

# The Influence of Over Confidence, Illusion of Control, Availability, Anchoring Bias and Financial Literacy on Investment Decision Making in the Community of Demak District As Beginning Investors.

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**Abstract:** *The investment decision is the most important of the two other policies in financial management, namely funding policy and dividend policy. This study aims to determine the effect of Overconfidence (X1), Illusion of control (X2), Availability (X3), Anchoring Bias (X4), Financial literacy (X5) on investment decisions for novice investors in Demak Regency. This study used a saturated sampling technique to obtain samples by distributing questionnaires online to novice investors in Demak Regency with a total of 112 respondents. The analysis technique uses multiple linear regression analysis. The results of this study indicate that Overconfidence has no effect on investment decisions, Illusion of control has no effect on investment decisions, Availability has no effect on investment decisions. Meanwhile, Anchoring Bias affects investment decisions, Financial literacy affects investment decisions.*

**Keywords:** Overconfidence, Illution Of Control, Availability, Anchoring Bias, Financial Literacy, Investment Decision

## I. INTRODUCTION

Globalization has a great impact on the world economy today, even the impact of globalization cannot be separated in Indonesia. Local companies must be able to face competition because there are many foreign companies. Therefore, the company's ability is very influential to gain profits along with the expanding impact of globalization. However, when a local company that is just starting to develop is required to face competition from larger foreign companies, the company will experience difficulties, so it is likely that the company will experience financial difficulties (Sulastris & Zannati, 2018).

The investment decision is the most important of the two other policies in financial management, namely funding policy and dividend policy. Capital investment is the main aspect of financial management policy because investment is a form of capital allocation whose realization must produce benefits or profits in the future. On the other hand, the benefits of investing in the future are covered by uncertainty, which in the concept of financial management is called investment risk. As a consequence, in making investments must go through a careful evaluation process regarding the prediction of profit and risk levels (Harmono 2009).

In investing in the manufacturing sector, the level of profit that will be obtained (return) from this investment and the level of risk that will be borne (risk) from the consequences of this investment must be considered (Yulia Efni et al. 2012). Investors certainly expect a higher rate of return than the level of risk that will be borne, but in reality it doesn't always happen that way. The higher the level of risk borne, the higher the rate of return obtained. However, currently there are still few investors who are risk lovers or love seekers.

Jacob and Pettit (1988) say that "maximization of value by choice of investment, financing, and dividend decisions of those decisions impact upon expected future cash flow, risk, and thus the equilibrium expected return". From this statement it can be concluded that the value of the company depends on the choice of

investment decisions, funding decisions and dividend policies, and has an impact on future cash flows, the level of risk that will be borne, and the level of return that will be obtained. The value of the company is also reflected in the stock price, if the stock price falls, the value of the company will also decrease, and vice versa if the stock price rises, the value of the company will also increase and investors will look at it because the profits will be higher. The company's goal is to maximize shareholder wealth and the value of the company. This goal can be achieved by making the right financial decisions.

According to Van Horne (2002) the financial function includes three main decisions that must be made by the company, namely investment decisions, funding decisions, and dividend policies. These three decisions are interrelated because investment decisions can be made if supported by sufficient funds, whereas to obtain these funds an appropriate funding decision needs to be made and in accordance with the conditions of the company and is influenced by dividend policies or share buybacks.

Decision makers, in this case investors, allow that decisions made at any time can be wrong or deviate. This condition endangers investors because it cannot be seen and is directly related to the thought process. Bias tends to cause investors to make wrong predictions and miscalculate risks that may occur.

According to Agustin and Imron (2014) there are various psychological biases that influence investors in making decisions including overconfidence, emotion, representativeness, loss aversion, anchoring, pride and regret and many other factors. However, this research will focus on illusion of control, overconfidence and emotions as biases that influence investors' decisions in transacting in the capital market, especially for student investors in the city of Demak.

Illusion of control is described as a belief that is too high in terms of the ability to predict an outcome but in reality it is not (Hsu and Hsu Sheng, 2017; Joseph, 2015; Kartini and Nuris, 2015; Pradikasari, 2018; Riaz, 2015; Sarimatua, 2017).

