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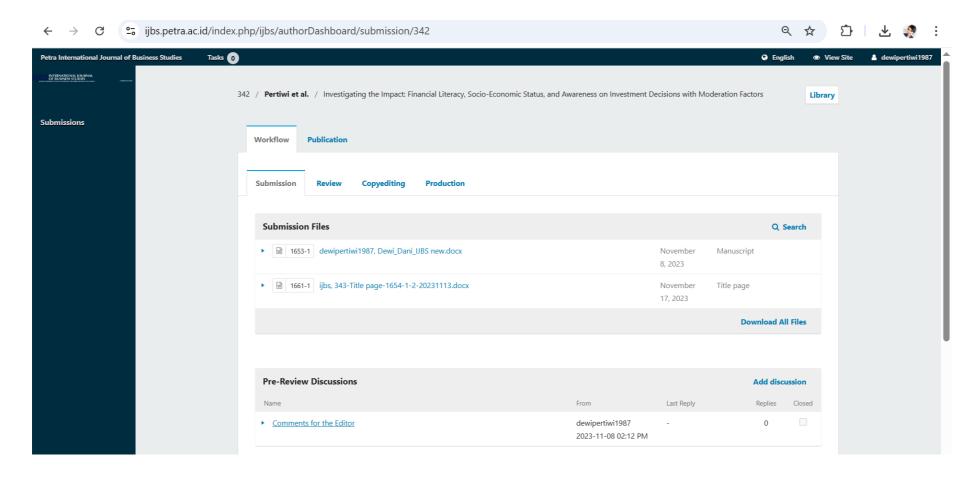
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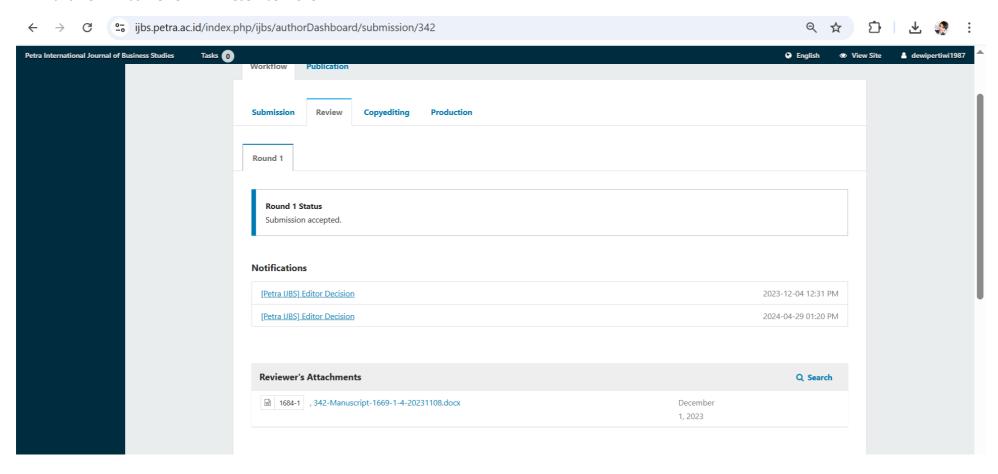
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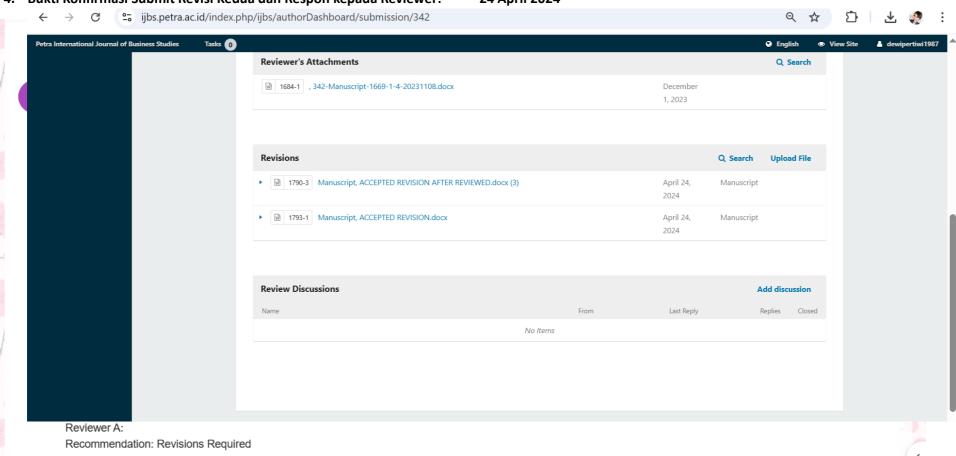
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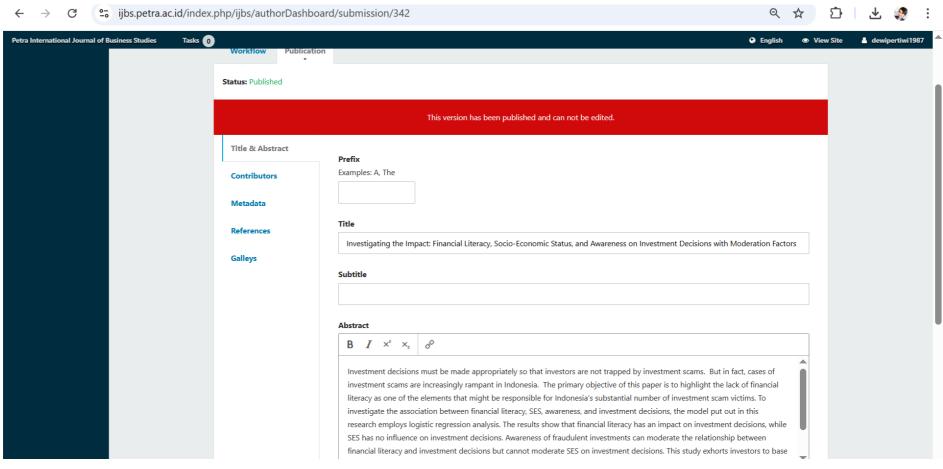


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# **Investment Scams among Millennials and Generation Z in Indonesia Abstract**

Individuals need to invest to protect their assets and the declining value of their currency due to inflation. Investment decisions must be made appropriately so that investors are not trapped by investment scams. But in fact, cases of investment scams are increasingly rampant in Indonesia. The number of investors in Indonesia is dominated by investors from the Millennial generation and generation Z who come from Java. This is what underlies researchers to analyze investment scams in Indonesia, especially in the Millennial generation and generation Z from Java Island. The primary objective of this paper is to highlight the lack of financial literacy as one of the elements that might be responsible for Indonesia's substantial number of investment scam victims. In addition to financial literacy, the authors take socio-economic status (SES) and awareness of fraudulent investments factors. To limit the impact of financial literacy and SES on investment decisions, the authors additionally take gender and educational attainment. To investigate the association between financial literacy, SES, awareness, and investment decisions, the model put out in this research employs logistic regression analysis. 200 investors in Java Island from the Millennial and generation Z contribute to the sample. The results show that financial literacy has an impact on investment decisions, while SES has no influence on investment decisions. Awareness of fraudulent investments can moderate the relationship between financial literacy and investment decisions but cannot moderate SES on investment decisions. The presence of education level and gender as control variables further strengthens the result that financial literacy is related to investment decisions, while SES is not related to investment decisions. The primary limitation of this empirical study is the small number of participants, which mainly examines generation Z and millennials on Java Island. This study exhorts investors to base their investment choices on their financial literacy rather than on outside influences. Financial literacy training programs should be developed by the government, financial institutions, and educational institutions. In the context of Indonesia, this study is the first of its kind to concentrate on the relationship between financial literacy, socioeconomic status, and awareness as a moderating component, and involves education level and gender as control factors.

**Keywords:** Investment Scams, Financial Literacy, Socio-economic Status, Investment Decision, Awareness

### 1. Introduction

The Covid-19 event and the conflict between Russia and Ukraine have caused inflation in countries around the world. Even several countries in the African region, such as Zimbabwe and Lebanon, have experienced hyperinflation, which is above 100% to 200% on an annual basis (Kusnandar, 2022). High inflation will reduce people's purchasing power, so individuals need to invest to protect their assets and the declining value of the currency due to inflation.

Bodie et al., (2021) explain that investment is an activity of placing a sum of money or other resources carried out at this time and is expected to benefit in the future. By investing, one can increase the value of money over time and benefit from compound interest and long-term growth. On the other hand, investment is important for future income and wealth accumulation (Farley, 2022). An investor as an individual who places money in a particular investment product with the aim of seeking expected returns, and the focus of investors is to maximize profits and minimize risks (Rahman & Gan, 2020). In addition to the goal of financial security, investments are a way for investors to achieve financial independence, build wealth, and reach financial goals (Reserve Bank of Fiji, 2019). In other words, investments are the tools that investors use to achieve their financial goals.

As of the 2022 G20 Presidency, Indonesia is one of the countries that experienced an increase in investment realization in the first quarter of 2022 by 28.5 percent compared to the same period in 2021. Over the past 5 (five) years, investment realization in Indonesia has increased (Dihni, 2022). Data shows that the number of Single Investor Identification (SID) has reached 4,002,289, with 99.79% being local individual investors (Indonesian Central Securities Depository (KSEI, 2022). This data proves that Indonesians are increasingly aware of the importance of investing. Meanwhile, data on the distribution of domestic investors shows that 69.59% of investors come from people in Java (KSEI, 2022). Based on age, the data shows that 59.72% of investors are under 30 years old, and 21.92% of investors are 30-41 years old (KSEI, 2022). This shows that investors in Indonesia are dominated by investors from the Millennial generation and generation Z who come from Java Island.

Millennials and Generation Z are both raised in the world of social media and smartphones, so they are automatically tech-savvy. Amidst the rapid development of digitalization, the mindset of these two generations tends to be instantaneous and concerned with the popularity of the social media used. Such digitalization has made trading securities easier and cheaper, and account opening can also be done via the internet. This is what is believed by the Financial

Services Authority (OJK) in (Natalia, 2022) as the reason why these two generations are busy becoming investors. Despite the ease of access to information about investments, neither generation has the resources to diversify their portfolios widely, thus it is limited. On the other hand, young investors tend to create accounts in securities to imitate friends or influencers (Paramita et al., 2018). This results in both generations being easily trapped in investment scams.

News about fraudulent investments is increasingly prevalent in Indonesia. According to the Investment Alert Task Force (SWI), the public has lost Rp 117 trillion because of illicit investments over the last ten years (Wareza, 2021). Unrealistic returns are promised by illegal investments in a short amount of time. Eradication of SWI is challenging because of how easily offenders shift their identities and tactics. According to Tongam L Tobing, Chairman of the IATF, there are 3 (three) things that cause people to fall into fraudulent investments, namely: being easily influenced by influencers who show off their wealth or flexing on social media, the desire to get high returns in a fast time, and low financial literacy (Handayani, 2022). Therefore, Millennials and Generation Z need to have the right investment awareness and decisions to avoid harmful investment scams.

Particularly in developed and emerging nations, financial literacy can lead to financial stability (Arif, 2015). Previous research has found that financial literacy affects investment decisions (Arif, 2015; Lusardi, 2019; Mouna & Jarboui, 2015; Padil et al., 2022). Financial literacy is basically defined as an individual's ability to read, understand, and process financial information and act on that understanding when making financial decisions (Saeedi & Hamedi, 2018). One of the benefits of financial literacy is to increase individual awareness to make the right financial decisions to avoid investment fraud. Through financial literacy, Millennials and Generation Z can understand the returns and risks that will occur so that they can make the right investment decisions. But not all investors are experienced in anticipating risks in financial instruments. Low financial literacy has the potential to result in investors becoming victims of investment scams.

In addition to financial literacy, socio-economic status (SES) is also one of the factors that influence investment decisions (Prasad et al., 2021). One of the calculations of SES is measured by the amount of household expenditure. Household spending often depends on disposable income. If the household income is high enough, they can allocate more money towards daily expenses such as living expenses, bills, and other necessities. In this case, there may be more money to invest. Personal income is compensation (in the form of money) received by a person from a few resources, such as: salaries, wages, and bonuses received from employment or self-employment, dividends and distributions received from investments, rental income from real estate investments, and profit sharing from

business (Kagan, 2023). Generally, a person's investment decision will be determined by the amount of income earned (Atmaningrum et al., 2021). However, no matter how high a person's income level is, if it is not supported by good financial management, it will certainly be difficult to achieve financial security.

The problem in the study is based on the research of (Padil et al., 2022) which examines financial literacy and awareness of investment scams, then the researcher develops it with the social economic status. The author hopes that this research can be useful for the Millennial and Y generation, to increase financial literacy and increase awareness of the dangers of investment fraud. With this awareness, people can be encouraged to make the right investment decisions and have a more prosperous life in the future.

### 2. Literature Review

### 2.1. Financial Literacy

In view of the rise in investment scams, there is a growing need for improved financial literacy among society. This is essential for effectively managing finances and protecting against financial exploitation. Financial literacy empowers individuals to budget for daily expenses, establish emergency funds, save for education, and prepare for retirement (Goyal & Kumar, 2021). Enhanced financial literacy not only benefits individuals but also promotes financial inclusion, with positive implications for the broader economy (Grohmann & Menkhoff, 2020).

A crucial measure of individuals' capacity to make sound financial choices is their degree of financial literacy. The Organization for Economic Co-operation and Development (OECD) accurately characterizes financial literacy as encompassing not just the grasp of financial concepts and risks, but also the abilities, drive, and self-assurance to utilize this comprehension effectively in various financial situations (OECD, 2017). This application of knowledge is aimed at enhancing the financial welfare of individuals and society as a whole and facilitating active engagement in economic activities.

