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## Vulnerability of Boholano Towards Investment Frauds

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### ABSTRACT

Investment fraud persists as long as individuals continue to trust and follow misleading schemes, causing significant harm not only to victims but also to the broader economy. This study aimed to examine the demographic profile, vulnerability, behavioural characteristics, and psychological mindset of fraud victims in Bohol who have engaged in fraudulent investment activities. Using a descriptive research design, data were collected from identified victims to analyse patterns associated with susceptibility. The findings indicate that while there is no single profile of a fraud victim, certain trends emerge: individuals who are female, aged 18 to 40, married, college educated, employed full time, and earning less than 10,000 monthly income appear to be more vulnerable. The study further reveals that behavioural characteristics and psychological mindset significantly influence an individual's likelihood of engaging in fraudulent investments. Despite these patterns, victimization is not deterministic, and individuals are not inevitably prone to repeated fraud experiences. A comprehensive understanding of the interplay among demographic factors, vulnerability, behaviour, and mindset can contribute to the development of early warning mechanisms and targeted interventions. Such insights may help individuals make informed financial decisions and protect themselves and others from fraudulent investment and relocation scams in the future.

### INTRODUCTION

Investment fraud remains a persistent global concern, rooted in long-standing human tendencies toward deception and the desire for financial gain. The promise of quick wealth with minimal effort continues to attract individuals seeking to meet both basic needs and aspirational goals, such as financial security, education, travel, and improved quality of life. However, these motivations also make individuals vulnerable to fraudulent schemes that exploit trust and financial ambition. Despite the widespread impact of financial fraud, the lived experiences and underlying vulnerabilities of victims remain insufficiently understood.

Financial fraud, particularly investment fraud, represents one of the most pervasive and damaging forms of economic crime. It encompasses schemes such as Ponzi schemes, pyramid schemes, online scams, and high-yield investment programs that rely on misinformation and deception for monetary gain (Beals DeLiema & Deevy, 2015). Previous studies suggest that while victims vary demographically, many share behavioral and psychological traits that increase susceptibility, including overconfidence, risk tolerance, and trust in seemingly credible sources. Moreover, victims often hesitate to report incidents due to embarrassment or fear of social stigma (Applied Research & Consulting LLC, 2013), further complicating prevention and intervention efforts. Historically, investment fraud has manifested in large-scale scandals, from early Ponzi schemes in the 1920s to more recent global cases such as the Madoff investment scandal in 2008. In the Philippines, similar incidents have

significantly affected public trust and economic stability, including the Legacy Group (2009), Aman Futures (2012), and KAPA Community Ministry International (2017). The rise of digital platforms has further amplified the reach of fraudulent schemes, enabling operations such as Pluggle Incorporated to proliferate rapidly, particularly in local contexts like Bohol, where many individuals were enticed through social media despite regulatory warnings from authorities.

The increasing accessibility of online investment platforms, coupled with the rapid advancement of technology relative to regulatory frameworks, has created an environment in which fraudulent schemes can thrive. While regulatory bodies continue to monitor formal financial institutions, many fraudulent operations operate outside these systems, posing ongoing challenges to enforcement and public protection. In developing economies such as the Philippines, these schemes often achieve widespread reach, with significant social and economic consequences.

Despite existing efforts to identify vulnerable populations, there remains a critical need to understand why individuals fall victim to fraudulent investments. This study addresses this gap by examining the demographic profile, vulnerability, behavioral characteristics, and psychological mindset of Boholano fraud victims. Grounded in prospect theory, which explains how individuals make decisions under uncertainty and perceive gains and losses differently (Kahneman & Perttunen, 2004), the study seeks to uncover the cognitive and behavioral factors influencing investment decisions in risky environments.

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The findings aim to contribute to the development of a targeted anti-fraud education module designed to reduce susceptibility, prevent repeat victimization, and promote informed investment decision-making among potential investors.

## LITERATURE REVIEW

Investment decision-making is largely shaped by uncertainty, as explained by prospect theory, which posits that individuals evaluate gains and losses differently under risky conditions (Kahneman & Tversky, 2004). In such environments, investors are compelled to make decisions despite incomplete information, increasing their exposure to potential losses (Taylor, 1974). Behavioral finance theory further suggests that investors do not always act rationally, even when equipped with sufficient knowledge, as their decisions are often influenced by cognitive biases and heuristics (Thaler, 1985; Ritter, 2003). Market dynamics also play a crucial role, to minimize perceived risk (Waweru *et al.*, 2008; Caparrelli *et al.*, 2004).

