



THE ROLE OF BEHAVIORAL BIASES WITH PEER NETWORKS AS A MEDIATING VARIABLE IN SHAPING THE INVESTMENT DECISIONS OF 3RD-YEAR BS MANAGEMENT STUDENTS AT ATENEO DE MANILA UNIVERSITY

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HIGHLIGHTS

- ❖ Reference dependence is the most prominent behavioral bias observed among respondents
- ❖ Behavioral biases have a statistically significant influence on students' investment decision-making
- ❖ Peer networks exert a moderate influence on respondents' investment decisions



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ABSTRACT

This study examines the influence of behavioral biases on the investment decision-making of third-year BS Management students at Ateneo de Manila University, with peer networks as a mediating variable and weekly allowance as a moderating variable. Behavioral biases were measured in terms of loss aversion, reference dependence, probability weighting, and framing effects, while decision-making was assessed through intuitive and deliberative investment thinking, with peer networks further evaluated in terms of influence, similarity, and compatibility. Statistical tools such as frequency and percentage distribution, weighted mean, simple linear regression, and mediation and moderation analysis through regression were used for the treatment of data. Results indicate that behavioral biases have a significant influence on investment decision-making. Peer networks were found to significantly mediate the relationship between behavioral biases and investment decisions, while weekly allowance moderated this relationship only at higher allowance levels, highlighting the need to promote financial awareness and reflective decision-making among young investors to support more responsible and deliberate investment practices.

INTRODUCTION

Financial decision-making extends beyond numerical evaluations and rational frameworks, as human behavior plays a crucial role in shaping financial outcomes. Behavioral finance is essential in understanding how individuals act and respond when making financial choices by examining the psychological and social factors that influence such decisions. Grounded firmly in Kahneman and Tversky's Prospect Theory, this field recognizes that individuals evaluate risk and value based on psychological benchmarks rather than objective utilities. In the current economic environment, individuals encounter various influences that shape their financial choices. The growing accessibility of financial markets brought about by technological innovations and digital platforms has increased individuals' exposure to both investment opportunities and potential risks. Within this environment, behavioral biases serve as key determinants of financial decisions, while peer networks play a vital role in shaping perceptions, confidence, and overall decision-making behavior.

According to Lotto (2023), socioeconomic status directly influences investment decision-making, as individuals from middle-to-upper class backgrounds generally have greater knowledge of investment practices. Those from such households are more likely to engage with peers who share similar experiences and exposure to investments. These peer networks offer opportunities for discussion, guidance, and the exchange of insights, shaping individuals' awareness of investment options and supporting more informed and considered decision-making. Furthermore, according to Berthet (2021), behavioral biases originate primarily from the individual's own cognitive processes, rather than predominantly shaped by external social or peer influences. Behavioral biases including loss aversion, reference dependence, probability weighting, and framing effects serve as key factors in shaping individual investment choices. These biases reflect consistent mental tendencies that lead investors away from purely rational judgment, frequently resulting in outcomes that diverge from their original financial goals.

Behavioral biases play a substantial role in shaping how individuals arrive at investment decisions, as they influence the way financial risks and opportunities are perceived. One of the most influential of these is loss aversion—the tendency for investors to prioritize the avoidance of losses over the pursuit of potential gains. Loss aversion serves as a crucial factor in determining investment behavior because many investors experience psychological discomfort when facing the possibility of financial loss, often resulting in overly conservative decisions. The changes in the mental state of an individual often mirror variations in overall well-being, which in turn affect the capacity to make rational financial judgments. Consequently, the fear of losing money frequently prevents investors from taking advantage of opportunities that offer potential returns but involve equivalent risks, thereby leading to missed chances for profitable investments due to aversion to losses. Therefore, examining behavioral biases offers a deeper understanding of the psychological patterns that influence both rational and irrational financial decisions.

Decision-making is a key element of financial behavior that influences how individuals assess risk, process information, and make choices among investment opportunities (Mahmood et al., 2024; Carpenter & Munro, 2025). This behavioral framework is governed by Dual-Process Theory, which posits that human cognition is driven by two interactive systems: intuitive and deliberative thinking. In recent studies by Carpenter and Munro (2025), it is found that in scenarios of potential losses, individuals tend to adopt deliberative rather than intuitive thinking, demonstrating that decision-making style alters in particular circumstances with a view to reduce bias. Deliberative decision-making entails slower, logical, reflective thought and characteristically yields more systematized assessment of options and long-term ramifications, while intuitive decision-making is quicker, emotion-based, and more dependent on prior experience (Kim et al., 2024; Egbaria & Zaid, 2023). As shown by Mahmood et al. (2024), psychological and affective considerations ingrained in the decision-making process feature fundamentally in ascertaining the rationality of investment decisions, with frequent lapses into unexpected financial ends.

According to Kasoga (2022) deliberative thinking is important in cultivating rationality and prudence in financial actions. This process involves the orderly and careful assessment of choices, such that long-term impacts are correctly placed in perspective prior to making decisions. This suggests that investors that use deliberative decision-making would most likely exhibit enhanced financial discipline through the exercise of proper planning, critical scrutiny, and discernment. These activities promote rational investment decisions that contribute to financial stability and reinforce the overall efficiency of decision-making processes (Kasoga, 2022). Furthermore, individuals who exercise deliberative thought are more adept in regard to managing risk, resisting emotional bias, and aligning financial actions with sustainable objectives.

On the other hand, intuitive decision-making happens quickly and is guided by feelings, impressions, and past experiences. This type of thinking can be helpful when decisions must be made fast or when the situation feels familiar. However, because it relies more on emotion than careful analysis, it can also lead to biases such as loss aversion, reference dependence, probability weighting, and framing effects (Mahmood et al., 2024). Intuition can simplify choices, but it also causes individuals to miss important information or judge situations without considering all the important information.

Findings from Mahmood et al. (2024) and Kasoga (2022) show that the way people make decisions—whether intuitive or deliberate—plays a major role in how behavioral biases develop. This means intuitive thinking is not necessarily wrong or harmful; it simply becomes risky when emotions take over or when quick decisions are made in situations that require deeper evaluation. Understanding this connection is important because it explains how investment choices are shaped and highlights the need for building more careful, reflective decision-making habits to support long-term financial stability and better investment outcomes.

While traditional behavioral finance literature has extensively documented how individual cognitive biases lead to sub-optimal market choices, prior empirical works predominantly focus on mature retail investors or professional traders who possess established portfolios. Consequently, a significant gap remains in understanding the financial psychology of emerging, non-professional young investor such as business management undergraduates who are at a nascent stage of forming lifelong financial habits. Furthermore, existing research frequently examines social influences and cognitive biases in isolation, leaving a critical structural gap regarding how multi-dimensional peer dynamics actively mediate individual cognitive errors, and how micro-economic resource constraints, such as weekly allowances, moderate this entire behavioral mechanism.

To bridge these empirical and contextual gaps, this study investigates the concurrent roles of behavioral biases and peer networks in shaping the investment decisions of third-year BS Management students at Ateneo de Manila University. The study aims to show how cognitive and social factors collectively influence the quality of students' investment decisions. The overarching goal of this research is to contribute empirical evidence that deepens the understanding of behavioral finance within the academic context and provides a foundation for future initiatives that support the development of rational, reflective, and responsible decision-making among young and emerging investors.

MATERIALS AND METHODS

The study applied a quantitative research design, which involves the organized collection, analysis, and interpretation of numerical data to test assumptions and generate objective results (Ghanad, 2023). This approach is suited for identifying measurable patterns, making it appropriate for research that seeks to examine specific tendencies within a defined population. In this study, quantitative methods allow the use of numerical evidence to capture behavioral biases, peer influence, and investment tendencies among third-year BS Management students.

In addition, the study adopts a descriptive-causal research design, which aims to describe existing conditions while also examining cause-and-effect relationships among the variables. This approach allows

the study to identify how variations in behavioral biases are associated with differences in students' investment decision-making patterns. In the present study, this design supports the examination of how behavioral biases influence investment decisions and how peer networks function as a mediating factor in this relationship.

Research framework

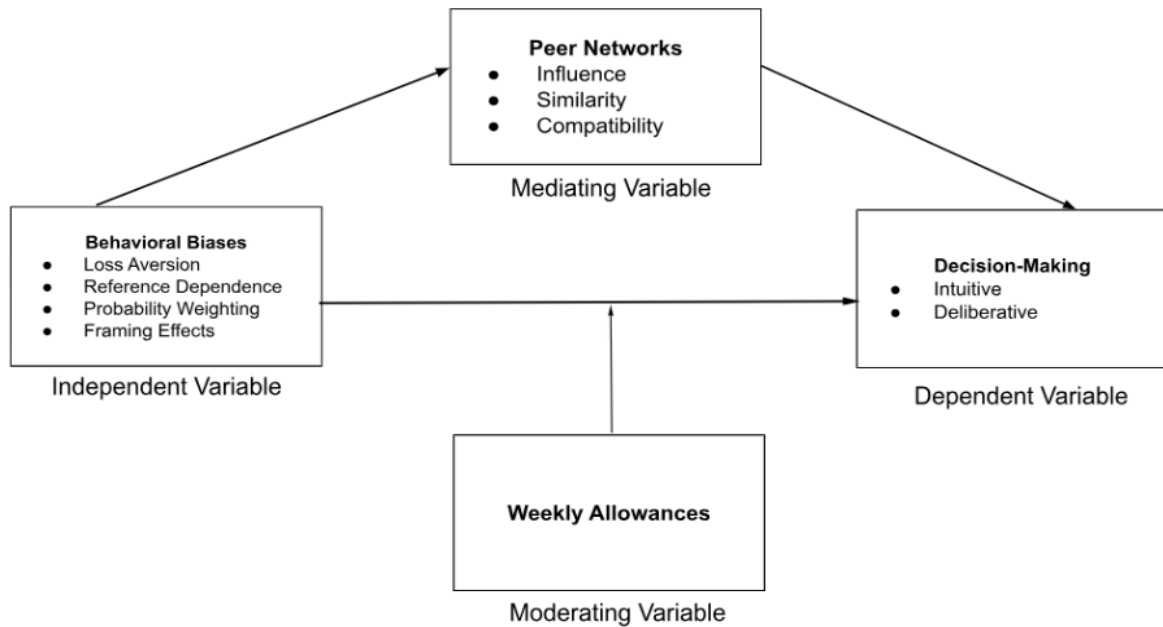


Figure 1. Conceptual framework

Population, sample size, and sampling technique

The population of this study consists of third-year students enrolled in the BS Management program at Ateneo de Manila University for the Academic Year 2025-2026. Based on the information provided by a faculty member of the program, the total number of students is 320. However, the complete list of students, including their personal information, is not accessible due to privacy considerations; therefore, non-probability methods are used when random selection is not feasible. Specifically, purposive sampling, a type of non-probability sampling, involves selecting respondents based on predetermined criteria relevant to the study, allowing the researchers to focus on individuals most appropriate for the research objectives (TGM Research, 2025).