Financial literacy is essential abilities for overseeing one's financial security and prosperity (Bucciol et al., 2021). Therefore, it's critical to assess the results of treatments meant to increase financial literacy and confidence. Financial literacy holds significant importance in preventing individuals from encountering financial difficulties, as it frequently necessitates trade-offs between different financial interests. Individuals with greater financial literacy are more adept at navigating and making sound decisions regarding various financial challenges that may arise (Lusardi, 2019). These future financial challenges can encompass diverse situations, including covering medical expenses, effectively managing, and repaying debts, financing education, or making future purchases.

Individuals achieve financial literacy when they possess the knowledge, comprehension, and abilities required to manage their personal finances effectively. However, they can only be deemed financially capable when this expertise is translated into their real financial actions and behaviors (Goyal & Kumar, 2021). In line with Arif (2015), to achieve personal financial goals, financial literacy involves managing cash flow, asset allocation, and budgets.

To equip individuals with the means to make more informed financial choices, it's crucial to not only gauge their existing knowledge but also identify what additional knowledge they require, and subsequently, assess the disparity between these two. There exist several fundamental principles that underlie most of the financial decision-making. (Lusardi, 2019) employ three fundamental questions, often referred to as "The Big Three," as a means of assessing financial literacy, which include (1) numeracy related to the ability to perform interest rate calculations and understand compound interest; (2) understanding inflation; (3) understanding risk diversification.

Individuals with low financial literacy who have confidence in their own decision-making often experience financial losses. In a study by (Jappelli & Padula, 2015), a positive connection was established between financial literacy and wealth, suggesting that financial literacy opens better investment opportunities for individuals. Investors who lack sufficient financial expertise may be more susceptible to deception and make foolish investment choices (Arif, 2015). Thus, someone who has low financial literacy tends to be a victim of investment scams.

### 2.2. Socio-economic status

Based on the prior literature, SES encompasses two main components. The first one is resource-related factors (Navarro-Carrillo et al., 2020), which include material resources, social resources, assets like income and wealth, and educational qualification. Other than that, prestige-related resources refer to how individuals or households are positioned within the social hierarchy in terms of their access to and utilization of goods, services, and knowledge (Deshmukh & Akkilagunta, 2020). Moreover, SES is measured along three major domains, education, occupation, and income that affect successively investment decisions. An individual or group's socioeconomic status (SES) might be determined through considering a variety of social and economic criteria, including their financial status, level of education, job, place of residence, and, in some societies, their cultural or religious background.

When associated, people with less education are more likely to fall to investment scams. There are some factors that can affect this statement. People with less education means that they have limited understanding about economic concepts and factors that drive macroeconomic conditions. Other than that, less-educated people believe that stocks market returns

won't make that much because they do not follow the latest news. Moreover, the lack of confidence, with a skewed view of the financial investment instruments and the stock market can encourage individuals to be more easily influenced by various other factors, including frauds or investment scams. And based on the prior research by Kuhnen & Miu (2017), less educated people in the U.S. only invest 8% of their income into stocks and decide their own investment choices or decisions.

### 2.3. Awareness on investment scams

When someone attempts to trick others into investing money, that's considered investment scams. They could convince people to make investments in assets such as stocks, bonds, notes, commodities, money, or even real estate. Conscious individuals will understand that there are risks of fraud associated with investing, and individuals should be alert to signs that indicate potential fraud. The perceived comprehension of knowledge regarding investment fraud, which can be acquired by reading, experience, or education, is known as awareness on investment scam (Padil et al., 2022). This awareness also includes realizing that internet platforms are becoming the scene of a rising number of investment fraud instances. Several techniques are used in these investment frauds, such as the promotion of fictitious investment plans and the employment of unregistered influencers or celebrities to offer financial advice (Kasim et al., 2023).

Individuals who are aware of investment fraud usually demonstrate the following features: aware that some con artists rely on their capacity to attract new investors, that some con artists portray opulent lifestyles and social status to attract new investors, that they may become targets of pyramid and Ponzi schemes, that some manipulate artists rely on celebrities and public figures to attract new investors, and that investment schemes that guarantee extremely high returns should not be trusted (Padil et al, 2020).

### 2.4 Investment Decision

Lending decisions and investment decisions have connections that involve people trusting others with their money in the expectation of receiving a higher return subsequently on. If they act on incorrect decisions, creditors and investors are additionally at risk of suffering damages (Harsoyo & Zulaikha, 2021). The investment decision is a decision that is made by an investor to allocate funds to a financial product with the intention of pursuing the anticipated profit. The investor's primary goal is to maximize returns while avoiding risk (Rahman & Gan, 2020). This study analyzes the investment decision of an investor who is a victim of fraudulent investment.

Here is an image presenting a conceptual framework of the variables to be examined, depicted as follows:

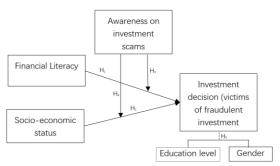


Figure 1. Conceptual Framework

Based on the description and framework provided, the researcher formulates the following research hypothesis:

H1: There is an effect between financial literacy and investment decision.

H2: There is a correlation between socio-economic status and investment decisions.

H3: Awareness of investment scams can moderate the influence of financial literacy on investment decisions. H4: The correlation among SES and investments is moderated by awareness on investment scams.

H5: There is an influence between financial literacy and SES on investment decisions by controlling education level and gender.

### 3. Methods

This type of research employs an associative research design with a quantitative approach. The population in this study consists of the entire population belonging to the Millennial and Generation Z generations in Indonesia. The population belonging to the millennial generation includes individuals born approximately between 1981 and 1996, while the Generation Z population comprises those born around 1997 to the mid-2010s. According to the statistics from the BPS (2023) 2020 Population Census, Indonesia has 144.87 million millennials and members of generation Z.

Purposive sampling, or selecting participants based on predetermined criteria, was the sampling approach utilized in this study. The following sample criteria are used to select research subjects: 1) participants must stay on the island of Java and have an identity there; and 2) participants must be between the ages of 18 and 45. The Slovin approach and BPS statistics for 2020 can be utilized to calculate the minimum sample size, consequently 99,862 samples must be collected in total.

The data used in this study were obtained directly from primary data. These were collected by giving participants a questionnaire consisting of multiple-choice questions tailored to their knowledge and characteristics. The questions offered to respondents were structured as multiple-choice queries, which were used to assess their financial literacy. Additionally, the available response options are ranked on an ordinal

scale based on socioeconomic status (SES) and demographic factors. To assess the cognitive variable, the questionnaire used the Likert scale method. In this study, the Likert scale used ranged from 1 to 5, including responses such as "Strongly disagree" (SD), "Disagree" (D), "Agree". moderate" (MA), "Agree" (A) and "Strongly agree" (SA). After collecting data from respondents, the existing data is processed with the statistical application IBM SPSS.

### 4. Analysis

The number of surveys distributed and completed by researchers reached 200. Most respondents in this study reside in key economic hubs such as West Java (28%), DKI Jakarta (29,5%), and East Java (23,5%). Notably, Generation Z (aged 18-24) comprises the largest segment at 29,5%. These statistics substantiate various trends and assertions regarding the increasing popularity of investments, particularly in stocks and mutual funds, among both millennials and Generation Z.

Moreover, the predominance of respondents from Java has been identified as a significant factor influencing other study outcomes. Several implications can be delineated from this observation. The findings reveal that a substantial proportion of respondents belong to the upper economic stratum, constituting 44%, while 40% fall within the middle-class bracket. Remarkably, a staggering 98% of these individuals have invested in diverse financial instruments. This underscores the robust investment awareness prevalent in Java Island, transcending respondents' occupations, professions, and marital statuses.

Table 1. Respondent profile

Para	ameter	Frequency	%
Gender	Male	79	39.5
	Female	121	60.5
Age	18 - 24 years	59	29.5
	25 - 30 years	59	29.5
	31 - 35 years	39	19.5
	36 - 40 years	33	16.5
	41 - 45 years	10	5
SES	Lower 1	10	9.1
Grade	Lower 2	25	22.7

	Middle 1	51	46.4
	Middle 2	24	21.8
	Upper 1	44	22
	Upper 2	46	23
Marital Status	Single	105	52.5
	Married	95	47.5

Source: processed data

The questionnaire results show that 52% of respondents have high financial literacy, while 48% have low financial literacy. Financial knowledge that is categorized as high is indicated by the accuracy in answering questions related to financial knowledge. SES Upper 1 has the highest frequency, which is 23%. But SES Middle 1 and Upper 1 are not much different, at 22%. The lowest frequency is Lower 2, which is only 4%. Awareness of the respondents is also high, at 97.5%. This supports the result that only 20% of respondents have been victims of fraudulent investments.

In this study, validity testing was carried out on 200 respondents. Decision making is based on comparing the value of the number r with the table r. The validity and reliability tests in this study were carried out for the awareness variable which contained several questions related to awareness of investment. Based on table 2, it is known that the r count is greater than the r table, so it can be concluded that the data is valid.

Table 2. Validity test

Table 2. Validity test				
Variable	In- dicat	r count	r table	explana- tion
	or			
Awarness	A1	0,658**	0,1388	valid
	A2	0,651**	0,1388	valid
	A3	0,665**	0,1388	valid
	A4	0,578**	0,1388	valid
	A5	0,496**	0,1388	valid
	A6	0,568**	0,1388	valid
	A7	0,654**	0,1388	valid
	A8	0,612**	0,1388	valid
	A9	0,677**	0,1388	valid
	A10	0,721**	0,1388	valid

Source: processed data

Cronbach's alpha value is used for reliability testing. Based on Table 3, the Cronbach alpha value is 0.821 and a number greater than 0.6 is a reliable determination. It can be concluded that the questions that represent the cognitive variable are reliable or that

the answers are consistent over time. The reliability for each variable is presented in the following table:

Table 3. Reliability test

1 11 10 10 11 11 11 11	Tubic of Itelian Inter				
Variable	Cronbach's	Explanation			
	Alpha				
Awareness	0,821	Reliabel			

Source: processed data

Table 4 indicates that the 89 respondents with high levels of financial literacy are not the victims of fraudulent investments. In contrast, 25 individuals with insufficient financial literacy had fallen victims to fraudulent investment.

Table 4. Crosstab Financial Literacy

		Low	High	Total
Invest- ment scams	No	71	89	160
5441115	Yes	25	15	40
TOTA	<b>A</b> L			
		96	104	200

Source: processed data

Table 5 shows that 73 people in the Upper 1-2 SES did not become victims of fraudulent investments. Meanwhile, 18 people from Middle 1-2 SES have become victims of fraudulent investments.

Table 5. Crosstab Social-Economy Status (SES)

		Lower (1-2)	Middle (1-2)	Upper (1-2)	Total	
Invest- ment	No	24	63	73	160	
scams	Ye s	5	18	17	40	
ТОТА		29	81	90	200	
	101AL 29 81 90 200					

Source: processed data

In accordance with Table 6, 155 respondents having high knowledge do not currently fall prey to fraudulent investments, whereas 40 respondents with high awareness have already experienced this.

 Table 6. Crosstab Awareness

		Low	High	Total
Invest- ment	No	5	155	160
scams	Yes	0	40	40
TOTA	AL			
		5	195	200

Source: processed data

The intersection among financial literacy and investment scams has been shown to have an important coefficient of 0.040, based on table 7. With the consequence of the significance value around 0.05, it is evident that there is a relationship between financial literacy and investment scams.

**Table 7.** Chi square test

Variable	Sig.
FL*Invest Dec	0,04
SES*Inv Dec	0.839

Source: processed data

The intersection among SES and investment scams has been shown to have an important coefficient of 0.839, it is evident that there is no relationship between SES and investment scams.

Table 8. Model summary logistic regression

S	tep	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
	1	174,050	0,122	0,1946

Source: processed data

The -2 Log Likelihood value < Chi Square Table (174.050 < 229.663) so it is concluded that the model after including the independent variable has met the test requirements.

Table 9. Binary Logistic Regression Result

Variable	Sig.
FL	0,017
SES	0,528
FL*Awareness	0,000
SES*Awareness	0,094

Source: processed data

Based on the results presented in table 9, it might be determined that the FL variable impacts decisions concerning investments, and SES has no effect on decisions. This outcome validates the findings of the chi-square test. After adding moderation variables, the test results show that awareness can moderate the effect of FL on Invest Dec, but Awareness is not able to moderate the effect of SES on Invest Dec.

**Table 10.** Correlation Result (with additional control variable)

Variable	Sig.
FL	0,000
SES	0,802

Source: processed data

It is evident from the findings in table 10, we discover a link with investment decision and financial literacy after controlling for education level and gender, but not for SES.

### 5. Discussion

This study discovered a relationship between financial literacy and an investor's decision to invest in a fraudulent investment. Investors with strong financial literacy have a better chance of deciding wisely, avoiding untrue investments. On the other hand, investors with poor financial literacy are more likely to fall victim to fraudulent schemes. Investors in Millennials and Generation Z will be less likely to lose money on shady deals if they know how to calculate interest rates, comprehend inflation, and diversify their risks. The rewards from fraudulent investments are typically substantially higher than those from traditional investments and have exceptionally high rates of return. (Singh & Misra, 2022) research from India, which indicated that financial literacy lowers the probability of people participating in dishonest investment schemes, lends credence to the findings of this study.

An investor who is familiar with compound interest will be better able to spot a phony investment and avoid falling victim to fraud. Contrarily, unlawful investments frequently declare that their investments are low-risk or risk-free. An investor who understands risk and diversification of risks will be likely to calculate investment risk more accurately than those who do not. Investors who don't comprehend risk are more likely to fall victim to shady deals. These findings are in line with (Arif, 2015), which states that financial literacy is related to investment decisions. Increased financial literacy will help investors make better investment decisions. This is reinforced by Arianti (2018), which found that the primary variable in determining how individual investing decisions behave is financial literacy.

