

## THE PSYCHOLOGICAL AND EDUCATIONAL DRIVERS OF INVESTMENT DECISIONS: A STUDY ON GEN Y AND GEN Z IN BATAM CITY



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### ABSTRACT

*The primary purpose of this research is to thoroughly analyze the influence of overconfidence and herding behavior on stock investment decisions. Additionally, this research aims to investigate the moderating effect of financial literacy on the relationship between these behavioral factors (overconfidence and herding) and investment decisions. This research is quantitative research. The sample of this research is Gen Y and Gen Z stock investors in Batam City, Indonesia. The research analyzed the data using Partial Least Square Structural Equation Model (PLS-SEM), an advanced statistical technique that allows examining complicated relationships among observed variables and latent variables. The findings have revealed that overconfidence has a significant positive effect on investment. Similarly, herding significantly positively affects investment decisions, while financial literacy successfully moderates the relationship between overconfidence and investment decisions; however, it does not successfully moderate the relationship between herding and investment decisions.*

**Keywords:** Financial Literacy; Herding; Investment Decision ; Overconfidence

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## INTRODUCTION

In the present time, the term investment is no longer unfamiliar; various types of investment instruments are available, such as bonds, gold, property, mutual funds, precious metals, forex, crypto assets, stocks, and others (Marheni et al., 2024). Although there are many choices of investment instruments, stocks remain a popular choice for many people (Tabassum et al., 2021). According to the Indonesia Central Securities Depository (KSEI) the number of stock and other securities investors in Indonesia as of September 2023 was 5,029,218, an increase of 13.76%, which means a significant rise compared to 2022. Stock investment is considered one way to achieve long-term financial goals, such as wealth growth (Ramadani, 2022). The stock market is one of the most important investment avenues for driving economic activity (Arik & Sri, 2021). Amid global dynamics, investment decisions can be influenced by behavioral factors; this phenomenon can significantly impact market stability and the sustainability of people's investment portfolios (Hayat & Anwar, 2016).

Stocks are one of the financial instruments representing ownership in a company. Shareholders own a portion of the company and have the right to participate in company decisions. The stock market is where stocks are bought and sold. Stock values can fluctuate due to economic, political, and market events (Arik & Sri, 2021). Stock investment always involves the risk of losing part or all the capital. Investors typically use fundamental and technical analysis to evaluate stocks. Investment is the act of committing capital for a certain period to receive future payments as compensation for the investor (Ramadani, 2022). Investing always carries risks that must be faced. Correct and proper investment decisions will provide maximum returns for investors (Halim & Pamungkas, 2023). Investment decisions taken up by investors not only influence by rational and objective analysis but also by psychological factors, financial knowledge, and other factors (Soraya et al., 2023).

Decisions on investments may be impacted by several factors, one of which is overconfidence, when investors exhibit overconfidence, it can increase the potential for losses (Madaan & Singh, 2019). Several studies conducted by Khalid et al., (2018), Ranaweera and Kawshala (2022), and Iram et al., (2023) suggest that overconfidence has a positive impact on investment decisions. However, a different perspective is provided by Abideen et al., (2023), who state that overconfidence does not influence investment decisions.

The second factor is herding (Ramadani, 2022). When investors exhibit herding behavior, they tend to follow information obtained from other investors and do not conduct proper analysis (Hirdins, 2021). Several studies conducted by Hayat & Anwar (2016) and Madaan & Singh (2019), Novianggie and Asandimitra (2019), and Hirdins (2021) suggest that herding has a positive impact on investment decisions. However, different results are found in the studies by Naomi et al., (2018) and Ranaweera and Kawshala (2022) which reveal that herding does not influence investment decisions.

The moderating variable in this study is financial literacy, which is the ability to understand and use financial information to make wise decisions, aiming to achieve financial well-being (Ramadani, 2022). Financial literacy relates to the awareness of financial concepts that lead to the capacity to make confident and comfortable financial choices (Alaaraj & Bakri, 2020). Based on the findings of previous studies, there are inconsistencies between the findings of different researchers.