Behavioral biases such as overconfidence significantly affect investment decisions, as investors tend to overestimate their knowledge and abilities, resulting in excessive trading and increased risk-taking (Odean, 1998; Oberlechner & Osler, 2004). This is reinforced by familiarity with market information, which may create a false sense of control (Evans, 2006). Similarly, the feedback loop theory explains how perceived success of others encourages more individuals to invest, creating a cycle that increases vulnerability to fraudulent schemes (Simati, 2018). Gullibility further contributes to this vulnerability, as individuals may ignore warning signs and engage in risky behavior due to manipulation and persuasion (Greenspan, 2009). The principles of influence, including reciprocity, social proof, authority, and commitment, explain how individuals can be persuaded to make irrational financial decisions, often leading to conformity and groupthink (Cialdini, 2001).

Access to information is another critical factor in investment decision-making. Investors who actively seek and evaluate relevant market information are better able to manage risk and reduce uncertainty (Lin, 2002; Fodness & Murray, 1997). However, reliance on informal or unverified sources, such as peer recommendations or unsolicited offers, increases exposure to fraudulent schemes (Baker & Nofsinger, 2002; Loibl & Hira, 2009). The relationship between demographic characteristics and fraud victimization remains inconclusive. Some studies suggest that victims tend to be more educated, married, and financially stable (AARP, 2003; Consumer Fraud Research Group, 2006), while others indicate that lower-income individuals are more vulnerable due to financial pressure (Federal Trade Commission, 2004; Kerley & Copes, 2002). Age-related findings are also mixed, with some evidence showing that fraud victimization decreases with age, while younger individuals are more likely to report such experiences (AARP, 2003). Gender differences vary across studies, with some indicating that

men are more prone to investment fraud and others finding no significant relationship (Kerley & Copes, 2002). Additionally, financial literacy does not necessarily protect individuals from fraud, as even well-informed investors may fall victim due to psychological influences (Consumer Fraud Research Group, 2006; AARP, 2007; AARP, 2008).

Behavioral characteristics have been consistently linked to fraud vulnerability. Individuals with higher risk tolerance and openness to external information are more likely to engage in risky financial decisions (Van & Benson, 1997; Schoepfer & Piquero, 2009). Prior victimization also increases the likelihood of future exposure, suggesting a pattern of repeated susceptibility (Office of Fair Trading, 2009; Applied Research and Consulting LLC, 2013). Furthermore, victims tend to rely on social recommendations and may invest without conducting thorough analysis, reflecting a preference for convenience and trust over critical evaluation (Simati, 2018).

Psychological factors also play a significant role in fraud victimization. Individuals who equate wealth with success are more likely to be attracted to high-return investment opportunities despite associated risks (Simati, 2018). Emotional influences, such as dissatisfaction with one's financial condition, further increase susceptibility to fraud (Consumer Fraud Research Group, 2006). Moreover, investors often exhibit irrational behavior by allowing emotions to override objective assessment of market fundamentals (Tsang, 2002).

Empirical studies support these findings by highlighting the importance of trust, social influence, and psychological predispositions. Trust and affinity have been shown to significantly increase vulnerability to Ponzi schemes, as individuals are more likely to invest when influenced by credible or familiar sources (Amoah, 2018; Engel & McCoy, 2011). Additionally, financial literacy alone does not prevent fraud victimization, as psychological factors such as greed and overconfidence continue to influence decision-making (Hidayat, 2018). Other studies emphasize the role of investment policies, information processing, and economic expectations in shaping risky financial decisions (Obamuyi, 2013; Qadri & Shabbir, 2014). Research also indicates that fraud victims tend to value wealth accumulation, exhibit higher risk tolerance, and are more receptive to persuasive communication compared to the general population (Shadel & Pak, 2017). Despite the breadth of existing literature, inconsistencies remain regarding the influence of demographic, behavioral, and psychological factors on fraud victimization. Furthermore, there is limited research focusing on localized contexts such as Bohol, where socio-economic and cultural factors may shape investment behavior differently. This study addresses these gaps by examining the demographic profile, vulnerability, behavioral characteristics, and psychological mindset of Boholano fraud victims, and by analyzing the relationships among these variables to better understand susceptibility to fraudulent investment schemes.

**MATERIALS AND METHODS**

This study employed an exploratory–descriptive research design using a quantitative approach to examine the vulnerability, behavioral characteristics, and psychological mindset of fraud victims. A total of 380 respondents from Daus and Panglao, Bohol, who had experienced fraudulent investment schemes, participated in the study. A snowball sampling technique was utilized, wherein initial respondents referred other qualified participants, enabling the identification of individuals who met the study criteria.