This study found that SES has no effect on investment decisions. SES obtained from total monthly household spending, cooking fuel, and drinking water does not affect a person's decision to place their funds in a particular asset. This shows that someone who has a lower or middle or upper status has nothing to do with being a victim of fraudulent investment. So, the decision is not based on the SES ownership. The results of this investigation are different from those of previous research studies. According to the Prasad et al. (2021), socio-economic factors were found to be an important factor influencing investment decisions for both men and women. The total amount of money expended does not determine an individual's investment choice because decisions regarding investments are influenced by many factors, including human characteristics like overconfidence, herd mentality, trait rage, trait anxiety, self-control, optimism, deliberative thinking (Hidajat et al., 2021; Kasoga & Tegambwage, 2022; Rahman & Gan, 2020).

The association between financial literacy and investment decisions can be strengthened or weakened depending on awareness. Millennials or Gen Y who understand the philosophy of interest rates and the economic value of money will avoid making fraudulent investments, because he is fully aware that investment schemes that promise unusually large returns cannot be trusted. Financial literacy is essential for making smart investment decisions, but being aware of investment scams provides an additional layer of security. It aids people in identifying potential dangers and using care while assessing investment prospects. Together, financial literacy and scam awareness build a more knowledgeable and resistant investor, decreasing the risk of falling for shady schemes and improving the overall standard of investing choices. However, awareness cannot strengthen or weaken the relationship between SES and investment decisions. A person who has an upper, middle, or lower economic status with high or low awareness, cannot affect his investment decision.

Results from the fifth hypothesis' test are consistent with those from the first and second hypotheses. Financial literacy and investing choices are associated, even when taking gender and education level into consideration. However, when using education level and gender as controls, SES failed to foresee investment choices.

### 6. Conclusions

A conclusion section should be brief and may act as a standalone section or form a subsection of a Discussion or Results and Discussion section.

Financial literacy among millennials and generation Z in Java Island influences their investment decisions. Most of the respondents with excellent financial literacy are not the victims of shady investments. This finding can be a reason that millennials and generation Z need to improve financial literacy. Making financial goals early on, reading financial books, watching financial videos online, or using financial applications are some of the things that

can be done to increase financial literacy. Other things to consider are being disciplined in budgeting, saving, and investing. On the flip side, socio-economic status has no effect on the investment decisions of Millennials and Generation Z. A person with a large or small monthly household expenditure and a large or small number of family members will not be able to decide on an investment. Investment decisions are complicated to make and are influenced by many different things, such as personal preferences, risk tolerance, financial literacy, and resource availability. These elements can be indirectly influenced by socioeconomic level, which might result in variations in investment behavior among people with varying SES.

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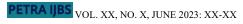
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# Reviewer's Attachments 1 Dec, 2023



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### Investment Scams among Millennials and Generation Z in Indonesia Abstract

Individuals need to invest to protect their assets and the declining value of their currency due to inflation. Investment decisions must be made appropriately so that investors are not trapped by investment scams. But in fact, cases of investment scams are increasingly rampant in Indonesia. The number of investors in Indonesia is dominated by investors from the Millennial generation and generation Z who come from Java. This is what underlies researchers to analyze investment scams in Indonesia, especially in the Millennial generation and generation Z from Java Island. The primary objective of this paper is to highlight the lack of financial literacy as one of the elements that might be responsible for Indonesia's substantial number of investment scam victims. In addition to financial literacy, the authors take socio-economic status (SES) and awareness of fraudulent investments factors. To limit the impact of financial literacy and SES on investment decisions, the authors additionally take gender and educational attainment. To investigate the association between financial literacy, SES, awareness, and investment decisions, the model put out in this research employs logistic regression analysis, 200 investors in Java Island from the Millennial and generation Z contribute to the sample. The results show that financial literacy has an impact on investment decisions, while SES has no influence on investment decisions. Awareness of fraudulent investments can moderate the relationship between financial literacy and investment decisions but cannot moderate SES on investment decisions. The presence of education level and gender as control variables further strengthens the result that financial literacy is related to investment decisions, while SES is not related to investment decisions. The primary limitation of this empirical study is the small number of participants, which mainly examines generation Z and millennials on Java Island. This study exhorts investors to base their investment choices on their financial literacy rather than on outside influences. Financial literacy training programs should be developed by the government, financial institutions, and educational institutions. In the context of Indonesia, this study is the first of its kind to concentrate on the relationship between financial literacy, socioeconomic status, and awareness as a moderating component, and involves education level and gender as control factors.

**Keywords:** Investment Scams, Financial Literacy, Socio-economic Status, Investment Decision, Awareness

### 1. Introduction

The Covid-19 event and the conflict between Russia and Ukraine have caused inflation in countries around the world. Even several countries in the African region, such as Zimbabwe and Lebanon, have experienced hyperinflation, which is above 100% to 200% on an annual basis (Kusnandar, 2022). High inflation will reduce people's purchasing power, so individuals need to invest to protect their assets and the declining value of the currency due to inflation.

Bodie et al., (2021) explain that investment is an activity of placing a sum of money or other resources carried out at this time and is expected to benefit in the future. By investing, one can increase the value of money over time and benefit from compound interest and long-term growth. On the other hand, investment is important for future income and wealth accumulation (Farley, 2022). An investor as an individual who places money in a particular investment product with the aim of seeking expected returns, and the focus of investors is to maximize profits and minimize risks (Rahman & Gan, 2020). In addition to the goal of financial security, investments are a way for investors to achieve financial independence, build wealth, and reach financial goals (Reserve Bank of Fiji, 2019). In other words, investments are the tools that investors use to achieve their financial goals.

As of the 2022 G20 Presidency, Indonesia is one of the countries that experienced an increase in investment realization in the first quarter of 2022 by 28.5 percent compared to the same period in 2021. Over the past 5 (five) years, investment realization in Indonesia has increased (Dihni, 2022). Data shows that the number of Single Investor Identification (SID) has reached 4,002,289, with 99.79% being local individual investors (Indonesian Central Securities Depository (KSEI, 2022). This data proves that Indonesians are increasingly aware of the importance of investing. Meanwhile, data on the distribution of domestic investors shows that 69.59% of investors come from people in Java (KSEI, 2022). Based on age, the data shows that 59.72% of investors are under 30 years old, and 21.92% of investors are 30-41 years old (KSEI, 2022). This shows that investors in Indonesia are dominated by investors from the Millennial generation and generation Z who come from Java Island.

Millennials and Generation Z are both raised in the world of social media and smartphones, so they are automatically tech-savvy. Amidst the rapid development of digitalization, the mindset of these two generations tends to be instantaneous and concerned with the popularity of the social media used. Such digitalization has made trading securities easier and cheaper, and account opening can also be done via the internet. This is what is believed by the Financial

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Services Authority (OJK) in (Natalia, 2022) as the reason why these two generations are busy becoming investors. Despite the ease of access to information about investments, neither generation has the resources to diversify their portfolios widely, thus it is limited. On the other hand, young investors tend to create accounts in securities to imitate friends or influencers (Paramita et al., 2018). This results in both generations being easily trapped in investment scams.

News about fraudulent investments is increasingly prevalent in Indonesia. According to the Investment Alert Task Force (SWI), the public has lost Rp 117 trillion because of illicit investments over the last ten years (Wareza, 2021). Unrealistic returns are promised by illegal investments in a short amount of time. Eradication of SWI is challenging because of how easily offenders shift their identities and tactics. According to Tongam L Tobing, Chairman of the IATF, there are 3 (three) things that cause people to fall into fraudulent investments, namely: being easily influenced by influencers who show off their wealth or flexing on social media, the desire to get high returns in a fast time, and low financial literacy (Handayani, 2022). Therefore, Millennials and Generation Z need to have the right investment awareness and decisions to avoid harmful investment scams.

Particularly in developed and emerging nations, financial literacy can lead to financial stability (Arif, 2015). Previous research has found that financial literacy affects investment decisions (Arif, 2015; Lusardi, 2019; Mouna & Jarboui, 2015; Padil et al., 2022). Financial literacy is basically defined as an individual's ability to read, understand, and process financial information and act on that understanding when making financial decisions (Saeedi & Hamedi, 2018). One of the benefits of financial literacy is to increase individual awareness to make the right financial decisions to avoid investment fraud. Through financial literacy, Millennials and Generation Z can understand the returns and risks that will occur so that they can make the right investment decisions. But not all investors are experienced in anticipating risks in financial instruments. Low financial literacy has the potential to result in investors becoming victims of investment scams.

In addition to financial literacy, socio-economic status (SES) is also one of the factors that influence investment decisions (Prasad et al., 2021). One of the calculations of SES is measured by the amount of household expenditure. Household spending often depends on disposable income. If the household income is high enough, they can allocate more money towards daily expenses such as living expenses, bills, and other necessities. In this case, there may be more money to invest. Personal income is compensation (in the form of money) received by a person from a few resources, such as: salaries, wages, and bonuses received from employment or self-employment, dividends and distributions received from investments, rental income from real estate investments, and profit sharing from

business (Kagan, 2023). Generally, a person's investment decision will be determined by the amount of income earned (Atmaningrum et al., 2021). However, no matter how high a person's income level is, if it is not supported by good financial management, it will certainly be difficult to achieve financial security.

The problem in the study is based on the research of (Padil et al., 2022) which examines financial literacy and awareness of investment scams, then the researcher develops it with the social economic status. The author hopes that this research can be useful for the Millennial and Y generation, to increase financial literacy and increase awareness of the dangers of investment fraud. With this awareness, people can be encouraged to make the right investment decisions and have a more prosperous life in the future.

### 2. Literature Review

### 2.1. Financial Literacy

In view of the rise in investment scams, there is a growing need for improved financial literacy among society. This is essential for effectively managing finances and protecting against financial exploitation. Financial literacy empowers individuals to budget for daily expenses, establish emergency funds, save for education, and prepare for retirement (Goyal & Kumar, 2021). Enhanced financial literacy not only benefits individuals but also promotes financial inclusion, with positive implications for the broader economy (Grohmann & Menkhoff, 2020).

A crucial measure of individuals' capacity to make sound financial choices is their degree of financial literacy. The Organization for Economic Co-operation and Development (OECD) accurately characterizes financial literacy as encompassing not just the grasp of financial concepts and risks, but also the abilities, drive, and self-assurance to utilize this comprehension effectively in various financial situations (OECD, 2017). This application of knowledge is aimed at enhancing the financial welfare of individuals and society as a whole and facilitating active engagement in economic activities.

Financial literacy is essential abilities for overseeing one's financial security and prosperity (Bucciol et al., 2021). Therefore, it's critical to assess the results of treatments meant to increase financial literacy and confidence. Financial literacy holds significant importance in preventing individuals from encountering financial difficulties, as it frequently necessitates trade-offs between different financial interests. Individuals with greater financial literacy are more adept at navigating and making sound decisions regarding various financial challenges that may arise (Lusardi, 2019). These future financial challenges can encompass diverse situations, including covering medical expenses, effectively managing, and repaying debts, financing education, or making future purchases.

Individuals achieve financial literacy when they possess the knowledge, comprehension, and abilities required to manage their personal finances effectively. However, they can only be deemed financially capable when this expertise is translated into their real financial actions and behaviors (Goyal & Kumar, 2021). In line with Arif (2015), to achieve personal financial goals, financial literacy involves managing cash flow, asset allocation, and budgets.

To equip individuals with the means to make more informed financial choices, it's crucial to not only gauge their existing knowledge but also identify what additional knowledge they require, and subsequently, assess the disparity between these two. There exist several fundamental principles that underlie most of the financial decision-making. (Lusardi, 2019) employ three fundamental questions, often referred to as "The Big Three," as a means of assessing financial literacy, which include (1) numeracy related to the ability to perform interest rate calculations and understand compound interest; (2) understanding inflation; (3) understanding risk diversification.

Individuals with low financial literacy who have confidence in their own decision-making often experience financial losses. In a study by (Jappelli & Padula, 2015), a positive connection was established between financial literacy and wealth, suggesting that financial literacy opens better investment opportunities for individuals. Investors who lack sufficient financial expertise may be more susceptible to deception and make foolish investment choices (Arif, 2015). Thus, someone who has low financial literacy tends to be a victim of investment scams.

### 2.2. Socio-economic status

Based on the prior literature, SES encompasses two main components. The first one is resource-related factors (Navarro-Carrillo et al., 2020), which include material resources, social resources, assets like income and wealth, and educational qualification. Other than that, prestige-related resources refer to how individuals or households are positioned within the social hierarchy in terms of their access to and utilization of goods, services, and knowledge (Deshmukh & Akkilagunta, 2020). Moreover, SES is measured along three major domains, education, occupation, and income that affect successively investment decisions. An individual or group's socioeconomic status (SES) might be determined through considering a variety of social and economic criteria, including their financial status, level of education, job, place of residence, and, in some societies, their cultural or religious background.

When associated, people with less education are more likely to fall to investment scams. There are some factors that can affect this statement. People with less education means that they have limited understanding about economic concepts and factors that drive macroeconomic conditions. Other than that, less-educated people believe that stocks market returns

won't make that much because they do not follow the latest news. Moreover, the lack of confidence, with a skewed view of the financial investment instruments and the stock market can encourage individuals to be more easily influenced by various other factors, including frauds or investment scams. And based on the prior research by Kuhnen & Miu (2017), less educated people in the U.S. only invest 8% of their income into stocks and decide their own investment choices or decisions.