The purpose of this study is to build upon previous research on investment decisions influenced by overconfidence and herding. This study is developmental research expanded from the study conducted by Madaan and Singh (2019) titled 'An

Analysis of Behavioral Biases in Investment Decision-Making.' This research differs from previous studies by adding financial literacy as a moderating variable, with the aim of determining whether an individual's level of financial understanding can moderate the relationship between overconfidence and herding on investment decisions. This study uses Prospect Theory and Herding Theory. The investment decisions examined in this research focus on stock investment decisions, and the subjects of this study are Gen Y and Gen Z in Batam City.

The stock investment decision-making of Gen Y and Gen Z differs from that of other generations, such as the Baby Boomers. Gen Y and Z are more influenced by technology and digital information access, often using investment apps, following financial influencers, and joining online communities. Gen Y and Z are more willing to take risks (Usriyono & Wahyudi, 2023). In contrast, Baby Boomers are more conservative, relying on traditional methods like consulting with stockbrokers and focusing on security and stable income for retirement preparation (Mutiarra & Agustian, 2020). This study will discuss how overconfidence and herding influence the stock investment decisions of Gen Y and Gen Z in Batam City, moderated by financial literacy.

## **LITERATURE REVIEW, RESEARCH FRAMEWORK, AND HYPOTHESES**

### **Prospect Theory**

Daniel Kahneman and Amos Tversky introduced prospect theory in 1979. Prospect theory states that in decision-making, human behavior becomes irrational and non-rational (Ramadani, 2022). Edwards (1996) states the prospect theory asserts that when individuals make investment decisions under uncertainty and face significant risks, they can be influenced by cognitive biases.

### **Herding Theory**

According to Novianggie and Asandimitra (2019), herding theory reveals that information used by individuals in making decisions is divided into two: information from the individual themselves reflecting their own preferences, and information from actions taken by other individuals. According to Tuominen (2016), a theory known as "herding theory" views a person's actions as an activity that has been performed by others rather than based on the information, they possess in making a decision. In the context of investment decisions, herding theory refers to the behavior of investors when they follow or imitate investment decisions made by others rather than relying on their own independent analysis.

### **Investment Decisions**

Investment decisions are defined as actions taken by investors based on consideration of certain factors in using funds currently available, with the expectation of gaining future profits that will impact the improvement of investor welfare (Ramadani, 2022). Investment decisions are critically important because, like a business striving primarily for profit, an investor aims to make sound decisions that yield maximum returns (Hayat & Anwar, 2016). Investment decisions involve choosing options to generate income from an asset or multiple assets, anticipating future profits. They also encompass selecting the appropriate investment alternative from several available options (Novianggie & Asandimitra, 2019).

In summary, investment decisions are a complex and integral aspect of financial planning that require careful consideration of various factors. They are essential not only for individual financial success but also for contributing to the broader economic

landscape. As such, making well-informed and strategic investment decisions is crucial for both personal financial growth and the advancement of the economy as a whole.

### **Financial Literacy**

Financial literacy is an essential set of financial knowledge, as well as skills and abilities of individuals in using available information to make correct financial decisions, both in the short and long term, to achieve overall financial well-being (Ramadani, 2022). A person can be considered to have financial literacy if they have knowledge, understanding, and skills to manage their finances (Ansari et al., 2022). Financial literacy is fundamental financial knowledge for management purposes, it is also used as a reference in making effective decisions to achieve future profits (Novianggie & Asandimitra, 2019). Financial awareness and affordance depend on many factors including an individual's years of experience, skills, revenue, and their needs (Marheni et al., 2024).

In conclusion, financial literacy is a critical component of personal and societal financial health. It equips individuals with the necessary knowledge, skills, and abilities to manage their finances effectively, make informed decisions, and achieve financial well-being. By fostering financial literacy, individuals can enhance their financial security, contribute to more stable financial markets, and improve their overall quality of life. Understanding and improving financial literacy should be a priority for individuals, educators, and policymakers alike.

### **Overconfidence**

Overconfidence is the excessive confidence of an investor. They tend to be overly optimistic in the markets they follow, expecting to achieve very high returns from their investments and success (Novianggie & Asandimitra, 2019). It has been suggested that overconfidence is a typical cognitive bias that causes investors to ignore the possible hazards connected to investment results because they are unduly confident in their own skills and expertise (Khan et al., 2021). Such overconfidence can significantly distort their perception of reality, causing them to believe that they have superior knowledge and control over market outcomes compared to other investors (Khan et al., 2021). When a person becomes overconfident, decisions are more based on self-assurance rather than rumours or opinions of other investors, which can lead to poor decisions and losses (Soraya et al., 2023).