Data were collected utilizing a structured questionnaire adapted from established instruments, specifically the “AARP Investment Fraud Vulnerability” by Shadel and Pak (2017) and the study on behavioral factors influencing investor decision-making by Luong and Ha (2011). The questionnaire consisted of four sections. Section I gathered demographic information, including age, civil status, educational attainment, income level, and employment status. Section II measured respondents’ level of vulnerability to investment fraud using a four-point Likert scale. Section III assessed behavioral characteristics across four dimensions—prospect, market, herding, and overconfidence—comprising 13 items adapted from Luong and Ha (2011). Section IV examined psychological mindset based on four variables: wealth as a measure of success, openness to sales pitches, risk-taking, and preference for unregulated investments (Shadel & Pak, 2017).

The instrument used a modified four-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree.” A pilot test was conducted among 15 identified fraud victims to assess reliability and clarity. Internal consistency testing using Cronbach’s alpha yielded a coefficient of  $\alpha = 0.885$ , indicating high reliability. Ethical considerations were strictly observed, including securing informed consent, ensuring voluntary participation, addressing respondents’ queries, and maintaining confidentiality and anonymity throughout the study.

Following approval to conduct the research, questionnaires were distributed to the respondents. Collected data were coded, tabulated, and analyzed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequency counts and percentages, were used to analyze demographic variables, while weighted mean was applied to determine levels of vulnerability, behavioral characteristics, and psychological mindset.

A normality test using the Shapiro–Wilk test ( $n > 100$ ) indicated that the data were not normally distributed; hence, non-parametric statistical tests were employed. The Chi-square test was used to examine relationships between demographic profile and vulnerability, behavioral characteristics, and psychological mindset, as well as the relationships among vulnerability, behavior, and psychological mindset. The Kruskal–Wallis test was applied to determine significant differences in the dimensions of behavioral characteristics and psychological mindset.

**Table 1:** Demographic Profile of The Respondents

Items	Frequency	Percent	Rank
<b>Age (in years)</b>			
18-40	282	74.2	1
41-65	92	24.2	2
66 and above	6	1.6	3
<b>Sex</b>			
Female	207	54.5	1
Male	173	45.5	2
<b>Civil Status</b>			
Single	145	38.2	2
Married	180	47.4	1
Live-in	36	9.5	3
Separated	16	4.2	4
Widow/Widower	3	0.8	5
<b>Educational Attainment</b>			
Elementary Level	8	2.1	8
Elementary Graduate	16	4.2	7
Highschool Level	81	21.3	3
Highschool Graduate	48	12.6	4
College Level	91	23.9	1
College Graduate	85	22.4	2
Professional Level	30	7.9	5
Professional Graduate	21	5.5	6

<b>Monthly Income</b>			
Less than 10,000	173	45.5	1
10,000 - 19,000	107	28.2	2
20,000 - 29,000	62	16.3	3
30,000 - 39,000	13	3.4	5
40,000 - 49,000	5	1.3	6
50,000 and above	20	5.3	4
<b>Employment Status</b>			
Employed Full-time	181	47.6	1
Self Employed	86	22.6	2
Retired and not working	16	4.2	6
Unemployed and looking for work	24	6.3	5
Homemaker	34	8.9	3
Student	32	8.4	4
Others	7	1.8	7

**RESULTS AND DISCUSSION**

Table 1 presents the demographic profile of the respondents. This analysis suggested that the majority whose ages range between 18-40 or the working age were the ones who fall prey to fraudulent investments. Additionally, the data presents that as the age of the respondents' increases, fraud victimization decreases. This appears to be consistent with AARP (2003) and (Anderson 2004; Anderson 2007) who concluded that younger individuals feel free to admit to being the victim, when compared to older individuals. (Anderson 2004) found that older consumers were three times less likely to be victims of personal fraud than younger consumers. The majority of females are more vulnerable to fraudulent investment than male. The result does not affirm most of the research conducted by AARP (2003) and Simati. (2018),” which found out that a larger proportion of fraudulent investment victims are males.

The data implies that the investment fraud victims are significantly more likely to be married which comprise 47% of the total respondents. This is significantly consistent with the study of Simati (2018) and (Consumer Fraud Research Group 2006; AARP (2003),” that more fraudulent investment victims are married individuals. Highest among the ranks is represented by fraud victims who attended college 91 (23.9%) followed by 85 (22.4%)

who gained college degrees. This implies that high educational attainment is not a guarantee of not falling into fraudulent investment activities. The result affirmed with the study of (The Consumer Fraud Research Group 2006) research that investment fraud victims tended to be college-educated, financially literate have higher education compared to the general public. Meanwhile, other studies concluded that people who completed a master’s degree or higher were less likely to fall into fraudulent activities which also confirm with the result of the study conducted.

