



## Effect of Religion, Gender, and Overconfident Interactions on Investment Decisions Tiar Lina

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### ABSTRACT

The research aims at the moderating effects of religion, moderated by gender, on overconfidence behavior influencing investment decisions. The object of the research is cognitive bias, which is proxied by overconfident behavior. The research added the moderating variables of gender and religion. The research uses primary data from young investor subjects aged 18 to 29 years. The researchers distributed questionnaires to groups of young investors, 467 of whom returned complete questionnaires. The research employed an exploratory survey approach and used purposive sampling. Two types of analyses were performed. It starts with regression analysis to examine the influence of overconfident behavior, which influences investment decisions. Subsequently, moderation effects were analyzed using a Model 3 analysis with the Process tool. The Process tool processed the moderation data to determine whether there was an interaction between these two variables in influencing overconfidence behavior regarding the investment decisions of young investors. The research found that overconfidence behavior influences young investors' investment decisions. However, the moderation of gender and religion did not result in significant differences in overconfident behavior concerning investment decisions. Implies that the moderation of gender and religion does not sharpen overconfidence behavior in determining investment decisions.

### ARTICLE INFO

#### Article History:

Submitted/Received 02 Sep 2023

First Revised 29 Dec 2023

Accepted 27 Feb 2024

First Available online 28 Feb 2024

Publication Date 01 Apr 2024

#### Keyword:

Cognitive bias,  
Gender,  
Investment decision,  
Moderation,  
Overconfidence,  
Religion.

## 1. INTRODUCTION

Decision-making is choosing or selecting from several available alternatives within the influence of a complex situation. Factors such as risk and return are considerations in making investment decisions. The investment world is familiar with the term "high risk, high return." The investment decisions made depend on each investor.

Regarding the consideration of choosing demographic factors such as gender and religious beliefs, this is grounded in the reality that Indonesia is a nation with a significant population. Recent developments in research in behavioral finance have shown they have already analyzed bias diversity to a certain extent. The research adds moderation variables to observe the difference in how cognitive bias influences investment choices with gender and religion as moderating factors (Zahera & Bansal, 2019).

Differences in research in non-emerging countries have demonstrated that overconfidence behavior is often driven by investors' perception of having superior information compared to their peers. In emerging markets, this attitude is considered more commonplace. The male gender is found to be more susceptible to overconfidence compared to the female gender. Research results have also revealed that lower education levels and income reinforce overconfidence behavior (Jaiswal & Kamil, 2012). The individual culture of investors in non-emerging markets provides color to their investment decisions (Beckmann et al., 2008; De Mooij & Hofstede, 2011; Petersen et al., 2015).

Emerging markets with diverse cultures make it essential to conduct research to determine behavioral biases in countries with cultural diversity. In Indonesia, religious holidays induce investors to conduct capital market transactions. The sharpest movements increase stock prices. According to Dwi Chandra (2021), several retail shares are moving up as transactions increase. People sell shares to get fresh funds to welcome the holidays by shopping. Therefore, religious holidays contribute to people's financial behavior or decisions.

Map illustration of research results in the world regarding demographic factors as moderating variables consisting of sex/gender and religion in interaction with cognitive factors in determining investment decisions. For almost 30 years, the gender-religion relationship has been debated among academics. The debate is fierce because the factors that make these two variables have different implications for behavioral biases in investment decisions. Previous research has indicated a consistent finding that men often exhibit a greater inclination to be religious than women in terms of their connection to religion. due to differences in gender superiority (Miller & Stark 2002). In Western Europe and America, Walton et al. (2017) researched CEOs, finding that religious people voluntarily invest in mutual funds despite producing lower returns. It means that religion influences investment decisions.

In the United Kingdom, research on individual investors has shown that men are more prone to holding onto losing stocks rather than selling them in the market compared to women (Richards et al., 2017). In Estonia, research has found gender differences, with women being better at making portfolio decisions than men in selecting investment portfolios (Talpsepp, 2013) In Indonesia, gender does not influence investment decisions. Jawaheer and Manual (2016) discovered that gender has not effect on the decision-making process for investment, but it does reveal that women generally exhibit a lower inclination toward risk-taking compared to men. Women are often seen as more rational in their investment choices and prioritize financial security. In research in the country's non-emerging markets like the United States, research by Statman and Weng (2010) reveals that Jewish individuals exhibit a higher risk tolerance than Catholics and Protestants in America.