### 2.3. Awareness on investment scams

When someone attempts to trick others into investing money, that's considered investment scams. They could convince people to make investments in assets such as stocks, bonds, notes, commodities, money, or even real estate. Conscious individuals will understand that there are risks of fraud associated with investing, and individuals should be alert to signs that indicate potential fraud. The perceived comprehension of knowledge regarding investment fraud, which can be acquired by reading, experience, or education, is known as awareness on investment scam (Padil et al., 2022). This awareness also includes realizing that internet platforms are becoming the scene of a rising number of investment fraud instances. Several techniques are used in these investment frauds, such as the promotion of fictitious investment plans and the employment of unregistered influencers or celebrities to offer financial advice (Kasim et al., 2023).

Individuals who are aware of investment fraud usually demonstrate the following features: aware that some con artists rely on their capacity to attract new investors, that some con artists portray opulent lifestyles and social status to attract new investors, that they may become targets of pyramid and Ponzi schemes, that some manipulate artists rely on celebrities and public figures to attract new investors, and that investment schemes that guarantee extremely high returns should not be trusted (Padil et al, 2020).

### 2.4 Investment Decision

Lending decisions and investment decisions have connections that involve people trusting others with their money in the expectation of receiving a higher return subsequently on. If they act on incorrect decisions, creditors and investors are additionally at risk of suffering damages (Harsoyo & Zulaikha, 2021). The investment decision is a decision that is made by an investor to allocate funds to a financial product with the intention of pursuing the anticipated profit. The investor's primary goal is to maximize returns while avoiding risk (Rahman & Gan, 2020). This study analyzes the investment decision of an investor who is a victim of fraudulent investment.

Here is an image presenting a conceptual framework of the variables to be examined, depicted as follows:

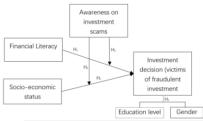


Figure 1. Conceptual Framework

Based on the description and framework provided, the researcher formulates the following research hypothesis:

H1: There is an effect between financial literacy and investment decision.

H2: There is a correlation between socio-economic status and investment decisions.

H3: Awareness of investment scams can moderate the influence of financial literacy on investment decisions. H4: The correlation among SES and investments is moderated by awareness on investment scams.

H5: There is an influence between financial literacy and SES on investment decisions by controlling education level and gender.

### 3. Methods

This type of research employs an associative research design with a quantitative approach. The population in this study consists of the entire population belonging to the Millennial and Generation Z generations in Indonesia. The population belonging to the millennial generation includes individuals born approximately between 1981 and 1996, while the Generation Z population comprises those born around 1997 to the mid-2010s. According to the statistics from the BPS (2023) 2020 Population Census, Indonesia has 144.87 million millennials and members of generation 7

Purposive sampling, or selecting participants based on predetermined criteria, was the sampling approach utilized in this study. The following sample criteria are used to select research subjects: 1) participants must stay on the island of Java and have an identity there; and 2) participants must be between the ages of 18 and 45. The Slovin approach and BPS statistics for 2020 can be utilized to calculate the minimum sample size, consequently 99,862 samples must be collected in total.

The data used in this study were obtained directly from primary data. These were collected by giving participants a questionnaire consisting of multiple-choice questions tailored to their knowledge and characteristics. The questions offered to respondents were structured as multiple-choice queries, which were used to assess their financial literacy. Additionally, the available response options are ranked on an ordinal

scale based on socioeconomic status (SES) and demographic factors. To assess the cognitive variable, the questionnaire used the Likert scale method. In this study, the Likert scale used ranged from 1 to 5, including responses such as "Strongly disagree" (SD), "Disagree" (D), "Agree". moderate" (MA), "Agree" (A) and "Strongly agree" (SA). After collecting data from respondents, the existing data is processed with the statistical application IBM SPSS.

### 4. Analysis

The number of surveys distributed and completed by researchers reached 200. Most respondents in this study reside in key economic hubs such as West Java (28%), DKI Jakarta (29,5%), and East Java (23,5%). Notably, Generation Z (aged 18-24) comprises the largest segment at 29,5%. These statistics substantiate various trends and assertions regarding the increasing popularity of investments, particularly in stocks and mutual funds, among both millennials and Generation

Moreover, the predominance of respondents from Java has been identified as a significant factor influencing other study outcomes. Several implications can be delineated from this observation. The findings reveal that a substantial proportion of respondents belong to the upper economic stratum, constituting 44%, while 40% fall within the middle-class bracket. Remarkably, a staggering 98% of these individuals have invested in diverse financial instruments. This underscores the robust investment awareness prevalent in Java Island, transcending respondents' occupations, professions, and marital statuses.

Table 1. Respondent profile

Para	ameter	Frequency	%
Gender	Male	79	39.5
	Female	121	60.5
Age	18 - 24 years	59	29.5
	25 - 30 years	59	29.5
	31 - 35 years	39	19.5
	36 - 40 years	33	16.5
	41 - 45 years	10	5
SES	Lower 1	10	9.1
Grade	Lower 2	25	22.7

**Commented [A7]:** The research sample states that respondents reside in Java, but why were respondents selected only from Jakarta, West Java and East Java? What about Central Java?

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	Middle 1	51	46.4
	Middle 2	24	21.8
	Upper 1	44	22
	Upper 2	46	23
Marital	Single	105	52.5
Status	Married	95	47.5

Source: processed data

The questionnaire results show that 52% of respondents have high financial literacy, while 48% have low financial literacy. Financial knowledge that is categorized as high is indicated by the accuracy in answering questions related to financial knowledge. SES Upper 1 has the highest frequency, which is 23%. But SES Middle 1 and Upper 1 are not much different, at 22%. The lowest frequency is Lower 2, which is only 4%. Awareness of the respondents is also high, at 97.5%. This supports the result that only 20% of respondents have been victims of fraudulent investments.

In this study, validity testing was carried out on 200 respondents. Decision making is based on comparing the value of the number r with the table r. The validity and reliability tests in this study were carried out for the awareness variable which contained several questions related to awareness of investment. Based on table 2, it is known that the r count is greater than the r table, so it can be concluded that the data is valid.

Table 2. Validity test

Variable	In- dicat or	r count	r table	explana- tion
Awarness	A1	0,658**	0,1388	valid
	A2	0,651**	0,1388	valid
	A3	0,665**	0,1388	valid
	A4	0,578**	0,1388	valid
	A5	0,496**	0,1388	valid
	A6	0,568**	0,1388	valid
	A7	0,654**	0,1388	valid
	A8	0,612**	0,1388	valid
	A9	0,677**	0,1388	valid
	A10	0,721**	0,1388	valid

Source: processed data

Cronbach's alpha value is used for reliability testing. Based on Table 3, the Cronbach alpha value is 0.821 and a number greater than 0.6 is a reliable determination. It can be concluded that the questions that represent the cognitive variable are reliable or that the answers are consistent over time. The reliability for each variable is presented in the following table:

Table 3. Reliability test

Variable	Cronbach's Alpha	Explanation
Awareness	0,821	Reliabel

Source: processed data

Table 4 indicates that the 89 respondents with high levels of financial literacy are not the victims of fraudulent investments. In contrast, 25 individuals with insufficient financial literacy had fallen victims to fraudulent investment.

Table 4. Crosstab Financial Literacy

		Low	High	Total
Invest- ment	No	71	89	160
scams	Yes	25	15	40
TOTA	AL			
		96	104	200

Source: processed data

Table 5 shows that 73 people in the Upper 1-2 SES did not become victims of fraudulent investments. Meanwhile, 18 people from Middle 1-2 SES have become victims of fraudulent investments.

Table 5. Crosstab Social-Economy Status (SES)

		Lower (1-2)	Middle (1-2)	Upper (1-2)	Total	
Invest- ment	No	24	63	73	160	
scams	Ye s	5	18	17	40	
			10	17	-10	
TOTA	L	29	81	90	200	
Source: processed data						

In accordance with Table 6, 155 respondents having high knowledge do not currently fall prey to fraudulent investments, whereas 40 respondents with high awareness have already experienced this.

Table 6. Crosstab Awareness

		Low	High	Total
Invest- ment	No	5	155	160
scams	Yes	0	40	40
TOTA	AL			
		5	195	200

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Source: processed data

The intersection among financial literacy and investment scams has been shown to have an important coefficient of 0.040, based on table 7. With the consequence of the significance value around 0.05, it is evident that there is a relationship between financial literacy and investment scams.

Table 7. Chi square test

Variable	Sig.
FL*Invest Dec	0,04
SES*Inv Dec	0.839

Source: processed data

The intersection among SES and investment scams has been shown to have an important coefficient of 0.839, it is evident that there is no relationship between SES and investment scams.

Table 8. Model summary logistic regression

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	174,050	0,122	0,1946

Source: processed data

The -2 Log Likelihood value < Chi Square Table (174.050 < 229.663) so it is concluded that the model after including the independent variable has met the test requirements.

 Table 9. Binary Logistic Regression Result

Variable	Sig.
FL	0,017
SES	0,528
FL*Awareness	0,000
SES*Awareness	0,094

Source: processed data

Based on the results presented in table 9, it might be determined that the FL variable impacts decisions concerning investments, and SES has no effect on decisions. This outcome validates the findings of the chi-square test. After adding moderation variables, the test results show that awareness can moderate the effect of FL on Invest Dec, but Awareness is not able to moderate the effect of SES on Invest Dec.

**Table 10.** Correlation Result (with additional control variable)

Variable	Sig.
FL	0,000
SES	0,802

Source: processed data

It is evident from the findings in table 10, we discover a link with investment decision and financial literacy after controlling for education level and gender, but not for SES.

### 5. Discussion

This study discovered a relationship between financial literacy and an investor's decision to invest in a fraudulent investment. Investors with strong financial literacy have a better chance of deciding wisely, avoiding untrue investments. On the other hand, investors with poor financial literacy are more likely to fall victim to fraudulent schemes. Investors in Millennials and Generation Z will be less likely to lose money on shady deals if they know how to calculate interest rates, comprehend inflation, and diversify their risks. The rewards from fraudulent investments are typically substantially higher than those from traditional investments and have exceptionally high rates of return. (Singh & Misra, 2022) research from India, which indicated that financial literacy lowers the probability of people participating in dishonest investment schemes, lends credence to the findings of this study.

An investor who is familiar with compound interest will be better able to spot a phony investment and avoid falling victim to fraud. Contrarily, unlawful investments frequently declare that their investments are low-risk or risk-free. An investor who understands risk and diversification of risks will be likely to calculate investment risk more accurately than those who do not. Investors who don't comprehend risk are more likely to fall victim to shady deals. These findings are in line with (Arif, 2015), which states that financial literacy is related to investment decisions. Increased financial literacy will help investors make better investment decisions. This is reinforced by Arianti (2018), which found that the primary variable in determining how individual investing decisions behave is financial literacy.

This study found that SES has no effect on investment decisions. SES obtained from total monthly household spending, cooking fuel, and drinking water does not affect a person's decision to place their funds in a **Commented [A11]:** How to operationally measure investment scam?

particular asset. This shows that someone who has a lower or middle or upper status has nothing to do with being a victim of fraudulent investment. So, the decision is not based on the SES ownership. The results of this investigation are different from those of previous research studies. According to the Prasad et al. (2021), socio-economic factors were found to be an important factor influencing investment decisions for both men and women. The total amount of money expended does not determine an individual's investment choice because decisions regarding investments are influenced by many factors, including human characteristics like overconfidence, herd mentality, trait rage, trait anxiety, self-control, optimism, deliberative thinking (Hidajat et al., 2021; Kasoga & Tegambwage, 2022; Rahman & Gan, 2020).

The association between financial literacy and investment decisions can be strengthened or weakened depending on awareness. Millennials or Gen Y who understand the philosophy of interest rates and the economic value of money will avoid making fraudulent investments, because he is fully aware that investment schemes that promise unusually large returns cannot be trusted. Financial literacy is essential for making smart investment decisions, but being aware of investment scams provides an additional layer of security. It aids people in identifying potential dangers and using care while assessing investment prospects. Together, financial literacy and scam awareness build a more knowledgeable and resistant investor, decreasing the risk of falling for shady schemes and improving the overall standard of investing choices. However, awareness cannot strengthen or weaken the relationship between SES and investment decisions. A person who has an upper, middle, or lower economic status with high or low awareness, cannot affect his investment

Results from the fifth hypothesis' test are consistent with those from the first and second hypotheses. Financial literacy and investing choices are associated, even when taking gender and education level into consideration. However, when using education level and gender as controls, SES failed to foresee investment choices.

### 6. Conclusions

A conclusion section should be brief and may act as a standalone section or form a subsection of a Discussion or Results and Discussion section.

Financial literacy among millennials and generation Z in Java Island influences their investment decisions. Most of the respondents with excellent financial literacy are not the victims of shady investments. This finding can be a reason that millennials and generation Z need to improve financial literacy. Making financial goals early on, reading financial books, watching financial videos online, or using financial applications are some of the things that

can be done to increase financial literacy. Other things to consider are being disciplined in budgeting, saving, and investing. On the flip side, socio-economic status has no effect on the investment decisions of Millennials and Generation Z. A person with a large or small monthly household expenditure and a large or small number of family members will not be able to decide on an investment. Investment decisions are complicated to make and are influenced by many different things, such as personal preferences, risk tolerance, financial literacy, and resource availability. These elements can be indirectly influenced by socioeconomic level, which might result in variations in investment behavior among people with varying SES.

