
RESEARCH ARTICLE

Analysis of Financial Literacy and Financial Behavior on Stock Investment Decisions: A Case Study of Students of the Faculty of Economics and Business, University of Muhammadiyah Pontianak

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ABSTRACT

The purpose of this research is to examine how students in the Faculty of Economics and Business at the University of Muhammadiyah Pontianak's see the relationship between financial literacy and financial behavior when making stock investment decisions. Purposive sampling was employed for this analysis. We used a random sample of 100 people who met our criteria. Analytical procedures include a validity and reliability test on the instrument, a test of the classical assumptions of normality, multicollinearity, and linearity, and various statistical analyses such as multiple linear regression, correlation analysis, R2 analysis, the F statistic test, and partial effect analysis (t statistical test). Both the validity and reliability tests yielded positive results, demonstrating the data's validity and trustworthiness. The data has been shown to have a normal distribution, there is no multicollinearity, and the linear relationship between the variables in the model is supported by the results of the linearity test. The examination of the correlation coefficient (R) of 0.774 indicates that the association between Financial Literacy and Financial Behavior with Investment Decisions is quite high. The regression equation produced is $Y = -35.291 + 10.056 X_1 + 7.537 X_2$. The coefficient of determination (R2) indicates that knowledge of personal finance accounts for 60% of the variance in investing decisions, while other factors account for the remaining 40%. The simultaneous influence test (F test) shows that both financial knowledge and financial conduct have a substantial impact on investment choices. Stock investing decisions are influenced by both financial literacy and financial conduct, as shown by the partial effect test (t statistical test).

KEYWORDS

Profitability, Financial Literacy; Financial Behavior; Invest Stock

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1. Introduction

In the current era of the digital economy, individuals must be able to manage finances well because financial management will result in decisions in the use or allocation of funds owned. In order for finances to be used carefully and efficiently, it is important for individuals to understand financial literacy. The science of finance continues to change rapidly; various advances occur not only in terms of financial theory but in practice in the real world, including in personal finance. Therefore, this knowledge and understanding are needed by everyone so that they can optimally use existing financial instruments and products and can make the right financial decisions.

Investment is the activity of placing capital in the form of money or other valuable assets into an object, institution, or party with the hope that the investor or investor will later benefit after a certain period of time (Addinpujoartanto & Darmawan, 2020). with the hope of getting a profit in the future, usually in the long term, for the procurement of complete assets or the purchase of shares and other securities for profit.

According to the Indonesia Stock Exchange, as of September 30, 2021, the number of investors in the Indonesian capital market has reached more than 6.29 million Single Investor Identification (SID), including 2.9 million SID shares. If you look at the number of investors at the end of 2020, which was 3.88 million SID, then the number of investors has shot up to 61.86% until September 2021; for the West Kalimantan Province, in particular, it has reached 3,431 SID.

A university is a place for students to learn about investment because it really helps students in adding insight into investing, and students can manage finances and know more about financial literacy. Students as intellectuals play an important role in changing the nation because they are expected to be able to think critically in solving and providing solutions to problems that exist in society using materials and theories that have been obtained through lectures.

By studying investment science, students can set their goals to determine where they invest, but basically, investing decisions require good management in students, paying attention to how much students know about the financial world for their knowledge, and how students manage their finances so that investment and expenditures are well managed in terms of financial behavior, and before they invest they must determine where their capital will come from to invest so that everything is managed properly. The data on the number of active students for the 2021 Academic Year of the Faculty of Economics and Business, University of Muhammadiyah Pontianak, are as follows:

For students, investing is a means of education for the future financial security of themselves and their families. While it is still important to make concerted efforts to promote socialization, the capital market can serve as a gateway for students to get insight into the economic and investment worlds. To avoid money issues, everyone needs a firm grasp of basic financial concepts (Dwiastanti, 2015). Life and financial literacy go hand in hand since they both provide the foundation on which an individual's financial management decisions are built (French & McKillop, 2016). The ability to make sound financial decisions depends on a person's level of financial literacy (Anderson et al., 2017). Conversely, a lack of financial literacy can have an effect on a person's inability to organize their finances effectively, increasing the likelihood that they would make poor choices.

Humans' irrational tendencies while making monetary decisions have been the focus of research in a field called "behavioral finance" (Howard, 2012). Pay special attention to the ways in which psychological factors influence the economy, business, and financial markets. The ability to plan, budget, monitor, manage, control, search, and save one's daily monetary funds is referred to as "financial management behavior" (Humaidi et al., 2020). Indicators include financial planning and budgeting styles, methods for creating such plans, regular savings, insurance, provision for retirement and unforeseen costs, investment, credit and debt, and utility payments, as well as monitoring and assessing the quality of financial management.