In Malaysia, women generally have greater risk tolerance than men but tend to exercise more caution when making investment portfolio choices and often exhibit lower confidence levels than men. This can be ascribed to the impact of religion on investment choices, as it is ingrained in the culture and heritage of the nation (Albaity & Rahman, 2012).

Difference to other research, there is no influence of belief and gender in determining investment decisions in the Muslim entrepreneurial group in Sidoarjo. Contrast to Pratiwi and Prijati (2015), who conducted research in the Surabaya capital market on groups of individual investors, explaining that investment decisions are influenced by gender and ethnicity. In Padang, research was also conducted on postgraduate students, and gender did not influence investment decisions (Putri & Hamidi, 2019).

Previous research indicates that cognitive bias plays a role in shaping investment choices among young individuals' investors. However, demographic factors as moderating variables consisting of religion and gender in the research model are still limited in previous studies. Therefore, this research domain still opens opportunities to develop research on differences in the moderating effects of religion and gender on cognitive biases in young investors' investment decisions.

## 2. METHOD

The research uses the object of research, namely cognitive factors. Cognitive factors are represented by excessive self-confidence bias. The research adds moderation effects to sharpen or see any differences in the influence of biased behavior variables. Moderation variables used consist of paramount moderation and second moderation. The paramount moderation is represented by religion, while the second moderation is gender. The research subjects are university students, young investors, generation Z category (aged 18-25 years) located in West Java, Indonesia.

The method uses the survey exploration method. The survey uses a questionnaire containing questions from the variables studied, created using a Google form link. Then, the survey was disseminated to several social media communities of students who had semester 5 (five) and had attended classes in financial management, investment activists, university investment galleries, and young investor investment communities around the West Java region and so on.

The research took a sample of students in two ways. First, by purposive sampling, researchers determined the characteristics of the population of interest and then took samples of individuals with appropriate characteristics. The second was convenience sampling, samples with appropriate characteristics and volunteers, which were easy to take to be included in the sample. The sample used must meet the requirements or criteria of the population that has been determined in this research. All data transmitted and returned from respondents were used in the research. The research sent questionnaires to approximately 500 respondents. The questionnaire received 467 respondents. The operational variables of the research used one predictor or independent variable which is excessive self-confidence behavior. There are two moderation variables. The main one is religion, and the second moderation is gender. The variable under consideration is investment decisions, serving as the dependent variable. The independent variables used are:

- (i) Overconfident behavior, the concept of overconfidence, is the belief that does not make sense to one's intuitive attitude in judging and cognitive abilities. This attitude indicates the behavior of feeling more over the ability to make predictions and have information. With this excessive self-confidence, a person often performs incorrect calculations. In other words, someone thinks they are smarter and better informed when this is not the

case. The implications of this attitude make for inadequate preparation for future investments.

- (ii) Moderation variables are variables that strengthen or weaken the connection between independent and dependent variables. In The research, the moderator variable is gender, namely women and men. The research used a nominal scale for each gender, namely 1 for women and 2 for men. The following moderation variable of the research was religion. Religion consists of five criteria: Islam, Christianity, Catholicism, Hinduism, and Buddhism. This moderation variable also uses a nominal scale. The five religions are sorted using numbers 1, 2, 3, 4, and 5.

### 2.1. Technical Data Analyst

This research used two stages of hypothesis testing. First, the research examined the impact of cognitive biases on choices related to investments. At this stage, data analysis using SPSS software. Second, the research examined the interaction of cognitive biases and demographic factors with investment decisions. For the second part, the research used an additional tool called PROCESS. Regression Moderation Analysis or three-way interaction means X, W, and Z interact. Data is processed using SPSS and additional PROCESS tools version 3.5.

### 2.2. Multiple Analysis Regression

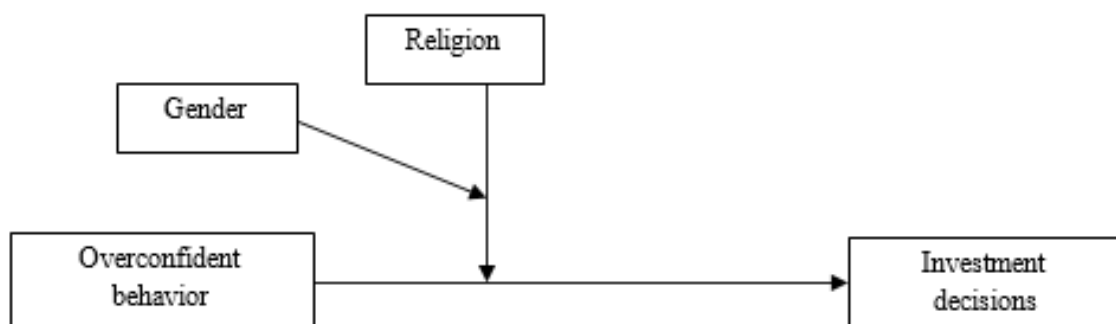
Referring to the concept of each research variable above, the framework of thought in this research consists of 2 frameworks, namely:

- (i) The frame of mind of the connection between cognitive biases and investment decisions is described in **Figure 1**.



**Figure 1.** The Connection of Cognitive Bias to Investment Decisions.

- (ii) The frame of mind the relationship between each cognitive bias with the primary moderation variable and the second moderation to investment decisions (see **Figure 2**):



**Figure 2.** Relationship of overconfidence behavior with gender-moderated religion to investment decisions

### 2.3. Hypothesis

The research hypothesis is:

- (i) H1: Is there an impact of cognitive bias on investment decisions?
- (ii) H2: Is there an interaction between excessive self-confidence and religion in sharpening the impact on investment decisions?
- (iii) H3: Is there an interaction between excessive self-confidence and gender in sharpening the impact on investment decisions?
- (iv) H4: Is there an interaction between excessive self-confidence, religion, and gender in sharpening the impact on investment decisions?

### 2.4. Testing Regression Analysis Multiple

Essentially, the coefficient of determination ( $R^2$ ) is used to measure or evaluate a model's ability to explain the dependent variable. A low  $R^2$  value indicates that the independent variables have limitations in explaining the dependent variable. Conversely, a value approaching one indicates that the independent variables provide sufficient information to explain or predict the dependent variable. In general, in the context of cross-sectional data, the coefficient of determination is often low due to significant variation among different observations. Therefore, in determining or evaluating the model used, it is recommended to use the adjusted  $R^2$ , as the adjusted  $R^2$  value can increase or decrease when an independent variable is added to the model.

The hypothesis is described in **Figure 3**.



**Figure 3.** Multiple Regression Analysis Test of Cognitive Bias on Investment Decisions.

Based on **Figure 3**, the description can be explained in the following. The independent Variable (X), which represents cognitive bias, is approximated by a variable consisting of overconfidence behavior. The dependent variable (Y) is the Investment Decision.

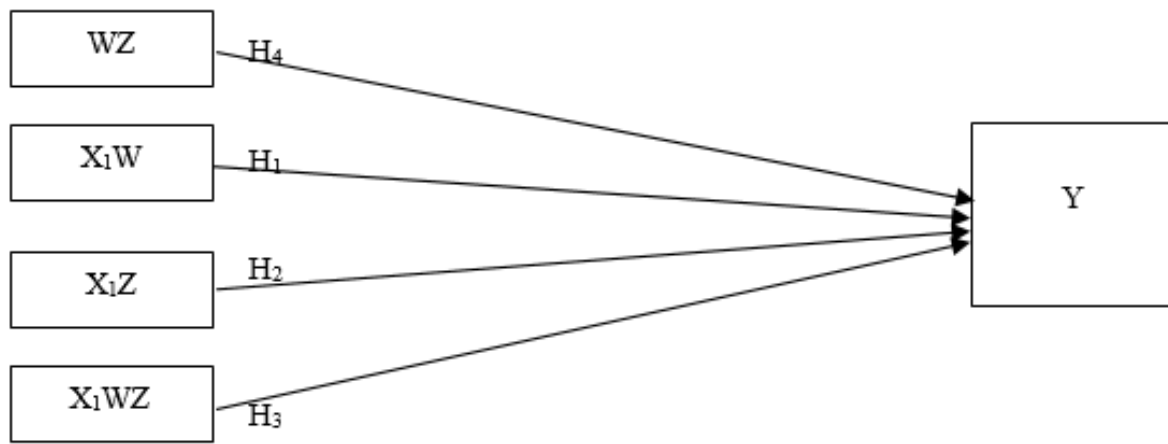
### 2.5. Hypothesis Testing Criteria

B<sup>1</sup> There is an impact of (X) on Investment Decision (Y).

Criteria by comparing with the value 0.05. If the value is greater than or equal to 0.05, it means there is no influence of the independent variable on investment decisions. If the probability value is less than or equal to 0.05, it indicates there is a comprehensive or simultaneous influence of the independent variable on investment decisions.