According to Agarwal, et.al. (2016) if investors have illusion of control it will be dangerous in decision making. Illusion of Control is one of the financial behaviors that is influenced by psychological factors, where there is a tendency for someone to believe that they can control or at least can influence outcomes that they clearly cannot. The term illusion of control was first put forward by Langer in 1975 in the Journal of Personality and Social Psychology. Langer conducted experimental research on the behavior of people participating in lottery games.

In his research, Langer sold \$1 lottery tickets to 53 workers. For each pair of lottery tickets, one ticket is held by the buyer and the other ticket is put in a box to be drawn. Prizes for winners in the form of money collected from ticket sales, which is \$ 53. There are two treatments given to workers who buy the lottery. Half of the workers get lottery tickets given by researchers (non-choosers), while the other half can choose their own tickets (choosers).

A few days later, the workers were visited and asked how much they were asking to release the tickets the lottery. For workers who chose their own lottery tickets (choosers), the average amount asked was \$8.7 while for non-choosers it was \$2. The difference between choosers and nonchoosers is what Langer calls the illusion of control, which is defined as follows: "an expectancy of a personal success probability inappropriately higher than the objective probability would warrant." (Langer, 1996:17). In accordance with the definition above, illusion of control can be interpreted as a phenomenon in which a person believes that he can (seemingly) control his surroundings even though in reality he is not.

Illusion of control occurs when individuals misinterpret the degree of control they have over situations and outcomes (Joseph, 2015). According to Pompian (2006) investors who have an illusion of control attitude prefer stocks over bonds, because they have a high risk and they cannot even control their behavior. According to Pradikasari and Yuyun (2018) several years ago investors usually entrusted their investments to financial institutions, but now investors tend to invest on their own. This is because investors believe they can produce better returns based on the interpretation they believe is correct. If someone has a high level of illusion of control, that person will believe more in their actions, while someone who has If the level of illusion of control is low, there will be less confidence in making investment decisions.

This supports the research from Qadri and Mohsin (2014) which found results that the illusion of control has a positive and significant effect on investment decisions. However, this is different from the research conducted by Pradikasari and Yuyun (2018) which found no relationship between illusion of control and investment decisions.

Meanwhile, Kartini and Nuris' research (2015) found that the illusion of control has a negative effect on investment decisions. Overconfidence is an aspect of bias that influences a person in making investment decisions. Overconfidence is a feeling of being overly confident in the abilities or knowledge one has in trading or investing (Kansal and Seema, 2017).

According to Pradikasari and Yuyun (2018) investors who have a high level of overconfidence will often trade. Investors who are overconfident also tend to have an optimistic view of the trades carried out (Lee-9 Lee, 2016). This is supported by research by Riaz and Iqbal (2015) who found results that overconfidence has a positive effect on investment decisions. However, in contrast to the results of research from Wulandari and Iramani (2014), which found the results that overconfidence has no significant effect on investment decisions.

In Lusardi's research (2007) a high understanding of economics and finance influences investment decisions in the stock market. The same is expressed in findings (Al-Tamimi 2009) that Financial Literacy has a significant effect on investment decisions of investors in the UAE. This is corroborated by the findings from (Jariwala 2015) which states that financial literacy has a significant effect on investors' investment decisions. This is different from Vuthalova's research (2015) which states that the higher the level of financial literacy, the higher the investment decision. In Umairoh's (2012) study, the overconfidence variable proved to have a significant effect on investment decisions. This contradicts research conducted by Wulandari (2014) which shows that overconfidence has no effect on investment decisions. In research by Pujianto (2013) Yohnson (2009), Kinerson and Bailey (2005) shows that the Regret Aversion Bias variable has no effect on investment decisions. this is different from the results of research conducted by Umairoh (2012), wong and kwong (2007) showing that Regret aversion bias affects investment decisions.

Manuel and Mathew (2017) High understanding of economics and finance influences investment decisions in the stock market. The same thing is expressed in the findings of Budiarto & Susanti (2017) that The variables financial literacy, overconfidence, regret aversion bias, and risk tolerance together influence investment decisions. This is corroborated by the findings from (Jariwala 2015) which states that financial literacy has a significant effect on investors' investment decisions. This is different from Vuthalova's research (2015) which states that the higher the level of financial literacy, the higher the investment decision. In Umairoh's (2012) study, the overconfidence variable proved to have a significant effect on investment decisions. This contradicts research conducted by Wulandari (2014) which shows that overconfidence has no effect on investment decisions. In the research of Pujianto (2013) Yohnson (2009), Kinerson and Bailey (2005) shows that the Regret Aversion Bias variable has no effect on investment decisions. this is different from the results of research conducted by Umairoh (2012), wong and kwong (2007) showing that Regret aversion bias affects investment decisions. Then Raut and Kumar (2018) with the results of their research show the application of the theory of planned behavior in predicting individual behavioral intentions to invest in the capital market. This study shows that emotional contagion, representative, availability bias, anchoring, informational cascades, herding and overconfidence significantly influence behavioral intention to invest in stocks.

