Examining the predictors of crypto investor decision: The relationship between overconfidence, financial literacy, and attitude

Yofi Syarkani (a)*  Triyono Adi Tristanto (b)

(a,b)Lecturer, Department of Management, Faculty of Economics and Business, Universitas Langlangbuana, Jl. Karapitan No.116, Cikawao, Lengkong, Bandung, 40261, West Java, Indonesia

ABSTRACT

The rise in the cryptocurrency market has led many individuals to start their investment. However, individuals are affected by several factors in their decision-making process to invest. The objective of this study is to examine the factors that can predict the decision to invest in the cryptocurrency market by utilizing the variables of overconfidence, financial literacy, and attitude. This study also explores the role of attitude in mediating the influence of overconfidence and financial literacy on investor decisions. The population of this study is individual student investors in three top universities in Indonesia. This study uses a non-probability sampling technique, with purposive sampling that includes several criteria to determine the number of samples. The data is collected by distributing questionnaires to the students using Google Forms. The total number of respondents in this study, who returned the questionnaire that has been filled is 297 students. The data obtained from respondents is analyzed using Structural Equation Modeling with Partial Least Square (SEM-PLS). Finally, the results of this study have proved that: (1) Overconfidence has a positive influence on attitude; (2) Financial literacy has a positive influence on attitude; (3) Overconfidence has a positive influence on investor decision; (4) Financial literacy has a positive influence on investor decision; (5) Attitude has a positive influence on investor decision; and (7) Attitude mediates the influence of overconfidence on investor decision. The implications for scholars and crypto investors are also provided in this study.

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Introduction

The number of investors in Indonesia today continues to grow. They are dominated by young people, mostly from millennials and Gen Z (Andriani, 2022; Purwanti, 2022). This increasing number of investors, especially during Covid-19 pandemic, is a sign that the people in Indonesia have realized the importance of investing. They invest in several instruments such as stocks, mutual funds, securities, and even cryptocurrency. However, according to the data from Bappeti in 2022 (Hidayat, 2022), the popularity of cryptocurrency as an investment in Indonesia is very high. It is indicated from the number of crypto investors in Indonesia that have reached 12.4 million per February 2022, with the transaction value of 859.4 trillion, which exceeds 1.222 percent compared to 2021. This differs from the number of stock investor, which is 8.1 million, or mutual funds investor, which is in 7.44 million investors.

This rising condition in the investment market has become the key to develop the financial system in various countries, including Indonesia. The technological advancements and information openness are two of the external factors that increase the community desire to choose cryptocurrency as their investment alternatives. This market can be an opportunity for young investors, which is the focus of this study, to increase their wealth. In a similar vein, this topic has also been discussed by scholars of behavioral finance. Behavioral finance focuses more on the investors’ sentiment and their linkage with the real economy (Lacalle, 2018; Raut, 2020).

There are two points of view in the discussion of behavioral finance, especially regarding the decision-making process of investors. The traditional studies of behavioral finance views that individuals always make rational decision for their investment (Schiffman &
One of the cognitive biases that often occur to investors is overconfidence bias. When investor have this bias, they form a perception that their performance is better than average (Combrink & Lew, 2020). This bias causes investor to make a decision that is based on instinctive, immediate, and default thinking, as well as irrational thoughts (Kahneman, 2011). As a result, this will lead to attitude in investing, hence investors’ decision would not be made appropriately. On the contrary, investors who have financial literacy are able to make judgments and decision that is based on information and rational thinking (Yang et al., 2021).

Responding to the possibility of biases that occurs in young investors, it is crucial to find out and understand more about the underlying conditions of the investment decision-making and the factors that affect it. This study uses Theory of Planned Behavior (TPB) to understand the condition that leads to the decision-making process of young investor from a financial perspective. This theory explained the factors that can lead to the behavioral achievement of individuals (Ajzen, 1991; Yang et al., 2021). As the number of young investors in Indonesia, a developing country, continues to increase, it is necessary to determine whether the factors mentioned above affect the investors’ attitude and decision to put their money in the cryptocurrency market.

