



## Paper 26

The Effect of Financial Literacy on Young Millennials Investment Decision in West Java

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**Abstract** - The aims of this research is to determine the level of financial literacy of young millennials in West Java, analyze how financial literacy affect young millennials investment decision in West Java, and giving recommendation to improve the skills in young millennial investment decisions in West Java. The data for this research was collected through online questionnaire and distributed to 355 respondents in West Java that actively invested in capital market. The findings indicates that the level of financial literacy of young millennials in West Java is 77.65%. By using multiple linear regression, simultaneously three components of financial literacy, which are financial behavior, financial knowledge, and financial attitude have positive and significant effects on young millennial investment decision in West Java and partially financial behavior, financial knowledge, and financial attitude have positive and significant effects on young millennial investment decision in West Java. This research also suggested various parties, which are the government, financial experts, and capital market community to improve financial literacy in order to improve the skills in young millennial investment decisions in West Java.

**Keywords** - financial literacy, investment decision, young millennials

## I. INTRODUCTION

The development of financial digitalization causes many things, one of which is the existence of online investment platforms with robo-advisory (automated) technology that becomes one of main reasons why more people are starting to invest so that the trend of investing is developing, including in Indonesia.

Currently, the number of investors has increased significantly (KSEI, 2021). According to the data from Kustodian Sentral Efek Indonesia (KSEI) as of April 2021, the number of capital market investors reached 5,088,093 Single Investor Identifications (SIDs) with this number an increase of 31.11% from the position at the end of 2020 which reached 3,880,753 SIDs with 57.40% of investors are less than 30 years old, which belongs to young millennials category.

West Java as one of the provinces in Indonesia is no exception experiencing an increase in the number of investors. West Java shares up to 20% in capital market

investment in Indonesia showed that West Java has contributed significantly to the growth of capital market investors nationally (Hoesen, 2021). Bursa Efek Indonesia in 2021 also reported that with increasing investor growth in West Java, 58.82% were investors under the age of 30.

However, the increase in the number of investors in West Java is not accompanied by the financial literacy index in West Java with a financial literacy index of only 37.43% which is lower than national financial literacy index of 38.03% and the lowest compared to other provinces in Java. In addition, a national survey from OJK in 2019 stated that young millennials have a low financial literacy index. This indicates that many young millennials invest only to follow existing investment trends without being accompanied by well-literated financial literacy. Investing itself cannot be separated from financial literacy, as Clark, Lusardi, and Mitchell (2015) stated that financial literacy is one of the factors that can affect the success of an investment. The low level of financial literacy causes investors to misinterpret data and what the numbers mean (Madi & Yusof, 2018).

Departing from the background and research gap, this research was conducted to determine the level of financial literacy of young millennials in West Java, analyze how financial literacy affect young millennials investment decision in West Java, and giving recommendation to improve the skills in young millennial investment decisions in West Java.

### A. Financial Literacy

According to Morgan & Trinh (2019), financial literacy is a combination of skills and knowledge that empowers an individual to make effective decisions with all their financial resources. An adequate financial literacy will assist people with settling on no error in financial decisions later (Margaretha & Pambudhi, 2015) because financial literacy will lead to individual knowledge so that they can manage their financial resources effectively additionally for their financial security (Huston, 2010).

OECD (2013) defined financial literacy as a combination of skill, behavior, awareness, attitude and knowledge of individuals that is required to make sound financial decisions leading towards the achievement of financial well-being. Thus, this definition reveals that the three important determinants to examine financial literacy are:

- a. Financial behavior, which is a pattern of habits and behavior of individuals while arranging their finances;
- b. Financial knowledge, which refers to what individuals are familiar with personal financial matters, as measured by their level of knowledge about various personal financial concepts;
- c. Financial attitude, which is an individual's condition, opinion, or assessment of money that is applied or applied to attitude.