Kansal and Seema (2017) explained that men have a higher level of overconfidence than women, this statement is supported by several case studies in India. However, this result contradicts Kufepaksi's research (2010) which found that overconfidence between men and women is relatively the same when the information obtained is considered the same.

## **II. LITERATURE REVIEW**

An investment decision is an action or policy taken in investing in an asset with the hope of producing a profitable return in the future. For financiers or investors success or success in investing is dependent on the decision making that

is done because this has an impact on the benefits or return to be obtained. Likewise, investment decision making by investors who are classified as rational, they invest in order to maximize utility (Scott and Reginald, 2016).

According to Pompian (2006) studies that study actions to make financial decisions or investment decisions include the theory of financial behavior. De Bont, et al (2008) behavior finance is the study of how psychology impacts financial decision-making within households, markets and organizations. The factor in determining investors to make investment decisions include :

## **2.1 overconfidence**

Ramiah, et al. (2012) stated that: overconfidence is an aspect of bias which, if used correctly, can increase the efficiency of working capital. Supramono & Nancy Putlia (2010) overconfidence is measured using three indicators, including :

1. Ability to pay off debts,
2. Ability to bear interest burdens,
3. Believe in being able to pay off in accordance with a predetermined payback period.

## **2.2 Illusion of control**

Nofsinger (2005) describes the illusion of control as a human tendency who believe they can control or influence outcomes but in reality they cannot. Supramono & Nancy Putlia (2010), illusion of control is measured through three indicators, namely:

1. Actively involved in making choices,
2. Familiar with debt,
3. Having quite complete investment information.

## **2.3 Availability**

Dreman (2000) Availability is a form of hueristic error, where decision makers rely more on what they remember. Supramono & Nancy Putlia (2010) explain that availability is measured using three indicators, namely:

1. Not searching for information from many parties,
2. Relying on information that is already available,
3. Dropping directly on parties that are already known.

## **2.4 Anchoring bias**

Badri & Putri (2021)said Anchoring Bias is a phenomenon that is used in a situation when someone uses an initial assessment of the purchase price of an investment to make an estimate in investing. Vijaya (2014) there are several indicators to measure anchoring bias, including:

1. Strongly influenced by stock performance in the past when choosing stocks to invest,
2. Set price targets or standards before buying or selling stocks,
3. Still will maintain stock even though the stock is experiencing a decline in performance,
4. Keep holding on to the stock if it is felt that it will be a loss if you sell it,
5. The views of well-known analysts regarding stocks do not change investors' views if they conflict with investors' opinions.

## **2.5 Financial Literacy**

Yolanda & Tasman (2020),Financial literacy is the ability to understand, analyze and manage finances to make the right financial decisions to avoid financial problems. Chen and Volpe (1998), stated that there are several important aspects of financial literacy, namely:

1. Basic Financial Concept,
2. Saving and borrowing,
3. Insurance,
4. Investment.

The framework and hypotheses developed in this study are as follows:

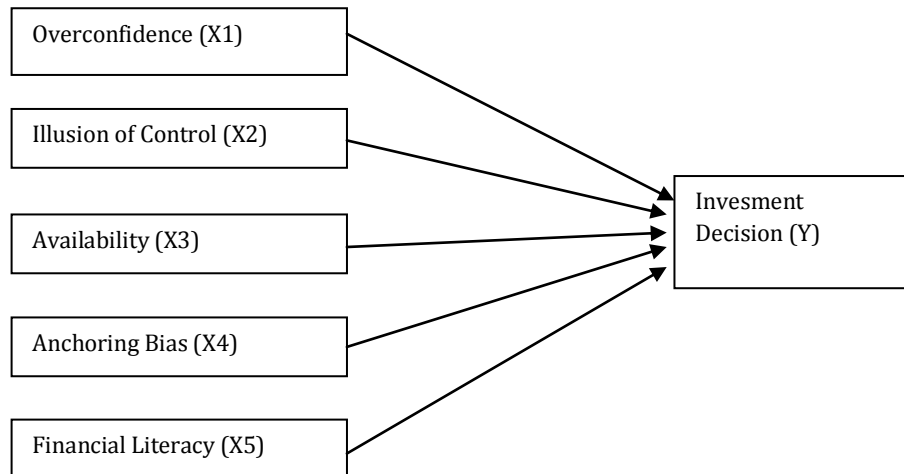
H1: Overconfidence influences investment decision making.