A number of studies in this line of research has been carried out previously. However, the study regarding investor decision to invest in the cryptocurrency market are still limited and require more understanding, especially in Indonesia. Most of the study in Indonesia regarding investor decision focuses on stock market (Ainia & Lutfi, 2018; Pahlevi & Oktaviani, 2018; Rahadjing & Ftiandari, 2020). In addition, Raut (2020) also mentioned that there is a need to study behavioral finance in developing countries, as compared to the emerging countries such as China, Taiwan, and Malaysia. Therefore, this study aims to fill the gap and provide a comprehensive understanding of the factors that influence investors decision-making in the cryptocurrency market. It examines and analyze crypto investors’ decision to invest by utilizing psychological variables (attitude), overconfidence, and personal ability (financial literacy). This study also examines the mediating role of attitude in the influence of overconfidence and financial literacy on investor decision.

This paper is organized into several parts. Following the introduction part, a second part is a literature review with theoretical and empirical studies that shed a light on linkage between theory and practice of overconfidence bias, financial literacy, attitude, and investor decision. The third part introduces the background information on research and methodology. After analysis and findings of the study, authors provide discussions and implications. Finally, this paper concludes with key points, recommendations, future research directions and limitations.

**Literature Review**

**Overconfidence, Attitude, and Investor Decision**

According to Pompiian (2016), overconfidence is a bias in which people show unwarranted belief in their own intuitive reasoning, judgment, or cognitive abilities. This overconfidence may be the result of an overestimation of the level of knowledge, abilities, and access to information. Naveed & Taib (2021) stated that overconfidence has aspects of cognitive and emotional errors. The concept of overconfidence has been derived from a large number of psychological experiments and surveys in which subjects overestimate their own predictive abilities as well as the accuracy of the information that has been given to them (Combrink & Lew, 2020; Kim et al., 2021; Walters & Fernbach, 2021; Kansal & Singh, 2018).

Han et al. (2020) suggested that overconfidence is a condition where an investor considers to have better skills than other investors. Pompiian (2016) explained that overconfidence is the belief that the information owned by investors is more accurate than the actual situation, and this arises from the experiences they have experienced. According to Ady et al. (2020), the characteristics of investors who are overconfident are generally young investors, have sufficient income, and have low literacy comprehension. If someone tends to have more confidence in the decisions they make, then that person will underestimate or not pay attention to the risks they face (Bao & Li, 2020; Salasiah et al., 2021).

An investor sometimes becomes overconfident when he has limited information so that he feels he has the ability and knowledge compared to other investors (Kuranchie-Pong & Forson, 2021; Ahmad & Shah, 2022). When he experiences negative results, he will associate it with unlucky conditions and do not realize that it is the result of his decisions, and assume that his decisions are not wrong but are often associated with condition factors. A number of research have stated that excessive self-confidence is the difference between a person's belief in one's abilities and actual capacity (Dzakiyah, 2020). People often perceive themselves to be more capable than reality and controlling behavior often exceeds their limits (Salasiah et al., 2021).

Ady et al. (2020) and Naveed & Taib (2021) stated that in the capital market, overconfidence affects the attitude of investors in deciding their investment. And if this decision causes a loss, he will not blame his decision. Meier & Mello (2020) mentioned this as bias against an investor. Overconfidence is a type of heuristic that can affect investor behavior. Attitudes and investment decisions can be influenced by the trust of an investor. According to Han et al. (2020; Kim et al., 2021; Walters & Fernbach, 2021) overconfidence behavior is found in attitudes in making decisions to invest in the capital market. Based on this, the hypothesis is proposed as follows:
H1. Overconfidence has a positive influence on attitude

H2. Overconfidence has a positive influence on investor decision

Financial Literacy, Attitude, and Investor Decision

Yang et al. (2021; Garg & Singh, 2018) stated that financial literacy refers to knowledge of financial concepts as well as products and skills needed in making effective financial decisions. According to Raut et al. (2020), financial literacy is defined as the ability to understand financial problems as well as knowledge and awareness of financial instruments and their applications in business and personal life. Since understanding financial literacy is an important behavioral antecedent, those who have high financial literacy are expected to be able to make good financial decisions so that the results will also be good (Gerrans & Heaney, 2019; Goyal & Kumar, 2021; Ahmad & Shah, 2022). An investor who has high financial literacy is able to show a good attitude in making investment decisions and understand the impact of his financial decisions on himself, others, and the environment (Baker et al., 2019; Lusardi, 2019; Hastings This is because individuals or investors with a high level of financial literacy will tend to be more careful in allocating and utilizing their money in investing (Nguyen & Rozsa, 2019; Warmath & Zimmerman, 2019; Abad-Segura & González-Zamar, 2019& Mitchell, 2020).