## B. Investment Decision

Investment decision is critical and dynamic in relationship with various decision that individuals are meaning to make in lifetime for the future, so it is the principle that individuals need to know about money and be aware about the way it works, other than the availability of different financial products for investment and the concern about the adaptability in managing financial matters. For an effective investment decision, investors should adapt totally and precisely to the potential possibilities and these decisions should not be made in a surge. The inaccurate investment decision can lead organizations even to bankruptcy. It is important to comprehend the basic concepts of the investment decision to get the best incentive from the evaluation method.

Putri and Hamidi (2019) mentioned some indicators to measure investment decisions, which include:

- a. Return, which refers to a profit from an investment;
- b. Risk, with high expected returns come high risks or familiarly known, high risk high return principle;
- c. Time value of money, determining the length of investment period is critical as it determines how much profit and risk an investor should bear.

## C. Millennials

According to Howe & Strauss (2000), millennials are individuals that were born between 1982-2002. Elam et al. (2007) and Ng et al. (2010) also stated that the millennial generation refers to individuals born after 1980 or, more specifically, between 1982 and 2002.

Millennials are known to be achievement-focused. They have a need not exclusively to do competently, however to succeed and outperform all objectives and desires (Kaifi et al., 2012; Kowske et al., 2010). This leads them to search out new learning opportunities. Millennials enjoy utilizing technology which the millennial generation became reliant upon innovation at a prior age than different ages.

## D. Conceptual Framework

Researcher uses framework below which comprises several variables that will be used. In this framework, researcher needs to measure three variables of financial literacy from young millennials in West Java and generate the correlation between the result with young millennials investment decision in West Java. Those variables of financial literacy are financial behavior, financial knowledge, and financial attitude.

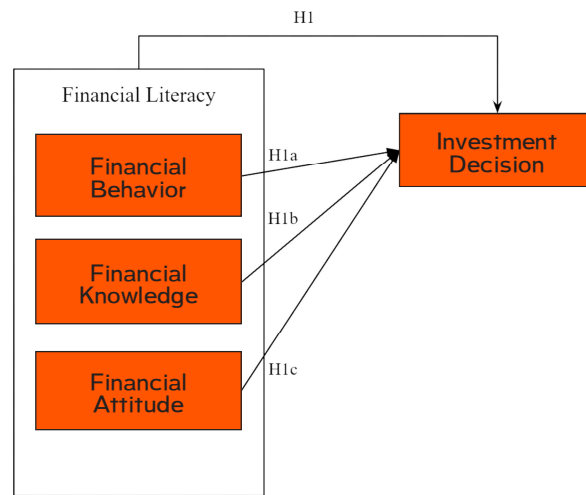


Fig. 1. Research Framework

## E. Research Hypothesis

The hypothesis for this study will be stated as follows:

- H1 : Financial literacy has a positive and significant effect on millennial investment decisions in West Java.
- H1a : Financial behavior has a positive and significant effect on millennial investment decisions in West Java.
- H2a : Financial knowledge has a positive and significant effect on millennial investment decisions in West Java.
- H3a : Financial attitude has a positive and significant effect on millennial investment decisions in West Java.

## II. METHODOLOGY

### A. Data Collection Method

The primary data will be collected by distributing online questionnaires to young millennials who are actively invested in the capital market that are located in West Java. The questionnaire was developed mostly based on International Survey of Adult Financial Literacy which is developed by OECD. The sampling method the researcher used is convenience and purposive sampling because of the large number of young millennials in West Java.

### B. Data Analysis Method

Samples totalling 355 respondents were collected using questionnaires, which were later analyzed in some stages. To analyze the data, mostly used SPSS and manual calculation in Excel. To test the validity and reliability of the questionnaire, SPSS and Excel were used. After the data passed the validity and reliability test, classical assumption test which consist of normality test, multicollinearity test, and heteroscedasticity test are conducted using SPSS. Furthermore, hypotheses were tested using Multiple Linear Regression.

## III. RESULTS

### A. Respondent Demographic

The demographic of the respondents will be described based on the age range, domicile, gender, profession, monthly income or pocket money, and type of capital market investment instrument owned of the respondents.