H2: Illusion of Control influences investment decision making.

H3: Availability influences investment decision making.

H4: Anchoring bias influences investment decision making.

H5: Financial Literacy influences investment decision making



### III. INDENTATIONS AND EQUATIONS

#### Types of research

The method used in this research is a quantitative method. The quantitative method is a research method based on a positivist philosophy, used to research certain populations or samples, using research tools to collect data, and analyzing quantitative or statistical data to test predetermined hypotheses (Sugiyono, 2017).

#### Data source

The source of data in this study is primary data obtained from Google forms which are circulated to novice investors in Demak district.

#### Population and Sample

The population in this study were to novice investors in Demak district. Sampling in this sample by means of saturated sampling. In determining the number of samples used is the Slovin formula so that a sample of 112 samples is obtained.

#### Data collection technique

The data collection procedure in this study was carried out by distributing questionnaires. Questionnaire or questionnaire is a list of questions or written statements that have been formulated beforehand first by the researcher and then the respondent will record their answers, usually in clearly defined alternatives (Sekaran and Bougie, 2017). Sugiyono (2014) explains that the answers to each instrument using a Likert scale have a gradation from very positive to very negative in the form of an answer score. The reason for using the Likert scale measurement is that it makes it easier for respondents to answer the questionnaire whether they agree or disagree, it is also easy to use and easy to understand by respondents.

#### Data analysis method

The data analysis technique used in this research is descriptive statistical analysis, validity test, reliability test, classical assumption test, multiple linear regression analysis, f test, coefficient of determination test, and t test with the help of SPSS version 25 program.

The following equations were used in the study of multiple linear regression analysis:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Information:

Y = Investment Decision

X<sub>1</sub> = Overconfidence

X<sub>2</sub> = Illusion Of Control

X<sub>3</sub> = Availability

X<sub>4</sub> = Anchoring Bias

X<sub>5</sub> = Financial Literacy

α = Constant

β<sub>1</sub> ..., β<sub>5</sub>

= Parameter coefficient

ε = error

#### IV. FIGURES AND TABLES

### Data Analysis Results

#### Validity test

Table 1 Validity Test Results

Variable	Statement	Rcount	Rtable	Information
Overconfidence	Over1	0,804	0,184	Valid
	Over2	0,782	0,184	Valid
	Over3	0,927	0,184	Valid
Illusion of Control	IC1	0,727	0,184	Valid
	IC2	0,799	0,184	Valid
	IC3	0,919	0,184	Valid
Availability	AV1	0,477	0,184	Valid
	AV2	0,526	0,184	Valid
	AV3	0,817	0,184	Valid
Anchoring Bias	AC1	0,769	0,184	Valid
	AC2	0,472	0,184	Valid
	AC3	0,741	0,184	Valid
	AC4	0,711	0,184	Valid
	AC5	0,870	0,184	Valid
Financial Literacy	FL1	0,759	0,184	Valid
	FL2	0,657	0,184	Valid
	FL3	0,740	0,184	Valid
	FL4	0,715	0,184	Valid
	FL5	0,869	0,184	Valid
Investment Decision	KI1	0,795	0,184	Valid
	KI2	0,815	0,184	Valid
	KI3	0,734	0,184	Valid
	KI4	0,721	0,184	Valid
	KI5	0,899	0,184	Valid

Source: SPSS 25 Data Processing, 2023

Based on the results of the validity test in table 1 above, it is known that the research variables, namely service quality, product quality, trust, security and customer satisfaction are declared valid. This is based on the Pearson correlation value in the form of rcount greater than rtable (0.184) and a significance level greater than (0.05). Thus, all of the variables of this study deserve to be tested at a later stage.