In summary, overconfidence is a pervasive cognitive bias that leads investors to overestimate their abilities and ignore significant risks, resulting in poor investment decisions and potential financial losses. This highlights the importance of self-awareness and the need for investors to seek diverse perspectives and conduct thorough analyses to make informed decisions.

### **Herding**

The phrase "herding" in the context of finance refers to a process in which participants in the economy imitate the behavior of others instead of acting on their own judgment and knowledge (Ranaweera & Kawshala, 2022). Herding is the inclination of an investor to emulate the decisions of other investors when making investments, without conducting thorough fundamental analysis beforehand, thus causing the market to become inefficient (Novianggie & Asandimitra, 2019). With herding, investors tend to act irrationally in choosing investments. Investors prefer to mimic the beliefs and opinions of other investors in making investment decisions (Halim & Pamungkas, 2023).

Consequently, when investors herd, they tend to follow the decisions of others and refrain from making their own decisions (Madaan & Singh, 2019). Herding can have significant implications for financial markets. When a large number of investors simultaneously follow the same investment trends, it can lead to the rapid escalation of asset prices, creating market bubbles. Conversely, when investors collectively sell off assets, it can cause market crashes and heightened volatility (Mutiarra & Agustian, 2020). This collective behavior can undermine market efficiency, as prices may no longer reflect the true underlying value of assets but rather the transient whims of the investor crowd.

## **Research Framework and Hypotheses**

### *The Influence of Overconfidence on Investment Decisions*

When overconfidence occurs, investment decisions made by investors are more based on self-assurance rather than rumours or opinions of other investors, which can lead to poor decisions and losses (Soraya et al., 2023). Novianggie & Asandimitra (2019) revealed in their research that overconfidence significantly influences investment decisions; the higher the overconfidence, the poorer the investment decisions made. This is because respondents rely too much on their intuition regarding the investments they make. Overconfidence makes investors believe that their knowledge and abilities in investing are superior to others.

Halim & Pamungkas (2023) stated that overconfidence significantly affects investment decisions; investors who are overconfident in their abilities, knowledge, and experience in making investment decisions. Due to the knowledge and experience they possess; investors believe that their decisions will yield returns in the future. Purwidiyanti et al., (2023) also found that overconfidence significantly influences investment decisions. Research conducted by Marheni et al., (2023) also found that overconfidence significantly influences investment decisions, this means that the level of overconfidence possessed by an individual can be directly related when the individual makes decisions.

The research conducted by Abideen et al., (2023) revealed a different finding that overconfidence does not influence investment decisions. Similarly, the study conducted by Lestari et al., (2023) also reported similar results, stating that overconfidence does not affect investment decisions. This means that when overconfidence increases, investment decisions do not increase statistically. Thus, the first hypothesis in this study is:

*H1: Overconfidence has a significant positive influence on investment decisions among Gen Y and Gen Z in Batam city.*

### *The Influence of Herding on Investment Decisions*

When herding occurs, investors act irrationally in choosing investments. When making investment decisions, they would rather adopt the viewpoints and attitudes of other investors (Madaan & Singh, 2019). Therefore, when investors herd, they tend to conceal their decisions and follow others (Madaan & Singh, 2019). Investors are never exempt from herding because stock investments require extensive information, leading investors to join investor forums and social media related to investments (Soraya et al., 2023). The information obtained in these forums assists investors in making decisions, thus herding influences investor decisions (Soraya et al., 2023)

The study conducted by Hayat & Anwar (2016) found that herding has a significant influence on investment decisions. Research by Novianggie & Asandimitra (2019) observed the same result, noting that most respondents, when choosing to invest and make future gains, frequently take advice from friends or their brokers into account.