Previous research conducted by Karakurum-Ozdemir et al. (2019; Kadoya & Khan, 2020; Strömbäck et al., 2017) have found that there is a positive relationship between financial literacy on financial behavior and decisions to invest. These results indicate that the higher the understanding of financial literacy, the better the behavior of investors in managing their finances. ). As a result, their financial behavior will improve and their subjective perception of financial security will improve. For this reason, we formulate a hypothesis regarding financial literacy as follows. Based on this, the hypothesis is proposed as follows:

H3. Financial literacy has a positive influence on attitude

H4. Financial literacy has a positive influence on investor decision

Attitude and Investor Decision

Nakatani et al. (2020) stated that humans have an evaluation scheme to perform certain behaviors, which are referred to as attitudes. Individual’s beliefs about the consequences of behavior significantly influence their attitudes toward behavior. In addition, Ramandhanty et al. (2021; Ahmad, 2020) defined attitude as the degree to which an individual makes a favorable or unfavorable evaluation of a particular behavior. Attitudes have been considered as an important antecedent or factor of behavior (Emami et al., 2022; Vinod, 2022). In other words, attitudes indicate the individual's positive or negative tendencies for certain behaviors for certain situations. For example, regarding investment, an attitude can be a determinant that can affect a person's intention to invest (Khin, 2019; Dika & Kassim, 2021; Du & Shen, 2021)

According to Nofi (2020), attitude can also be interpreted as a tendency obtained by individuals to do something which is the result of cognitive processes. Nakatani et al. (2020) added that attitude is a good predictor of intention to do something. East (1993) used attitude as one of the factors to explain intention to invest and found it to be a significant predictor. In another study, Hosseinzadeh et al. (2021) used the theory of planned behavior stated that attitude is one of the variables that found a positive relationship with the intention to invest. Rao (2020) and Abadi et al. (2021) found similar results, namely the existence of a positive relationship between attitudes and behavioral intentions towards investment. It is also similar to the research conducted by Du & Shen (2020) which stated that the intention of students at Malaysian universities to invest is influenced by attitudes. According to Park et al. (2019), a person's attitude can explain his behavior, and this arises from the will that is internal to a person. Therefore, it can be said that attitudes explain intentions to most volitional behaviors and play a role in building intentions. Based on this, the hypothesis is proposed as follows:

H5. Attitude has a positive influence on investor decision

Attitude as a Mediating Variable

Attitude is the most important element that can be used to describe the preference for the intention to do something. According to Khan et al. (2021), attitude is an expression of one's feelings about an object that is liked or not, and this can form the intention to do something. In the context of investment, there are factors that can influence the intention to invest, one of which is overconfidence and financial literacy. The study carried out by Aljaed et al. (2019; Shrotryia & Kalra, 2021; Mushinada & Veluri, 2018) noted that there is a positive influence of the overconfidence variable on investment decisions. Likewise, regarding knowledge of financial literacy, Awn & Azam (2020) found a relationship with investors' decisions in investing. However, the relationship between the two variables, namely overconfidence and financial literacy, can occur when an investor has an attitude that can determine how they make decisions. This is because attitude is an expression of consumer feelings about an object to be addressed. According to Khan et al. (2020), attitude is an association of related motivational, emotional, perceptual and cognitive processes so that it ultimately results in a decision. Based on this, the final hypothesis is proposed as follows:

H6. Attitude mediates the relationship between overconfidence and investor decision

H7. Attitude mediates the relationship between financial literacy and investor decision

326
Research and Methodology

This study is carried out using a quantitative approach which is aimed to explain the relationship between the variables contained in the study and explain their influence. In addition, this study is also conducted to examine the hypotheses that have been formulated previously. This study used a sample of students with a total sample of 297 respondents of student investor in three universities in Bandung, West Java. The sampling technique used in this research is purposive sampling. The criteria of the sample are as follows: (1) student of three universities in Bandung, West Java; (2) using cryptocurrency as investment instrument; and (3) have been carried out investment activities for 3 months. The data analysis method used is quantitative data analysis based on data collected from respondents, which is processed using SEM-PLS. Data collection is carried out online using Google Forms which is distributed to respondents. The measurement scale used in this study is a Likert scale measurement technique.