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# Manuscript, AFTER REVISION (1) Dec 4, 2023

# Investigating the Impact: Financial Literacy, Socio-Economic Status, and Awareness on Investment Decisions with Moderation Factors

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### **Abstract**

Investment decisions must be made appropriately so that investors are not trapped by investment scams. But in fact, cases of investment scams are increasingly rampant in Indonesia. The primary objective of this paper is to highlight the lack of financial literacy as one of the elements that might be responsible for Indonesia's substantial number of investment scam victims. To investigate the association between financial literacy, SES, awareness, and investment decisions, the model put out in this research employs logistic regression analysis. The results show that financial literacy has an impact on investment decisions, while SES has no influence on investment decisions. Awareness of fraudulent investments can moderate the relationship between financial literacy and investment decisions, but cannot moderate SES on investment decisions. This study exhorts investors to base their investment choices on their financial literacy rather than on outside influences. Financial literacy training programs should be developed by the government, financial institutions, and educational institutions.

Keywords: Awareness, Financial Literacy, Investment Decision, Investment Scams, Socio-economic Status

### 1. Introduction

As of the 2022 G20 Presidency, Indonesia is one of the countries that experienced an increase in investment realization in the first quarter of 2022 by 28.5 percent compared to the same period in 2021. Over the past 5 (five) years, investment realization in Indonesia has increased (Dihni, 2022). Data shows that the number of Single Investor Identification (SID) has reached 4,002,289, with 99.79% being local individual Central investors (Indonesian Securities Depository (KSEI, 2022). This data proves that Indonesians are increasingly aware of the importance of investing. Meanwhile, data on the distribution of domestic investors shows that 69.59% of investors come from people in Java (KSEI, 2022). Based on age, the data shows that 59.72% of investors are under 30 years old, and 21.92% of investors are 30-41 years old (KSEI, 2022). This shows that investors in Indonesia are dominated by investors from the Millennial generation and generation Z who come from Java Island.

Millennials and Generation Z are both raised in the world of social media and smartphones, so they are automatically tech-savvy. Amidst the rapid development of digitalization, the mindset of these two generations tends to be instantaneous and concerned with the popularity of the social media used. Such digitalization has made trading securities easier and cheaper, and account opening can also be done via the internet. This is what is believed by the Financial Services Authority (OJK) in (Natalia, 2022) as the reason why these two generations are busy becoming investors. Despite the ease of access to information about investments, neither generation has the resources to diversify their portfolios widely, thus it is limited. On the other hand, young investors tend to create accounts in securities to imitate friends or influencers (Paramita et al., 2018). generations have become victims of fraudulent investments as a result of poor investment decisions.

News about fraudulent investments is increasingly prevalent in Indonesia. According to the Investment Alert Task Force (SWI), the public has lost Rp 117 trillion because of illicit

investments over the last ten years (Wareza, 2021). Unrealistic returns are promised by illegal investments in a short amount of time. Eradication of SWI is challenging because of how easily offenders shift their identities and tactics. According to Tongam L Tobing, Chairman of the IATF, there are 3 (three) things that cause people to fall into fraudulent investments, namely: being easily influenced by influencers who show off their wealth or flexing on social media, the desire to get high returns in a fast time, and low financial literacy (Handayani, 2022). Due to a lack of understanding about financial markets and how to recognize safe investments, Millennials and Generation Z are caught up in fraudulent investments. People are typically seduced by the prospect of large profits without considering the hazards, which is why financial literacy is essential for everyone.

Particularly in developed and emerging nations, financial literacy can lead to financial stability (Arif, 2015). Previous research has found that financial literacy affects investment decisions (Arif, 2015; Lusardi, 2019; Mouna & Jarboui, 2015; Padil et al., 2022). Financial literacy is basically defined as an individual's ability to read, understand, and process financial information and act on that understanding when making financial decisions (Saeedi & Hamedi, 2018). One of the benefits of financial literacy is to increase individual awareness to make the right financial decisions to avoid investment fraud. Through financial literacy, Millennials and Generation Z can understand the returns and risks that will occur so that they can make the right investment decisions. But not all investors are experienced in anticipating risks in financial instruments. Low financial literacy has the potential to result in investors becoming victims of investment scams.

In addition to financial literacy, socioeconomic status (SES) is also one of the factors that influence investment decisions (Prasad et al., 2021). One of the calculations of SES is measured by the amount of household expenditure. Household spending often depends on disposable income. If the household income is high enough, they can allocate more money towards daily expenses such as living expenses, bills, and other necessities. In this case, there may be more money to invest. Personal income is compensation (in the form of money) received by a person from a few resources, such as: salaries, wages, and bonuses received from employment or self-employment, dividends and distributions received from investments, rental income from real estate

investments, and profit sharing from business (Kagan, 2023). Generally, a person's investment decision will be determined by the amount of income earned (Atmaningrum et al., 2021). However, no matter how high a person's income level is, if it is not supported by good financial management, it will certainly be difficult to achieve financial security.

The purpose of this study is to examine how socioeconomic status and financial literacy affect investing decisions. Furthermore, the aim of this study is to examine if investment awareness mitigates the impact of SES and financial literacy on investment decisions. The problem in the study is based on the research of (Padil et al., 2022) which examines financial literacy and awareness of investment scams, then the researcher develops it with the social economic status involving moderating variables. The author hopes that this research can be useful for the Millennial and generation Z, to increase financial literacy and increase awareness of the dangers of investment fraud. With this awareness, people can be encouraged to make the right investment decisions and have a more prosperous life in the future.

### 2. Literature Review

### 2.1 Financial Literacy

In view of the rise in investment scams, there is a growing need for improved financial literacy among society. This is essential for effectively managing finances and protecting against financial exploitation. Financial literacy empowers individuals to budget for daily expenses, establish emergency funds, save for education, and prepare for retirement (Goyal & Kumar, 2021). Enhanced financial literacy not only benefits individuals but also promotes financial inclusion, with positive implications for the broader economy (Grohmann & Menkhoff, 2020).

A crucial measure of individuals' capacity to make sound financial choices is their degree of financial literacy. The Organization for Economic Co-operation and Development (OECD) accurately characterizes financial literacy as encompassing not just the grasp of financial concepts and risks, but also the abilities, drive, and self-assurance to utilize this comprehension effectively in various financial situations (OECD, 2017). Financial literacy is essential abilities for overseeing one's financial security and prosperity (Bucciol et al., 2021). Therefore, it's critical to

assess the results of treatments meant to increase financial literacy and confidence.

Financial literacy holds significant importance in preventing individuals from encountering financial difficulties, as it frequently necessitates trade-offs between different financial interests. Individuals with greater financial literacy are more adept at navigating and making sound decisions regarding various financial challenges that may arise (Lusardi, 2019). These future financial challenges can encompass diverse situations, including covering medical expenses, effectively managing, and repaying debts, financing education, or making future purchases.

To equip individuals with the means to make more informed financial choices, it's crucial to not only gauge their existing knowledge but also identify what additional knowledge they require, and subsequently, assess the disparity between these two. There exist several fundamental principles that underlie most of the financial decision-making. (Lusardi, 2019) employ three fundamental questions, often referred to as "The Big Three," as a means of assessing financial literacy.

Individuals with low financial literacy who have confidence in their own decision-making often experience financial losses. In a study by (Jappelli & Padula, 2015), a positive connection was established between financial literacy and wealth, suggesting that financial literacy opens better investment opportunities for individuals. Investors who lack sufficient financial expertise may be more susceptible to deception and make foolish investment choices (Arif, 2015). Thus, someone who has low financial literacy tends to be a victim of investment scams. Given the foregoing explanation, therefore:

H1: There is an effect between financial literacy and investment decision.

### 2.2 Socio-economic status

SES Based on the prior literature, encompasses two main components. The first one is resource-related factors (Navarro-Carrillo et al., 2020), which include material resources, social resources, assets like income and wealth, and educational qualification. Other than that, prestige-related resources refer to how individuals or households are positioned within the social hierarchy in terms of their access to and utilization of goods, services, and knowledge (Deshmukh & Akkilagunta, 2020). Moreover, SES is measured along three major domains, education, occupation,

and income that affect successively investment decisions.

When associated, people with less education are more likely to fall to investment scams. There are some factors that can affect this statement. People with less education means that they have limited understanding about economic concepts and factors that drive macroeconomic conditions. Other than that, less-educated people believe that stocks market returns won't make that much because they do not follow the latest news. Moreover, the lack of confidence, with a skewed view of the financial investment instruments and the stock market can encourage individuals to be more easily influenced by various other factors, including frauds or investment scams. And based on the prior research by Kuhnen & Miu (2017), less educated people in the U.S. only invest 8% of their income into stocks and decide their own investment choices or decisions. So the second hypothesis is formulated as follows:

H2: Socio-economic status has a significant effect on investment decisions.

### 2.3 Awareness on investment scams

When someone attempts to trick others into investing money, that's considered investment scams. They could convince people to make investments in assets such as stocks, bonds, notes, commodities, money, or even real estate. Conscious individuals will understand that there are risks of fraud associated with investing, and individuals should be alert to signs that indicate potential fraud. The perceived comprehension of knowledge regarding investment fraud, which can be acquired by reading, experience, or education, is known as awareness on investment scam (Padil et al., 2022). This awareness also includes realizing that internet platforms are becoming the scene of a rising number of investment fraud instances. Several techniques are used in these investment frauds, such as the promotion of fictitious investment plans and the employment of unregistered influencers or celebrities to offer financial advice (Kasim et al., 2023).

Individuals who are aware of investment fraud usually demonstrate the following features: aware that some con artists rely on their capacity to attract new investors, that some con artists portray opulent lifestyles and social status to attract new investors, that they may become targets of pyramid and Ponzi schemes, that some manipulate artists rely on celebrities and public figures to attract new investors, and that

investment schemes that guarantee extremely high returns should not be trusted (Padil et al, 2020).

Those considered financially literate acquire the information and abilities necessary to make wise financial decisions, including those about investments. Even those with a high degree of financial literacy, meanwhile, could become victims of dishonest schemes if they are unaware of possible investment frauds. Understanding investment scams acts as a buffer, reducing the negative effects of financial literacy by assisting people in identifying and steering clear of fraudulent investment opportunities. differently, a greater awareness of scams may serve as a filter to improve the efficacy of financial literacy by guaranteeing that people make thoughtful and informed investment decisions, hence reducing the potential harm that fraudulent schemes may cause to their financial decisions. In view of this argumentation, the third hypothesis is: H3: Awareness of investment scams can moderate the influence of financial literacy investment decisions.

An individual's financial capability, risk tolerance, and access to investing options are frequently influenced by their SES. On the other hand, people with varying SES levels' perceptions and reactions to investing risks can be moderated by knowledge about investment frauds. Higher SES individuals might have more financial resources and access to a wider range of investment possibilities, but they might also be more cautious and perceptive in their decision-making due to heightened awareness of scams. Conversely, those with lower SES might have fewer financial options, therefore being aware of scams could be essential to keeping them safe from making unwise or dishonest investments.

H4: The effect among SES and investment decision is moderated by awareness on investment scams.

### 2.4 Investment Decision

Bodie et al., (2021) explain that investment is an activity of placing a sum of money or other resources carried out at this time and is expected to benefit in the future. By investing, one can increase the value of money over time and benefit from compound interest and long-term growth. On the other hand, investment is important for future income and wealth accumulation (Farley, 2022). An investor as an individual who places money in a particular investment product with the aim of seeking expected returns, and the focus of investors

is to maximize profits and minimize risks (Rahman & Gan, 2020). In addition to the goal of financial security, investments are a way for investors to achieve financial independence, build wealth, and reach financial goals (Reserve Bank of Fiji, 2019). In other words, investments are the tools that investors use to achieve their financial goals.

Lending decisions and investment decisions have connections that involve people trusting others with their money in the expectation of receiving a higher return subsequently on. If they act on incorrect decisions, creditors and investors are additionally at risk of suffering damages (Harsoyo & Zulaikha, 2021). The investment decision is a decision that is made by an investor to allocate funds to a financial product with the intention of pursuing the anticipated profit. The investor's primary goal is to maximize returns while avoiding risk (Rahman & Gan, 2020).

Here is an image presenting a conceptual framework of the variables to be examined, depicted as follows:



Figure 1. Conceptual framework

### 3. Methods

This type of research employs an associative research design with a quantitative approach. The population in this study consists of the entire population belonging to the Millennial and Generation Z generations in Indonesia. The population belonging to the millennial generation includes individuals born approximately between 1981 and 1996, while the Generation Z population comprises those born around 1997 to the mid-2010s. According to the statistics from the BPS (2023) 2020 Population Census, Indonesia has 144.87 million millennials and members of generation Z.

Purposive sampling, or selecting participants based on predetermined criteria, was the sampling approach utilized in this study. The following sample criteria are used to select research subjects: 1) participants must stay on the island of Java and have an identity there; and 2) participants must be between the ages of 18 and 45. The Slovin approach and BPS statistics for 2020 can be

utilized to calculate the minimum sample size, consequently 99,862 samples must be collected in total.

The data used in this study were obtained directly from primary data. These were collected by giving participants a questionnaire consisting of multiple-choice questions tailored to their knowledge and characteristics. The questions offered to respondents were structured as multiple-choice queries, which were used to assess their financial literacy. Control variables are used in this study because they are useful in assisting researchers in separating and comprehending the link between the independent and dependent variables without the interference of extraneous variables that could cloud the analysis.

Additionally, the available response options are ranked on an ordinal scale based on socioeconomic status (SES) and demographic factors. To assess the cognitive variable, the questionnaire used the Likert scale method. In this study, the Likert scale used ranged from 1 to 5, including responses such as "Strongly disagree" (SD), "Disagree" (D), "Agree". moderate" (MA), "Agree" (A) and "Strongly agree" (SA). After collecting data from respondents, the existing data is processed with the statistical application IBM SPSS.