#### Reliability Test

Table 2 Reliability Test Results

Variable	<i>Cronbach's Alpha</i>	Standard	Information
Overconfidence	0,921	0,60	Reliable
Illusion of Control	0,896	0,60	Reliable
Availability	0,795	0,60	Reliable
Anchoring Bias	0,893	0,60	Reliable
Financial Literacy	0,933	0,60	Reliable
Investment Decision	0,944	0,60	Reliable

Source: SPSS 25 Data Processing, 2023

Based on the results of the reliability test, it shows that the research instruments, namely overconfidence, illusion of control, availability, anchoring bias, financial literacy and investment decision are declared reliable. This is based on the value of Cronbach's Alpha each greater than 0.6. The results of the reliability test above state that all instruments in this study are reliable.

**Classic Assumption Test Results**

**Normality test**

Table 3 Normality Test Result

N (Sample)	<i>Central Limit Theorem Value</i>	<i>Information</i>
112	30	Normal

Source: SPSS 25 Data Processing, 2023

Based on the results of the data normality test using the Central Limit Theorem test, it is known that the sample size used in this study was 112 samples, so it can be stated that the sample size (n) is greater than 30 (112>30). So it can be concluded that all the data used in this study are normally distributed.

**Multicollinearity Test**

Table 4 Multicollinearity Test Results

Variable	<i>Tolerance</i>	VIF	Information
Overconfidence	0,199	5,030	Multicollinearity Free
Illusion of Control	0,263	3,801	Multicollinearity Free
Availability	0,473	2,112	Multicollinearity Free
Anchoring Bias	0,242	4,130	Multicollinearity Free
Financial Literacy	0,264	3,787	Multicollinearity Free

Source: SPSS 25 Data Processing, 2023

Based on the results of the multicollinearity test in table 4, it is known that all independent variables, namely overconfidence, illusion of control, availability, anchoring bias and financial literacy have a tolerance value greater than 0.10 and a VIF (variance inflating factor) value less than 10. Thus, it can be concluded that there is no problem of data multicollinearity between independent variables.

**Heteroscedasticity Test**

Table 5 Heteroscedasticity Test Result

Variable	Significance	Information
Overconfidence	0,157	Heteroscedasticity does not occur
Illusion of Control	0,807	Heteroscedasticity does not occur
Availability	0,890	Heteroscedasticity does not occur
Anchoring Bias	0,030	Heteroscedasticity does not occur

Financial Literacy 0,213 Heteroscedasticity does not occur  
 Source: SPSS 25 Data Processing, 2023

Based on the results of the heteroscedasticity test in table 5, it shows that the significant value above is greater than 0,05. Thus, it can be concluded that the regression model does not contain any problems of heteroscedasticity or variance from the residual of one observation to another.

**Hypothesis test**  
**Multiple Linear Analysis**

Table 6 Multiple Linear Test Results

Variable	B	Std. Error	tcount	Sign.
(Constant)	1,319	0,996	1,324	0,188
Overconfidence (Over)	0,014	0,154	0,089	0,929
Illusion of Control (IC)	0,230	0,135	1,707	0,091
Availability (AV)	-0,177	0,100	-1,779	0,078
Anchoring Bias (AC)	0,433	0,096	4,528	0,000
Financial Literacy (FL)	0,474	0,091	5,202	0,000

Source: SPSS 25 Data Processing, 2023

Based on the results of hypothesis testing in table 6, multiple linear regression equations can be arranged as follows:

$$KI = 1.319 + 0.014Over + 0.230IC + -0.177AV + 0.433AC + 0.474FL + e$$

Based on the results of the multiple regression test in the above equation, it can be interpreted as follows :

- 1) 0.014. The positive sign means that if Overconfidence increases, KI will increase. And vice versa, if the bias of Overconfidence decreases, then KI will also decrease.
- 2) 0.230. The positive sign means that if Illusion of control increases, KI will increase. Vice versa, if Illusion of control decreases, KI will also decrease.
- 3) -0.177. The negative sign means that if Availability increases, KI will decrease. Vice versa, if Availability decreases, KI will also increase.
- 4) 0.433. The positive sign means that if the anchoring bias increases, KI will increase. And vice versa, if the anchoring bias decreases, then KI will also decrease.
- 5) 0.474. The positive sign means that if Financial Literacy increases, KI will increase. Vice versa, if Financial Literacy decreases, KI will also decrease.