Variable Measurement

This study uses overconfidence, financial literacy, attitude, and investor decision as the variable. Overconfidence is measured by six items adopted from Han et al., 2020; Walters & Fernbach, 2021). Financial literacy is measured by five items adopted from Lusardi, 2019; Yang et al., 2021). Attitude is measured by three items adopted from Aljaed et al. (2019). Finally, investor decision is measured by 6 items adopted from Abadi et al., 2021; Hosseinzadeh et al., 2021).

Findings and Discussion

Respondent Profile

This research was conducted in one of the cities in Indonesia, Bandung, West Java with a random selection of respondents of student investors at 3 universities in Bandung. Respondents were selected based on their characteristics in order to meet the criteria, namely social media users and understanding investment applications. The results of the acquisition in this study indicate that the majority of respondents are dominated by men as many as 214, and based on age it is dominated between 22-30 more than the others as much as 211. Based on the length of investment, the majority of respondents are in the range of 6 months to 1 year, that is as many as 137. Meanwhile, based on the faculties, the respondents are dominated by the management faculty with an acquisition of 121. And lastly, based on income, the majority are dominated by respondents with an income of 2-3 million as many as 127 respondents. More detail about respondent profile is presented on Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td><strong>Faculty/Department</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>214</td>
<td>81%</td>
<td>Management</td>
<td>121</td>
<td>45%</td>
</tr>
<tr>
<td>Female</td>
<td>83</td>
<td>19%</td>
<td>Accounting</td>
<td>116</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Administration</td>
<td>51</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–21 years old</td>
<td>59</td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22–30 years old</td>
<td>211</td>
<td>65%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31–40 years old</td>
<td>27</td>
<td>10%</td>
<td>Income level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 million/month</td>
<td>109</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2–3 million/month</td>
<td>127</td>
<td>46%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–5 million/month</td>
<td>61</td>
<td>16%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Investing Time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–6 Month</td>
<td>71</td>
<td>15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6–1 Year</td>
<td>137</td>
<td>55%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 Year</td>
<td>89</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data (2022)
Outer Model Evaluation

Measurement of indicators (Outer Model) is carried out to see whether the indicators used can measure the validity and reliability of latent variables. Table 2 shows that the outer loading value on all indicators meets the acceptance criteria with a value > 0.700 and the Average Variance Extracted value on all measurement indicators meets the acceptance criteria with a value greater than 0.50. With the achievement of the outer loadings and Average Variance Extracted values, it can be said that the measurement indicators are valid in measuring latent variables. From table 2 it is also known that the Cronbach's Alpha and Composite Reliability values on all indicators meet the acceptance criteria with a value greater than 0.70, meaning that all indicators can be said to be reliable to be used as a measuring tool in this study. The measurement parameters can be seen in the following table.

Table 2: Validity and Reliability of Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Outer Loadings</th>
<th>Average Variance Extracted</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overconfidence</td>
<td>OC1</td>
<td>0.718</td>
<td>0.503</td>
<td>0.802</td>
<td>0.858</td>
</tr>
<tr>
<td></td>
<td>OC2</td>
<td>0.777</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC3</td>
<td>0.713</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC4</td>
<td>0.715</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC5</td>
<td>0.733</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OC6</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>FL1</td>
<td>0.860</td>
<td>0.581</td>
<td>0.713</td>
<td>0.811</td>
</tr>
<tr>
<td></td>
<td>FL2</td>
<td>0.787</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FL3</td>
<td>0.760</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FL4</td>
<td>0.773</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FL5</td>
<td>0.798</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>OCBE1</td>
<td>0.860</td>
<td>0.658</td>
<td>0.740</td>
<td>0.852</td>
</tr>
<tr>
<td></td>
<td>OCBE2</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OCBE3</td>
<td>0.738</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investor Decision</td>
<td>WP1</td>
<td>0.733</td>
<td>0.623</td>
<td>0.747</td>
<td>0.823</td>
</tr>
<tr>
<td></td>
<td>WP2</td>
<td>0.784</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WP3</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WP4</td>
<td>0.789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WP5</td>
<td>0.837</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WP6</td>
<td>0.739</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data (2022)