The measurement model assessment that confirms the validity and reliability of the indicators is the first step in the analysis process. The next step is to perform a crosstabulation analysis, in order to provide a more comprehensive and in-depth description of the respondents' responses for every variable under investigation. The following analysis uses logistic regression analysis to test the hypothesis and determine whether it is supported or not.

Financial literacy is measured using three indicators: numeracy related to the ability to perform interest rate calculations and understand compound interest; understanding inflation; and understanding risk diversification (Lusardi, 2019). SES is measured by calculating the SES score obtained from the total monthly household expenditure, family members, type of cooking fuel, type of drinking water. Awareness on investment scams used the indicators as follows: awareness of how scammers attract investors, awareness of not being fooled by greed, awareness of reasonable returns on investment, awareness of not being deceived by friends. Investment decisions are measured by two categories, namely having been a victim of fraudulent investment or not being a

victim of fraudulent investment (0 = Not a victim, 1 = a victim of fraudulent investment).

### 4. Result

The number of surveys distributed and completed by researchers reached 200. Most respondents in this study reside in key economic hubs such as Banten (6.5%), DKI Jakarta (29.5%), West Java (28%), Central Java (10.5%), East Java (23.5%), and Yogyakarta (2%). These statistics substantiate various trends and assertions regarding the increasing popularity of investments, particularly in stocks and mutual funds, among both Millennials and Generation Z.

Moreover, the predominance of respondents from Java has been identified as a significant factor influencing other study outcomes. Several implications can be delineated from this observation. The findings reveal that a substantial proportion of respondents belong to the upper economic stratum, constituting 44%, while 40% fall within the middle-class bracket. Remarkably, a staggering 98% of these individuals have invested in diverse financial instruments.

Table 1. Respondent profile

Parameter		Frequency	%
Gender	Male	79	39.5
	Female	121	60.5
Age	18 - 24 years	59	29.5
	25 - 30 years	59	29.5
	31 - 35 years	39	19.5
	36 - 40 years	33	16.5
	41 - 45 years	10	5
SES	Lower 1	10	9.1
Grade	Lower 2	25	22.7
	Middle 1	51	46.4
	Middle 2	24	21.8
	Upper 1	44	22
	Upper 2	46	23

Marital	Single	105	52.5
Status	Married	95	47.5

Source: processed data

Based on Table 1, 60.5% of respondents were female, while 39.5% were male. The majority of respondents are aged between 18-24 years and 25-30 years, with the same percentage, namely 29.5%. SES grade shows that Middle 1 respondents have the largest percentage (46.4%). The difference in marital status of respondents does not have a significant difference, single as much as 52.5% and married at 47.5%.

In this study, validity testing was carried out on 200 respondents. Decision making is based on comparing the value of the number r with the table r. The validity and reliability tests in this study were carried out for the awareness variable which contained several questions related to awareness of investment. Based on table 2, it is known that the r count is greater than the r table, so it can be concluded that the data is valid.

Table 2. Validity test

Variable	In- dicat	r count	r table	explana -tion
Awarness	or	0.650**	0,1388	valid
11000	A1 A2	0,658** 0,651**	0.1388	valid
	A3	0,665**	0,1388	valid
	A4	0,578**	0,1388	valid
	A5	0,496**	0,1388	valid
	A6	0,568**	0,1388	valid
	A7	0,654**	0,1388	valid
	A8	0,612**	0,1388	valid
	A9	0,677**	0,1388	valid
	A10	0,721**	0,1388	valid

Source: processed data

Cronbach's alpha value is used for reliability testing. Based on Table 3, the Cronbach alpha value is 0.821 and a number greater than 0.6 is a reliable determination. It can be concluded that the questions that represent the cognitive variable are reliable or that the answers are consistent over time. The reliability for each variable is presented in the following table:

Table 3. Reliability test

Table 5. Remaining test				
Variable	Cronbach's Alpha	Explanation		
Awareness	0,821	Reliabel		

Source: processed data

Table 4 indicates that the 89 respondents with high levels of financial literacy are not the victims of fraudulent investments. In contrast, 25 individuals with insufficient financial literacy had fallen victims to fraudulent investment. Respondents who are categorized as having high financial literacy are respondents who have a score of 66.67 - 100. While respondents who have low financial literacy are respondents who have a score of 33.33.

Table 4. Crosstab Financial Literacy

IS/FL		Low	High	Total
Invest- ment scams	No	71	89	160
Scams	Yes	25	15	40
TOTA	AL			
		96	104	200

Source: processed data

Table 5 shows that 73 people in the Upper 1-2 SES did not become victims of fraudulent investments. Meanwhile, 18 people from Middle 1-2 SES have become victims of fraudulent investments.

Table 5. Crosstab social-economic status

IS/S	SES		Lowe r (1- 2)	Middl e (1-2)	Uppe r (1- 2)	Tota l
Inv	est- ent	No	24	63	73	160
sca		Yes	5	18	17	40
	ГОТА	L	29	81	90	200

Source: processed data

In accordance with Table 6, 155 respondents having high knowledge do not currently fall prey to fraudulent investments, whereas 40 respondents with high awareness have already experienced this.

Table 6. Crosstab awareness

IS/AWR		Low	High	Total
Invest- ment	No	5	155	160
scams	Yes	0	40	40
TOTA	AL			
		5	195	200

Source: processed data

The intersection among financial literacy and investment scams has been shown to have an important coefficient of 0.040, based on table 7. With the consequence of the significance value around 0.05, it is evident that there is a relationship between financial literacy and investment scams.

**Table 7.** Chi square test

Variable	Sig.
FL*Invest Dec	0,04
SES*Inv Dec	0.839

Source: processed data

The intersection among SES and investment scams has been shown to have an important coefficient of 0.839, it is evident that there is no relationship between SES and investment scams.

Table 8. Model summary logistic regression

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	174,050	0,122	0,1946

Source: processed data

The -2 Log Likelihood value < Chi Square Table (174.050 < 229.663) so it is concluded that the model after including the independent variable has met the test requirements.

 Table 9. Binary Logistic Regression Result

Variable	Sig.
FL	0,017
SES	0,528
FL*Awareness	0,000
SES*Awareness	0,094

Source: processed data

Based on the results presented in table 9, it might be determined that the FL variable impacts decisions concerning investments, and SES has no effect on decisions. This outcome validates the findings of the chi-square test. After adding moderation variables, the test results show that

awareness can moderate the effect of FL on Investment Decision, but Awareness is not able to moderate the effect of SES on Investment Decision.

### 5. Discussion

This study discovered an effect between financial literacy and an investor's decision. Investors with strong financial literacy have a better chance of deciding wisely, avoiding untrue investments. On the other hand, investors with poor financial literacy are more likely to fall victim to fraudulent schemes. Investors in Millennials and Generation Z will be less likely to lose money on shady deals if they know how to calculate interest rates, comprehend inflation, and diversify their risks. The rewards from fraudulent investments are typically substantially higher than those from traditional investments and have exceptionally high rates of return. Singh & Misra (2022) research from India, which indicated that financial literacy lowers the probability of people participating in dishonest investment schemes, lends credence to the findings of this study. The results of this study are supported by research conducted by Hendarto et al., (2021) which found that financial literacy influences investment decisions in the millennial generation.

An investor who is familiar with compound interest will be better able to spot a phony investment and avoid falling victim to fraud. Contrarily, unlawful investments frequently declare that their investments are low-risk or riskfree. An investor who understands risk and diversification of risks will be likely to calculate investment risk more accurately than those who do not. Investors who don't comprehend risk are more likely to fall victim to shady deals. These findings are in line with Arif (2015), which states that financial literacy is related to investment decisions. Increased financial literacy will help investors make better investment decisions. This is reinforced by Arianti (2018), which found that the primary variable in determining how individual investing decisions behave is financial literacy.

This study found that SES has no effect on investment decisions. SES obtained from total monthly household spending, cooking fuel, and drinking water does not affect a person's decision to place their funds in a particular asset. This shows that someone who has a lower or middle or upper status has nothing to do with being a victim of fraudulent investment. So, the decision is not based on the SES ownership. The results of this

investigation are different from those of previous research studies. According to the Prasad et al. (2021), socio-economic factors were found to be an important factor influencing investment decisions for both men and women. The total amount of money expended does not determine an individual's investment choice because decisions regarding investments are influenced by many factors, including human characteristics like overconfidence, herd mentality, trait rage, trait anxiety, self-control, optimism, deliberative thinking (Hidajat et al., 2021; Kasoga & Tegambwage, 2022; Rahman & Gan, 2020).

As a component of the household budget and daily expenses, SES is an important component related to basic needs and daily life. On the other hand, investment decisions are mainly concerned with directing excess income to opportunities that can increase wealth, rather than to fulfill immediate needs. Generally, investments are classified into many financial categories, such as stocks, bonds, real estate, or retirement accounts, each of which requires different methods and considerations compared to SES.

Awareness of investment fraud is proven to moderate the effect of financial literacy on investment decisions. The association between financial literacy and investment decisions can be strengthened or weakened depending awareness. Millennials or Gen Y who understand the philosophy of interest rates and the economic value of money will avoid making fraudulent investments, because he is fully aware that investment schemes that promise unusually large returns cannot be trusted. Financial literacy is essential for making smart investment decisions, but being aware of investment scams provides an additional layer of security. It aids people in identifying potential dangers and using care while assessing investment prospects. Together, financial literacy and scam awareness build a more knowledgeable and resistant investor, decreasing the risk of falling for shady schemes and improving the overall standard of investing choices.

Finally, the results show that the effect between SES and investment decisions is not moderated by awareness on investment scams. Awareness cannot strengthen or weaken the influence between SES and investment decisions. A person of upper, middle or lower economic status, whether they are aware or unaware of fraudulent investments, cannot influence their investment decisions. The significance of scam knowledge may be overshadowed by the drivers of

SES, such as total household spending, which may have a more significant and direct effect on investment decisions. However, choices on investments are intricate and multifaceted. The association between SES and investment decisions may not be greatly affected by fraud knowledge due to the interaction of various factors.

The research's management implications are that financial institution managers can concentrate on increasing millennials' and generation Z's knowledge of investment fraud by endorsing financial education initiatives tailored to their demographic. Through this training, participants' levels of financial literacy are able to improve, their comprehension of investments can be enhanced, and the likelihood of investment fraud decreased. Financial can he institution management can also create online tools or decision aids to assist Millennials and Generation Z in avoiding fraudulent investments while making investment decisions.

The measurement of SES in this study is dependent on daily expenses and household budget components; hence, SES and investment decisions serve distinct purposes in personal finance. Consequently, it is recommended that future studies be able to infer other elements that aren't stated directly. Personal financial objectives, risk tolerance, investment expertise, and availability to opportunities are a few examples of characteristics that can be seen more significant in this situation.

### 6. Conclusions

Financial literacy among Millennials and generation Z in Java Island influences their investment decisions. Most of the respondents with excellent financial literacy are not the victims of shady investments. This finding can be a reason that Millennials and generation Z need to improve financial literacy. Making financial goals early on, reading financial books, watching financial videos online, or using financial applications are some of the things that can be done to increase financial literacy. Other things to consider are being disciplined in budgeting, saving, and investing. On the flip side, socio-economic status has no effect on the investment decisions of Millennials and Generation Z. A person with a large or small monthly household expenditure and a large or small number of family members will not be able to decide on an investment. Awareness of investment fraud is proven to moderate the effect of financial literacy on investment decisions. It has been demonstrated, meanwhile, that awareness of investment scams cannot moderate the influence of SES on investing decisions. Further research is recommended to examine other factors that can influence investment decisions, such as: personal preferences, risk tolerance, and resource availability. Financial institution managers should concentrate on educating the millennial and Z generations about investment fraud through activities including sharing security details and cooperating with other financial and regulatory organizations to reduce the danger of fraud.

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# Reviewer's Attachments (2) Dec 4, 2023

## [Petra IJBS] Editor Decision Inbox x





IJBS Editor-in-Chief <ijbs@petra.ac.id> to me 🔻



Dewi Pertiwi:

We have reached a decision regarding your submission to Petra International Journal of Business Studies, "Investment Scams among Milliennials and Generation Z in Indonesia".

Our decision is: Revisions Required

### Note:

- 1. Please submit the revised version within 10 days ( before 15 December 2023)
- 2. Please provide your response point-by-point to the reviewer's comments and suggestions in a separate file. Also indicate at which page the revision part of the revised manuscript.

Reviewer A: Recommendation: Revisions Required

### General Feedback and Comments (for Author):

I suggest the following item to improve the paper for qualifying for publication

- 1. Title: I suggest the Title to be re-edited to reflect the substance of the study
- '2. Abstract: too long and contains more than 200 words. The abstract should contain only the aims, methods, results, and contributions.
- 3. Keywords: re-arrange following the alphabetical order (see template)
- 4. Introduction: Please clearly and simply explain the study objectives, its research questions, and the novelty. Follow the Template. Use Time New Roman 11 pt for all manuscript text.
- 5. Literature Review: I recommend the authors formulate the hypothesis after theoretical reviews. This is essential for the reader to understand how the study develops and formulates the hypotheses easily.
- 6. Follow the Template for the Subtitle caption. It should be Result instead of Analysis.
- 7. Methods: Methods are unclear, and it is difficult to understand how the authors determine the measurement indicators for each variable. Which literature has been adopted for the indicators? How the questionnaires were distributed is not clear.
- 8. Table 1 is not referred to in the text...Many typos in referring to the Table. It should be written as Table 1 instead of table 1. Use the capital first letter.
- 9. Many indicators are used, but there is no explanation of what they stand for. (A1, A2, A3...etc)
- 10. The reader is confused to read the Result. It is not clear which hypothesis is supported and not supported. The authors should clearly state the result in relation to those hypotheses.
- 9. There are star signs in the Table such as 0,658\*\*, but it is not explained the meaning.
- 10. Result: The authors mention the fifth hypothesis discussion, but other hypotheses are not stated in the text. This is essential for the reader to see how the hypothesis investigation results.
- 11. Conclusion: ....."A conclusion section should be brief and may act as a standalone section or form a subsection of a Discussion or Results and Discussion section". This sentence is not necessary. Just restate the research objective, the result, and the contribution in one paragraph.
- 12. References List: Follow the Template for References. Use single-space 11 pt Time New Roman.