The sample size required for this study was calculated using Cochran's Formula, which is suitable for estimating proportions with a defined level of confidence and precision. With a confidence level of 95%, a margin of error of 5%, and a population proportion of 0.5, the initial estimated sample size was 384.16. Since the total number of third-year BS Management students is finite ($N = 320$), the Finite Population Correction was applied, leading to a revised sample size of 175 participants. This figure denotes the minimum number of respondents essential for ensuring sufficient representativeness and statistical validity for the aims of this research.

Description of respondents

The respondents of the study consist of 175 third-year BS Management students from Ateneo de Manila University. The group is described based on academic level and socioeconomic background to ensure alignment with the purpose of the study. Weekly allowance ranges from less than PHP 1,000 to more than PHP 5,000, while monthly family income ranges from below PHP 20,000 to more than PHP 130,000.

The financial classification helps determine whether differences in economic resources correspond to variations in behavioral tendencies and peer-influenced investment choices. The respondents are enrolled in subjects that introduce concepts related to behavioral biases, peer interactions, and investment decisions. Their academic environment also encourages collaboration through group activities, discussions, and peer-driven tasks, offering an appropriate setting for assessing how peer networks shape decision-making tendencies. With these characteristics, the respondents provide a suitable base for gathering information needed to examine behavioral biases and the mediating role of peer networks in investment decision-making.

Research instrument

The research instrument applied in this study is an adapted survey questionnaire further enhanced by the researchers, designed to gather quantitative data on the weekly allowances, behavioral biases, investment decision-making patterns, and peer network dynamics of third-year BS Management students at Ateneo de Manila University. Prior to its implementation, the tool was independently validated by a panel of three experts, three (3) academic faculty members from the Department of Financial Management at the Polytechnic University of the Philippines, Manila, along with a professional consulting statistician.

The researchers utilized a Likert scale for Parts II to IV to systematically evaluate the respondents' attitudes, tendencies, and cognitive patterns regarding all variables. This format ensured consistency in measuring psychological, social, and cognitive constructs pertinent to the study. The scale enabled a standardized quantification of levels of agreement, offering response options as follows:

Table 1. Likert scale used

Response	Verbal Interpretation	Range
4	Strongly Agree	3.25 – 4.00
3	Agree	2.50 – 3.24
2	Disagree	1.75 – 2.49
1	Strongly Disagree	1.00 – 1.74

Statistical treatment of data

Based on a statistician's recommendation, the researchers used the following statistical treatments along with their corresponding formulas to correctly interpret the study's gathered data. The Percentage Distribution formula is utilized to describe the sample based on the nominal and ordinal categories of Weekly Allowance and Monthly Family Income. This method provides a clear, summarized view of the respondents' demographic characteristics. Weighted Mean Average is intended to measure the respondents' average assessment level of their behavioral biases, decision-making, and peer networks. Standard deviation is intended to measure the variability or consistency of the respondents' assessment scores across the dimensions of behavioral biases, decision-making, and peer networks. Simple Linear Regression is intended to measure the significant influence between behavioral biases on investment decision-making, behavioral biases on peer networks, and peer networks on investment decision-making.

Mediation analysis through regression

It is utilized to measure how peer networks mediate the influence between behavioral biases and the investment decision-making of the respondents. Path A: The effect of behavioral biases (X) on the peer network (M). Path B: The effect of the peer network (M) on the investment decision-making (Y). Path C: The direct effect of the behavioral biases (X) on the investment decision-making (Y)

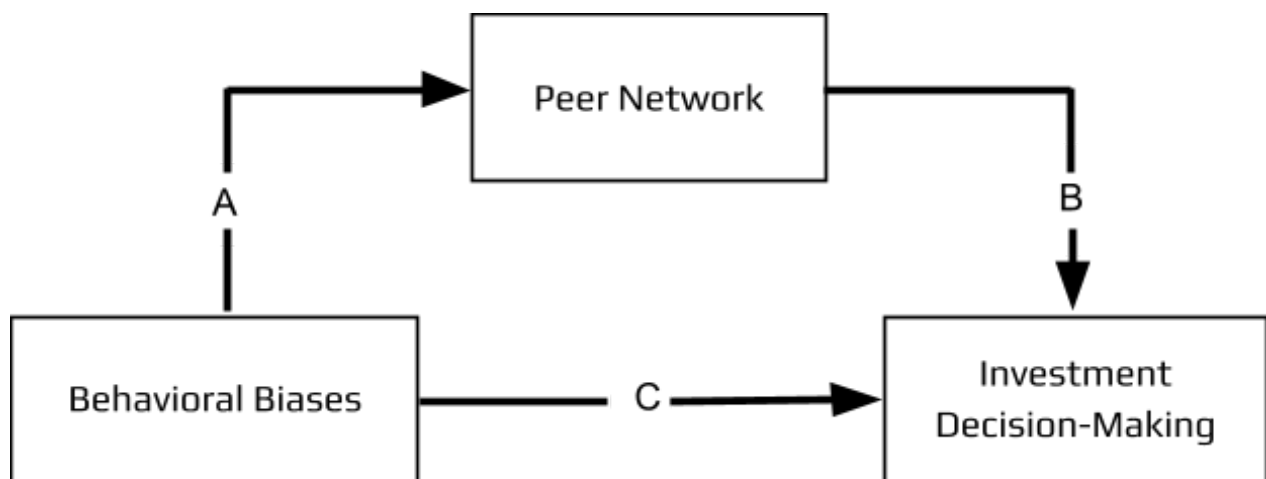


Figure 2. Mediation analysis diagram

The classic regression-based approach uses three formulas:

$$Y = b_0 + cX + e_1$$

Equation 1. Total effect formula

$$M = b_1 + aX + e_2$$

Equation 2. Mediator effect formula

$$Y = b_2 + c'X + bM + e_3$$

Equation 3. Direct and indirect effects formula

Where:

Y = dependent variable

X = independent variable

M = mediator variable

c = total effect of X on Y

a = effect of X on M

b = effect of M on Y (controlling for X)

c' = direct effect of X on Y (controlling for M)

e_1, e_2, e_3 = error terms

Indirect effect = $a \times b$

Moderation analysis through regression

It is intended to measure how the level of weekly allowances moderates the influence between behavioral biases and investment decision-making. The formula for it is given by:

$$Y = b_0 + b_1X + b_2Z + b_3(X \times Z) + e$$

Equation 4.

Where:

Y = dependent variable

X = independent variable

Z = moderator variable

$X \times Z$ = interaction term between X and Z

b_0 = intercept

b_1 = main effect of X on Y (when $Z = 0$)

b_2 = main effect of Z on Y (when $X = 0$)

b_3 = interaction effect

RESULTS AND DISCUSSION

This section discusses the presentation, analysis, and interpretation of data gathered from the survey questionnaire.

Table 2. Distribution of Respondents, by Weekly Allowance

Weekly Allowance	Frequency	Percentage
PHP 1,000 to PHP 1,500	15	8.6
PHP 1,501 to PHP 3,000	54	30.9
PHP 3,001 to PHP 5,000	58	33.1
More than PHP 5,000	48	27.4
TOTAL	175	100.0

Table 2 shows the demographic profile of the students in relation to their weekly allowance. Above result shows that most of the students receive moderate to high weekly allowances where 58 (33.1%) of them receive between PHP 3,001 and PHP 5,000 per week, followed closely by those receiving PHP 1,501 to PHP 3,000 with 54 responses (30.9%). Meanwhile, 48 (27.4%) of the students receive more than PHP 5,000 weekly. Only a small percentage (8.6%) falls within the lowest allowance range of PHP 1,000 to PHP 1,500. This suggests that the majority of respondents have enough access to financial resources that can support their academic and daily needs. This distribution reflects the broader economic environment of Loyola Heights, where the commercial and institutional culture of Ateneo de Manila University has fostered a

market-oriented campus, marked by the growth of commercial hubs and student enterprises (Gayares, 2024). In this context, official university estimates project a monthly food budget of PHP 8,100–11,700, corresponding to an estimated weekly expenditure of PHP 2,025–2,925 for nutritional needs alone, excluding housing and academic costs (Ateneo de Manila University, 2025). This benchmark is reflected in the researchers’ data, where most student weekly allowances fall within the PHP 3,001–5,000 range.