### 2.6. Testing the Interaction of Free Variables and Moderation Variables

The research hypothesis on the interaction of independent variables and moderated moderation variables is in **Figure 4**.



**Figure 4.** Test the interaction between independent variables and moderation.

Based on Figure 4, the information is in the following. X consists of independent variables, namely:

- (i) X1: Excessive self-confidence.
- (ii) W is the main moderation variable, which is Religion.
- (iii) Z is the second moderation variable, represented as Gender.

## 2.7. Operational Variables and Variable Measurement

The research uses variables, namely overconfident behavior, the dependent variable, namely investment decisions, and moderating variables consisting of religion and gender. **Table 1** provides a portrait of the theoretical concepts and questionnaire statements.

**Table 1.** Operational Variables.

No.	Variable	Concept of Theory	Indicator	Statement	Scale	Instruments
1	Excessive self-confidence (PD)	Attitudes show behavior feeling more than the ability to make predictions and have information.	Competence (PD1)	1. I am confident in my competence better than others. PD11. 2. I do not doubt that competence can help me make a profit. PD12. 3. I have complete investment knowledge about various investments. PD13	1. Totally agree. 2. Agree 3. Neutral 4. Disagree 5. Strongly disagree. 6. Nominal	Questionnaire

**Table 1 (continue).** Operational Variables.

No.	Variable	Concept of Theory	Indicator	Statement	Scale	Instruments
			Ability (PD2)	1. I have expertise and experience in investing. PD21	1. Totally agree.	Questionnaire
				2. I do not hesitate to enter the market and exit. PD22	2. Agree	
					3. Neutral	
			Experience (PD3)	1. I am responsible for managing investment decisions. PD31	4. Disagree	Questionnaire
				2. I do not think other opinions will diminish my chances of success. PD32	5. Strongly disagree	
			Information (PD4)	If I get information from insiders, it makes me not hesitate to make investment decisions. PD41	1) Totally agree	Questionnaire
					2) Agree	
					3) Neutral	
6.	Age	18 yo – 21 yo	1		4) Disagree	Questionnaire
		22 yo – 25 yo	2		5) Strongly disagree	
		26 yo - 29 yo	3			
7.	Gender	upper 29 yo	4			Questionnaire
		Man	1		Nominal	
		Woman	2			
8.	Religion	Islamic	1		Nominal	Questionnaire
		Christian	2			
		Catholic	3			
		Hindu	4			
		Buddhism	5			

## 2.8. Data Collection Sources and Tools

The data used in the research was primary. Previous research has shown that behavioral finance research uses more secondary data, while research that uses primary data is still limited ([Zahera & Bansal, 2018](#)). So, to add to the repertoire of research in the field of behavior, this research uses primary data.

### 3. RESULTS AND DISCUSSION

#### 3.1. The Relationship of Interaction of Overconfident Behavior and Demographic Factors

The questionnaire contained 29 statements. The survey was created utilizing a Google Form link and distributed via social media communities. The Returned and completed questionnaire is 467. **Table 2** shows data consisting of respondents' identities consisting of gender, religion, and age. The questionnaire results provide an overview of the position of cognitive bias towards investment decisions.

**Table 2.** Overview of the Demographic Profile of Research Respondents.

Demographic Profile	Frequency	Percentage (%)	Accumulated Percentage
<b>Gender</b>			
Man	258	55.2	55.2
Woman	209	44.8	100
<b>Age</b>			
18 yo – 21 yo	425	91.0	91.0
22 yo – 25 yo	34	7.3	98.3
26 yo – 29 yo	2	0.4	98.7
Diatas 29 yo	6	1.3	100
<b>Religious Groups</b>			
Islamic	433	92.7	92.7
Christian	26	5.6	98.3
Catholic	2	0.4	98.7
Hindu	3	0.6	99.4
Buddhism	3	0.6	100

The identity data of respondents information is visible in **Table 2**. Characteristics of respondents based on gender, the majority of respondents were male, namely 258 respondents (55.2%), while the rest were female, namely 209 respondents (44.8%). In terms of age distribution, most respondents fell within the bracket of 18 to 21 years old, which was 425 respondents (91.0%), then the range of 22 years to 25 years was 34 respondents, the age range of 26 years to 29 years was two respondents and at least the age range over 29 years six respondents.