Determinant Coefficient

The coefficient of determination test aims to determine how much influence or role exogenous variables have on endogenous variables. In this test the coefficient of determination on the investor decision is 0.410. This means that overconfidence and attitude variables as mediator variables can influence the investor decision of 41.0%. Furthermore, the coefficient of determination for the variables of financial literacy and attitude as a mediator is 0.475. This indicates that investor decision can be influenced by the financial literacy, overconfidence, and attitude of 47.5%. The value of the coefficient of determination for the causal relationship between exogenous variables and endogenous variables can be seen in the following table.

Table 3: Determinant Coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor Decision</td>
<td>0.410</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.475</td>
</tr>
</tbody>
</table>

Source: Primary Data (2022)

Model Causality Test

In this study, the proposed hypothesis is accepted if the value of t statistic is greater than t table. With a number of degrees of freedom 96 and a significance level of 5%, the t table value is 1.985. In this test all alternative hypotheses can be accepted because they have a statistical t value greater than t table. For more details, the test data are presented in the following description:

i. The causal relationship between overconfidence and attitude has a positive and significant influence. This means that the higher the influence of overconfidence, the value of attitude increases by 0.282 and has a probability value of 0.000 which is smaller than 0.05. Hypothesis 1 is accepted.

ii. The causal relationship between overconfidence and investor decision has a positive and significant influence. This means that the higher the influence of overconfidence, the value of investor decision will increase by 0.198 and has a probability value of 0.010 which is smaller than 0.05. Hypothesis 2 is accepted.
iii. The causal relationship between financial literacy and attitude variable has a positive and significant influence. This means that the higher the influence of financial literacy, the value of the attitude increases by 0.499 and has a probability value of 0.000 which is smaller than 0.05. Hypothesis 3 is accepted.

iv. The causal relationship between financial literacy and investor decision has a positive and significant influence. This means that the higher the understanding of financial literacy, the investor decision increases by 0.330 and has a probability value of 0.004 which is smaller than 0.05. Hypothesis 4 is accepted.

v. The causal relationship between attitude and investor decision has a positive and significant influence. This means that the higher the influence of attitude variable, the value of investor decision increases by 0.323 and has a probability value of 0.005 which is smaller than 0.05. Hypothesis 5 is accepted.

Table 4: Model Causality Test

<table>
<thead>
<tr>
<th>Model Causality</th>
<th>Original Sample</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overconfidence --(\rightarrow) Attitude</td>
<td>0.282</td>
<td>3.920</td>
<td>0.000</td>
</tr>
<tr>
<td>Overconfidence --(\rightarrow) Decision to invest</td>
<td>0.198</td>
<td>2.595</td>
<td>0.010</td>
</tr>
<tr>
<td>Financial literacy --(\rightarrow) Attitude</td>
<td>0.499</td>
<td>7.197</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial literacy --(\rightarrow) Decision to Invest</td>
<td>0.330</td>
<td>2.869</td>
<td>0.004</td>
</tr>
<tr>
<td>Attitude --(\rightarrow) Decision to Invest</td>
<td>0.323</td>
<td>2.742</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Source: Primary Data (2022)

Mediator Variable Test

This test is carried out to determine the role of the mediating variable in providing a mediating influence on the causal relationship between exogenous and endogenous variables. The results of this test can be seen in the table of Specific Indirect Effects as follows.

i. Attitude can be a mediator that has a significant influence on the relationship between overconfidence and investor decision. This can be seen from the Sobel test value of 2.224 which is greater than z table 1.96 with a probability value of 0.025 less than 0.05. Hypothesis 6 is accepted.

ii. Attitude can be a mediator that has a significant effect on the relationship between financial literacy and investor decision. This can be seen from the Sobel test value of 2.560 which is greater than z table 1.96 with a probability value of 0.010 less than 0.05. Hypothesis 7 is accepted.