Table 3. Distribution of Respondents, by Monthly Family Income

Monthly Family Income	Frequency	Percentage
PHP 20,000 to PHP 40,000	6	3.4
PHP 41,000 to PHP 70,000	17	9.7
PHP 71,000 to PHP 130,000	54	30.9
More than PHP 130,000	98	56.0
TOTAL	175	100.0

In terms of monthly family income as shown in **Table 3**, the result revealed that most students come from relatively high-income households. More than half of the students (56.0%) reported a family income exceeding PHP 130,000 per month, while 30.9% belong to families earning between PHP 71,000 and PHP 130,000. In contrast, only a small proportion comes from lower-income brackets, with 3.4% earning between PHP 20,000 and PHP 40,000 and 9.7% earning between PHP 41,000 and PHP 70,000. This indicates that a large majority of the respondents come from middle to upper-income households. Additionally, this concentration of high-income respondents aligns with the Philippine Institute for Developmental Studies (2023) of what is considered “High Income” to “Rich” categories. Furthermore, considering that the university is located in Quezon City, the nation’s largest economic contributor with a GDP exceeding PHP 1.3 trillion, this does not imply that all residents are wealthy (Manila Standard Business, 2025) Instead, the high-income results in this study likely reflect a specific affluent segment of the city’s population that has the financial capacity to access elite private education, indicating that the sample is concentrated among households with substantial financial resources.

Table 4. Student’s Assessment on Loss Aversion

Loss Aversion	Mean Average	Interpretation
1. Experiencing financial losses causes me greater dissatisfaction than the satisfaction I feel from equivalent gains.	2.94	Agree
2. I feel more disappointed about losing ₱1,000 from an investment than pleased when I gain ₱1,000.	2.95	Agree
3. In my investment decisions, potential losses affect me more than potential gains.	2.89	Agree
4. Before investing, I think more about how much I could lose rather than how much I could earn.	2.87	Agree
5. I prefer stable, low-risk investments because I fear the possibility of financial loss.	2.89	Agree

Overall Weighted Mean Average

2.91

Agree

Table 4 shows the assessment of students in relation to their behavioral biases pertaining to loss aversion. Result shows that most of the students exhibit high level of loss aversion and agree that they tend to feel more strongly about potential financial losses than about equivalent gains (Mean=2.91). However, the statement with the lowest mean average of 2.87, verbally interpreted as “Agree,” is “Before investing, I think more about how much I could lose rather than how much I could earn.” Although respondents generally acknowledged the importance of considering potential losses, the comparatively lower mean suggests that students do not place an overwhelming emphasis on losses when evaluating investment opportunities. This is attributed to their exposure to financial education and business-related coursework, which encourages a balanced assessment of both risks and expected returns rather than a loss-dominated perspective. This interpretation is supported by [Nasrin \(2025\)](#) research, that individuals with higher financial literacy make informed and intentional investment choices, demonstrating stronger ability to evaluate risk and reward more logically. Nonetheless, the result still reflects the presence of loss aversion, as potential losses remain a salient factor in students’ investment decision-making.

Furthermore, the statement “In my investment decisions, potential losses affect me more than potential gains” obtained a mean average of 2.89, verbally interpreted as “Agree.” This result substantiates the presence of loss aversion among the respondents, indicating that potential losses exert a stronger influence on investment decisions than prospective gains. Consequently, this behavior, though less pronounced than other biases, still suggests that students are more motivated to avoid unfavorable outcomes than to pursue potentially profitable opportunities. This is observed by [Lyngdoh et al. \(2025\)](#) - that business students may partially balance loss concerns with interest in equity investments due to academic exposure to financial knowledge, which explains why the mean remains moderate rather than high.

Specifically, most of the students agree that they feel more disappointed about losing PHP 1,000 from an investment than pleased when gaining the same amount (Mean=2.95). This suggests that students are more aware of the psychological discomfort caused by losses compared to the satisfaction gained from equal profits, reflecting the emotional core of loss aversion. In this case, the specific mention of PHP 1,000 likely triggered a stronger emotional reaction because respondents could easily imagine the real-world implications of that amount, amplifying the perceived pain of loss relative to the pleasure of gain, which aligns with Zhou (2023), who found that individuals consistently report stronger negative emotions from losses than positive emotions from equivalent gains. Moreover, these findings are in line with Zeif and Yechiam (2023), who demonstrated that loss aversion is not present for smaller to moderate amounts. Their results indicate that loss aversion becomes noticeable only as the stakes increase, reflecting the same result in the current study, where the presence of a numeric value in the question item strongly gives rise to loss aversion.

Table 5. Student’s Assessment on Reference Dependence

Reference Dependence	Mean Average	Interpretation
1. I assess my investment performance based on how it aligns with my original financial plan or strategy.	3.49	Strongly Agree
2. Once I achieve a profit, I tend to set a new, higher target as my new goal	3.53	Strongly Agree

Reference Dependence	Mean Average	Interpretation
3. I prefer holding onto investments that have decreased in value rather than selling them at a loss.	3.35	Strongly Agree
4. I usually sell my investment once it reaches the profit level I planned, even if its price could still rise.	2.99	Agree
5. I am more satisfied with my current investment results when they show improvement compared to my past performance.	3.48	Strongly Agree
Overall Weighted Mean Average	3.37	Strongly Agree

Table 5 shows the assessment of students in relation to their behavioral biases pertaining to reference dependence. The result shows that most of the students strongly agree that their decisions are based on a standard point whether their current situation or past experience (Mean=3.37).

Moreover, the statement “I usually sell my investment once it reaches the profit level I planned, even if its price could still rise” obtained the lowest mean average of 2.99, verbally interpreted as “Agree.” This suggests that students are less strongly anchored to predetermined profit targets compared to other behavioral tendencies, indicating that they may not rigidly rely on fixed reference points when deciding to sell investments. This is because student investors, especially those exposed to financial education and market discussions, may adjust their selling decisions based on changing market conditions or emerging information, rather than solely following a fixed benchmark. This behavior indicates that reference points are present but adaptable, allowing students to evaluate potential gains relative to current trends rather than past expectations. In line with this, De Leon (2025) finds that Filipino investors’ selling behavior is influenced by how they define gains relative to referenced expectations, supporting the idea that reference dependence shapes but not completely dictate investment decisions. Indicating that student investors integrate both psychological influences and dynamic market information on their investment choices.

The next statement with the lowest mean average of 3.35, verbally interpreted as “Strongly Agree,” is “I prefer holding onto investments that have decreased in value rather than selling them at a loss.” This finding indicates that students tend to avoid realizing losses and instead hold onto declining investments, reflecting the presence of the disposition effect driven by reference dependence. Such behavior suggests that students evaluate investment outcomes relative to a reference point, such as the initial purchase price, and are reluctant to accept losses below this benchmark. Suresh (2021) highlighted that the disposition effect can persist, emphasizing that psychological tendencies, such as fear of realizing losses or hope for recovery, play a significant role in shaping investor behavior. This aligns with the findings of Harris (1988), who observed that investors systematically hold losing investments longer than rational models would predict, showing that such behavior is common even in real market settings. The strong agreement observed in this study implies that students are similarly prone to this behavior, reinforcing the idea that human emotions and cognitive tendencies often outweigh logical decision-making.

Specifically, these students strongly agree that once they achieve a profit, they tend to set a new higher target as their goal (Mean=3.53). These findings found that this behavior is the most strongly recognized manifestation of reference dependence among student investors, likely because it reflects an intuitive and motivating response to success. Achieving a profit is a concrete and rewarding experience, and students may naturally feel encouraged to aim higher, making this statement highly relatable and easy to agree with. Unlike selling decisions that require uncertainty about future price movements, this item

captures a forward-looking mindset where gains trigger greater ambition rather than closure. This upward adjustment of goals demonstrates the dynamic nature of reference points, as students recalibrate what they consider “success” once an initial benchmark has been reached. Zhou (2023) found that even less experienced investors often redefine success after achieving gains, reinforcing the strong agreement observed in this item. Overall, the highest mean indicates that students are highly prone to shifting their benchmarks upward after profits, showing that reference dependence is not static but evolves with achievement and rising expectations.

Table 6. Student’s Assessment on Probability Weighting

Probability Weighting	Mean Average	Interpretation
1. I sometimes decide to invest more because I believe market conditions will improve.	3.14	Agree
2. I sometimes underestimate the likelihood of losing money when the potential reward sounds high.	2.86	Agree
3. I tend to ignore sudden warning signs if I believe the market could turn around soon.	2.51	Agree
4. I am less willing to invest when the probability of loss cannot be eliminated.	2.94	Agree
5. I tend to lose confidence in an investment quickly after minor downturns, assuming they signal larger future losses.	2.77	Agree
Overall Weighted Mean Average	2.84	Agree

The next assessment deals with probability weighting, as shown in Table 6. Overall, results indicate that students are moderately influenced by their subjective assessment of risks and potential rewards, rather than strictly objective probabilities (Mean=2.84). However, certain items received lower mean scores, indicating weaker tendencies among students. In particular, the statement “I tend to ignore sudden warning signs if I believe the market could turn around soon” had the lowest mean, suggesting that only a minority of respondents exhibit this behavior, overweighting the likelihood of a favorable market reversal while underweighting the probability and impact of negative signals. According to Nguyen et al. (2025), the tendency to ignore warning signs suggests that subjective beliefs about an imminent market turnaround take precedence over objective risk indicators (Mean=2.51). This indicates that respondents’ expectations of recovery can override rational risk reassessment, leading them to maintain or reinforce investment positions despite emerging warning signs.

The next statement that obtained the second to the lowest score, “I tend to lose confidence in an investment quickly after minor downturns, assuming they signal larger future losses,” further reinforces the respondents’ relatively high tolerance for investment risk (Mean=2.77). The result suggests that respondents exhibit lower susceptibility to pessimistic probability weighting, as minor downturns are not consistently interpreted as indicators of severe future losses. This finding reinforces the view that students’ investment decisions are guided more by an informed understanding of market behavior than by short-term fear. Moreover, the students appear to recognize loss as an inherent component of investing rather than as a condition that must be eliminated prior to participation. Consistent with this perspective, all investments involve a degree of risk, thus, the respondents demonstrate a relatively realistic and informed

understanding of financial markets. Therefore, it suggests a combination of optimism and caution in students' probability assessments.