The pattern of each generation has a uniqueness or difference in determining their investment decisions. The generation of young investors is a generation that is still growing and developing. The young investor group, a generation of young investors, is still vulnerable to psychological bias. Therefore, research into the effects of moderation on cognitive biases on young investors' investment decisions is important.

Based on religion the majority of respondents were religious. Islamic had 433 respondents (92.7%), Christianity was 26 respondents (5.6%), Catholicism was 2 respondents (0.4%), and Hinduism and Buddhism were 3 respondents each (0.6%).

#### 3.2. Test of the analysis regression

**Table 3** shows the test of the analysis regression Cognitive bias to Investment decision. We processed Data (2022)  $Y = 1.073 + 0.059X_1$ . The equation can be summed up as follows,

- (i) If the value of another variable is constant, the value of Y will change by itself by 1.073.
- (ii) If other variables are constant, the value of Y will change by 0.059 per unit  $X_1$ .



**Table 2.** Test of the analysis regression cognitive bias to Investment decision.

No	Description	Coefficient Number	Probability Value	Result	Knot
<b>Cognitive Bias</b>					
	Constant	1.073			
1	Overconfidence	0.059	0.003	< 5%,	Significant

### 3.3. Test the Hypothesis

The results from the hypothesis are in the following:

- (i) Hypothesis: Ho: Excessive self-confidence behavior, does not affect investment decisions.  
H1: Excessive confident behavior, affecting investment decisions.
- (ii) Criteria: If the probability value is less than 5%, cognitive factors influence investment decisions. The research accepted the results of the H1 hypothesis test, which means that students' investment decisions are influenced by excessive self-confidence behavior.

### 3.4. Test the Hypothesis of the Interaction of Cognitive Biases and Demographic Factors

**Table 3** shows the interaction hypothesis of excessive self-confidence behavior (X1), Religion (W), and Gender (Z), to investment decisions (Y). Data was processed interaction based on the equation:  $Y = 1.3273 + 0.1748X1 + 0.1555W + 0.2902Z + 0.0145X1W - 0.0734X1Z - 0.0944WZ + 0.0229X1WZ$

The results can be summed up as follows:

- (i) If the value of another variable is steady, the value Y will fluctuate by 1.3273.
- (ii) If another variable is steady, the value of Y will fluctuate by 0.1748 per unit of X1.
- (iii) If another variable is steady, the value of Y will fluctuate by 0.1555 per unit of W.
- (iv) If another variable is steady, the value of Y will fluctuate by 0.2902 per unit of Z.
- (v) If another variable is steady, the value of Y will fluctuate by 0.0145 per unit of XW.
- (vi) If another variable is steady, the value of Y will fluctuate by -0.0734 per unit of X1Z.
- (vii) If another variable is steady, the value of Y will fluctuate by -0.0944 per WZ unit.
- (viii) If another variable is steady, the value of Y will fluctuate by 0.0229 per unit of X1WZ.

**Table 3.** Test for the Interaction Hypothesis of Excessive Self-Confidence Behavior (X1), Religion(W), Gender (Z), to Investment Decisions (Y).

No	Information	Coefficient	Probability Value
1	Constant	1.3273	
2	Excessive self- confidence behavior (X1)	0.1748	0.003
3	Religion (W)	0.1555	
4	Gender (Z)	0.2902	
5	Interaction X1. W	0.0145	0.0692
6	Interaction X1. Z	-0.0734	0.6835
7	Interaction W. Z	-.0944	0.7327
8	Interaction X1.W. Z	0.0229	0.8923

Based on **Table 3**, the hypotheses are the following:

- (i) Ho: There is no interaction of excessive confidence behavior with religion on investment decisions.
- (ii) H2: There is an interaction of excessive self-confidence behavior with religion on investment decisions. Ho: There is no interaction of excessive confidence behavior with gender on investment decisions.
- (iii) H3: There is an interaction of overconfident behavior with gender on investment

decisions. Ho: There is no interaction between religion and gender in investment decisions.

- (iv) H4: There is an interaction between religion and gender in investment decisions.
- (v) Ho: No interaction between overconfidence, religion, and gender behavior on investment decisions.
- (vi) H5: An interaction between self-confidence, religion, and gender behavior in making an investment decision.
- (vii) Criteria: If the probability value is less than 5%, cognitive factors influence investment decisions.