**Simultaneous Test (F Test)**

Table 7 F Test Results

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1452.269	5	290.454	76.749	.000 <sup>b</sup>
	Residual	401.151	106	3.784		
	Total	1853.420	111			

Source: SPSS 25 Data Processing, 2023

Based on the results of the F test in table 7, the results of statistical calculations show the calculated F value = 76.749 and with a significance of 0.000 < 0.05. This means that together service quality, product quality, trust and security have a simultaneous effect on customer satisfaction.

**Coefficient of Determination**

Table 8 Results of the coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.885 <sup>a</sup>	.784	.773	1.94536
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Source: SPSS 25 Data Processing, 2023

From the table above it can be concluded that, Adj. R=0.773. This means that the variables Overconfidence (X1), Illusion of control (X2), Availability (X3), Anchoring Bias (X4), Financial literacy (X5) affect investment decisions by 77.30%, the remaining 100% -77.30% %= 22.70% is another variable that is not included in the research model.

**Partial Test (T Test)**

Table 9 T Test Result

Variable	B	Std. Error	tcount	Sign.
(Constant)	1,319	0,996	1,324	0,188
Overconfidence (Over)	0,014	0,154	0,089	0,929
Illusion of Control (IC)	0,230	0,135	1,707	0,091
Availability (AV)	-0,177	0,100	-1,779	0,078
Anchoring Bias (AC)	0,433	0,096	4,528	0,000
Financial Literacy (FL)	0,474	0,091	5,202	0,000

Source: SPSS 25 Data Processing, 2023

Based on table 9 it is known that the results of the partial test (t-test), are as follows :

- 1) Overconfidence variable (X1) has a sig value. equal to 0.929> (0.05), then H1 is rejected, which means that the Overconfidence variable (X1) has no effect on investment decisions for novice investors in Demak Regency.
- 2) Illusion of control variable (X2) has a sig value. equal to 0.091> (0.05), then H2 is rejected, which means that the Illusion of control variable (X2) has no effect on investment decisions for novice investors in Demak Regency.
- 3) Availability variable (X3) has a sig. equal to 0.078> (0.05), then H3 is rejected which means that the Availability variable (X3) has no effect on investment decisions for novice investors in Demak Regency.
- 4) Variable Anchoring Bias (X4) has a sig value. of 0.000 < (0.05), then H4 is accepted, which means that the Anchoring Bias variable (X4) influences investment decisions for novice investors in Demak Regency.
- 5) Financial literacy variable (X5) has a sig value. of 0.000 < (0.05). Then H5 is accepted, which means that the financial literacy variable (X5) influences investment decisions for novice investors in Demak Regency.

**V. Discussion of Analysis Results**

Based on the results of research on the effect of behavioral bias on investment decisions, which consists of five independent variables, namely Overconfidence (X1), Illusion of control (X2), Availability (X3), Anchoring Bias (X4), Financial literacy (X5). as well as one dependent variable on investment decisions in the Demak community. Then presented a discussion of the results of this study, as follows :

**1. The Effect of Overconfidence on Investment Decisions**

The results of the first hypothesis (H1) state that there is an influence between Overconfidence on investment decisions. This is evidenced by the regression results which show that the significance value is 0.929> 0.05, which means H1 is rejected. That is, Overconfidence does not affect an investor in determining his investment decision. Some novice investors tend to experience overconfidence bias in decision making. This is because excessive self-confidence is not always a factor that influences a person's decision making. Self-confidence refers to one's perception of one's competence to organize and perform actions, in other words, self-confidence is a subjective assessment of one's abilities in decision-making situations. The results of this study are in line with Wulandari and Iramani (2014) which state that the Overconfidence variable has no significant effect on investment decision making, but this research is not in line with the research of Pradikasari and Yuyun (2018), Budiarto (2017) which states that there is an influence of Overconfidence on investment decisions.

