tend to ignore what they already know so that the actualization of their financial behavior is not good. This means that students who have good financial literacy will not always apply it in financial behavior.

Poor financial behavior means that investment decisions cannot have a positive effect. Respondents who do not plan their finances well are assumed not to allocate their money to financial instruments. This means how respondents will invest if the measured behavior is not good. Good investment decisions but not supported by good financial behavior led respondents not to invest. Therefore, financial behavior does not influence investment decisions because financial planning is not good. Poor financial planning causes financial behavior variables to not be able to mediate financial literacy variables on investment decisions. This means that there is no guarantee that someone who has good financial literacy will have a good impact on financial behavior, and there is no guarantee that good financial behavior will also have a good impact on investment decisions. The research results are supported by research by Ismanto et al., (2019) which states that financial behavior is unable to moderate financial literacy on investment decisions. The results of this research can be interpreted that financial behavior cannot mediate because students tend to be inconsistent in managing their finances.

References

- Arianti, B. F. (2018). The influence of financial literacy, financial behavior and income on investment decision. *Economics and Accounting Journal*, 1(1), 1-10.
- Azis, M., Mintarti, S., & Nadir, M. (2015). *Manajemen Investasi Fundamental, Teknikal, Perilaku Investor dan Return Saham*. Deepublish.
- Badan Pusat Statistik. (2021, Februari 1). Inflasi terjadi pada Januari 2021 sebesar 0,26 persen. Inflasi tertinggi terjadi di Mamuju sebesar 1,43 persen. <https://www.bps.go.id/pressrelease/2021/02/01/1803/inflasi-terjadi-pada-januari-2021-sebesar-0-26-persen--inflasi-tertinggi-terjadi-di-mamuju-sebesar-1-43-persen.html>
- Baihaqqy, M. R. I., Disman, N., Sari, M., & Ikhsan, S. (2020). The effect of financial literacy on the investment decision. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(4), 3073-3083.
- Galeri Investasi Digital Fakultas Ekonomi dan Bisnis Universitas Jenderal Achmad Yani. (2023, March 16). Handover of the Management Position of GID BEI FEB UNJANI [Event information]. Bursa Efek Indonesia. <https://www.idx.co.id/en/about-us/event-detail/handover-of-the-management-position-of-gid-bei-feb-unjani>
- Hani, S., Heru, S. S., & Isworo, E. S. (2020). The effect of investment education and investment experience on investment decision with financial knowledge as intervening variable. *Russian Journal of Agricultural and Socio-Economic Sciences*, 99(3), 143-150.
- Hasibuan, B. K., Lubis, Y. M., & HR, W. A. (2018, January). Financial literacy and financial behavior as a measure of financial satisfaction. In *1st Economics and Business International Conference 2017 (EBIC 2017)* (pp. 503-507). Atlantis Press.
- Herdinata, C., & Pranatasari, F. D. (2020). Aplikasi literasi keuangan bagi pelaku bisnis.
- Madura, J., Hoque, A., & Krishnamruti, C. (2018). *International financial management*. Cengage AU.
- Rifqi, L. H., Mufiroh, L. A., & Nihayah, A. Z. (2021). Analysis of gold investment with installment scheme. *Journal of Islamic Economics Management and Business (JIEMB)*, 3(2), 137-152.
- Sekaran, U., & Bougie, R. (2017). *Metode Penelitian untuk Bisnis* (e6) 1.
- Widiantika, M., Mardiyati, U., & Ahmad, G. N. (2022). The Effect of Return Perception, Motivation, Financial Literacy, and Income on Investment Interest of Students at State University of Jakarta. *Jurnal Dinamika Manajemen Dan Bisnis*, 5(1), 86-112.