Specifically, the data indicate that most students agree that they sometimes invest more because they believe market conditions will improve, as reflected in the statement, "I sometimes decide to invest more because I believe market conditions will improve" ($M = 3.14$). It also shows that most of the students agree that they are moderately influenced by their subjective assessment of risks and potential rewards, rather than strictly objective probabilities ($\text{Mean} = 2.84$). This suggests that respondents are not primarily reacting to current market fundamentals but to their expectations that market conditions will improve. Accordingly, they increase their level of investment not because improvement is certain, but because they subjectively assign greater weight to the probability of favorable outcomes. Although students acknowledge the possibility of losses, they tend to mentally discount their likelihood, which leads to increased investment exposure based on optimistic expectations. This optimism is partly explained by their educational environment, where investment concepts are frequently framed around long-term growth, market recovery, and value creation. These factors suggest that optimism among respondents is not purely irrational but is shaped by educational, experiential, and informational contexts that influence how probabilities are subjectively evaluated under uncertainty (Abriyanto & Barusman, 2024). As noted by Azimi (2024), probability weighting refers to the tendency of individuals to overestimate the likelihood of favorable market outcomes, a pattern closely associated with optimism. Consistent with the data, the results indicate that students rely more on subjective assessments of risk, through which this behavioral bias exerts a moderate influence on investment decisions. This finding is supported by Azimi (2024), who explains that individuals tend to overweight the probability of potential returns despite the presence of risk.

Table 7. Student's Assessment on Framing Effects

Framing Effects	Mean Average	Interpretation
1. I sometimes decide to invest quickly in a company when I read positive forecasts or growth projects.	3.13	Agree
2. I tend to base my investment judgment on how information is worded, the tone used, or the emphasis given to certain details.	3.11	Agree
3. I am more likely to follow an analyst's "buy," "hold," or "sell" recommendation when it is confidently communicate with strong emphasis and confidence.	3.26	Strongly Agree
4. I tend to refrain from investing when the first thing I notice in the information is the mention of risks or chances of failure rather than potential success.	3.09	Agree
5. I tend to view an investment more favorably when it is framed in terms of potential gains instead of potential losses.	3.30	Strongly Agree
Overall Weighted Mean Average	3.18	Agree

The last assessment in student's behavioral bias deals with framing effects as shown in **Table 7**. Result shows that most of the students agree that they are moderately affected by the wording, tone, and emphasis of investment-related information ($\text{Mean} = 3.18$). Specifically, the results show that respondents do not strongly avoid investment opportunities merely because risk or failure is highlighted early in the

information presented, as reflected in the statement, “I tend to refrain from investing when the first thing I notice in the information is the mention of risks or chances of failure rather than potential success.” ($M = 3.09$). This suggests that the students are not highly dependent on cognitive anchors when forming investment judgments. Instead of anchoring their decisions on the first negative cues encountered, respondents appear capable of integrating both risk and return considerations before reaching a conclusion. This finding implies a level of cognitive flexibility, where early exposure to risk-related information does not automatically discourage investment participation. Such behavior reflects academic training that emphasizes comprehensive evaluation of investment information rather than reliance on initial impressions or salient reference points.

The statement “I tend to base my investment judgment on how information is worded, the tone used, or the emphasis given to certain details” received the second-lowest mean score ($M = 3.11$), indicating that respondents are relatively less influenced by linguistic framing, tone, or emphasis when making investment decisions. This result reinforces the notion that students exhibit a more analytical and critical approach to investment information, wherein wording and emphasis serve as secondary cues rather than primary determinants of judgment.

Furthermore, while most students strongly agree that they view an investment more favorably when it is framed in terms of potential gains rather than potential losses, as shown in the statement, “I tend to view an investment more favorably when it is framed in terms of potential gains instead of potential losses” ($M = 3.30$). This indicates a high sensitivity to gain-based framing, as respondents strongly agree with investment options when potential gains are emphasized first, compared to when risks are highlighted. Students tend to respond more favorably when the initial information they encounter focuses on possible returns rather than associated losses. This suggests that gain-focused presentations immediately capture attention and generate a more positive emotional response, which increases openness to the investment opportunity. The pattern reflects an opportunity-oriented investment mindset in which anticipated gains are given greater cognitive and emotional weight than potential losses. When returns are made salient at the outset, students appear more motivated and confident in considering the investment, even if risks are later introduced. Consequently, framing effects that highlight upside potential play a substantial role in shaping how students form their investment judgments. According to Mahfooz et al. (2025), framing effects emerge as one of the most persistent behavioral biases influencing investment decision-making. Mahfooz et al. (2025) emphasizes that individuals are inclined to base decisions on how information is presented rather than solely on its objective content. In line with the data, this suggests that students are more likely to make investment decisions when information is framed as a gain, indicating a focus on opportunity rather than loss.

Table 8. Student’s Intuitive Investment Decisions

Intuitive	Mean Average	Interpretation
1. I tend to invest in a company or business because I have a “good feeling” about it.	2.23	Disagree
2. I sometimes use my friends’ opinions as a quick reference when choosing investments.	2.71	Agree
3. I rely on my intuitive judgment to determine the right time to buy or sell.	2.27	Disagree
4. I tend to rely on readily available information to make quicker investment decisions when time is limited.	2.63	Agree

Intuitive	Mean Average	Interpretation
5. I am comfortable deciding based on experience rather than data.	2.43	Disagree
Overall Weighted Mean Average	2.45	Disagree

The first part of the result in assessing the decision making of students deals with intuitive decisions as shown in Table 8. The result shows that most of the students' intuitive decision-making do not heavily rely on gut feelings or instinct when making investment choices (Mean=2.45). Among the indicators, the lowest mean was observed in the statement "I tend to invest in a company or business because I have a 'good feeling' about it" (Mean = 2.23), suggesting that students do not strongly depend on gut feelings in their investment choices. The second lowest mean was recorded for "I rely on my intuitive judgment to determine the right time to buy or sell" (Mean = 2.27), indicating limited reliance on instinctive timing decisions.

The highest mean was recorded for the statement "I sometimes use my friends' opinions as a quick reference when choosing investments" (Mean = 2.71). This indicates that peer influence functions as an intuitive guide in students' investment decisions, especially in situations where uncertainty or complexity is involved. The second lowest score for relying on intuitive judgment to time buy-and-sell decisions suggests that students are cautious about making immediate choices without external cues, likely due to the complexity and perceived risk inherent in financial decisions. Instead, they are more inclined to use friends' opinions as a quick reference when they need reassurance or support. This behavior is supported by Phuong Giang Dang's (2024) study, which found that social influences, including peer opinions, play a significant role in shaping investment decisions, particularly in uncertain or complex financial contexts where individuals tend to rely on others in the absence of sufficient information or experience. Therefore, in this study, peer influence appears to act as an informational cue under complexity and uncertainty, rather than as a dominant intuitive process. Overall, the findings indicate that although students generally avoid intuitive investment strategies, they occasionally rely on their surroundings and environment when pressed for time or guidance, highlighting selective reliance on informal sources rather than systematic intuition.

Table 9. Student's Deliberative Investment Decisions

Deliberative	Mean Average	Interpretation
1. I thoroughly review and analyze relevant information before finalizing any investment decision.	3.63	Strongly Agree
2. I take time to evaluate and compare different investment options based on their potential risks and returns.	3.61	Strongly Agree
3. I prefer to make investment decisions based on evidence and logical evaluation rather than emotion.	3.53	Strongly Agree
4. I evaluate the short-term and long-term effects before selecting an investment.	3.58	Strongly Agree
5. I analyze previous investment outcomes when selecting which investments to make.	3.63	Strongly Agree
Overall Weighted Mean Average	3.60	Strongly Agree

The next cognitive system pertains to deliberative decision-making of students as shown in Table 9. The result shows that most of the students strongly agree that they rely on careful analysis and logical evaluation when making investment decisions (Mean = 3.60). Among the indicators, the lowest mean was observed in the statement “I prefer to make investment decisions based on evidence and logical evaluation rather than emotion” (Mean = 3.53), suggesting that although students value rational thinking, emotional factors may still play a minor role. The second lowest mean was recorded for “I evaluate the short-term and long-term effects before selecting an investment” (Mean = 3.58), indicating that students consistently consider time horizons when making decisions. The highest mean was recorded for the statements “I thoroughly review and analyze relevant information before finalizing any investment decision” and “I analyze previous investment outcomes when selecting which investments to make” (Mean = 3.63). This suggests that students do the steps involved in careful decision-making, such as reviewing information and checking past results. Nevertheless, the relatively low mean scores on statements regarding always relying on logic rather than emotion indicate that, while students perform analytical steps, their decisions are not entirely free from emotional or intuitive influence. According to the Dual Process Theory, logical thinking and intuitive thinking can work at the same time. This means students may go through analytical procedures, but their final investment choices can still be affected by feelings, impressions, or gut reactions. Therefore, the overall results show that their strong reliance on analysis, evaluation of alternatives, and evidence-based judgement suggests disciplined and well-considered financial mindset among students.

Specifically, most of these students strongly agreed that they thoroughly review information when selecting which investment to make (Mean=3.63) and analyzing previous investment outcomes before making decisions (Mean=3.63). This result shows that their strong reliance on analysis, evaluation of alternatives, and evidence-based judgment suggests disciplined and well-considered financial behavior among students. Therefore, the overall results indicate that students’ strong reliance on analysis, evaluation of alternatives, and evidence-based judgement reflects a disciplined and well-considered financial mindset.