Most of the respondents that filled the questionnaire are in the age range of 20-24 which is the younger ages by reaching 210 respondents (59.15%). Whereas, the rest which is 145 respondents (40.85%) are in the age range of 25 - 29 years old.

The number of respondents vary from each city and district. The highest respondent is from Bandung City which reached 103 respondents (29.01%). In addition, the second highest and the third highest are from Bekasi City which reached 49 respondents (13.80%) and Depok City which reached 30 respondents (8.45%). Furthermore, for the cities, respondents that are from Bogor City reached 19 respondents (5.35%), respondents that are from Sukabumi City reached 9 respondents (2.54%), respondents that are from Cirebon City reached 3 respondents (0.85%), respondents that are from Cimahi City reached 13 respondents (3.66%), respondents that are from Tasikmalaya City reached 8 respondents (2.25%), and respondents that are from Banjar City reached 12 respondents (3.38%). Meanwhile, for the district, the

highest respondent is from Bekasi District which reached 17 respondents (4.79%). Furthermore, respondent that is from Pangandaran District reached 1 respondent (0.28%), respondents that are from West Bandung District reached 6 respondents (1.69%), respondents that are from Karawang District reached 3 respondents (0.85%), respondents that are from Purwakarta District reached 11 respondents (3.10%), respondents that are from Subang District reached 11 respondents (3.10%), respondents that is from Indramayu District reached 1 respondent (0.28%), respondents that are from Sumedang District reached 2 respondents (0.56%), respondents that are from Majalengka District reached 2 respondents (0.56%), respondents that are from Cirebon District reached 13 respondents (3.66%), respondents that are from Kuningan District reached 2 respondents (0.56%), respondents that are from Ciamis District reached 4 respondents (1.13%), respondent that is from Tasikmalaya District reached 1 respondent (0.28%), respondents that are from Garut District reached 3 respondents (0.85%), respondents that are from Bandung District reached 13 respondents (3.66%), respondents that are from Cianjur District reached 2 respondents (0.56%), respondents that are from Sukabumi District reached 2 respondents (0.56%), and respondents that are from Bogor District reached 15 respondents (4.23%).

More than half of all respondents which is 211 respondents (59.44%) are female respondents. Whereas, the rest which is 144 respondents (40.56%) are male respondents.

Most of the respondents are college students which is 190 respondents (53.52%). Furthermore, 124 respondents (34.93%) are private employees, 11 respondents (3.10%) are government employees, 21 respondents (5.92%) are entrepreneur, 2 respondents (0.56%) are fresh graduates, 1 respondent (0.28%) is a writer, and 1 respondent (0.28%) is a forex trader, 2 respondents (0.56%) are freelancers, 2 respondents (0.56%) are BUMN employees, and 1 respondent (0.28%) of the respondents is a jobseeker.

The majority of the respondents is those who have a monthly income or pocket money between Rp 1.000.000 and Rp 2.500.000 are 159 respondents (44.79%). Furthermore, 190 respondents (30.70%) have monthly income or pocket money between Rp 2.500.001 - Rp 5.000.000. Those with monthly income or pocket money between Rp 5.000.001 - Rp 10.000.000 are represented by 72 respondents (20.28%) and the rest of respondents which are 15 respondents (4.23%) have monthly income or pocket money greater than Rp 10.000.000.

Last but not least, the capital market investment instrument that is owned by the most respondents is stocks which accounted for 237 respondents (46.75%). Meanwhile, those who owned bonds as their type of

capital market investment instrument represented by 47 respondents (9.27%). Furthermore, 199 respondents (39.25%) owned mutual funds as their type of capital market investment instrument. Exchange Traded Fund (ETF) and Derivative only represent by 19 respondents (3.75%) and 5 respondents (0.99%) respectively.

### B. Validity and Reliability Test

To assess the validity, the researcher will use Pearson Correlation test. The question is considered as valid if the value of Pearson Correlation is greater than the value of the R table (Berenson, Levine, and Krehbiel, 2012).