Hirdins (2021) also stated that herding has a positive influence on investment decisions. Halim & Pamungkas (2023) revealed that herding significantly affects investment decisions because it can have a substantial impact on investment decisions, indicating that the more investors follow recommendations from brokers, friends, family, or their group, the greater the likelihood of making investments. Abideen et al., (2023) found that herding has a significant influence on investment decisions, because they want to avoid taking on unnecessary risk and suffering losses, stock market investors closely monitor the moves of other investors. The research conducted by Naomi et al., (2018) and Ranaweera & Kawshala (2022) found a different result, stating that herding does not influence investment decisions. Soraya et al., (2023) similarly found in their research that herding does not affect investment decisions, as confident investors are not easily swayed by information circulated in investor forums or similar social media. These investors are not influenced by the actions of other investors and do not react quickly or hastily to changes in the behavior of other investors. The second hypothesis is:

*H2: Herding has a significant positive influence on investment decisions among Gen Y and Gen Z in Batam city.*

#### *Financial Literacy moderates Overconfidence on Investment Decisions*

Individuals lacking financial literacy are more vulnerable to behavioral biases (Ranaweera & Kawshala, 2022). Overconfidence can lead to irrational investment decisions, but financial literacy can assist an investor in making more informed and sound decisions, thereby weakening the relationship between overconfidence and investment decisions (Tabassum et al., 2021). Overconfident individuals without financial literacy often make unreasonable decisions (Iram et al., 2023).

The research conducted by Ranaweera & Kawshala (2022) discovered that the relationship between overconfidence and investment decisions is successfully moderated by financial literacy. Research by Abideen et al., (2023) also discovered the same result, as it reduces the level of investor behavioral biases. Better financial literacy enables investors to regularly assess stock values more precisely and, as a result, make more informed investment decisions. Conversely, different findings were discovered in studies conducted by Novianggie & Asandimitra (2019) and Arik & Sri (2021) discovered that the relationship between overconfidence and investment decisions is not moderated by financial literacy. The next hypothesis is:

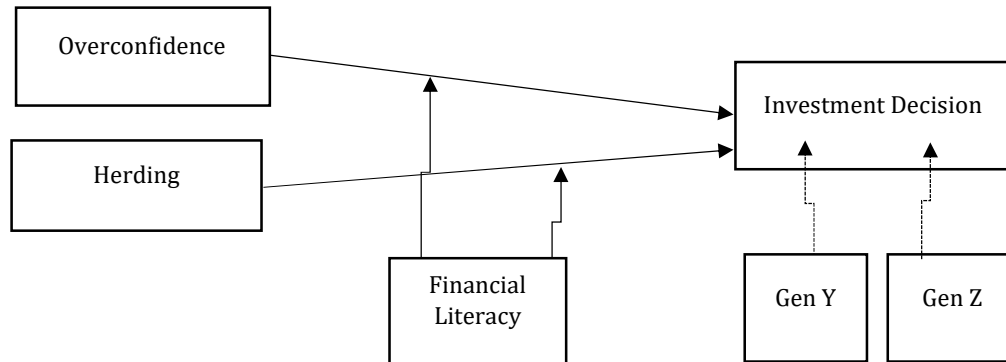
*H3: Financial literacy moderates' overconfidence on investment decisions among Gen Y and Gen Z in Batam city.*

#### *Financial Literacy moderates Herding on Investment Decisions.*

Financial literacy reduces the relationship between herding and investment decisions, as investors with high literacy levels prefer to use financial publications to make decisions, while investors with low literacy levels are more likely to follow stockbrokers, friends, and family (Khalid et al., 2018). Financial literacy successfully moderates the relationship between herding and investment decisions, according to research by Khalid et al., (2018) because investors with high literacy levels prefer using financial publications, while those with low literacy levels rely more on advice from family members, friends, and brokers. Research by Abideen et al., (2023) also states that financial literacy successfully moderates the relationship between herding and investment decisions. Different findings were found in studies conducted by Novianggie & Asandimitra (2019) and Ranaweera & Kawshala (2022) which found no moderating relationship between herding and investment decisions. Hence, the last hypothesis is:

*H4: Financial literacy moderates herding on investment decisions among Gen Y and Gen Z in Batam city.*

The conceptual framework of this study is illustrated in Figure 1.