Table 10. Student’s Assessment on Influences

Influence	Mean Average	Interpretation
1. I frequently follow the investment behaviors exhibited by my peers.	3.05	Agree
2. I feel more confident in my investment decisions when I follow the advice or suggestions given by my peers.	3.18	Agree
3. I am more likely to participate in an investment when my peers share positive experiences about it.	3.41	Strongly Agree
4. I tend to modify my investment preferences after engaging in discussions with my peers.	3.21	Agree
5. I am more likely to invest in assets when my peers have already done so.	3.35	Strongly Agree
Overall Weighted Mean Average	3.24	Agree

The first peer network parameter deals with influence as shown in Table 10. Result shows that most of the students agree that they are considering advice from their peer as a relevant factor for their decision

(Mean=3.24). Among indicators, the lowest mean was observed in the statement “I frequently follow the investment behaviors exhibited by my peers” (Mean = 3.05), suggesting that respondents do not consistently mirror their peers’ actions directly. The second lowest mean was recorded for “I feel more confident in my investment decisions when I follow the advice or suggestions given by my peers (Mean = 3.18), suggesting that respondents do not consistently mirror their peers’ actions or recommendations, which follows the narrative by the study of Balakina and Stockler (2025) that explained financial decisions are “seldom” made independently, indicating that while peer advice contributes to confidence, students still maintain a degree of independence in their investment decision-making.

The highest mean was recorded for the statement “I am more likely to participate in and investment when my peers share positive experiences about it” (Mean = 3.41). This indicates that peer experiences play a significant role in shaping the students’ investment decisions, where positive feedback from their peers may reduce uncertainty in making financial choices and therefore increase confidence. Furthermore, the contrast with the lowest mean statements further supports the idea that peer influence thrives on proven results that reduce uncertainty, rather than unverified behaviors or recommendations, allowing individuals to retain some sort of independence. These patterns align with Balakina and Stockler (2025), who noted that financial decisions are “seldom” made independently, yet peer interactions, especially sharing collective experiences in connected environments, influence decisions without demanding full imitation.

Table 11. Student’s Assessment on Similarity

Similarity	Mean Average	Interpretation
1. My peers and I demonstrate similar decision-making patterns when it comes to financial matters.	3.06	Agree
2. My peers and I exhibit similar levels of risk tolerance in our financial decisions.	2.77	Agree
3. I tend to seek financial advice from peers who share a similar economic background.	3.45	Strongly Agree
4. I relate more to peers whose financial goals align with mine.	3.50	Strongly Agree
5. I am more likely to participate in investment activities that are popular among peers with similar financial circumstances and perspectives.	3.32	Strongly Agree
Overall Weighted Mean Average	3.22	Agree

The next peer network parameter deals with similarity. Table 11 shows that most of the students agree that they moderately align their financial behaviors and decision-making with peers who share similar characteristics (Mean=3.22). Among the indicators, the lowest mean was observed in the statement “My peers and I exhibit similar levels of risk tolerance in our financial decisions” (Mean = 2.77), suggesting that although students perceive some degree of similarity with their peers, variations in risk preferences still exist. This is followed by the statement “My peers and I demonstrate similar decision-making patterns when it comes to financial matters” (Mean = 3.06), indicating moderate alignment in financial decision-making approaches. According to Siratan et al. (2024), common demographic features and shared characteristics foster a sense of connection among investors, which can influence their behaviors towards risk and enhance the influence of peers on financial decisions. Although the degree of similarity in risk tolerance and decision-making is relatively low to moderate within this sample, these results indicate that even minimal

alignment among peers may contribute to influencing their financial choices and the dynamics of trust and cohesion within peer groups.

In contrast, the highest mean was recorded for “I relate more to peers whose financial goals align with mine” (Mean = 3.50), indicating strong similarity agreement. This indicates that students feel a stronger connection with peers who share similar aspirations and objectives regarding their finances, compared to other aspects of peer similarity. Students may share common aspirations such as starting a business, building wealth, or achieving financial stability, even if they differ in how much risk they are willing to take or how they make financial decisions. This explains why similarity in risk tolerance and decision-making patterns remains relatively low to moderate, whereas alignment in financial goals reflects stronger perceived similarity. This preference is supported by the study of Miglani (2024), which found that similarities in financial goals and struggles among peers positively influenced the financial behaviors of their respondents. This is further strengthened with the findings of Siratan et al. (2024), who noted that this sense of similarity encourages reliance on peer opinions, which in turn reinforces specific investment patterns.

Table 12. Student’s Assessment on Compatibility

Compatibility	Mean Average	Interpretation
1. My peers and I communicate openly and constructively when discussing investment decisions.	3.33	Strongly Agree
2. My peers and I are able to adapt easily when we hold differing opinions.	3.36	Strongly Agree
3. My peers and I share collective trust that facilitates smooth agreement on investment decisions.	3.27	Strongly Agree
4. I maintain effective coordination with my peers regardless of how large the group is.	3.33	Strongly Agree
5. I tend to engage in group discussions with my peers to evaluate investment options that align with our shared perspectives and preferences.	3.46	Strongly Agree
Overall Weighted Mean Average	3.35	Strongly Agree

The last peer network parameter deals with compatibility as depicted in **Table 12**. It shows that most of the students strongly agree that they experience high levels of cooperative interaction when discussing and making investment decisions (Mean=3.35). The lowest mean was observed in the statement “My peers and I share collective trust that facilitates smooth agreement on investment decisions” (Mean = 3.27), suggesting that while trust is present, it is not the strongest aspect of peer compatibility. This is followed by “I maintain effective coordination with my peers regardless of how large the group is” (Mean = 3.33) and “My peers and I communicate openly and constructively when discussing investment decisions” (Mean = 3.33), indicating that coordination and open communication are slightly stronger aspects of peer compatibility than trust. This suggests that respondents value collaboration and constructive interaction in investment-related discussions, though trust may develop more gradually within peer groups. This concept can be illustrated by Giang’s (2024) study, which noted that when people feel they are compatible with their peers, they often experience an enhanced sense of trust and openness. This environment enables financial opinions, strategies, and insights to flow more freely, indicating that compatibility could foster and help develop stronger trust within peer groups over time, ultimately affecting their decision-making processes.

The highest mean was recorded for “I tend to engage in group discussions with my peers to evaluate investment options that align with our shared perspectives and preferences” (Mean = 3.46), highlighting group discussion as the most prominent indicator of compatibility among students when making investment-related decisions. This statement being the highest suggests that students hesitate in fully open communication with their peers due to underlying caution in trust, indicating that while some level of trust exists, students remain guarded and limit their vulnerability, particularly in situations where alignment with peers, such as shared objectives and ideals, is lacking. This is supported by Wang & Hu (2021), who mentioned that when trust among peers is low, relationships tend to be more strained, leading to reduced cooperation. Students show greater engagement when topics align with shared views, as compatibility fosters a sense of trust and mutual benefit. This is further supported by the study of Gunawan (2024), who emphasized that compatibility facilitates effective communication, enabling individuals to better comprehend each other’s viewpoints and engage in more meaningful discussions regarding investment strategies. Together, these results suggest that students’ sense of compatibility encourages collaborative evaluation of investment options, promoting deeper understanding and harmony within peer groups.

The results on peer compatibility indicate that students strongly perceive alignment and effective collaboration within their peer networks, with an overall weighted mean of 3.35, interpreted as “Strongly Agree.” This suggests that students experience high levels of cooperative interaction when discussing and making investment decisions, enabling smooth communication, shared trust, and collective evaluation of options. Among the individual items, the top two mean scores are Item 5 (M = 3.46) and Item 2 (M = 3.36), both interpreted as “Strongly Agree.” Item 5 emphasizes students’ engagement in group discussions to evaluate investments that align with shared perspectives, highlighting active participation and collaborative decision-making. Item 2 reflects students’ ability to adapt when peers hold differing opinions, indicating flexibility and constructive problem-solving within the group.

Table 13. Descriptive Statistics of the Variables

Descriptive Statistics	Behavioral Biases	Decision Making
Mean	3.070	3.020
Median	3.100	3.000
Std. Deviation	0.481	0.425
Skewness	-0.739	-0.239
Std. Error Skewness	0.184	0.184
Kurtosis	1.710	1.470
Std. Error Kurtosis	0.365	0.365

Table 13 presents the descriptive statistics of the study variables. The mean scores suggest that respondents reported a moderately high level of behavioral biases (Mean=3.070, SD=0.481) and investment decision-making (Mean=3.020, SD=0.425). This indicates that students generally acknowledge the influence of behavioral biases while also tending to engage in intuitive and deliberative investment decision-making.

In relation to the distribution of responses, the results showed that behavioral biases exhibited a slightly negative skewness (Skewness= -0.739), indicating that more students tended to report higher perceptions of their behavioral biases. Decision-making also displayed a slight negative skewness

(Skewness= -0.239), suggesting that responses were concentrated toward higher agreement on structured decision-making. In terms of kurtosis, behavioral biases demonstrated a moderately leptokurtic distribution (Kurtosis=1.710), indicating a relatively peaked distribution with responses clustered around the mean. Investment decision-making displayed a similar moderately leptokurtic distribution (Kurtosis=1.470), suggesting most responses were near the mean without extreme deviations.

Overall, the descriptive statistics indicate that students moderately recognize their behavioral biases while generally applying deliberative decision-making strategies. The distributions of both variables are relatively normal, with slight negative skewness and moderate peakedness, supporting further analysis using regression to examine the influence of behavioral biases on decision-making. This provides a solid basis for testing predictive relationships while considering the slight concentration of higher scores in the data.

Table 14. Shapiro-Wilk Test on Residuals

Regression	W (Shapiro-Wilk)	Sig.	Interpretation
Behavioral Biases→ Investment Decision Making	0.992	0.493	Normal

Table 14 presents the results of the Shapiro–Wilk test on the residuals of the regression model. The test examines whether the residuals from the regression of behavioral biases on decision-making are normally distributed, which is a key assumption for linear regression analysis. The results show a W value of 0.992 and a significance level of 0.493.

Since the p-value is greater than 0.05, the null hypothesis of normality is not rejected. This indicates that the residuals are approximately normally distributed, suggesting that the assumption of normality for the regression model is met.