Therefore, the outcomes of the initial hypothesis examination, not accepting or rejecting the H2 hypothesis, excessive self-confidence behavior (X1) interacting with religion (W) affect investment decisions. Second, not accepting or rejecting the H3 hypothesis, there is an interaction between excessive self-confidence behavior (X1) and gender in determining investment decisions.

Third, do not accept or reject the H14 hypothesis. There is an interaction between religion (W) and gender (Z) to determine investment decisions, and fourth does not accept or reject the H5 hypothesis. There is an interaction between excessive self-confidence behavior (X1) and religion and gender in investment decisions.

Research proves that overconfident behavior influences young investors' investment decisions. However overconfident behavior has no interaction with religion and gender in determining young investors' investment decisions. This means that investment decisions depend on every single person. No connection or relation to the religion and gender of each person. Since that investor must be considerate and rational to make the best decision to select the investment.

Comparison finding investigation of overconfident behavior between emerging countries, including Indonesia, and non-emerging countries. In Indonesia, there are differences finding research on religion and gender. Gender does not influence self-confidence behavior. However, other investigations have shown different results of gender influences on overconfidence behavior. Preliminary research in Indonesia shows that religion does not influence investment decisions among student and entrepreneur groups. They only consider the probability ratio of success or failure and how much it can increase and reduce failure. The group does not consider the values or norms contained in religion. In other emerging markets, there are two variants finding research. First, research shows a relationship between excessive self-confidence behavior and religious and gender moderation. Then, other ones have shown that gender and religious variables do not interact to influence excessive confidence behavior towards investment decisions in line with our findings investigation or research.

Men have more self-confidence than women. There is a connection between the two variables in investment decisions. Many differences in location show that religion does not influence investment decisions among student and entrepreneur groups. They only consider the probability ratio of success or failure and how much it can increase and reduce failure (Nainggolan et al., 2018; Wibisono, 2013).

Some reasons that cause Excessive self-confidence. Excessive self-confidence is behavior experienced by someone who feels he has more ability and competence than the existing situation. Comparison of overconfident behavior in emerging countries, including Indonesia and non-emerging countries. Research proves that overconfident behavior influences young investors' investment decisions. However, overconfident behavior has no interaction with religion and gender in determining young investors' investment decisions. That is, young investors do not consider religion and gender, or there is no relationship between religion

and gender to overconfident behavior in determining their investment decisions, all back to the nature of each individual.

Religion guides society about social rules, forming communities and social networks to help obtain beneficial outcomes. Otherwise, individuals who experience overconfident behavior assume that religious guidelines are still in harmony with their beliefs. Regarding to investigation, religion has not been taken into consideration in determining investment decisions. More than three decades of research into cognitive biases worldwide depict those cognitive biases influence to selection of investment decisions across different groups of investors. The moderation variable demonstrates the opposite impact of the excessive confidence behavior of investors in considering investment decisions.

Research from the 1980s to the present shows that in non-emerging countries starting in the 1990s, emerging countries prove excessive self-confidence behavior influences investment decisions. From time to time, confident behavior has shifted from information owned by investors to the use of technology for all data needs as a consideration for determining investment decisions (Paramita & Isbanah, 2018).

There are some variants in the character of investor groups influenced by excessive self-confidence. In emerging countries, including Indonesia, a generation of young investors or students with excessive self-confidence behavior are high-risk investors with minimal experience (Arifin & Soleha, 2019). The characteristic of individual investors common in emerging countries, including Indonesia, is investors who follow experience as a reference for making transactions. They aggressively transact, relying on encouraging past return experiences (Qadri & Shabbir, 2014). Prosperous investors with established financial conditions are characterized by relying on intuition and experience without understanding financial and macroeconomic analysis (Qasim *et al.*, 2019).

In emerging countries, the characteristic pattern shows that young investors are a generation with limited knowledge, risk-averse, and not afraid to face failure. The general group of investors, showing character, is accustomed to managing money early accustomed to investing, which refers to the experience of transacting and using technology (Yang & Zhu, 2016; Huang *et al.*, 2012).

Then, research results illustrate that men are more confident than women. Men with low portfolios, incomes, and educations show more vulnerability to overconfident behavior. In Malaysia, religion makes a difference in overconfident behavior (Lambert *et al.*, 2012; Yehezkiel Chris *et al.*, 2018). Muslim men are more confident than Muslim women. However, Christian women are more confident than Christian men. Research explains that men are more confident than women because they better understand and can analyze fundamentally. In other words, men are seen as having better competence than women (Albaity & Rahman, 2012). In India, men experience overconfident behavior compared to women. Taiwan, Arabia, and Indonesia also found the same research results, namely, gender influences excessive self-confidence behavior toward investment decisions.