The analysis suggested that those people with a lower income bracket are more likely to fall prey to fraudulent investments. The finding agreed with the studies of the Federal Trade Commission, (2004) and Kerley and Copes (2002), which indicated that lower-income people are more likely to fall prey to fraud victimization. The majority of the Boholano fraud victims were full-time employees. This agrees with the study of AARP (2003) which stated that victims of investment fraud have been found to be working and earning higher income relative to victims of other financial fraud crimes.

As shown in table 2, the majority of the respondents were highly vulnerable in making fraud investment decisions. The study also showed that the respondents agreed to be very highly vulnerable in receiving invitations from

**Table 2:** Level of Vulnerability to Fraudulent Investments

SL	ITEM(S)	WM	DV	RANK
1	I made an investment decision like selling one stock and buying another or investing in something new.	3.50	VHV	1
2	I received invitations from investment sales people trying to get me to invest money.	3.26	VHV	2
3	I made an investment in response to any of the following?			
	a. A solicitation received from social Media	2.89	HV	7
	b. A phone call/ text I received from someone I did not know	2.53	HV	10
	c. A presentation I attended in person as part of a free lunch or snacks	2.94	HV	5
	d. A presentation/ talk with someone I know	3.06	HV	3

4	Some of the most important achievements in life include acquiring money.	2.96	HV	4
5	The most profitable financial returns are often found in investments that are not regulated by the government	2.88	HV	8
6	I don't mind taking chances with my money, as long as I think there's a chance it might pay off.	2.84	HV	9
7	I'd like to keep my eyes and ears open to emerging investment opportunities that no one has heard about yet.	2.91	HV	6
	Composite Mean	2.98	HV	

*Parameters:*

1.00 - 1.74 (VLV) *Very Low Vulnerability Level*

1.75 - 2.49 (LV) *Low Vulnerability Level*

2.50 - 3.24 (HV) *High Vulnerability Level*

3.25 - 4.00 (VHV) *Very High Vulnerability Level*

investment sales people, with a weighted mean of 3.26 and are highly vulnerable in responding to invitations through presentation/ talk with someone they know (WM = 3.06), a phone call/ text, social media solicitation (WM = 2.89) and a free lunch presentation (WM = 2.94). The literature on consumer fraud suggested that fraud victims make themselves vulnerable by their willingness to listen to sales pitches Consumer Fraud Research Group (2006) in which this study affirmed those findings. The findings also suggested that respondents are highly

vulnerable in taking chances with money, as long as they thought that there was a chance of paying off their investment. This finding supported the proposition that most fraud victims were more optimistic. Vulnerability in and of itself may contribute to a kind of "wishful thinking" mentality that could be exploited by a skilled con criminal (Consumer Fraud Research Group, 2006). In terms of financial returns of investment, the result showed that the respondents were highly vulnerable to invest in investment opportunities that are likely not regulated by the government and not known to many. Table 3 shows that respondents exhibit high behavioral characteristics overall, with a weighted mean of 2.92. Among the four variables, market behavior has the highest coefficient, with a weighted mean of 3.07,

**Table 3:** Summary of Behavioural Characteristics

ITEM	WM	DV
Prospect	2.89	High Behavioral Characteristics
Market	3.07	High Behavioral Characteristics
Herding	2.90	High Behavioral Characteristics
Overconfidence	2.90	High Behavioral Characteristics

*Parameters:*

1.00-1.74 *Very Low Behavioral Characteristic*

1.75-2.49 *Low Behavioral Characteristic*

2.50-3.24 *High Behavioral Characteristic*

3.25-4.00 *Very High Behavioral Characteristic*

indicating that it is the most significant predictor of behavioral characteristics among Boholano fraud victims. This suggests that when making investment decisions, respondents tend to overreact or underreact to changes in investment prices, making them more susceptible to misleading market signals. Specifically, respondents demonstrate high prospect behavioral characteristics, with a weighted mean of 2.89. This indicates that when making investment decisions under uncertainty, they tend to evaluate gains and losses differently, placing greater emphasis on perceived gains than on potential losses. This behavior supports the findings of Velumoni (2017), which concluded that investment decisions are influenced by behavioral factors such as prospect theory, loss aversion, regret aversion, and mental accounting. Furthermore, the high market behavioral characteristic, with a weighted mean of 3.07, suggests that respondents are highly sensitive to market price movements. They tend to overreact or underreact to fluctuations, often

interpreting price changes as strong signals for investment decisions. This finding is consistent with Waweru *et al.* (2008), which indicated that price differences can act as attention-grabbing occurrences that influence investor behavior.

In addition, respondents' investment decisions are significantly influenced by the actions of other investors. They tend to follow what they perceive others are doing rather than relying on their own independent judgment. This reflects the herding effect and supports the study of Caparrelli, Arcangelis, and Cassuto (2004), which found that investors often move collectively, especially during periods of price change.