Source: Hayat and Anwar, 2016),

**Figure 1**  
**Research Model**

## METHOD

This study is quantitative research using an associative approach, aiming to explore relationships among 2 or more variables (Marheni et al., 2024). The analysis of the independent factors (herding and overconfidence) in relation to the moderating variable (financial literacy) and dependent variable (investment decisions) is the main goal of this research. Snowball sampling is the sample technique applied in this investigation.

Primary data are used in this research. The data used in this study are sourced from primary data obtained through questionnaires distributed to gather direct information. The sample for this study consists of Gen Y and Gen Z investors in Batam City. Snowball sampling was used to reach Gen Y and Gen Z investors in Batam City (Hayat and Anwar, 2016), with a total sample size of 400 respondents.

Subsequently, the Partial Least Squares Structural Equation Model (PLS-SEM) was used to examine the data. Due to the moderating variable in this study, PLS-SEM was selected for data analysis (Khan et al., 2021).

The operational definitions of the main variables in this study, including their indicators are presented in Table 1.

**Table 1**  
**Operational Definition**

No.	Variable	Indicator
1	Overconfidence	Indicators of overconfidence according to Hirdins (2021) as discussed by Subash (2012) and Setiawan et al., (2018) include: <ol style="list-style-type: none"> <li>1. Belief in one's own abilities.</li> <li>2. Confidence in the success of a plan.</li> <li>3. Ability to predict appropriate investments.</li> <li>4. Performance in investments above the average of other investors.</li> </ol>

2	Herding	Indicators of herding according to Hirdins (2021) as discussed by Kumar & Goyal (2015) and Fityani (2015) include: <ol style="list-style-type: none"> <li>1. Investment decisions influenced by the decisions of others.</li> <li>2. Reacting promptly to modifications in other investors' choices.</li> <li>3. Preferring to invest if the investment has been popular since it was first traded.</li> </ol>
3	Financial literacy	Indicators of financial literacy according to Chen and Volpe (1998) include: <ol style="list-style-type: none"> <li>1. General knowledge.</li> <li>2. Saving and borrowing.</li> <li>3. Insurance.</li> <li>4. Investments.</li> </ol>
4	Investment Decisions	Indicators of investment decisions according to Mutiara and Agustian (2020), as explained by Tandelilin (2013), include: <ol style="list-style-type: none"> <li>1. Return.</li> <li>2. Risk.</li> <li>3. Time factor.</li> </ol>

## RESULTS AND DISCUSSION

Table 1 shows the demographic data of the respondents collected through questionnaire distribution.

**Table 2**  
**Measurement of the subjects**

Categories	Frequency	Percentage
Gender		
Female	191	47,75%
Male	209	52,25%
Age		
17-20	72	18%
21-26	176	44%
27-35	116	29%
36-42	36	9%
Last education		
High school or equivalent	189	47,25%
Diploma	47	11,75%
Bachelor degree	153	38,25%
Master	11	2,75%
Occupation		
College student	142	35,50%
Employees/private employees	137	34,25%
Employees/Civil Servants	41	10,25%
Entrepreneur / Self-Employed	65	16,25%
Etc	15	3,75%
Monthly income		
<Rp. 4.500.000	60	15%
Rp.4.500.00 - Rp.6.000.000	204	51%
Rp.6.000.000 - Rp.8.000.000	97	24,25%
Rp.8.000.000 - Rp.12.000.000	34	8,50%
>Rp. 12.000.000	5	1,25%

Source: Primary data processed, 2024

Based on Table 1, regarding the respondents' gender, it can be concluded that male respondents constitute 52.5%, while female respondents make up 47.75%. In terms



of age range, most respondents fall into the 21-26 age group with 44%, followed by 27-35 with 29%, 17-20 with 18%, and 36-42 with 9%. Regarding educational attainment, most respondents have completed high school (47.25%), followed by bachelor's degree (38.25%), diploma (11.75%), and master's degree (2.75%). Based on occupation, 35.50% of respondents are students, followed by private sector employees (34.25%), entrepreneurs (16.25%), government employees/officials (10.25%), and others (3.75%). Lastly, regarding income, most respondents earn between Rp.4,500,000 – Rp.6,000,000 (51%), followed by Rp.6,000,000 – Rp.8,000,000 (24.25%), less than Rp.4,500,000 (15%), Rp.8,000,000 – Rp.12,000,000 (8.50%), and more than Rp.12,000,000 (1.25%).