Overall, the Shapiro–Wilk test confirms that the regression analysis is appropriate for examining the relationship between behavioral biases and decision-making. The normality of residuals supports the validity of inferential statistics derived from the regression model, allowing for reliable interpretation of the influence of behavioral biases on students’ decision-making processes.

Table 15. Summary Statistics of the Regression Model

Regression Model	R ²	F (df1, df2)	Durbin-Watson	Breusch-Pagan	VIF
Behavioral Biases→ Investment Decision Making	0.286	69.2 (1, 173) p<.001	1.64 p=0.008	p=0.988	1.00

Table 15 presents the summary statistics of the regression model examining the influence of behavioral biases on investment decision-making. The model shows an R² value of 0.286, indicating that approximately 28.6% of the variance in students’ decision-making can be explained by their behavioral biases. The F-statistic (F=69.2, df=1, 173, p<.001) is statistically significant, indicating that the regression model as a whole reliably predicts decision-making based on behavioral biases. The Durbin–Watson statistic of 1.64 suggests no serious autocorrelation in the residuals, supporting the validity of the model assumptions regarding independent errors.

The Breusch–Pagan test (p=0.988) indicates that the assumption of homoscedasticity is met, meaning that the variance of residuals is constant across levels of behavioral biases. Additionally, the Variance Inflation Factor (VIF=1.000) shows no multicollinearity, confirming that the predictor variable does not exhibit redundant information with other variables in the model.

Overall, the regression summary indicates that behavioral biases have a significant and moderate influence on students’ decision-making. The model meets key assumptions of linear regression, including normality, homoscedasticity, independence of residuals, and absence of multicollinearity, supporting the reliability of the findings and reinforcing the role of behavioral tendencies in shaping investment-related decisions.

Table 16. Linear Regression Predicting Decision Making from Behavioral Biases

Predictor	B	SE	95% CI		Sig.
			Lower	Upper	
Constant	1.573	0.177	1.224	1.922	<.001
Behavioral Biases	0.472	0.057	0.360	0.584	<.001

Table 16 presents the detailed results of the regression coefficients for the model predicting students’ investment decision-making from behavioral biases. The constant (intercept) has a value of $B=1.573$ ($SE=0.177$, 95% $CI=1.224-1.922$, $p<.001$), indicating that when behavioral biases are zero, the predicted level of decision-making is 1.573. This establishes the baseline level of decision-making in the absence of behavioral bias influence.

The predictor, labeled as Behavioral Biases, shows a regression coefficient of $B=0.472$ ($SE=0.057$, 95% $CI=0.360-0.584$, $p<.001$). This positive and statistically significant coefficient indicates that for every one-unit increase in behavioral biases, students’ decision-making score increases by 0.472 units, holding all else constant. The narrow confidence interval further reinforces the precision of this estimate and confirms a consistent positive relationship between behavioral biases and decision-making.

Overall, the findings suggest that students’ behavioral biases have a significant and positive influence on their investment decision-making processes. The results indicate that students with stronger recognition or awareness of behavioral biases tend to engage more actively and deliberately in investment decisions. This highlights the practical importance of understanding behavioral tendencies in guiding investment-related choices. Consistent with Mahmood (2024), such awareness enables investors to regulate these tendencies and engage more actively in investment decision-making. This indicates that investors can utilize and leverage their behavioral biases as guides for their investment choices rather than being misled by them. This dynamic is consistent with Dual Process Theory, which emphasizes that intuitive and deliberative thinking do not operate in conflict but rather interact functionally, allowing intuitive thinking to complement deliberative reasoning and support more purposeful investment decision-making.

Table 17. Descriptive Statistics of the Variables

Descriptive Statistics	Behavioral Biases	Decision Making	Peer Network
Mean	3.070	3.020	3.270
Median	3.100	3.000	3.330
Std. Deviation	0.481	0.425	0.491
Skewness	-0.739	-0.239	-1.160
Std. Error Skewness	0.184	0.184	0.184
Kurtosis	1.710	1.470	2.940

Descriptive Statistics	Behavioral Biases	Decision Making	Peer Network
Std. Error Kurtosis	0.365	0.365	0.365

Table 17 presents the descriptive statistics of the study variables used in the mediation analysis, namely behavioral biases (independent variable), decision-making (dependent variable), and peer network (mediating variable). The mean scores suggest that students reported a moderately high level of behavioral biases (Mean=3.070, SD=0.481), a moderately high level of decision-making (Mean=3.020, SD=0.425), and a high level of peer network (Mean 3.270, SD=0.491). These values indicate that students generally recognize the influence of behavioral biases, actively engage in structured decision-making, and perceive strong interaction and support within their peer networks.

In terms of distribution, behavioral biases and investment decision-making exhibited slight negative skewness (Skewness=-0.739 and -0.239, respectively), suggesting that responses were moderately concentrated toward higher levels of agreement. Peer network showed a more pronounced negative skew (Skewness=-1.160), indicating that a larger proportion of students reported high levels of peer engagement. Kurtosis values show that behavioral biases (Kurtosis=1.710) and decision-making (Kurtosis=1.470) have moderately leptokurtic distributions, while peer network (Kurtosis=2.940) exhibits a more pronounced leptokurtic distribution, suggesting responses are strongly clustered around the mean.

Overall, the descriptive statistics indicate that students generally recognize behavioral biases, investment decision-making, and peer network. The distributions suggest that peer network responses are more consistently high compared to the other variables. These patterns provide a suitable foundation for mediation analysis, as they reflect meaningful variation and a concentration of higher values that can support the examination of how peer networks may mediate the influence of behavioral biases on investment decision-making.

Table 18. Shapiro-Wilk Test on Residuals

Regression	W (Shapiro-Wilk)	Sig.	Interpretation
Behavioral Biases → Peer Network	0.991	0.535	Normal
Behavioral Biases → Investment Decision Making	0.992	0.493	Normal
Behavioral Biases + Peer Network → Investment Decision Making	0.992	0.449	Normal

Table 18 shows the result of testing the normality of the residuals. Since the result of descriptive statistics found that the data are not normally distributed, the researchers assumed that the hypothesis (alternative hypothesis) of the distributions are not normal. Using the Shapiro-Wilk Test on residuals, results for X, M, and Y variables have p-values of greater than 0.05, thus the null hypothesis is not rejected. This indicates that the residuals are approximately normally distributed across the mediation paths.

Overall, the Shapiro-Wilk test confirms that the assumptions of normality for the mediation analysis are met. This supports the validity of the regression results and ensures that the inference about the relationships among behavioral biases, peer network, and investment decision-making is statistically sound. The normality of residuals allows for reliable interpretation of both direct and indirect effects in the mediation model

Table 19. Summary Statistics of the Regression Model

Regression Model	Predictor	R ²	ΔR ²	F (df1, df2)	Durbin-Watson	Breusch-Pagan	VIF
Behavioral Biases → Peer Network	Behavioral Biases	0.200	-	43.3 (1, 173) p<.001	1.65 p=0.016	p=0.630	1.00
Behavioral Biases → Investment Decision Making	Behavioral Biases	0.286	-	69.2 (1, 173) p<.001	1.64 p=0.008	p=0.988	1.00
Behavioral Biases + Peer Network → Investment Decision Making	Behavioral Biases	0.313	0.173	39.1 (2, 173) p<.001	1.55 P<0.001	p=0.383	1.53
	Peer Network						1.53

Table 19 presents the summary statistics of the regression models used in the mediation analysis, examining the relationships among behavioral biases (independent variable), peer network (mediator), and investment decision-making (dependent variable).

The first model, Behavioral Biases → Peer Network, shows an R² of 0.200, indicating that behavioral biases explain 20.0% of the variance in peer network engagement. The model is statistically significant (F=43.3, df=1, 173, p<.001), with a Durbin–Watson value of 1.65, suggesting no serious autocorrelation. Homoscedasticity is supported (Breusch–Pagan, p=0.630), and the VIF of 1.00 confirms no multicollinearity. This indicates that students’ behavioral biases significantly predict their level of engagement with peers. The second model, Behavioral Biases → Investment Decision Making, replicates the earlier regression results, with an R² of 0.286. Behavioral biases explain 28.6% of the variance in decision-making, and the model is significant (F=69.2, df=1, 173, p<.001). The Durbin–Watson statistic (1.64), Breusch–Pagan test (p=0.988), and VIF (1.00) all indicate that assumptions of regression are met, confirming the direct effect of behavioral biases on decision-making.

The third model, Behavioral Biases + Peer Network → Investment Decision Making, examines the combined and mediating effect of peer network. The R² increases to 0.313, indicating that 31.3% of the variance in decision-making is explained when both predictors are included. The change in R² (ΔR²=0.173) suggests that peer network accounts for an additional 17.3% of variance in decision-making, highlighting its mediating role. This model is statistically significant (F=39.1, df=2, 173, p<.001), with a Durbin–Watson value of 1.55, Breusch–Pagan p=0.383, and VIF values of 1.53 for both predictors, indicating acceptable multicollinearity.

Overall, the summary statistics support the mediation hypothesis: behavioral biases significantly influence investment decision-making, and peer network partially mediates this relationship by explaining additional variance in students’ decision-making. The models meet key regression assumptions, ensuring the validity of the mediation analysis.

Table 20. Mediation Estimates

Effect	Estimate	SE	95% CI		Z	Sig.	% Mediation
			Lower	Upper			
Indirect	0.106	0.042	0.024	0.188	2.530	0.011	22.4

Effect	Estimate	SE	95% CI		Z	Sig.	% Mediation
			Lower	Upper			
Total	0.472	0.057	0.362	0.583	8.360	<.001	100.0

Table 20 presents the results of the mediation analysis, showing the direct, indirect, and total effects of behavioral biases on investment decision-making, with peer network as the mediating variable. The indirect effect of behavioral biases on investment decision-making through peer network is 0.106 (SE=0.042, 95% CI=0.024–0.188, Z=2.530, p=0.011), indicating a statistically significant mediation. This suggests that peer network partially mediates the influence of behavioral biases on investment decision-making. With a mediation percentage of 22.4%, the results imply that students' peer networks play a meaningful role in linking behavioral biases to decision-making.