The table also indicates that respondents exhibit high behavioral characteristics in terms of overconfidence, with a weighted mean of 2.92. This implies that Boholano fraud victims tend to be overly confident in their knowledge and skills when making investment decisions. As a result, they may overestimate the value of certain investments and disregard relevant data or expert advice, increasing their exposure to risky or fraudulent schemes. These behavioral tendencies contribute to their vulnerability to scams. The findings are consistent with the studies of Odean (1998), Evans (2006), and Oberlechner and Osler (2004), which suggest that overconfident

investors tend to trade excessively in areas they believe they understand well. Such investors rely heavily on their perceived knowledge and available market information, often without sufficient critical evaluation.

Table 4 presents the four variables of psychological mindset. The results show that respondents place a high value on wealth as a measure of success, with a weighted mean of 2.82. This indicates that many Boholano fraud

**Table 4:** Summary of Psychological Mindset

ITEM(S)	WM	DV
Wealth as a success measure	2.82	HPM
Open to sales pitches	2.83	HPM
Risk-taking	2.85	HPM
Prefer unregulated investments	2.85	HPM
Composite Mean	2.85	HPM

*Parameter:*

1.00-1.74 VLPM *Very Low Psychological Mindset*

1.75-2.49 LPM *Low Psychological Mindset*

2.50-3.24 HPM *High Psychological Mindset*

3.25-4.00VHPM *Very High Psychological Mindset*

victims believe that success in life is largely defined by the accumulation of money. Such a mindset may contribute to their vulnerability to scams, as individuals who strongly prioritize financial gain are more likely to be attracted to investment opportunities that promise substantial returns. This finding aligns with the study of Shadel and Pak (2017), which suggests that fraud victims tend to view wealth accumulation as a key indicator of success. Moreover, Boholano fraud victims demonstrate a strong openness to emerging investment opportunities that are not widely known. This is consistent with the findings of the FINRA Foundation (2007) and AARP (2007, 2008), which indicate that fraud victims are generally more receptive to unfamiliar or external investment offers. In addition, respondents show a high tendency to invest based on recommendations from friends or relatives. This reliance on social influence further increases their susceptibility to fraudulent schemes.

The respondents also exhibit a high financial risk-taking mindset, with a weighted mean of 2.85. This suggests that they are willing to take significant risks in pursuit of high returns, even in potentially fraudulent investments such as Ponzi schemes. Notably, the statement “willing to receive investment offers because you never know when something great might come along” received the highest rating, with a weighted mean of 2.92. This reflects a strong optimism and willingness to gamble their

hard-earned money in the hope of financial gain. Such risk-taking behavior heightens their exposure to fraud victimization. This finding is consistent with Shadel and Pak (2017), who reported that fraud victims are generally more inclined to take financial risks compared to the broader investor population.

Furthermore, Boholano fraud victims show a strong preference for unregulated investments, with a weighted mean of 2.85. This indicates that many respondents believe that the most profitable opportunities exist outside government regulation. However, this belief contradicts fraud prevention guidelines, which emphasize the importance of dealing only with registered brokers and legitimate investment platforms. This finding is also consistent with Shadel and Pak (2017), who found that a preference for unregulated investments places individuals at a higher risk of fraud.

Overall, the respondents’ psychological mindset is rated as high, with an average weighted mean of 2.85. Among the variables, risk-taking behavior and preference for unregulated investments have the highest coefficients. This suggests that Boholano fraud victims are more likely to believe that greater profits come from high-risk and unregulated ventures, making them more vulnerable to fraudulent schemes. The results of the study indicate that respondents’ investment decisions are significantly influenced by these psychological tendencies, particularly those rooted in irrational or overly optimistic thinking.

Table 5 presents the statistical relationship between the respondents’ demographic profile and their level of vulnerability to fraud, showing varied results. The findings reveal that age and educational attainment are

**Table 5:** Summary of Demographic Profile and Level of Vulnerability

Demographic profile	Result of statistical treatment	Analysis
Age	p-value of 0.003 < 0.05	Significant; Ho = rejected ; positive relationship
Sex	p-value of 0.631 > 0.05	Insignificant; Ho = accepted ; no relationship
Civil Status	p-value of .470 > 0.05	Insignificant; Ho = accepted ; no relationship
Education	p-value of 0.035 < 0.05	Significant; Ho = rejected ; positive relationship