**Table 3**  
**Validity Test**

Variable	Indicator	Convergent Validity			
		Outer Loadings	Result	AVE	Result
Investment decision	ID1	0,837	Valid	0,729	Valid
	ID2	0,910			
	ID3	0,812			
Financial Literacy	FL1	0,823	Valid	0,668	Valid
	FL2	0,884			
	FL3	0,737			
Overconfidence	OC1	0,870	Valid	0,706	Valid
	OC2	0,876			
	OC3	0,771			
Herding	HE5	0,818	Valid	0,574	Valid
	HE6	0,739			
	HE7	0,712			

Source: Primary data processed, 2024

The questionnaire is considered valid when the outer loadings are above 0.60. Three questions from the investment decision variable are deemed valid because they have outer loadings above 0.60. Similarly, 3 out of 7 questions from the financial literacy variable are valid, 3 out of 6 questions from the overconfidence variable are valid, and 3 out of 7 questions from the herding variable are valid. The Average Variance Extracted (AVE) value is used to determine the convergent validity of the model constructs (Fornell & Larcker, 1981). An AVE value of 0.50 or higher is considered the threshold for convergent validity. From Table 2, it can be seen and concluded that all variables have an AVE above 0.50, indicating that the test results are valid.

**Table 4**  
**Discriminant Validity (Fornell-Larcker Criterion)**

	FL	HE	ID	OC
FL	0,817			
HE	0,360	0,758		
ID	0,363	0,371	0,845	
OC	0,283	0,389	0,387	0,840

Source: Primary data processed, 2024

The most popular method for evaluating the discriminant validity of the model constructs is the Fornell-Larcker criterion, which was put out by (Fornell & Larcker, 1981). This criterion states that the correlation between latent variables of the same construct should be less than the square root of the Average Variance Extracted (AVE) of each construct. Given that all construct values are higher than the correlations between

the same construct's latent variables, Table 3's test results provide proof of the discriminant validity of the model's constructs.

**Table 5**  
**Reliability Test**

Variable	Composite Reliability	Cronbach's Alpha	Result
Investment Decision	0,890	0,813	Reliable
Financial Literacy	0.756	0,748	Reliable
Overconfidence	0,878	0,797	Reliable
Herding	0,801	0,651	Reliable

Source: Primary data processed, 2024

The results of the composite reliability test and Cronbach's alpha are shown in Table 4. When the Cronbach's alpha value is more than 0.60, it indicates good reliability. From Table 4, it can be concluded that the Cronbach's alpha values for all variables are above 0.60, indicating good reliability. Similarly, composite reliability values should be above 0.70. From Table 4, it can be seen and concluded that the values for all variables for composite reliability are above 0.70, indicating good internal consistency reliability.

**Table 6**  
**Hypothesis testing**

Variable	Coefficient	Standard Deviation (STDEV)	T Statistic	P Values
OC -> ID	0,231	0,047	4,900	0,000
HE -> ID	0,195	0,054	3,614	0,000
FL × OC -> ID	-0,157	0,046	3,423	0,001
FL × HE -> ID	0,044	0.053	0,822	0,411

Source: Primary data processed, 2024

The first hypothesis in this study posits that overconfidence has a significant positive impact on investment decisions, as evident in Table 5, where the p-values are below 0.05 and the coefficient is 0.231. This indicates that overconfidence significantly influences investment decisions positively. This can be attributed to individuals feeling excessively confident in their ability to predict the market and assess the risks of an investment, which can lead to poor investment decisions and significant financial losses. These findings are consistent with previous research conducted by Novianggie & Asandimitra (2019) and Halim & Pamungkas (2023).

The second hypothesis posits that herding has a significant positive impact on investment decisions, as seen in Table 5, where the p-values are below 0.05 and the coefficient is 0.195. Therefore, it can be concluded that herding significantly influences investment decisions positively. This may be because respondents from Generation Y and Generation Z prefer to follow and consider advice and recommendations from friends and relatives rather than conducting thorough analysis of the stocks to be invested in, without considering available information and actual market conditions. This can lead to increased portfolio risk and potential financial losses. These findings are consistent with the research conducted by Hayat & Anwar (2016), Novianggie & Asandimitra (2019), M (2021), Halim & Pamungkas (2023) and Abideen et al., (2023).