The direct effect of behavioral biases on investment decision-making, controlling for peer network, is 0.366 (SE=0.069, 95% CI=0.232–0.501, Z=5.350, p<.001), showing that behavioral biases continue to exert a strong and significant influence on investment decision-making independent of peer network. This accounts for 77.6% of the total effect.

The total effect of behavioral biases on investment decision-making is 0.472 (SE=0.057, 95% CI=0.362–0.583, Z=8.360, p<.001), indicating a strong and statistically significant overall relationship. Overall, the results show partial mediation as peer networks reinforce individual decision-making rather than taking the lead in decision-making. According to Girshina et al. (2020), peer networks mainly act as channels for information sharing and social reinforcement, meaning peers help confirm or validate decisions that individuals have already formed based on their own beliefs and biases. This explains why the direct effect of behavioral biases is higher than the indirect effect through peer networks. Students already have personal judgments shaped by behavioral biases, and peer input only strengthens or adjusts these judgments instead of fully determining the decision. As a result, peer networks contribute to investment decision-making, but only partially, leading to partial mediation.

Table 21. Path Estimates

Path	Estimate	SE	95% CI		Z	Sig.
			Lower	Upper		
Behavioral Biases → Peer Network	0.602	0.062	0.479	0.724	9.64	<.001
Peer Network → Investment Decision Making	0.176	0.067	0.044	0.307	2.62	0.009
Behavioral Biases → Investment Decision Making	0.366	0.069	0.232	0.501	5.35	<.001

Table 21 presents the path estimates of the mediation model, showing the relationships among behavioral biases, peer network, and investment decision-making.

The path from Behavioral Biases → Peer Network has an estimate of 0.602 (SE = 0.062, 95% CI = 0.479–0.724, $Z = 9.640$, $p < .001$), indicating a strong and statistically significant positive relationship. This suggests that students with higher levels of behavioral biases are more engaged with their peer networks. Individuals with stronger biases tend to seek social validation, reassurance, or guidance when facing uncertainty. For instance, students experiencing loss aversion consult peers to reduce anxiety about potential losses, while those influenced by reference dependence may compare outcomes with others to judge their relative performance. Similarly, biases such as framing effects and probability weighting can lead students to rely on peer discussions to interpret risk and evaluate choices. These tendencies encourage greater interaction within peer groups, where shared perspectives and experiences reinforce investment decision-making processes shaped by cognitive shortcuts. To support this, Sattar and Toseef (2020) highlighted that investors guided by behavioral biases often use their social networks to contextualize judgments, showing that peer engagement helps individuals manage uncertainty. Also, Zhang et al. (2022) observed that investors when facing potential losses or unclear probabilities, they consult peers and compare themselves with others, which explains why students experiencing loss aversion or probability-related biases seek peer ideas.

The path from Peer Network → Investment Decision Making shows an estimate of 0.176 (SE=0.067, 95% CI=0.044–0.307, $Z=2.620$, $p=0.009$), indicating a moderate and significant positive effect. This implies that greater peer network engagement positively influences students' decision-making, confirming the role of peer interactions in influencing investment-related choices. The results indicate that peer networks exert a moderate effect on investment decisions, suggesting that individuals remain primarily guided by their own judgment despite exposure to peer influence. Although social networks do not directly determine investment decisions, they function as important channels through which information is transmitted and evaluated prior to making an investment decision. As noted by Berthet (2021), even when individuals consult with peers, the investment decision-making process is initially shaped by internal behavioral factors before external influences are integrated. In line with this perspective, the findings of the present study demonstrate that the moderate influence of peer networks arises mainly from the information individuals acquire from their peers. This information expands individuals' understanding and informs their assessments; however, it does not replace personal evaluation in the formation of investment decisions.

The direct path from Behavioral Biases → Investment Decision Making, controlling for peer network, has an estimate of 0.366 (SE=0.069, 95% CI=0.232–0.501, $Z=5.350$, $p<.001$), demonstrating that behavioral biases continue to exert a strong and significant influence on decision-making independently of peer networks.

Overall, the path estimates support a partial mediation model, where peer network partially transmits the effect of behavioral biases on decision-making. The strongest effect is observed between behavioral biases and peer network, highlighting that students' engagement with peers is heavily influenced by their own behavioral biases. Peer network then moderately contributes to decision-making, highlighting the combined impact of both behavioral tendencies and peer interactions on investment-related choices.

Table 22. Moderation Estimates (Weekly Allowances)

Predictors	Estimate (B)	SE	95% CI		Z	Sig.
			Lower	Upper		
Behavioral Biases	0.467	0.102	0.267	0.667	4.582	<.001

Predictors	Estimate (B)	SE	95% CI		Z	Sig.
			Lower	Upper		
PHP 1000 – PHP 1500 vs. PHP 1501 - PHP 3,000 ¹	0.009	0.102	-0.191	0.208	0.085	0.932
Behavioral Biases * PHP 1000 – PHP 1500 vs. PHP 1501 - PHP 3,000 ¹	0.301	0.185	-0.061	0.663	1.630	0.103
Behavioral Biases	0.636	0.087	0.464	0.807	7.270	<.001
PHP 1000 - PHP 1500 vs. PHP 3,001 - PHP 5,000 ¹	0.084	0.104	-0.119	0.287	0.811	0.418
Behavioral Biases * PHP 1000 - PHP 1500 vs. PHP 3,001 - PHP 5,000 ¹	0.084	0.172	-0.253	0.421	0.491	0.623
Behavioral Biases	0.363	0.073	0.220	0.506	4.970	<.001
PHP 1000 - PHP 1500 vs. More than PHP 5,000 ¹	0.124	0.095	-0.063	0.310	1.300	0.195
Behavioral Biases * PHP 1000 - PHP 1500 vs. More than PHP 5,000 ¹	0.446	0.152	0.149	0.744	2.940	0.003
Behavioral Biases	0.514	0.081	0.355	0.673	6.340	<.001
PHP 1501 - PHP 3,000 vs. PHP 3,001 - PHP 5,000 ¹	0.075	0.067	-0.057	0.207	1.120	0.264
Behavioral Biases * PHP 1501 - PHP 3,000 vs. PHP 3,001 - PHP 5,000 ¹	-0.217	0.165	-0.540	0.107	-1.310	0.189
Behavioral Biases	0.455	0.069	0.320	0.589	6.620	<.001
PHP 3,001 - PHP 5,000 vs. More than PHP 5,000 ¹	0.040	0.067	-0.091	0.170	0.594	0.553
Behavioral Biases * PHP 3,001 - PHP 5,000 vs. More than PHP 5,000 ¹	0.362	0.136	0.095	0.628	2.660	0.008

Table 22 presents the moderation analysis of weekly allowances on the relationship between behavioral biases and investment decision-making. The estimates show both the main effects of behavioral biases and weekly allowances, as well as the interaction effects (Behavioral Biases * Weekly Allowance), which indicate moderation.

Across all comparisons, the main effect of behavioral biases remains significant ($p < .001$), confirming that behavioral biases consistently predict investment decision-making regardless of allowance group. The main effects of weekly allowance groups themselves are not significant ($p\text{-values} > 0.05$), indicating that allowance categories alone do not directly influence decision-making statistically.

Looking at the interaction effects, significant moderation is observed in two comparisons:

- Behavioral Biases * PHP 1000 – 1500 vs. More than PHP 5,000: $B=0.446$, 95% $CI=0.149\text{--}0.744$, $Z=2.940$, $p=0.003$
- Behavioral Biases * PHP 3,001 – 5,000 vs. More than PHP 5,000: $B=0.362$, 95% $CI=0.095\text{--}0.628$, $Z=2.660$, $p=0.008$

These significant interactions indicate that the relationship between behavioral biases and decision-making is moderated by higher weekly allowances. Specifically, students with weekly allowance more than PHP 5,000 show a stronger positive association between behavioral biases and investment decision-making compared to lower allowance groups.

In light of these findings, it suggests that weekly allowance does not always influence the relationship between behavioral biases and investment decision-making. The moderation effect is limited to students with the highest allowance, suggesting that sufficient financial resources may be reinforcing the presence of behavioral biases in their decisions. This is consistent with Enke et al. (2021), who mentioned that even with high financial resources, individuals continue to exhibit behavioral biases in their investment decision-making, prompting the idea that the existence of these behavioral biases is not necessarily diminished by higher financial resources but remains influential in the decision-making process.

All other interaction terms are not significant ($p > 0.05$), suggesting that moderation is specific to comparisons involving the top allowance group rather than across all levels.

In conclusion, behavioral biases significantly influence students' decision-making across all allowance groups, but this effect is strengthened for students with higher weekly allowances. This implies that financial resources may amplify the impact of students' behavioral tendencies on their investment-related decisions, possibly because students with more funds feel more empowered to act on their biases and take risks in decision-making.

CONCLUSION

This study demonstrates that that behavioral biases examined under Prospect Theory have a positive and significant influence on the investment decision-making of third-year BS Management students at Ateneo de Manila University. Reference dependency was shown among the cognitive errors. The great majority of student investors exhibit a strong disposition effect by holding underperforming assets to avoid the psychological pain of realizing a loss, routinely anchor their financial assessments to initial baselines, and immediately recalibrate their goals upward upon securing a profit. On the other hand, probability weighting was the least evident bias, suggesting that these students seldom rely on short-term fear or unconfirmed, optimistic market turnarounds.