Employment	p-value of 0.105 > 0.05	Insignificant; Ho = accepted; no relationship
Monthly Income	p-value of 0.105 > 0.05	Insignificant; Ho = accepted; no relationship

significantly related to vulnerability, while sex, civil status, and employment status show no significant relationship. The significance of age suggests that certain age groups may be more susceptible to fraudulent schemes due to differences in experience, financial literacy, or exposure to investment opportunities. For instance, younger individuals may lack sufficient experience and critical judgment in evaluating investment offers, while older individuals may be more trusting or targeted by scammers due to perceived financial stability. This variation in life stage and decision-making capacity can influence how individuals respond to potential fraud. Similarly, educational attainment plays a crucial role in shaping vulnerability. Although higher education is often associated with better financial knowledge, it may also lead to overconfidence in one's ability to assess investment opportunities. Educated individuals may feel more capable of identifying profitable ventures, making them more likely to engage in complex or high-risk investments, including fraudulent schemes. This may explain why education, rather than serving as a protective factor, can sometimes increase susceptibility to fraud. On the other hand, the lack of significant relationship between vulnerability and sex, civil status, and

employment status suggests that fraud schemes cut across these demographic boundaries. This implies that scammers do not necessarily target individuals based on these characteristics, or that these factors do not strongly influence decision-making in investment contexts. These findings are consistent with previous studies indicating that certain demographic variables—such as age, gender, income, education, and marital status—are associated with fraud vulnerability. According to AARP (2003), investment fraud victims tend to be more educated and have higher income levels than non-victims. Likewise, the Consumer Fraud Research Group (2006) reported that victims are more likely to be married. Overall, the results suggest that vulnerability to fraud is not solely determined by basic demographic characteristics but is more strongly influenced by factors such as life experience, cognitive judgment, and perceived financial competence. Age and education, in particular, play a significant role in shaping how individuals evaluate and respond to investment opportunities, thereby affecting their susceptibility to fraudulent schemes. Table 6 indicates that there is a significant relationship between age and employment status and the behavioral characteristics of the respondents; therefore, the null hypothesis is rejected for these variables. This suggests that

**Table 6:** Summary of Demographic Profile and Behavioral

Demographic profile	Result of statistical treatment	Analysis
Age	p-value of .012 < 0.05	Significant; Ho = rejected ; positive relationship
Sex	p-value of 0.357 > 0.05	Insignificant; Ho = accepted ; no relationship
Civil Status	p-value of .606 > 0.05	Insignificant; Ho = accepted ; no relationship
Education	p-value of 0.114 > 0.05	Insignificant; Ho = accepted ; no relationship
Employment	p-value of .000 < 0.05	Significant; Ho = rejected ; positive relationship
Monthly Income	p-value of .549 > 0.05	Insignificant; Ho = accepted ; no relationship

differences in age and employment status influence how respondents behave when making investment decisions. On the other hand, sex, civil status, educational attainment, and monthly income show no significant relationship with behavioral characteristics; thus, the null hypothesis is accepted for these variables. This implies that these demographic factors do not substantially affect the behavioral tendencies of respondents in the context of investment decision-making. Overall, the findings suggest that behavioral characteristics

are more closely associated with factors related to life stage and occupational engagement rather than basic demographic attributes such as gender, marital status, level of education, or income. Table 7 shows that there is a significant relationship between the respondents' employment status and monthly income and their psychological mindset; therefore, the null hypothesis is rejected for these variables. This indicates that individuals' work status and level of income influence how they perceive and approach investment

**Table 7:** Summary of Demographic Profile and Psychological Mindset

Demographic profile	Result of statistical treatment	Analysis
Age	p-value of .095 > 0.05	Insignificant; Ho = accepted ; no relationship
Sex	p-value of 0.091 > 0.05	Insignificant; Ho = accepted ; no relationship
Civil Status	p-value of .415 > 0.05	Insignificant; Ho = accepted ; no relationship
Education	p-value 0.192 > 0.05	Insignificant; Ho = accepted ; no relationship
Employment	p-value.000 < 0.05	Significant; Ho = rejected ; positive relationship
Monthly Income	p-value .006 < 0.05	Significant; Ho = rejected ; positive relationship

decisions, including their attitudes toward risk, financial success, and investment opportunities.

In contrast, age, sex, civil status, and educational attainment show no significant relationship with psychological mindset; hence, the null hypothesis is accepted for these variables. This suggests that these demographic factors do not substantially affect the respondents' underlying beliefs, attitudes, and perceptions regarding investments. Overall, the findings imply that economic-related factors, particularly employment and income, play a more important role in shaping psychological mindset compared

to basic demographic characteristics. This may be because individuals with stable employment and higher income levels have greater exposure to financial decision-making and investment opportunities, which in turn influences their mindset toward risk and financial gain.