2. Method

2.1 Types of Research

The type of research used in this study is the associative research method. Associative research in this study is to determine the relationship between financial literacy and financial behavior on stock investment decisions (a case study of students of the Faculty of Economics and Business, University of Muhammadiyah Pontianak).

2.2 Data Collection Techniques

In this research, the authors compile a set of questions and statements pertaining to the issues at hand, which are posed to stock investors, specifically those who are students in the Management Study Program at the Muhammadiyah University of Pontianak.

2.3 Population and Sample

The population used in this study were all active students in the 2021 academic year, students of the Faculty of Economics and Business, Muhammadiyah University of Pontianak. Based on the calculation of the sample, the minimum sample in this study amounted to 100 people. To facilitate the research, the authors set a sample of 100 people.

2.4 Data Analysis Techniques

The data analysis technique used in this research is Instrument Test which includes the Validity Test and Reliability Test, Classical Assumption Test includes Normality Test, Multicollinearity Test, and Linearity Test; statistical analysis includes Multiple Linear Regression analysis, Correlation Coefficient (R) analysis, analysis Coefficient of Determination (R²), Simultaneous Effect Test (F Statistics Test), Partial Effect Test (t Statistical Test).

3. Results and Discussion

3.1 Characteristics of Respondents

Respondents in this study are stock investors who invest in the Pontianak Muhammadiyah University Campus, Faculty of Economics and Business. To obtain the data needed in this study, the researcher distributed questionnaires to 100 stock investors at the Pontianak Muhammadiyah University Campus, Faculty of Economics and Business, as respondents. Characteristics of respondents in this study include gender, age, education, and marital status, which can be explained as follows:

3.2 Gender of Respondent

The following data on respondents by gender can be seen in Table 1 below:

Table 1. Respondents Sex

No	Sex	Number (People)	Percentage %
1	Male	31	31
2	Female	69	69

Based on Table 1, it is explained that most of the respondents in this study were female, as many as 69 people or 69%.

3.3 Age of Respondent

To find out the respondent's data by age can be seen in Table 2 below:

Table 2. Age of Respondents

No	Respondents Age	Number (People)	Percentage%
1	18-20	42	42
2	21-23	55	55
3	24-26	3	3
Total		100	100

Source: Processed Data, 2022

Based on Table 2, it is explained that the majority of respondents aged between 21 and 23 years are 55 people or 55%.

3.4 Respondent's Last Education

Characteristics of respondents based on education level are important to note; the following are respondents based on education level:

Table 3. Respondents' Last Education

No	Education	Number (People)	Percentage%
1	High School	87	87
2	Vocational High School	10	10
3	Islamic High School	3	3
Total		100	100

Source: Processed Data, 2022

Based on Table 3, it is explained that most of the respondents have a high school education, as many as 87 people or 87%.

3.5 Respondent's Marital Status

Characteristics of respondents based on marital status are as follows:

Table 4. Respondents Marital Status

No	Marriage	Number (People)	Percentage%
1	Married	3	3
2	Not Married	97	97
Total		100	100

Source: Processed Data, 2022

Based on Table 4 explains that most of the respondents are unmarried, as many as 97 people or 97%.

3.6 Reliability Test

A reliability test is used to determine the consistency of the measuring instrument and whether the measuring instrument is reliable for further use. The results of the reliability test in this study used Cronbach's Alpha technique. The results of the reliability test of the Financial Literacy variable data (X1) can be seen in Table 5 below:

Table 5. Reliability Test Results of Financial Literacy Instruments

Reliability Statistics

<i>Cronbach's Alpha</i>	<i>N of Items</i>
,643	6

Cronbach's Alpha for the above number is 0.643, as shown in Table 5. This indicates a dependability coefficient of 0.6. That's why it's safe to say that the questionnaire as a whole is a valid and reliable instrument for evaluating the Financial Literacy variable (X1) (Ernitawati et al., 2020). Table 6 below shows the results of the reliability test for the data in the Financial Behavior (X2) variable:

Table 6. Reliability Test Results of Financial Behavior Instruments

Reliability Statistics	
<i>Cronbach's Alpha</i>	<i>N of Items</i>
,846	6

Cronbach's Alpha indicates a level of dependability of 0.846 (see Table 6), which translates to a 0.6 (very low) reliability coefficient. Therefore, it can be argued that the questionnaire as a whole is a consistent and trustworthy method for measuring the Financial Behavior variable (X2). Table 7 below shows the results of a reliability test conducted on the data pertaining to the investment choice variable Y:

Table 7. Reliability Test Results of Investment Decision Instruments

Reliability Statistics

<i>Cronbach's Alpha</i>	<i>N of Items</i>
,838	5

Table 7 above shows that Cronbach's Alpha is 0.838, meaning that the value above has a reliability coefficient of 0.6. Thus, it can be concluded that all statement items on the questionnaire as a measuring instrument for the Investment Decision variable (Y) are reliable and consistent and reliable.

3.7 Multicollinearity Test

The test for multicollinearity was performed to look at the interdependence of the independent variables. Independent variables in a valid regression model should be independent of one another. Tolerance and variance inflation factor values can be used to infer whether or not a regression model contains multicollinearity (VIF). There is no multicollinearity between the independent variables if the tolerance value is greater than 0.10 or the variance inflation factor is less than 10. The multicollinearity test results are as follows:

Table 8. Multicollinearity Test Results

	<i>Model</i>	<i>Tolerance</i>	<i>VIF</i>
1	(Constant)		
	Financial Literacy	,637	1,569
	Behavioral Literacy	,637	1,569

Source: SPSS Processed Data 24.2022

In Table 8, it can be seen that there is no multicollinearity between the independent variables in the regression model. This is indicated by the tolerance value of each variable > 0.10 and $VIF < 10$.

3.8 Linearity Test

The linearity test is used to see whether the specifications of the model used are correct or not. The results of the linearity test of the Financial Literacy variable can be seen in the following table:

Table 9. Linearity Test Results of Financial Literacy Variables on Investment Decisions

ANOVA Table							
			<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
Investment Decision*	Between Groups	(Combined)	667,418	23	29,018	7,667	,000
		Linearity	451,882	1	451,882	119,399	,000

		<i>Deviation from Linearity</i>	215,56	22	9,797	2,589	,001
	<i>Within Groups</i>		287,63	76	3,785		
	<i>Total</i>		955,01	99			

Based on Table 9, the results of the linearity test show a linearity significance value of 0.000 < 0.05. Thus, it can be concluded that there is a linear relationship between Financial Literacy and Investment Decisions. The results of the linearity test of the Financial Behavior variable can be seen in the following table:

Table 10. Linearity Test Results of Financial Behavior on Investment Decisions

ANOVA Table							
			<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
KEPUTUSAN INVESTASI * PERILAKU KEUANGAN_X2	Between Groups	(Combined)	718,05	33	21,760	6,061	,000
		Linearity	465,76	1	465,706	129,714	,000
		<i>Deviation from Linearity</i>	252,39	32	7,887	2,197	,004
	<i>Within Groups</i>		236,96	66	3,590		
	<i>Total</i>		955,01	99			

Based on Table 10, the linearity test results show a linearity significance value of 0.000 < 0.05. So it can be concluded that there is a linear relationship between Financial Behavior and Investment Decisions.

4. Statistical Analysis

4.1 Multiple Linear Regression Analysis

Multiple linear regression test to calculate the magnitude of the influence quantitatively from a change in events (variable X) to other events (variable Y). The results of the multiple regression test calculation can be seen in the following table:

Table 11. Results of Multiple Linear Regression Analysis

Coefficients^a

		Coefficients			t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-35,291	4,717		-7,481	,000
	Financial Literacy	10,056	1,929	,419	5,212	,000
	Financial Behaviour	7,537	1,361	,446	5,538	,000

Dependent Variable: Investment Decision

Source: SPSS Processed Data 24.2022

From Table 11 above, it can be seen that the multiple linear regression equation is as follows:

$$Y = -35.291 + 10.056 X_1 + 7.537 X_2$$

From the multiple regression equation, it can be explained as follows; (1) The constant value is -35.291, which explains that Financial Literacy and Financial Behavior are equal to 0 (zero), so the value of Investment Decisions is - 35.291; (2) If Financial Literacy increases by one unit, the contribution to Investment Decisions will increase by 10.056; (3) If Financial Behavior increases by one unit, the contribution to Investment Decisions will increase by 7,537.