Table 5: Specific Indirect Effect

<table>
<thead>
<tr>
<th>Variable</th>
<th>Specific Indirect Effects</th>
<th>Sobel Test Statistics</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overconfidence --(\rightarrow) Attitude --(\rightarrow) Investor Decision</td>
<td>0.063</td>
<td>2.244</td>
<td>0.025</td>
</tr>
<tr>
<td>Financial literacy --(\rightarrow) Attitude --(\rightarrow) Investor Decision</td>
<td>0.111</td>
<td>2.560</td>
<td>0.010</td>
</tr>
</tbody>
</table>

Source: Primary Data (2022)

Based on these findings, it can be seen that the attitude variable can play a significant role as an intervening variable or a mediator variable in the relationship between overconfidence and investment decisions and the relationship between financial literacy and investor decision with a significance level of 5%. The measurement model in this study is shown in Figure 2 as follows.
Discussion

The results of hypothesis testing indicate that the proposed hypothesis is fully accepted. The test on the first and second hypotheses, regarding the influence of overconfidence on attitude and investment decisions are accepted. This means that overconfidence variable can have a positive influence on attitudes and investor decision. The results of this study are in accordance with the findings Kim et al. (2021; Walters & Fernbach, 2021) which stated that overconfidence variable in an investor allows individuals to show behavioral results where this behavior can lead to investors’ decisions. According to Meier and Mello (2020), overconfidence puts more emphasis on individual encouragement based on the ability that is felt in him. Individuals will show overconfidence behavior when they feel they have more information than other people.

In this case, an investor who has overconfidence characteristics feels that he has more ability and knowledge when compared to others, and he feels that luck can be obtained with his abilities and thinks that his decision is not wrong. In this study, it was found that the higher the overconfidence of an investor, the behavior that leads to the poor investor decision.

In addition, the results of this study also show that financial literacy can affect attitudes and investor decision. Cognitive and experiential contextual factors can be one of the factors that make individuals understand financial literacy. When this understanding is obtained, it will simultaneously influence attitudes that lead to decisions. This also supports the results of previous research conducted by Yang et al. (2021). Financial literacy can be one of the basic capitals in making decisions made by individuals. This is due to at least two things, namely to avoid making wrong decisions and reducing the impact of the risks. When individuals have an understanding of financial literacy, it will lead to attitude beliefs and practice them in behavior, namely decisions.

Next, the researcher examines another predictor that mediates in explaining the decision to invest, namely attitude. The results of this study prove that attitude can be a mediator that influences the investor decision. This finding supports the results of previous research conducted by Ramandhanty et al. (2021). The higher the behavior shown by the individual can influence the investor decision. Individuals will use their abilities to make investment decisions. The findings of this study prove that the attitude variable can act as a mediator on contextual factors that influence the decision to invest. Overconfidence and financial literacy can develop individual behavior, and ultimately affect decisions. These findings support the results of research conducted by Dika and Kassim (2021; Vinod, 2022).

Conclusions

This study contributes to the literature, especially financial management by broadening the understanding of overconfidence, financial literacy, and attitude which are seen as still having limitations in understanding their influence on investor decision, especially for young investors in Indonesia. This study also discusses the limitations and needs of previous research and looks at the role of the attitude variable as a mediator. The results of this study indicate that overconfidence, financial literacy, and attitude have a positive effect on investor decision. This study also confirms the mediating role of attitude in the relationship between overconfidence and financial literacy in the investor decision.
This research is expected to be a consideration for young investors in making investment decisions. An investor should avoid overconfidence behavior when deciding to invest, and be well aware of the understanding of financial literacy. Where this literacy understanding can avoid losses when deciding to invest. On the one hand, the decision to invest can also be based on an understanding of financial literacy and individual attitudes.

There are some limitations in this study. First, research data were collected at one time (cross-sectional). Although this study has been carried out with appropriate scientific principles, research data collected longitudinally is still needed to determine the causality of the research variables with certainty, and whether their effects will change over time. Then, this research was specifically conducted among young investors in the Bandung area, West Java, Indonesia. Replication of the research in different contexts and locations is required, resulting in a stronger generalization of the results. This study also has not considered certain conditions that can strengthen or weaken the relationship between the variables studied. Further researchers can use moderator variables and analyze conditional factors that can influence investment decisions.

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**References**


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