The overview of the research, in Indonesia, there are variant findings, regarding research on religion and gender. Gender does not influence self-confidence behavior. That is, all return to their respective natures. However, other studies have shown the opposite finding research on gender influences on overconfidence behavior. Men have more self-confidence than women. There are connections between the two variables in investment decisions (Nainggolan *et al.*, 2018; Wibisono, 2013).

Religion influences the financial decisions of young investors, as seen when they open bank accounts. Religion is a factor in choosing the bank they go to. Investors conduct evaluations based on faith, belief, and religious law on investments (Jaiyeoba & Haron, 2016). Research

in non-emerging markets as a whole, or in general, proves that there are factors that cause investors to experience excessive confident behavior. These factors are that investors feel better informed than other investors. Investors receive special information because they have a relationship with the issuing company or the investor is an employee who works at the company.

Research with variables of religious moderation provides variant findings on investor behavior. In non-emerging and emerging countries, it illustrates that religious factors contribute to individual behavior. However, there are two research results in Indonesia. First, there is an impact of religion in making investment decisions, and religion does not have an impact on investment choices. Then, religion interacts with a selection of investments, which means, there is a connection between the two variables. If religion does not exert any impact on investment selection, means, everything returns to the nature of each individual.

Religions that contain social norms that teach life form social communities that support each other. Religion becomes an investor's consideration in determining investment decisions, showing value- and goal-oriented actions. This action aims to carry out rational actions by considering ethical, religious, and other values to achieve better results.

#### 4. CONCLUSION

Regarding the research, the conclusions are:

- (i) Overconfidence influences young investors' investment decisions.
- (ii) There is no interaction between excessive self-confidence and religious behavior in young investors' investment decisions.
- (iii) There is no interaction between excessive self-confidence behavior and gender in young investors' investment decisions.
- (iv) There is no interaction between religion and gender in young investors' investment decisions.
- (v) There is no interaction of excessive self-confidence, religion, and gender, with young investors' investment decisions.

Research proves that overconfident behavior influences young investors' investment decisions. However overconfident behavior has no interaction with religion and gender in determining young investors' investment decisions. This means that investment decisions are dependent on every single person. No connection or relation to the religion and gender of each person. Since that investor must be considerate and rational to make the best decision to select the investment.

Educational institutions or institutions can see maps of mental errors that often occur in young investors, students, or the community. Education or training on behavioral finance must be done to reduce bias in determining financial or investment attitudes or decisions. Investors must be well literate so as not to cause behavioral bias when making stock investment decisions (Ateş et al., 2016).

The financial world is fulfilled to select to reduce risk preferences to improve knowledge, but it takes important and good value or character. Knowledge without being supported by good character will still give birth to financial and mental errors.

The government needs to make the right policy to build a healthy investment world. Policies that provide a sense of ama for investors. Then, the government needs to build firm signposts for financial and investment companies so that they sell rational investment products according to the needs of individual and institutional investors. A sustainable investment environment allows both parties to live safely and wealth.

Research has limitations. Future research will need other cognitive bias variables, such as framing bias, home bias, and others. Research needs to add subject groups, such as homemakers and athletes, and different demographic factors, such as income, age, education, etc. Research needs to expand the research response to other regions in Indonesia other than West Java.