To assess the reliability, the researcher will use Cronbach's Alpha and Kuder Richardson (KR)-20 method. The value will be accepted if the value of Cronbach's alpha is greater than 0.7; however, values above 0.6 are also accepted (Griethuijsen et al., 2015; Taber, 2018) for the KR-20 reliability test, it is said to be reliable if the reliability value is greater than the R table value (Yusup, 2018).

Table 1 - RELIABILITY TEST

Variables	N of Items	Cronbach Alpha/R Value	Status
Financial Behavior	8	0.645	Reliable
Financial Knowledge	8	0.597	Reliable
Financial Attitude	8	0.793	Reliable
Investment Decision	8	0.777	Reliable

### C. Financial Literacy Index

This research calculates the index of financial literacy based on the OECD/INFE method of calculation as well, with assessment conditions are as follows:

- o For financial behavior score, 1 point for respondents who put themselves at 4 or 5 on the scale and 0 in all other scales. After that, calculate the average of 8 questions about financial behavior where the average score is the financial behavior score. The financial behavior score takes the range 0 to 8.
- o For financial knowledge score, 1 point for respondents who answered correctly and 0 for incorrect answer. After that, calculate the average of 8 questions about financial knowledge where the average score is the financial knowledge score. The financial knowledge score takes the range 0 to 8.
- o For financial attitude score, the financial attitude score is the average of respondents' answers to 8 questions about financial attitude. The financial attitude score takes the range 1 to 5.

Table 2 - INDEX OF FINANCIAL LITERACY

Variables	Index of Financial Literacy (%)
Financial Behavior Score	83.45
Financial Knowledge Score	79.65
Financial Attitude Score	65.19
Overall Financial Literacy Score	77.65

Based on the table above, it can be known that out of 100, the financial literacy index of young millennials in West Java is 77.65%.

### D. Classical Assumption Test

#### a. Normality Test

As can be seen in Table III, Kolmogorov-Smirnov normality test has yielded a Sig. (2-tailed) of 0.79 > 0.05, an indicator of normal distribution of data.

Table 3 - RESULTS OF NORMALITY TEST

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		355
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	4,36877248
Most Extreme Differences	Absolute	,045
	Positive	,021
	Negative	-,045
Test Statistic		,045
Asymp. Sig. (2-tailed)		,079 <sup>c</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

#### b. Multicollinearity Test

Table IV displays a tolerance value that is greater than 0.10 (tolerance > 0.10) and a VIF that is less than 10 (VIF < 10). Both values simultaneously indicate absence of multicollinearity in financial behavior, financial knowledge, and financial attitude variable.

Table 4 - RESULTS OF MULTICOLLINEARITY TEST

Model	Collinearity Statistics	
	Tolerance	VIF
Financial Behavior	0.936	1.068
Financial Knowledge	0.939	1.065
Financial Attitude	0.995	1.005

### c. Heteroscedasticity Test

As can be seen in Table V, the Spearman Rho heteroscedasticity test has each of yielded a Sig. (2-tailed) > 0.05, an indicator of heteroscedasticity does not occur in the regression model.

Table 5 - RESULTS OF HETEROSCEDASTICITY TEST

Independent Variables	Sig. (2-tailed)
Financial Behavior	0.186
Financial Knowledge	0.710
Financial Attitude	0.548

## E. Multiple Linear Regression

Table VI displays the findings of multiple linear regression analysis using SPSS on the effect of financial literacy that represented by three variables on young millennials investment decision.

Table 6 - RESULTS OF MULTIPLE LINEAR REGRESSION

Model	Estimate	t	Sig.
(Constant)	14.969	5.373	0.000
Financial Behavior	0.587	9.516	0.000
Financial Knowledge	0.373	2.252	0.025
Financial Attitude	0.172	4.598	0.000

This explains that investment decision would have a value of 14.969 in the result table, except for constant, if all variables have a value of zero. The value of financial behavior is 0.587, meaning that an increase in one unit of financial behavior will increase investment decision by 0.587 units. The value of financial knowledge is 0.373, meaning that an increase in one unit of financial knowledge will increase investment decision by 0.373 units. The value of financial attitude is 0.172, meaning that an increase in one unit of financial attitude will increase investment decision by 0.172 units.