**2. The Effect of Illusion of control on investment decisions**

The results of the second hypothesis (H2) state that there is no influence between Illusion Of Control on investment decisions. This is evidenced by the regression results which show that the significance value is .091> 0.05, which means H2 is rejected. That is, Illusion Of Control does not influence an investor in determining his investment

decision. Based on the results of the regression, it shows that novice investors in Demak Regency have the illusion of control in making investment decisions. This is because investors feel they cannot control what they decide to make in making investment decisions, because even though the confidence that investors have in controlling something even though they are not under control is quite high, investors tend to be careful in making investment decisions. This research is in line with the research of Pradikasari and Yuyun (2018), Kartika and Nuris (2015) which state that illusion of control has no significant effect on investment decision making. But this research is not in line with the research of Ainun (2019), Pradhana (2018) and also the research of Manuel and Mathew (2017) which shows that illusion of control has a significant effect on investment decision making. Which can be concluded that the more The higher a person's Illusion of Control, the greater the risk that will be taken to get a high return.

### **3. The Effect of Availability on investment decisions**

The results of the third hypothesis (H3) state that there is an influence between Availability on investment decisions. This is evidenced by the regression results which show that the significance value is  $0.078 > 0.05$ , which means H3 is rejected. That is, Availability does not affect an investor in determining his investment decision. This is due to, irrational increase in investment. With irrationality in making investment decisions, the possibility of error will increase so that the returns obtained decrease while the risks owned increase. This research is in line with research conducted by Saeed (2019) which states that Availability bias does not have a significant effect on investment decisions, and this research is not in line with research by Pompian (2018), Siraji (2019), Khan et al. (2017) and Ikram (2016) where in their research Availability bias has a significant influence on investment decision making. Which can be concluded that investors are more likely to use performance experience that has been done in the past and invest with biased representation.

### **4. The Effect of Anchoring Bias on Investment Decisions**

The results of the fourth hypothesis (H4) state that there is an influence between Anchoring Bias on investment decisions. This is evidenced by the regression results which show that the significance value is  $0.000 < 0.05$ , which means H4 is accepted. That is, Anchoring Bias affects an investor in determining his investment decision. This behavioral deviation or bias is more common in younger investors and they tend to set a standard number for an investment based on the initial purchase price of the investment. So that if the value of the investment they have starts to fall, they still believe that the value of the investment will rise again and are not willing to sell it. The results of this study are consistent with research conducted by Luong, et al (2011), Subash (2012), Rekik and Boujelbene (2013), Muriithi (2014), Masomi, Ghayekhloo (2010) and Enda ayu Charissa (2018) that anchoring bias has a high influence on investors' decisions. But research conducted by Vijaya, E., (2014), revealed that anchoring bias has a not so great effect or is still in the moderate category on investors in the Indian stock market.

### **5. The influence of financial literacy on investment decisions**

The results of the fifth hypothesis (H5) state that there is an influence between financial literacy on investment decisions. This is evidenced by the regression results which show that the significance value is  $0.000 < 0.05$  which means H5 is accepted. That is, financial literacy affects an investor in determining his investment decision. According to (Rasuma Putri & Rahyuda, 2017) if a person's level of financial literacy increases, it will have an impact on making investment decisions. Someone with a high level of financial literacy will select the right types of investments and those that can provide high returns as well. In addition, if a person's financial literacy is good, then his financial planning in investing is more focused (Yolanda & Tasman, 2020). Good financial literacy can also help someone anticipate financial problems when investing (Herawati & Trisna, 2020).

The findings in this study show strong support for the role of financial literacy as a moderator in reducing the psychological bias of investment decision making. Financial literacy, which indicates that economic agents have knowledge and literacy of investment and financial aspects, is able to reduce the psychological biases experienced by investors in making risky investment decisions.

## **VI. CONCLUSION**

Based on the results of research on measuring investment decisions for novice investors in Demak Regency, it can be concluded:

1. Overconfidence has no effect on investment decisions. H1 is rejected.
2. Illusion of control has no effect on investment decisions. H2 is rejected.
3. Availability has no effect on investment decisions. H3 is rejected.
4. Anchoring bias affects investment decisions. H4 is accepted.
5. Financial literacy influences investment decisions. H5 accepted.

This research has several limitations, including:

1. The variables studied are limited to investment decisions for novice investors as measured by only five factors, namely Financial Support, Productivity and Discipline, Investment Benefits are greater than risks, Trusted by other parties and Careful management and use of money. In addition, there are other factors that affect investment decisions, for example Loss Aversion bias and other biases.
2. This research was only limited to novice investors with less than 5 years of investment experience.

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