## 5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

## 6. REFERENCES

- Albaity, M. S., and Rahman, M. (2012). Gender, ethnicity, and religion and investment decisions: Malaysian evidence. *Journal of Sociological Research*, 3(2), 502-519.
- Arifin, Z., and Soleha, E. (2019). Overconfidence, attitude toward risk, and financial literacy: a case in Indonesia stock exchange. *Review of Integrative Business and Economics Research*, 8(4), 6722.
- Beckmann, D., Menkhoff, L., and Suto, M. (2008). Does culture influence asset managers' views and behavior? *Journal of Economic Behavior and Organization*, 67(3-4), 624-643.
- de Mooij, M., and Hofstede, G. (2011). Cross-cultural consumer behavior: A review of research findings. *Journal of International Consumer Marketing*, 23(3-4), 181-192.
- Huang, Y. S., Song, F. M., and Wang, Y. (2012). Monetary policy and corporate investment: Evidence from Chinese micro data. *China and World Economy*, 20(5), 1-20.
- Jaiswal, B., and Kamil, N. (2012). Gender, behavioral finance, and the investment decision. *Business Review*, 7(2), 8-22.
- Jaiyeoba, H. B., and Haron, R. (2016). Qualitative research in financial markets. *Asian Review of Accounting*, 18(1), 2-5.
- Jawaheer, B. M., and Manual, V. (2016). Gender Differences in Investment Decision Making Among the Working Class of Mauritius. *Imperial Journal of Interdisciplinary Research*, 2(9), 2454-1362.
- Lambert, J., Bessière, V., and N'Goala, G. (2012). Does expertise influence the impact of overconfidence on judgment, valuation, and investment decision? *Journal of Economic Psychology*, 33(6), 1115-1128.
- Lestari, W., Salim, U., Sudarma, M., and Al-Habsyi, T. (2014). Determinants of investment decision among muslim entrepreneurs. *IAMURE International Journal of Business and Management*, 8, 1.
- Miller, A. S., and Stark, R. (2002). Gender and religiousness: Can socialization explanations be saved? *American Journal of Sociology*, 107(6), 1399-1423.
- Nainggolan, R., Tungka, N. F., and Christina, N. (2018). Literasi keuangan ditinjau dari gender, etnis dan agama mahasiswa di Indonesia. *Jurnal Akuntansi dan Pajak Literasi*, 22(2), 1-10.

- Paramita, R. S., Isbanah, Y., and Purwohandoko. (2018). Bias Kognitif Dan Kepribadian Individu: Studi Perilaku Investor Muda. *JRMSI - Jurnal Riset Manajemen Sains Indonesia*, 9(2), 214–235.
- Petersen, J. A., Kushwaha, T., and Kumar, V. (2015). Marketing communication strategies and consumer financial decision making: The role of national culture. *Journal of Marketing*, 79(1), 44–63. h
- Pratiwi, I. (2015). Pengaruh faktor demografi terhadap jenis investasi dan prijati. *Jurnal Ilmu dan Riset Manajemen*, 4(2), 1–15.
- Putri, W. W., and Hamidi, M. (2019). Pengaruh literasi keuangan, efikasi keuangan, dan faktor demografi terhadap pengambilan keputusan investasi (studi kasus pada mahasiswa magister manajemen fakultas ekonomi Universitas Andalas Padang). *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 4(1), 398–412
- Qadri, S. U., and Shabbir, M. (2014). Empirical research of overconfidence and illusion of control biases, Impact on investor's decision making: Anevidence from ISE. *European Journal of Business and Management*, 6(14), 38–44.
- Richards, D. W., Rutterford, J., Kodwani, D., and Fenton-O'Creevy, M. (2017). Stock market investors' use of stop losses and the disposition effect. *European Journal of Finance*, 23(2), 130–152.
- Rieger, M. O., and Wang, M. (2012). Can ambiguity aversion solve the equity premium puzzle? Survey evidence from international data. *Finance Research Letters*, 9(2), 63–72.
- Statman, M., and Weng, J. A. (2010). Investments across Cultures. *The Journal of Investment Consulting*, 11(1), 37–44.
- Syahnur, K. N. F., and Yahya, S. D. (2022). Studi faktor determinan keputusan investasi generasi milenial pada aset kripto. *AkMen Jurnal Ilmiah*, 19(2), 144–153.
- Talpsepp, T. (2013). Does gender and age affect investor performance and the disposition effect? *Research in Economics and Business: Central and Eastern Europe*, 2(1), 76–93.
- Walton, R., Forsyth, J., and Alderman, J. (2017). How religious beliefs influence financial decision-making: Implications for business leaders. *Graziadio Business Report*, 20(3), 1–9.
- Wibisono, O. P. (2013). Pengaruh kompetensi dan kepercayaan diri investor terhadap perilaku perdagangan saham. *Journal of Business and Banking*, 3(1), 47.
- Yang, X., and Zhu, L. (2016). Ambiguity vs risk: An Experimental research of overconfidence, gender and trading activity. *Journal of Behavioral and Experimental Finance*, 9, 125- 131.
- Zahera, S. A., and Bansal, R. (2018). Do investors exhibit behavioral biases in investment decision-making? A systematic review. *Qualitative Research in Financial Markets*, 10(2), 210–251.
- Zahera, S. A., and Bansal, R. (2019). A r esearch of prominence for disposition effect: a systematic review. *Qualitative Research in Financial Markets*, 11(1), 2–21.