Dual-process analysis of cognitive processing has the most influence over final decisions, indicating that student investors mainly use organized, analytical, and disciplined evaluations prior to making financial commitments. Intuition is utilized sparingly and mostly in situations where time is of the essence. Importantly, although individual behavioral biases strongly encourage participation in peer networks, these social circles somewhat mediate the effect, making up 22.4% of the total. This structural dynamic indicates that peer networks function as collaborative, safe clearinghouses for information sharing and consensus building rather than mechanisms for blind herd behavior. Lastly, macro-economic moderation checks show that weekly allowance only increases the expression of cognitive biases at the highest financial tier (more than PHP 5,000). This suggests that having more liquidity gives students the confidence to actively make decisions based on their behavioral shortcuts.

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REFERENCES

- Abriyanto, F., & Barusman, T. M. (2024). *The influence of financial literacy, socioeconomic status of parents and lifestyle on student Financial Behavior*. International Journal of Economics, Business and Innovation Research, 3(2). <https://share.google/sQI2JBRFn3qjazWSL>
- Ateneo de Manila University. (2025). *Cost of Living | Student Life | College | Ateneo de Manila University*. <https://www.ateneo.edu/college/cost-of-living>
- Azimi, M. (2024). *Probability weighting and equity premium prediction: Investing with optimism*. https://www.researchgate.net/publication/385671744_Probability_weighting_and_equity_premium_prediction_Investing_with_optimism
- Balakina, O., & Stockler, G. (2025). *Peer Effects in Multi-Layer Networks: evidence from financial behavior*. Department of Household Finance, Leibniz Institute for Financial Research SAFE. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4058371
- Berthet, V. (2021). *The measurement of individual differences in cognitive biases: A review and improvement*. Frontiers in Psychology, 12, Article 630177. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2021.630177/full>
- Carpenter, J., & Munro, D. (2025). *Do losses trigger deliberative reasoning?* Judgment and Decision Making, 20. <https://doi.org/10.1017/jdm.2024.19>
- De Leon, J. (2025). *Behavioral Finance: Influencing Investment Decisions in the Philippine Equity Market*. <https://cognizancejournal.com/vol5issue4/V5I436.pdf>
- Egbaria, H., & Zaid, J. (2023). *The Association of Personality Traits and Decision-Making Styles among Arab Undergraduate Students in Israeli Universities*. International Journal of Social Science Humanity & Management Research, 2(04). <https://doi.org/10.58806/ijsshmr.2023.v2i4n06>
- Enke, B., Uri Gneezy, Hall, B., Martin, D. C., Vadim Nelidov, Offerman, T., & van. (2021). *Cognitive Biases: Mistakes or Missing Stakes?* RePEc: Research Papers in Economics. <https://doi.org/10.3386/w28650>
- Gayares, Z., Moberg, A., & Sy, N. *Emerging commercial spaces in education*. <https://theguidon.com/2024/11/emerging-commercial-spaces-in-education/>
- Ghanad, A. (2023). *An Overview of Quantitative Research Methods*. https://www.researchgate.net/publication/373370007_An_Overview_of_Quantitative_Research_Methods
- Giang, P. (2024). *The Impact of social influences on Investment Decision-Making: A Multi-Method Analysis of Vietnamese Investors*. Journal of Economics, Finance and Management Studies, 7(12), 6978–6989. <https://ijefm.co.in/v7i12/Doc/5.pdf>
- Girshina, A., Matha, T., & Ziegelmeyer, M. (2020). *Peer effects in stock market participation: Evidence from immigration*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3515394
- Gunawan, T. I. (2024). *Understanding Investment decision-making: A qualitative inquiry into High-Frequency trading, investment strategies, and portfolio performance in the financial market*. Golden Ratio of Finance Management, 4(2). <https://goldenratio.id/index.php/grfm/article/view/431>
- Harris, L. (1988). *Predicting Contemporary Volume with Historic Volume at Differential Price Levels: Evidence Supporting the Disposition Effect: Discussion*. The Journal of Finance, 43(3), 698–699. <https://doi.org/10.2307/2328192>
- Kasoga, P. S. (2022). *Psychological Traits and investment Decisions: the mediation mechanism of financial management behavior – Evidence from the Tanzanian stock market*. Journal of Money and Business, 2(2), 213–227.

- <https://www.emerald.com/jmb/article/2/2/213/242119/Psychological-traits-and-investment-decisions-the>
- Kim, B. S., Kim, W., & Min, J. H. (2024). *Decision-Making Styles and Cognitive Biases: Experimental Results from a Korean Sample*. *Journal of Behavioral and Experimental Economics*, 102329. <https://doi.org/10.1016/j.socec.2024.102329>
- Lotto, J. (2023). *Demographic and Socio-economic Factors Influencing Households & Investment Choices in Tanzania: Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2176276>
- Lyngdoh, S. W., Das, S., & Das, T. (2025). Investment Intentions and Influential Factors among University Students. *International Research Journal of Multidisciplinary Scope*, 06(02), 1205–1218. <https://doi.org/10.47857/irjms.2025.v06i02.03848>
- Manila Standard Business (2025). Quezon City, Laguna listed as biggest city, provincial economies. https://manilastandard.net/business/314647038/quezon-city-lagunalisted-as-biggest-city-provincialecconomies.html?fbclid=IwY2xjawPpzx5leHRuA2FlbQlXMAbIcmIkETFoM2sweEdwcHRqcXd0bjFOc3J0YwZhchBfaWQQMjlyMDM5MTc4ODlwMDg5MgABHgTrLgpSVGUYi9tIHdvGzrLn2210JdJSxhnO_yIU0HQdbXIGla1XXMiQ3nVx_aem_VRprV1QZh3wM5GHEShDyOg
- Mahfooz, K., Saidalavi, Birau, R., Popescu, V., Mărgăritescu, S., & Lupu, G. A. M. (2025). View of Impact of framing Effect and Financial Behavior: A review of Cognitive Bias in Investment decisions. *International Journal of Accounting and Economics Studies*, 12(8), 939–943. <https://www.sciencepubco.com/index.php/IJAES/article/view/37311/19786>
- Mahmood, F., Arshad, R., Khan, S., Afzal, A., & Bashir, M. (2024). *Impact of behavioral biases on investment decisions and the moderation effect of financial literacy; An Evidence of Pakistan*. *Acta*. <https://www.sciencedirect.com/science/article/pii/S000169182400180X#s0005>
- Migliani, V. (2024). Understanding the Effect of Peers on the Financial Attitude and Financial Behaviour of Women in Kaithal, Haryana. *International Journal of Social Science Research and Review*, 7(8), 151–164. <https://doi.org/10.47814/ijssrr.v7i8.2221>
- Nasrin, K. (2025). "Financial Literacy and Its Effect on Investment Decisions: A Review of Recent Literature", *Business & Social Sciences*, 3(1), 1-10, 10268. <https://publishing.emanresearch.org/Journal/abstract/business-3110268>
- Nguyen, X. H., Bui, D. A., Le, N. A., & Nguyen, Q. T. (2025). The role of fear of missing out (FOMO), loss aversion, and herd behavior in gold investment decisions: A study in the Vietnamese market. *International Journal of Financial Studies*, 13(3), 175. [https://www.mdpi.com/2227-7072/13/3/175#:~:text=In%20the%20financial%20context%2C%20the,et%20al.%2C%202020\).](https://www.mdpi.com/2227-7072/13/3/175#:~:text=In%20the%20financial%20context%2C%20the,et%20al.%2C%202020).)
- Phuong Giang Dang. (2024). The impact of social influences on investment decision-making. *Journal of Economics, Finance and Management Studies*, 7(12), 101–115. <https://doi.org/10.47191/jefms/v7-i12-05>
- Philippine Institute for Developmental Studies (2023). *‘Upper middle class’ dream (Editorial piece by Concept News Central*. <https://www.pids.gov.ph/details/news/in-the-news/upper-middle-class-dream-editorial-piece-by-concept-news-central#:~:text=%27Upper%20middle%20class%27%20dream%20%28,them%20residing%20in%20Urban%20areas>
- Sattar, M., & Toseef, M. (2020). *Behavioral Finance Biases in Investment Decision Making*. <https://www.sciencepublishinggroup.com/article/10.11648/j.ijafrm.20200502.11>
- Siratan, E., Tannia, T., & Susilo, S. R. (2024). *The influence of behaviour finance and demographic factors on investment decision making through risk tolerance as mediation*. *Dinasti International Journal of Economics Finance & Accounting*, 4(6), 807–815.

- https://www.researchgate.net/publication/378400552_The_Influence_of_Behaviour_Finance_and_Demographic_Factors_on_Investment_Decision_Making_Through_Risk_Tolerance_as_Mediation
- Suresh, G. (2021). *Impact of Financial Literacy and Behavioral Biases on Investment Decision-making*. <https://journals.sagepub.com/doi/full/10.1177/23197145211035481>
- TGM Research (2025). *What is Purposive Sampling? 17 Types, Techniques, & Examples*. <https://tgmresearch.com/purposive-sampling.html>
- Wang, G., & Hu, W. (2021). Peer Relationships and College Students' Cooperative Tendencies: Roles of Interpersonal Trust and Social Value Orientation. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.656412>
- Zeif, D., & Yechiam, E. (2023). Loss aversion (simply) does not materialize for smaller losses. *Judgment and Decision Making*, 17(5), 1015–1042. <https://www.cambridge.org/core/journals/judgment-and-decision-making/article/loss-aversion-simply-does-not-materialize-for-smaller-losses/5B1998E9F1E47F3006235CC57AB51AB7>
- Zhang, M., Nazir, M. S., Farooqi, R., & Ishfaq, M. (2022). Moderating role of information asymmetry between cognitive biases and investment decisions: A mediating effect of risk perception. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8982708/>
- Zhou, J. (2023). *A Review of the Relationship Between Loss Aversion Bias and Investment Decision-making Process*. https://www.researchgate.net/publication/375551265_A_Review_of_the_Relationship_Between_Loss_Aversion_Bias_and_Investment_Decision-making_Process