## F. Partial Hypothesis Test (T-test)

The partial hypothesis testing or T-test is conducted to indicate the existed correlation between independent

variables which consist of financial behavior, financial knowledge, financial attitude towards young millennials investment decision in West Java.

The existence of correlation between variable will be determined by looking at the Sig. value. The Sig. value less than 0.05 indicates that there is a correlation between independent and dependent variable. However, if the Sig. value is greater than 0.05, it can be concluded that there is no correlation between independent and dependent variable. The output from T-test statistic will be displayed in the table as follows.

Table 7 - PARTIAL HYPOTHESIS TESTING RESULT

Hypothesis	Sig.	Result
Financial behavior has a positive and significant effect on investment decisions	0.186	Accepted
Financial knowledge has a positive and significant effect on investment decisions	0.710	Accepted
Financial attitude has a positive and significant effect on investment decisions	0.548	Accepted

## G. Simultaneous Hypothesis Test (F-test)

Simultaneous test of F test is conducted to analyze the significant correlation between the whole independent variables including financial behavior, financial knowledge, financial attitude towards young millennials investment decision in West Java.

The significant correlation between independent variables and dependent variable will be determined by looking at the Sig. value. The Sig. value than 0.05 indicates that there is a significant correlation between independent and dependent variable. However, if the Sig. value is greater than 0.05, it can be concluded that there is insignificant correlation between independent and dependent variable. The output from F test statistic will be displayed in the table as follows.

Table 8 - SIMULTANEOUS HYPOTHESIS TESTING RESULT

Stimulant Path	Sig.	Result
Financial behavior, financial knowledge, and financial attitude which are representated financial literacy simultaneously have positive and significant effect on young millennial investment decision in West Java.	0.186	Accepted

## H. R-Square Analysis

Table 9 - R-SQUARE MODEL

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.483 <sup>a</sup>	.483 <sup>a</sup>	.227	.387

a. Predictors: (Constant), Financia Attitude, Financial Knowledge, Financial Behavior

From table IX, The Adjusted R Square value shows how much the ability of the model to describe dependent variable variance has. The Adjusted R Square value is 0.227, which indicates that financial literacy that represented by financial behavior, financial knowledge, and financial attitude has an effect of 22.7% on investment decision. Other factors which were not analyzed in this research influenced 77.3%, because investment decision is not only affected by financial literacy, but also affected by other variables.

## IV. DISCUSSION

Financial behavior has a positive and significant effect on young millennials investment decisions in West Java. This is supported by research from Kandpal & Mehrotra's (2018), which found that when it comes to making sensible investing decisions, behavior is crucial. The same thing with research from Mudzingiri et al. (2018) research results prove that financial behavior affects investment decisions. OJK of West Java, Bank Indonesia of West Java, and Self Regulatory Organizations (SRO) of West Java that consisting of the KSEI of West Java, Kliring Penjaminan Efek Indonesia (KPEI) of West Java, and Bursa Efek Indonesia (BEI) of West Java has carried out many programs in order to increase capital market participation and financial literacy such as "Kampanye Simpanan Pelajar", "Ayo Menabung Saham", "Sekolah Pasar Modal", "Portal Sikapi Uangmu", and so on in collaboration with securities companies, banks, and others where this is done on social media and also in the form of Web Seminars (Webinars) which also reach out to social media. Millennials prefer to spend more time using social media than interacting directly (Castela & Costa, 2019; Harmel & Yeh, 2019). The issues that frequently emerge to this generation are using a lot of instant communication technology that makes each individual's behavior change unstably (Berkovits, Moody, & Blacher, 2020; Steinsbekk et al. 2021). Accordingly, millennial life is identical to social media so that what is on social media is one that can change the behavior of a millennial, financial behavior is no exception. All of this goes back to what is in the social media of the millennial, if what is on social media encourages millennials to do positive financial behavior, it can influence millennials to follow the positive financial behavior and vice versa. Therefore, with the many financial education programs carried out on social media by West

Java financial institutions, it can affect the financial behavior of West Java millennials, such as managing cash, making savings provision for emergencies, planning longterm goals, and etc. This is one that link to financial behavior which leads to affect the investment decisions.