The third hypothesis states that financial literacy moderate overconfidence's impact on investment decisions. As shown in Table 5, the p-values are below 0.05, and

the coefficient is -0.157, indicating that financial literacy negatively moderates the relationship between overconfidence and investment decisions. This suggests that individuals with higher financial literacy are less likely to be influenced by behavioral biases and tend to make more rational investment decisions. This can be attributed to their understanding of financial market complexities, investment risks, diversification strategies, and risk evaluation, enabling them to approach investment decisions more prudently. These findings are consistent with research conducted by Ranaweera & Kawshala (2022) and Abideen et al., (2023).

The fourth hypothesis states that financial literacy moderates the relationship between herding and investment decisions. As observed in Table 5, the p-values are above 0.05, indicating that financial literacy does not successfully moderate the relationship between herding and investment decisions. This could be because individuals with low financial literacy tend to prefer following recommendations and advice from friends and relatives rather than conducting in-depth analysis of the stock investments they intend to make. These results are consistent with the findings of Novianggie & Asandimitra (2019) and Ranaweera & Kawshala (2022).

**Table 7**  
**Control variable testing (Gen Y)**

Variable	Coefficient	Standard Deviation (STDEV)	T Statistic	P Values
OC -> ID	0,248	0,072	3,703	0,000
HE -> ID	0,279	0,100	2,542	0,011
FL × OC -> ID	-0,116	0,091	1,432	0,151
FL × HE -> ID	0,045	0,092	0,635	0,526

Source: Primary data processed, 2024

**Table 8**  
**Control variable testing (Gen Z)**

Variable	Coefficient	Standard Deviation (STDEV)	T Statistic	P Values
OC -> ID	0,255	0,058	4,418	0,000
HE -> ID	0,144	0,066	2,169	0,030
FL × OC -> ID	-0,192	0,055	3,473	0,001
FL × HE -> ID	0,089	0,066	1,137	0,178

Source: Primary data processed, 2024

Based on the table 7, it is found that in Generation Y, overconfidence and herding have a significant positive effect on investment decisions. However, what is interesting is that financial literacy cannot moderate the relationship between overconfidence and herding with investment decisions in Generation Y. This suggests that despite having financial knowledge, psychological factors such as overconfidence and herding remain more dominant in influencing the investment decisions made.

Meanwhile, for Generation Z, overconfidence and herding also have a significant positive effect on their investment decisions, similar to Generation Y. However, there is a difference in the role of financial literacy. This study found that financial literacy is able to moderate the relationship between overconfidence and investment decisions in Generation Z, meaning that the level of financial knowledge can help lower the impact of overconfidence on investment decisions. However, financial literacy was not able to

moderate the relationship between herding and investment decisions in Generation Z. This suggests that although financial literacy can improve investment decisions affected by overconfidence, factors such as herding or following others' decisions still play a strong role in investment decisions, even when having good financial knowledge.

This difference suggests that although both generations are influenced by the same psychological factors, the way they respond to these influences is strongly influenced by their level of financial literacy. Generation Z seems to be more aware and able to use their financial knowledge to reduce the negative impact of overconfidence, while Generation Y is more influenced by psychological factors such as overconfidence and social influence from the group, without much influence from their level of financial literacy.

## CONCLUSION AND SUGGESTION

This study has provided an explanation regarding the influence of overconfidence and herding on investment decisions, with financial literacy playing a moderating role. From the research findings, it can be concluded that overconfidence and herding have a significant positive influence on investment decisions. Financial literacy successfully moderates the relationship between overconfidence and investment decisions, but it does not successfully moderate the relationship between herding and investment decisions.

Future research is recommended to include other variables influencing investment decisions such as risk tolerance and emotional intelligence, as these factors have been shown to affect how individuals evaluate and respond to investment opportunities and to expand the sample to include investors from other countries. This study is limited by its sample, which consists only of stock investors from Generation Y and Generation Z in Batam city.

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