4.2 Analysis of Correlation Coefficient (R)

The associative hypothesis, which states that there is a relationship between variables in the population, was tested by analyzing the relationship data of variables in the sample using correlation analysis. The table below displays the outcomes of the correlation coefficient computation:

Table 12. Correlation Coefficient Test Results

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,774 ^a	,600	,591	1,98521

Predictors: (Constant), Financial Behavior, Financial Literacy

Dependent Variable: Investment Decision

Source: Processed Data Spss 24.2022

From Table 12, it can be seen that the R value (correlation) obtained is 0.774. Where this value is between 0.60-0.799, this means that the relationship between Financial Literacy (X1) and Financial Behavior (X2) on Investment Decisions (Y) is strong.

4.3 Analysis of the Coefficient of Determination (R²)

This test is to find out how big the contribution of the X variable is to the Y variable. The results of the Coefficient of Determination (R²) calculation can be seen in Table 4.16, which states that the value of the coefficient of determination (R²) or R Square obtained is 0.600. This means that 60% (1 x 0.600 x 100%) influence on investment decisions is explained by the variables of Financial Literacy and Financial Behavior, while the remaining 40% is explained by other variables that are not included in the research variables.

4.4 Simultaneous Effect Test (F Statistics Test)

A simultaneous effect test is used to determine whether the independent variables simultaneously affect the dependent variable. The results of the simultaneous test (Test F) can be seen in the following table:

Table 13. Simultaneous Effect Test Results

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	572,769	2	286,384	72,667	,000 ^b
	Residual	382,282	97	3,941		
	Total	955,051	99			

Dependent Variable: Investment Decision

Predictors: (Constant), Financial Behavior, Financial Literacy

Source: Processed Data Spss 24.2022

Based on the results of the F test in Table 13, it states that the significant value for Financial Literacy and Financial Behavior simultaneously on Investment Decisions is 0.000 <0.05. The results of the simultaneous test (F test) can be concluded that Financial Literacy and Financial Behavior simultaneously have a significant influence on investment decisions.

4.5 Partial Effect Test (Test Statistical t)

The t-test was conducted to test the effect of all independent variables partially

to the dependent variable. The results of the partial test (t test) can be seen in the following table:

Table 14. Partial Effect Test Results

Coefficients^a

Model	<i>Unstandardized Coefficient</i>		<i>Standardized Coefficient</i>	T	Sig.
	B	Std Error	Beta		
(Constant)	-35,291	4,717		-7,481	,000
Financial Literacy	10,056	1,929	,419	5,212	,000
Financial Behaviour	7,537	1,361	,446	5,538	,000

Based on Table 14, it can be seen that the influence of each independent variable, namely Financial Literacy and Financial Behavior, on Investment Decisions is as follows; (1) The significant level of the Financial Literacy variable (X1) is 0.000 <0.05. This means that the Financial Literacy variable partially has a significant influence on the Investment Decision variable (Y), then Ha is accepted and H0 is rejected; (2) The significant level on the Financial Behavior variable (X2) is 0.000 <0.05. This means that the Financial Behavior variable partially has a significant influence on the Investment Decision variable (Y), then Ha is accepted, and H0 is rejected.

5. Conclusion

The following can be inferred from the analysis and discussion of the data presented in this study: Participants were stock investors; the majority were women; the average age was 23; they had all completed high school; they were either single or in the process of finding a life partner; the correlation coefficient (R) was 0.774, and the multiple linear regression equation showed the regression equation was $Y = -35.291 + 10.056 X1 + 7.537 X2$. Consequently, this metric suggests a robust connection between financial education and long-term success in the investment market. Increases in both financial knowledge (X1) and behavior (X2) lead to more confident choices about where to put money (Y); (4) The coefficient of determination (R2) is 0.600, which indicates

that financial literacy and financial behavior account for 60% of the variance in investment decisions, while the remaining 40% is explained by other variables. (5) The significance of both financial literacy and financial behavior on investment decisions is supported by the F test for simultaneous influences. Specifically, (6) The t-statistical test demonstrates that financial literacy and financial conduct have an effect on stock investment decisions, with a Sig. value of 0.000 0.05.

5.1 Suggestions

The author's research provides the basis for the following recommendations: (1) Investors should pay more attention to financial literacy when deciding whether or not to invest in stocks. Investors with a high level of financial literacy should be able to further develop their financial behavior to become rational investors who aren't just profit-driven but also risk-averse; (2) Future research should aim to increase the number of variables and the number of respondents with more respondent characteristics so that we can better understand the impact of financial literacy on investment decision making.

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