Table 8 shows a significant value (2-tailed) of .000, which is lower than the .01 level of significance. The results indicate a moderate positive correlation between the respondents' level of vulnerability and their behavioral characteristics. This means that behavioral characteristics have a positive influence on respondents' vulnerability

**Table 8:** Relationship between Level of Vulnerability and Investors' Behavioural Characteristics

Correlations				
Spearman's rho	Vulnerability	Correlation Coefficient	1.000	.651**
		Sig. (2-tailed)		0.000
		N	380	380
	Behavioral	Correlation Coefficient	.651**	1.000
		Sig. (2-tailed)	0.000	
		N	380	380

\*\**. Correlation is significant at the 0.01 level (2-tailed).*

*Results: Significant, Moderate Positive Correlation; Ho = rejected*

to investing in Ponzi schemes and other fraudulent investments. Therefore, the null hypothesis is rejected.

This finding suggests that individuals with stronger behavioral tendencies—such as susceptibility to external influence, overconfidence, and reactive decision-making—are more likely to become vulnerable to fraudulent investment schemes. In particular, these behavioral patterns may lead individuals to make investment decisions with limited analysis or excessive reliance on external recommendations, increasing their risk of victimization.

This result is consistent with the findings of Simati (2018),

which revealed that many fraud victims tend to invest based on recommendations from friends or acquaintances without conducting thorough research. Such behavior reduces critical evaluation in decision-making, thereby increasing exposure to fraudulent investment schemes.

Table 9 presents the Spearman's correlation analysis used to determine the relationship between respondents' vulnerability to fraudulent investments and their psychological mindset. The results show a significance value (2-tailed) of .000, which is lower than the .01 level of significance. This indicates a significant relationship

**Table 9:** Relationship between Level of Vulnerability and Psychological Mindset

Correlations				
Spearman's rho	Vulnerability	Correlation Coefficient	1.000	.641**
		Sig. (2-tailed)		0.000
		N	380	380

	Behavioral	Correlation Coefficient	.641**	1.000
		Sig. (2-tailed)	0.000	
		N	380	380

\*\* Correlation is significant at the 0.01 level (2-tailed).

Results: Significant, Moderate Positive Correlation; Ho = rejected

between the vulnerability of Boholano fraud victims and their psychological mindset. Therefore, the null hypothesis is rejected.

The findings suggest that individuals' psychological mindset plays a significant role in their susceptibility to fraudulent investments. Specifically, those who exhibit higher risk tolerance, optimistic thinking, and engagement in risky financial behaviors are more likely to become victims of fraud. These psychological tendencies influence how individuals perceive investment opportunities and how they respond to persuasive financial offers.

This result is consistent with the studies of Van & Benson

(1997) and Schoepfer & Piquero (2009), which found that individuals with high-risk tolerance and a tendency toward risky behaviors are more vulnerable to fraud victimization. Additionally, AARP (2003) noted that fraud victims are more responsive to persuasive statements, making them more susceptible to deceptive investment schemes.

Table 10 presents the Spearman's correlation analysis used to determine the relationship between respondents' behavioral characteristics and their psychological mindset. The results show a significance value (2-tailed) of .000, which is lower than the .01 level of significance. This indicates that there is a significant correlation between

**Table 10:** Relationship between Behavioural Characteristics and Psychological Mindset

Correlations				
Spearman's rho	Vulnerability	Correlation Coefficient	1.000	.623**
		Sig. (2-tailed)		0.000
		N	380	380
	Behavioral	Correlation Coefficient	.623**	1.000
		Sig. (2-tailed)	0.000	
		N	380	380

\*\* Correlation is significant at the 0.01 level (2-tailed).

Results: Significant, Moderate Positive Correlation; Ho = rejected

the behavioral characteristics of Boholano fraud victims and their psychological mindset. Therefore, the null hypothesis is rejected.

This finding implies that both psychological mindset and behavioral characteristics jointly influence the investment decisions of the respondents. It suggests that these two factors are interconnected and work together in shaping how individuals evaluate and respond to investment opportunities, particularly those that may be fraudulent.

This result is supported by the studies of Simati (2018) and Shadel & Pak (2017), which highlight that investment

fraud victimization is influenced by a combination of psychological and behavioral factors. These studies emphasize that victims often exhibit overlapping tendencies in mindset and behavior that increase their vulnerability to fraudulent schemes.

Table 11 presents the results of the Kruskal-Wallis test used to measure the degree of variance among the behavioral characteristics dimensions. The Kruskal-Wallis H test indicates a significant difference among the behavioral characteristics variables, with a result of  $\chi^2(2) = 25.453$  and a p-value of .000, which is less than the

**Table 11:** Analysis of Variance between Behavioral Dimensions

Ranks			
Behavior_Group		N	Mean Rank
Behavior Dimensions	Prospect	380	722.93
	Market	380	856.30
	Herding	380	719.13
	Overconfidence	380	743.65
	Total	1520	
Test Statistics a,b			
		Behavior Dimensions	
Kruskal-Wallis H		25.453	
df		3	

Asymp. Sig.	0.000
a. Kruskal Wallis Test	
b. Grouping Variable: Behavior_Group	

Results: Significant; Ho: Rejected

.05 level of significance. Therefore, the null hypothesis is rejected.