# Manuscript, AFTER REVISION (2) Apr 24, 2024

# Investigating the Impact: Financial Literacy, Socio-Economic Status, and Awareness on Investment Decisions with Moderation Factors

### Abstract

Investment decisions must be made appropriately so that investors are not trapped by investment scams. But in fact, cases of investment scams are increasingly rampant in Indonesia. The primary objective of this paper is to highlight the lack of financial literacy as one of the elements that might be responsible for Indonesia's substantial number of investment scam victims. To investigate the association between financial literacy, SES, awareness, and investment decisions, the model put out in this research employs logistic regression analysis. The results show that financial literacy has an impact on investment decisions, while SES has no influence on investment decisions. Awareness of fraudulent investments can moderate the relationship between financial literacy and investment decisions, but cannot moderate SES on investment decisions. This study exhorts investors to base their investment choices on their financial literacy rather than on outside influences. Financial literacy training programs should be developed by the government, financial institutions, and educational institutions.

Keywords: Awareness, Financial Literacy, Investment Decision, Investment Scams, Socio-economic Status

### 1. Introduction

As of the 2022 G20 Presidency, Indonesia is one of the countries that experienced an increase in investment realization in the first quarter of 2022 by 28.5 percent compared to the same period in 2021. Over the past 5 (five) years, investment realization in Indonesia has increased (Dihni, 2022). Data shows that the number of Single Investor Identification (SID) has reached 4,002,289, with 99.79% being local individual (Indonesian Central investors Securities Depository (KSEI, 2022). This data proves that Indonesians are increasingly aware of the importance of investing. Meanwhile, data on the distribution of domestic investors shows that 69.59% of investors come from people in Java (KSEI, 2022). Based on age, the data shows that 59.72% of investors are under 30 years old, and 21.92% of investors are 30-41 years old (KSEI, 2022). This shows that investors in Indonesia are dominated by investors from the Millennial generation and generation Z who come from Java Island.

Millennials and Generation Z are both raised in the world of social media and smartphones, so they are automatically tech-savvy. Amidst the rapid development of digitalization, the mindset of these two generations tends to be instantaneous and concerned with the popularity of the social media used. Such digitalization has made trading securities easier and cheaper, and account opening can also be done via the internet. This is what is believed by the Financial Services Authority (OJK) in (Natalia, 2022) as the reason why these two generations are busy becoming investors.

Despite the ease of access to information about investments, neither generation has the resources to diversify their portfolios widely, thus it is limited. On the other hand, young investors tend to create accounts in securities to imitate friends or influencers (Paramita et al., 2018). Two generations have become victims of fraudulent investments as a result of poor investment decisions.

News about fraudulent investments is increasingly prevalent in Indonesia. According to the Investment Alert Task Force (SWI), the public has lost Rp 117 trillion because of illicit investments over the last ten years (Wareza, 2021). Unrealistic returns are promised by illegal investments in a short amount of time. Eradication of SWI is challenging because of how easily offenders shift their identities and tactics. According to Tongam L Tobing, Chairman of the IATF, there are 3 (three) things that cause people to fall into fraudulent investments, namely: being easily influenced by influencers who show off their wealth or flexing on social media, the desire to get high returns in a fast time, and low financial literacy (Handayani, 2022). Due to a lack of understanding about financial markets and how to recognize safe investments, Millennials and Generation Z are caught up in fraudulent investments. People are typically seduced by the prospect of large profits without considering the hazards, which is why financial literacy is essential for everyone.

Particularly in developed and emerging nations, financial literacy can lead to financial stability (Arif, 2015). Previous research has found that financial literacy affects investment decisions

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Commented [DP2]: Feedback No 2. Abstract = 165 count

**Commented [DP3]:** Feedback No. 3 → keywords have been reordered alphabetically

**Commented [A4]:** The final accepted manuscripts have less than 6,800-word counts.

**Commented [DP5R4]:** Introduction = 904 words; Literature Review = 1367 counts; methods = 514 words, result = 929 word, discussion = 889, conclusions = 224 words

**Commented [A6]:** The statement in this paragraph jumps too much from the previous paragraph.

**Commented [DP7R6]:** previous paragraph has been deleted, sentence structure has been improved

**Commented [A8]:** This introductory sentence is too jumpy with the rest of the narrative

Commented [DP9R8]: sentence structure has been improved

(Arif, 2015; Lusardi, 2019; Mouna & Jarboui, 2015; Padil et al., 2022). Financial literacy is basically defined as an individual's ability to read, understand, and process financial information and act on that understanding when making financial decisions (Saeedi & Hamedi, 2018). One of the benefits of financial literacy is to increase individual awareness to make the right financial decisions to avoid investment fraud. Through financial literacy, Millennials and Generation Z can understand the returns and risks that will occur so that they can make the right investment decisions. But not all investors are experienced in anticipating risks in financial instruments. Low financial literacy has the potential to result in investors becoming victims of investment scams.

In addition to financial literacy, socioeconomic status (SES) is also one of the factors that influence investment decisions (Prasad et al., 2021). One of the calculations of SES is measured by the amount of household expenditure. Household spending often depends on disposable income. If the household income is high enough, they can allocate more money towards daily expenses such as living expenses, bills, and other necessities. In this case, there may be more money to invest. Personal income is compensation (in the form of money) received by a person from a few resources, such as: salaries, wages, and bonuses received from employment or self-employment, dividends and distributions received from investments, rental income from real estate investments, and profit sharing from business (Kagan, 2023). Generally, a person's investment decision will be determined by the amount of income earned (Atmaningrum et al., 2021). However, no matter how high a person's income level is, if it is not supported by good financial management, it will certainly be difficult to achieve financial security.

The purpose of this study is to examine how socioeconomic status and financial literacy affect investing decisions. Furthermore, the aim of this study is to examine if investment awareness mitigates the impact of SES and financial literacy on investment decisions. The problem in the study is based on the research of (Padil et al., 2022) which examines financial literacy and awareness of investment scams, then the researcher develops it with the social economic status involving moderating variables. The author hopes that this research can be useful for the Millennial and generation Z, to increase financial literacy and increase awareness of the dangers of investment fraud. With this awareness, people can be

encouraged to make the right investment decisions and have a more prosperous life in the future.

### 2. Literature Review

### 2.1 Financial Literacy

In view of the rise in investment scams, there is a growing need for improved financial literacy among society. This is essential for effectively managing finances and protecting against financial exploitation. Financial literacy empowers individuals to budget for daily expenses, establish emergency funds, save for education, and prepare for retirement (Goyal & Kumar, 2021). Enhanced financial literacy not only benefits individuals but also promotes financial inclusion, with positive implications for the broader economy (Grohmann & Menkhoff, 2020).

A crucial measure of individuals' capacity to make sound financial choices is their degree of financial literacy. The Organization for Economic Co-operation and Development (OECD) accurately characterizes financial literacy as encompassing not just the grasp of financial concepts and risks, but also the abilities, drive, and self-assurance to utilize this comprehension effectively in various financial situations (OECD, 2017). Financial literacy is essential abilities for overseeing one's financial security and prosperity (Bucciol et al., 2021). Therefore, it's critical to assess the results of treatments meant to increase financial literacy and confidence.

Financial literacy holds significant importance in preventing individuals from encountering financial difficulties, as it frequently necessitates trade-offs between different financial interests. Individuals with greater financial literacy are more adept at navigating and making sound decisions regarding various financial challenges that may arise (Lusardi, 2019). These future financial challenges can encompass diverse situations, including covering medical expenses, effectively managing, and repaying debts, financing education, or making future purchases.

To equip individuals with the means to make more informed financial choices, it's crucial to not only gauge their existing knowledge but also identify what additional knowledge they require, and subsequently, assess the disparity between these two. There exist several fundamental principles that underlie most of the financial decision-making. (Lusardi, 2019) employ three fundamental questions, often referred to as "The

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Big Three," as a means of assessing financial literacy.

Individuals with low financial literacy who have confidence in their own decision-making often experience financial losses. In a study by (Jappelli & Padula, 2015), a positive connection was established between financial literacy and wealth, suggesting that financial literacy opens better investment opportunities for individuals. Investors who lack sufficient financial expertise may be more susceptible to deception and make foolish investment choices (Arif, 2015). Thus, someone who has low financial literacy tends to be a victim of investment scams. Given the foregoing explanation, therefore:

H1: There is an effect between financial literacy and investment decision.

### 2.2 Socio-economic status

Based on the prior literature, SES encompasses two main components. The first one is resource-related factors (Navarro-Carrillo et al., 2020), which include material resources, social resources, assets like income and wealth, and educational qualification. Other than that, prestige-related resources refer to how individuals or households are positioned within the social hierarchy in terms of their access to and utilization of goods, services, and knowledge (Deshmukh & Akkilagunta, 2020). Moreover, SES is measured along three major domains, education, occupation, and income that affect successively investment decisions.

When associated, people with less education are more likely to fall to investment scams. There are some factors that can affect this statement. People with less education means that they have limited understanding about economic concepts and factors that drive macroeconomic conditions. Other than that, less-educated people believe that stocks market returns won't make that much because they do not follow the latest news. Moreover, the lack of confidence, with a skewed view of the financial investment instruments and the stock market can encourage individuals to be more easily influenced by various other factors, including frauds or investment scams. And based on the prior research by Kuhnen & Miu (2017), less educated people in the U.S. only invest 8% of their income into stocks and decide their own investment choices or decisions. So the second hypothesis is formulated as follows:

H2: Socio-economic status has a significant effect on investment decisions.

### 2.3 Awareness on investment scams

When someone attempts to trick others into investing money, that's considered investment scams. They could convince people to make investments in assets such as stocks, bonds, notes, commodities, money, or even real estate. Conscious individuals will understand that there are risks of fraud associated with investing, and individuals should be alert to signs that indicate potential fraud. The perceived comprehension of knowledge regarding investment fraud, which can be acquired by reading, experience, or education, is known as awareness on investment scam (Padil et al., 2022). This awareness also includes realizing that internet platforms are becoming the scene of a rising number of investment fraud instances. Several techniques are used in these investment frauds, such as the promotion of fictitious investment plans and the employment of unregistered influencers or celebrities to offer financial advice (Kasim et al., 2023).

Individuals who are aware of investment fraud usually demonstrate the following features: aware that some con artists rely on their capacity to attract new investors, that some con artists portray opulent lifestyles and social status to attract new investors, that they may become targets of pyramid and Ponzi schemes, that some manipulate artists rely on celebrities and public figures to attract new investors, and that investment schemes that guarantee extremely high returns should not be trusted (Padil et al, 2020).

Those considered financially literate acquire the information and abilities necessary to make wise financial decisions, including those about investments. Even those with a high degree of financial literacy, meanwhile, could become victims of dishonest schemes if they are unaware of possible investment frauds. Understanding investment scams acts as a buffer, reducing the negative effects of financial literacy by assisting people in identifying and steering clear of fraudulent investment opportunities. Stated differently, a greater awareness of scams may serve as a filter to improve the efficacy of financial literacy by guaranteeing that people make thoughtful and informed investment decisions. hence reducing the potential harm that fraudulent schemes may cause to their financial decisions. In view of this argumentation, the third hypothesis is: H3: Awareness of investment scams can moderate

the influence of financial literacy on investment decisions.

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An individual's financial capability, risk tolerance, and access to investing options are frequently influenced by their SES. On the other hand, people with varying SES levels' perceptions and reactions to investing risks can be moderated by knowledge about investment frauds. Higher SES individuals might have more financial resources and access to a wider range of investment possibilities, but they might also be more cautious and perceptive in their decision-making due to heightened awareness of scams. Conversely, those with lower SES might have fewer financial options, therefore being aware of scams could be essential to keeping them safe from making unwise or dishonest investments.

H4: The effect among SES and investment decision is moderated by awareness on investment scams.

### 2.4 Investment Decision

Bodie et al., (2021) explain that investment is an activity of placing a sum of money or other resources carried out at this time and is expected to benefit in the future. By investing, one can increase the value of money over time and benefit from compound interest and long-term growth. On the other hand, investment is important for future income and wealth accumulation (Farley, 2022). An investor as an individual who places money in a particular investment product with the aim of seeking expected returns, and the focus of investors is to maximize profits and minimize risks (Rahman & Gan, 2020). In addition to the goal of financial security, investments are a way for investors to achieve financial independence, build wealth, and reach financial goals (Reserve Bank of Fiji, 2019). In other words, investments are the tools that investors use to achieve their financial goals.

Lending decisions and investment decisions have connections that involve people trusting others with their money in the expectation of receiving a higher return subsequently on. If they act on incorrect decisions, creditors and investors are additionally at risk of suffering damages (Harsoyo & Zulaikha, 2021). The investment decision is a decision that is made by an investor to allocate funds to a financial product with the intention of pursuing the anticipated profit. The investor's primary goal is to maximize returns while avoiding risk (Rahman & Gan, 2020).