Financial knowledge has a positive and significant effect on young millennials investment decisions in West Java. This is supported by research conducted by Akhtar & Das (2019), which states that financial knowledge positively affects investment decisions. Sahi, Arora, & Dhameja (2013) stated that understanding individual investment decisions requires financial knowledge of various behaviors related to investor decision-making itself. In 2021, the Governor of West Java appealed to OJK and Bank Indonesia of West Java to further intensify financial literacy education in West Java. By this appeal, financial literacy education in West Java is also intensively carried out by various parties, such as OJK, Bank Indonesia, banks, universities, and others. Financial literacy education is also currently experiencing developments in its distribution media, as evidenced by the proliferation of financial literacy education conducted by Webinars and social media. With various kinds of financial literacy education that is intensively conducted, surely it will link to financial knowledge. As stated by Castela & Costa (2019) that millennials tend to spend more time using social media than interacting directly. On the other hand, millennials are familiar with a world where personal computers and information are easily accessible, and have distinct expectations concerning technology, communication, and access to information (Abram, 2006). With these millennial characteristics and financial literacy education that is being intensively conducted by various parties, certainly linked to financial knowledge. Therefore, this is one that link to financial knowledge that leads to affect the investment decisions

Financial attitude has a positive and significant effect on young millennials investment decisions in West Java. This is supported by Onodugo et al (2021) in their research that proves financial attitudes have a positive effect on investment decisions which help in determining attitudes and behaviors related to finance such as management, budgeting and making investment decisions. This is in line with the research of Dewi et al (2020) which states that there is a significant relationship between financial attitudes and one's investment decisions. Essentially, financial attitude was formed through beliefs related to economic and/or non-economic aspects believed by the individual (Ajzen, 2011). Based on this, information can influence the mindset, and attitude can affect the financial decision making process. As stated by Abram (2006), millennials are familiar with a world where personal computers and information are easily accessible, and have distinct expectations concerning technology, communication, and access to information. With the

existence of financial literacy programs in West Java which are disseminated through information technology media, it affects the financial attitude of West Java millennials, such as believing it is important to save money, making financial plans, being patient in facing financial problems. Hence, these relate to financial attitudes that lead to affect the investment decisions.

## V. CONCLUSION

Based on this research, the overall index of financial literacy is 77.65%. In more detail, the index of financial behavior is 83.45%, the index of financial knowledge is 79.65%, and the index of financial attitude is 65.19%.

According to OECD (2013) that stated financial literacy is a combination of knowledge, attitude and behavior, and so it makes sense to explore these three components in combination. Set out from this, how financial literacy affects investment decisions can be seen from financial behavior, financial knowledge, and financial attitude. Based on the analysis that has been conducted, these three variables of financial literacy used in this research have positive correlation with young millennials investment decision in West Java partially and simultaneously. Financial literacy that represented by financial behavior, financial knowledge, and financial attitude has an effect of 22.7% on investment decision. For the rest were influenced by other factors which were not analyzed in this research.

Because it is proven that financial literacy has an effect on investment decisions, the recommendation that can be given is that it is necessary to improve financial literacy by strengthening financial literacy education. The role of the government is needed to intensify financial literacy education with a focus on media dissemination through social media and the form of distribution is also adjusted to the tastes and behavior of millennials. Financial experts can also play a role in increasing millennial financial literacy, such as creating educational content related to financial literacy, holding financial literacy education directly through programs that suit millennial tastes. Arranging a policy for investors to study about financial knowledge education first before investing and also after starting to invest, set up regular discussions between fellow investors or in a capital market community.

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