This finding suggests that there are meaningful differences in the levels of behavioral characteristics across the identified dimensions. It implies that certain behavioral traits may be more dominant or influential than others in shaping respondents' investment decisions, particularly in the context of fraudulent investments.

As shown in Table 12, the Kruskal-Wallis test was used since the data did not follow a normal distribution. It measured the degree of variance among the psychological mindset dimensions. The Kruskal-Wallis H test revealed that there is no significant difference among the psychological mindset variables, with  $\chi^2(2) = 2.320$  and a p-value of .509, which is greater than the .05 level of significance. Therefore, the null hypothesis is accepted.

**Table 12:** Variance Psychological Dimensions

Ranks			
Psycho Mindset_Group		N	Mean Rank
Psycho Mindset Dimensions	Wealth	380	786.09
	Open	380	745.67
	Risk	380	744.55
	Prefer	380	765.70
	Total	1520	
Test Statistics,b			
		Psycho Mindset Dimensions	
Kruskal-Wallis H		2.320	
df		3	
Asymp. Sig.		0.509	
a. Kruskal Wallis Test			
b. Grouping Variable: PsychoMindset_Group			

Results: Insignificant ;Ho: Accepted

This indicates that the psychological mindset dimensions are relatively similar in terms of their influence, suggesting that no single dimension significantly differs from the others in shaping respondents' psychological mindset toward investment decisions.

### CONCLUSIONS

Based on the findings of this study, it is concluded that vulnerability to investment fraud among Boholano respondents is influenced by a combination of demographic, behavioral, and psychological factors. Certain demographic variables such as age and educational attainment are associated with vulnerability, while employment status and income are linked to psychological mindset, and age and employment are related to behavioral characteristics. These results indicate that both socioeconomic conditions and individual decision-making tendencies contribute to how individuals assess and respond to investment opportunities.

The results further show that individuals who are female, within the working-age group of 18 to 40 years old, married, college-educated, employed full-time, and earning a monthly income of less than 10,000 tend to be

more vulnerable to fraudulent investment schemes. These individuals are more likely to respond to investment invitations delivered through personal interaction, and they often place significant value on wealth as a measure of success. They also demonstrate a willingness to take financial risks in pursuit of potential gains, which increases their susceptibility to fraudulent schemes.

In addition, the study reveals that respondents exhibit behavioral tendencies such as overreaction to price changes, reliance on the actions and opinions of others, and overconfidence in their own investment decisions. Psychologically, they tend to prioritize potential gains over losses, show openness to unfamiliar investment opportunities introduced by trusted individuals, and prefer unregulated investments that are perceived to offer higher returns. These combined behavioral and psychological patterns significantly contribute to their vulnerability to fraudulent investment activities.

The findings also suggest that while high levels of optimism, risk-taking, and openness to opportunities may be associated with financial ambition and motivation, these traits may also increase exposure to fraud when not guided by sufficient knowledge and critical evaluation.

This highlights the dual nature of psychological mindset, where the same traits that support financial growth may also lead to vulnerability when exploited in deceptive schemes. However, these characteristics do not imply inevitability of victimization but rather indicate conditions that may increase risk.

In light of these findings, it is recommended that government agencies strengthen legislative and consumer protection initiatives by intensifying efforts to detect suspicious investment activities and ensuring that timely warnings are disseminated to the public. Since individuals tend to rely heavily on trust and social influence in making investment decisions, there is a need to encourage careful verification of investment opportunities and promote awareness regarding the legitimacy of financial offers before any commitment is made.

It is further recommended that anti-fraud education and financial literacy programs be institutionalized in workplaces, particularly among full-time employees, through collaboration with human resource departments, academic institutions, and local government units. These programs should focus on enhancing individuals' ability to identify fraudulent schemes, understand market risks, and regulate emotional and psychological influences in financial decision-making.

Additionally, integrating financial education into secondary and tertiary curricula is essential in building early awareness among learners. Such education should emphasize recognizing emotional bias in investment decisions and developing critical thinking skills when evaluating financial opportunities. Newly employed individuals should also be required to undergo anti-fraud orientation programs prior to entering the workforce to strengthen early awareness and prevention strategies.

Finally, future researchers are encouraged to explore additional variables that may further explain vulnerability to investment fraud, as well as examine other populations and contexts to deepen understanding of the behavioral and psychological mechanisms involved in fraudulent investment victimization.

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