Here is an image presenting a conceptual framework of the variables to be examined, depicted as follows:

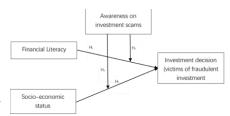


Figure 1. Conceptual framework

### 3. Methods

This type of research employs an associative research design with a quantitative approach. The population in this study consists of the entire population belonging to the Millennial and Generation Z generations in Indonesia. The population belonging to the millennial generation includes individuals born approximately between 1981 and 1996, while the Generation Z population comprises those born around 1997 to the mid-2010s. According to the statistics from the BPS (2023) 2020 Population Census, Indonesia has 144.87 million millennials and members of generation Z.

Purposive sampling, or selecting participants based on predetermined criteria, was the sampling approach utilized in this study. The following sample criteria are used to select research subjects: 1) participants must stay on the island of Java and have an identity there; and 2) participants must be between the ages of 18 and 45. The Slovin approach and BPS statistics for 2020 can be utilized to calculate the minimum sample size, consequently 99,862 samples must be collected in total

The data used in this study were obtained directly from primary data. These were collected by giving participants a questionnaire consisting of multiple-choice questions tailored to their knowledge and characteristics. The questions offered to respondents were structured as multiple-choice queries, which were used to assess their financial literacy. Control variables are used in this study because they are useful in assisting researchers in separating and comprehending the link between the independent and dependent variables without the interference of extraneous variables that could cloud the analysis.

Additionally, the available response options are ranked on an ordinal scale based on socioeconomic status (SES) and demographic factors. To assess the cognitive variable, the questionnaire used the Likert scale method. In this study, the Likert scale used ranged from 1 to 5,

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including responses such as "Strongly disagree" (SD), "Disagree" (D), "Agree". moderate" (MA), "Agree" (A) and "Strongly agree" (SA). After collecting data from respondents, the existing data is processed with the statistical application IBM SPSS.

The measurement model assessment that confirms the validity and reliability of the indicators is the first step in the analysis process. The next step is to perform a crosstabulation analysis, in order to provide a more comprehensive and in-depth description of the respondents' responses for every variable under investigation. The following analysis uses logistic regression analysis to test the hypothesis and determine whether it is supported or not.

Financial literacy is measured using three indicators: numeracy related to the ability to perform interest rate calculations and understand compound interest; understanding inflation; and understanding risk diversification (Lusardi, 2019). SES is measured by calculating the SES score obtained from the total monthly household expenditure, family members, type of cooking fuel, type of drinking water. Awareness on investment scams used the indicators as follows: awareness of how scammers attract investors, awareness of not being fooled by greed, awareness of reasonable returns on investment, awareness of not being deceived by friends. Investment decisions are measured by two categories, namely having been a victim of fraudulent investment or not being a victim of fraudulent investment (0 = Not a victim, 1 = a victim of fraudulent investment).

### 4. Result

The number of surveys distributed and completed by researchers reached 200. Most respondents in this study reside in key economic hubs such as Banten (6.5%), DKI Jakarta (29.5%), West Java (28%), Central Java (10.5%), East Java (23.5%), and Yogyakarta (2%). These statistics substantiate various trends and assertions regarding the increasing popularity of investments, particularly in stocks and mutual funds, among both Millennials and Generation Z.

Moreover, the predominance of respondents from Java has been identified as a significant factor influencing other study outcomes. Several implications can be delineated from this observation. The findings reveal that a substantial proportion of respondents belong to the upper economic stratum, constituting 44%, while 40% fall within the middle-class bracket. Remarkably,

a staggering 98% of these individuals have invested in diverse financial instruments.

Table 1. Respondent profile

Parameter		Frequency	%
Gender	Male	79	39.5
	Female	121	60.5
Age	18 - 24 years	59	29.5
	25 - 30 years	59	29.5
	31 - 35 years	39	19.5
	36 - 40 years	33	16.5
	41 - 45 years	10	5
SES	Lower 1	10	9.1
Grade	Lower 2	25	22.7
	Middle 1	51	46.4
	Middle 2	24	21.8
	Upper 1	44	22
	Upper 2	46	23
Marital Status	Single	105	52.5
Status	Married	95	47.5

Source: processed data

Based on Table 1, 60.5% of respondents were female, while 39.5% were male. The majority of respondents are aged between 18-24 years and 25-30 years, with the same percentage, namely 29.5%. SES grade shows that Middle 1 respondents have the largest percentage (46.4%). The difference in marital status of respondents does not have a significant difference, single as much as 52.5% and married at 47.5%.

In this study, validity testing was carried out on 200 respondents. Decision making is based on comparing the value of the number r with the table r. The validity and reliability tests in this study were carried out for the awareness variable which contained several questions related to awareness of investment. Based on table 2, it is known that the r count is greater than the r table, so it can be concluded that the data is valid.

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Commented [A19]: The research sample states that respondents reside in Java, but why were respondents selected only from Jakarta. West Java and East Java? What about Central Java?

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Table 2. Validity test

Variable	In- dicat or	r count	r table	explana -tion
Awarness	A1	0,658**	0,1388	valid
	A2	0,651**	0,1388	valid
	A3	0,665**	0,1388	valid
	A4	0,578**	0,1388	valid
	A5	0,496**	0,1388	valid
	A6	0,568**	0,1388	valid
	A7	0,654**	0,1388	valid
	A8	0,612**	0,1388	valid
	A9	0,677**	0,1388	valid
	A10	0,721**	0,1388	valid

Source: processed data

Cronbach's alpha value is used for reliability testing. Based on Table 3, the Cronbach alpha value is 0.821 and a number greater than 0.6 is a reliable determination. It can be concluded that the questions that represent the cognitive variable are reliable or that the answers are consistent over time. The reliability for each variable is presented in the following table:

Table 3. Reliability test

Variable	Cronbach's Alpha	Explanation		
Awareness	0,821	Reliabel		
Source: processed data				

Table 4 indicates that the 89 respondents with high levels of financial literacy are not the victims of fraudulent investments. In contrast, 25 individuals with insufficient financial literacy had fallen victims to fraudulent investment. Respondents who are categorized as having high financial literacy are respondents who have a score of 66.67 - 100. While respondents who have low financial literacy are respondents who have a score of 33.33.

Table 4. Crosstab Financial Literacy

IS/FL		Low	High	Total
Invest- ment scams	No	71	89	160
	Yes	25	15	40
TOTA	AL			
		96	104	200

Source: processed data

Table 5 shows that 73 people in the Upper 1-2 SES did not become victims of fraudulent investments. Meanwhile, 18 people from Middle 1-2 SES have become victims of fraudulent investments.

Table 5. Crosstab social-economic status

IS/SES		Lowe r (1- 2)	Middl e (1-2)	Uppe r (1- 2)	Tota l
Invest- ment	No	24	63	73	160
scams	Yes	5	18	17	40
TOTA	L	29	81	90	200

Source: processed data

In accordance with Table 6, 155 respondents having high knowledge do not currently fall prey to fraudulent investments, whereas 40 respondents with high awareness have already experienced

Table 6. Crosstab awareness

IS/AWR		Low	High	Total
Invest- ment	No	5	155	160
scams	Yes	0	40	40
TOTA	AL.			
		5	195	200
Source: proc	accad date			

Source: processed data

The intersection among financial literacy and investment scams has been shown to have an important coefficient of 0.040, based on table 7. With the consequence of the significance value around 0.05, it is evident that there is a relationship between financial literacy and investment scams.

Table 7. Chi square test

Variable	Sig.
FL*Invest Dec	0,04
SES*Inv Dec	0.839

The intersection among SES and investment scams has been shown to have an important coefficient of 0.839, it is evident that there is no relationship between SES and investment scams.

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Table 8. Model summary logistic regression

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	174,050	0,122	0,1946

Source: processed data

The -2 Log Likelihood value < Chi Square Table (174.050 < 229.663) so it is concluded that the model after including the independent variable has met the test requirements.

Table 9. Binary Logistic Regression Result

Variable	Sig.
FL	0,017
SES	0,528
FL*Awareness	0,000
SES*Awareness	0,094

Source: processed data

Based on the results presented in table 9, it might be determined that the FL variable impacts decisions concerning investments, and SES has no effect on decisions. This outcome validates the findings of the chi-square test. After adding moderation variables, the test results show that awareness can moderate the effect of FL on Investment Decision, but Awareness is not able to moderate the effect of SES on Investment Decision.

## 5. Discussion

This study discovered an effect between financial literacy and an investor's decision. Investors with strong financial literacy have a better chance of deciding wisely, avoiding untrue investments. On the other hand, investors with poor financial literacy are more likely to fall victim to fraudulent schemes. Investors in Millennials and Generation Z will be less likely to lose money on shady deals if they know how to calculate interest rates, comprehend inflation, and diversify their risks. The rewards from fraudulent investments are typically substantially higher than those from traditional investments and have exceptionally high rates of return. Singh & Misra (2022) research from India, which indicated that

financial literacy lowers the probability of people participating in dishonest investment schemes, lends credence to the findings of this study. The results of this study are supported by research conducted by Hendarto et al., (2021) which found that financial literacy influences investment decisions in the millennial generation.

An investor who is familiar with compound interest will be better able to spot a phony investment and avoid falling victim to fraud. Contrarily, unlawful investments frequently declare that their investments are low-risk or riskfree. An investor who understands risk and diversification of risks will be likely to calculate investment risk more accurately than those who do not. Investors who don't comprehend risk are more likely to fall victim to shady deals. These findings are in line with Arif (2015), which states that financial literacy is related to investment decisions. Increased financial literacy will help investors make better investment decisions. This is reinforced by Arianti (2018), which found that the primary variable in determining how individual investing decisions behave is financial literacy.

This study found that SES has no effect on investment decisions. SES obtained from total monthly household spending, cooking fuel, and drinking water does not affect a person's decision to place their funds in a particular asset. This shows that someone who has a lower or middle or upper status has nothing to do with being a victim of fraudulent investment. So, the decision is not based on the SES ownership. The results of this investigation are different from those of previous research studies. According to the Prasad et al. (2021), socio-economic factors were found to be an important factor influencing investment decisions for both men and women. The total amount of money expended does not determine an individual's investment choice because decisions regarding investments are influenced by many factors, including human characteristics like overconfidence, herd mentality, trait rage, trait anxiety, self-control, optimism, deliberative thinking (Hidajat et al., 2021; Kasoga & Tegambwage, 2022; Rahman & Gan, 2020).

As a component of the household budget and daily expenses, SES is an important component related to basic needs and daily life. On the other hand, investment decisions are mainly concerned with directing excess income to opportunities that can increase wealth, rather than to fulfill immediate needs. Generally, investments are classified into many financial categories, such as stocks, bonds, real estate, or retirement accounts,

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each of which requires different methods and considerations compared to SES.

Awareness of investment fraud is proven to moderate the effect of financial literacy on investment decisions. The association between financial literacy and investment decisions can be strengthened or weakened depending on awareness. Millennials or Gen Y who understand the philosophy of interest rates and the economic value of money will avoid making fraudulent investments, because he is fully aware that investment schemes that promise unusually large returns cannot be trusted. Financial literacy is essential for making smart investment decisions, but being aware of investment scams provides an additional layer of security. It aids people in identifying potential dangers and using care while assessing investment prospects. Together, financial literacy and scam awareness build a more knowledgeable and resistant investor, decreasing the risk of falling for shady schemes and improving the overall standard of investing choices.

Finally, the results show that the effect between SES and investment decisions is not moderated by awareness on investment scams. Awareness cannot strengthen or weaken the influence between SES and investment decisions. A person of upper, middle or lower economic status, whether they are aware or unaware of fraudulent investments, cannot influence their investment decisions. The significance of scam knowledge may be overshadowed by the drivers of SES, such as total household spending, which may have a more significant and direct effect on investment decisions. However, choices on investments are intricate and multifaceted. The association between SES and investment decisions may not be greatly affected by fraud knowledge due to the interaction of various factors.

The research's management implications are that financial institution managers can concentrate on increasing millennials' and generation Z's knowledge of investment fraud by endorsing financial education initiatives tailored to their demographic. Through this training, participants' levels of financial literacy are able to improve, their comprehension of investments can be enhanced, and the likelihood of investment fraud can be decreased. Financial institution management can also create online tools or decision aids to assist Millennials and Generation Z in avoiding fraudulent investments while making investment decisions.

The measurement of SES in this study is dependent on daily expenses and household budget components; hence, SES and investment decisions serve distinct purposes in personal finance. Consequently, it is recommended that future studies be able to infer other elements that aren't stated directly. Personal financial objectives, risk tolerance, investment expertise, and availability to opportunities are a few examples of characteristics that can be seen more significant in this situation.

### 6. Conclusions

Financial literacy among Millennials and generation Z in Java Island influences their investment decisions. Most of the respondents with excellent financial literacy are not the victims of shady investments. This finding can be a reason that Millennials and generation Z need to improve financial literacy. Making financial goals early on, reading financial books, watching financial videos online, or using financial applications are some of the things that can be done to increase financial literacy. Other things to consider are being disciplined in budgeting, saving, and investing. On the flip side, socio-economic status has no effect on the investment decisions of Millennials and Generation Z. A person with a large or small monthly household expenditure and a large or small number of family members will not be able to decide on an investment. Awareness of investment fraud is proven to moderate the effect of financial literacy on investment decisions. It has been demonstrated, meanwhile, that awareness of investment scams cannot moderate the influence of SES on investing decisions. Further research is recommended to examine other factors that can influence investment decisions, such as: personal preferences, risk tolerance, and resource availability. Financial institution managers should concentrate on educating the millennial and Z generations about investment fraud through activities including sharing security details and cooperating with other financial and regulatory organizations to reduce the danger of fraud.

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