INVESTIGATING THE SOCIO-DEMOGRAPHIC CHARACTERISTICS AND VULNERABILITY OF PONZI INVESTMENT SCHEME VICTIMS IN ABA, ABIA STATE, NIGERIA

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ABSTRACT

This study investigated the socio-demographic characteristics and vulnerability of Ponzi investment scheme victims in Aba, Abia State, Nigeria. Specifically, the study identified the demographic characteristics distinguishing victims, examined their socio-demographic profile, and assessed the factors associated with their vulnerability. Aba City, comprising 2 Local Government Areas, has a projected population of 1.1 million. The population of study is projected at 751,657 while the sample size is 564. A mixed-methods cross-sectional survey design was adopted. Quantitative data were collected through a 10-item researcher-developed semi-structured questionnaire with a 4-point Likert scale questionnaire administered to 600 respondents, of which 564 valid questionnaires (94.0%) were analysed. Qualitative data were generated through Key Informant Interviews and Focus Group Discussions. Respondents were selected using a multi-stage sampling procedure from Aba North and Aba South Local Government Areas, while quantitative data were analysed using descriptive statistics, cross-tabulations, chi-square analysis and one-sample statistics in SPSS. Qualitative data were analysed thematically to complement the quantitative findings. The results revealed that victims were predominantly young adults aged 16–25 years, males, single, and individuals with secondary or tertiary education. However, low monthly income and the absence of regular income emerged as the most prominent socio-economic characteristics associated with vulnerability. Social media exposure, financial hardship, unrealistic expectations of high investment returns, and limited financial literacy were identified as the principal drivers of Ponzi scheme victimisation. The study concludes that vulnerability to Ponzi investment schemes is shaped more by socio-economic pressures and behavioural influences than by educational attainment alone. It recommends intensified financial literacy programmes, strengthened regulatory oversight, enhanced monitoring of online investment promotions, and sustained public awareness campaigns targeting youths and other economically vulnerable groups.

Keywords: Ponzi Investment Schemes; Financial Fraud; Socio-Demographic; Vulnerability; Aba City.

Introduction

Ponzi investment schemes have become one of the fastest-growing forms of financial fraud globally, particularly within developing economies where economic instability, high unemployment and rapid digitalization create favourable conditions for fraudulent investment operations. A Ponzi scheme is a fraudulent investment arrangement in which returns paid to earlier investors are derived primarily from funds contributed by new participants rather than from legitimate profit-generating activities. Because these schemes depend on continuous recruitment of new investors, they eventually collapse once new inflows decline. Although Ponzi schemes historically operated within localized communities, advances in digital technology, social media communication, and electronic payment systems have significantly expanded their reach, enabling operators to recruit participants across geographical boundaries with unprecedented speed (Anderson, 2024; Guan, 2024).

The growth of Ponzi schemes in many developing countries, particularly Nigeria, extends beyond ordinary financial crime and reflects broader socio-economic challenges. Despite repeated warnings from regulatory agencies and the collapse of several highly publicized schemes, fraudulent investment platforms continue to attract substantial public participation (Central Bank of Nigeria [CBN], 2015; Nigeria Deposit Insurance Corporation [NDIC], 2022). This persistence suggests that the phenomenon cannot be explained solely by factors such as greed or ignorance. High unemployment, inflation, declining purchasing power, income inequality, and limited access to legitimate investment opportunities have created conditions in which many individuals view high-risk investment ventures as possible avenues for economic advancement or survival (Olorunfemi, 2021).

Nigeria has experienced several waves of Ponzi-related financial crises, with the Mavrodi Mondial Movement (MMM) and National Reading Culture (NRC) representing the most notable examples. The widespread participation in MMM, NRC and similar schemes demonstrated that vulnerability is not restricted to individuals with low educational attainment or limited financial exposure, rather, participation cuts across different educational, occupational, and socio-economic groups (Oluwasegun & Ibukun, 2021).

Existing studies have largely focused on the economic consequences of Ponzi schemes, their historical evolution, ethical implications, and the psychological motivations behind participation. While these studies provide valuable insights, victims and perpetrators are frequently treated as homogeneous populations. Consequently, limited empirical attention has been devoted to identifying the specific Socio-demographic characteristics associated with vulnerability to Ponzi victimization. Understanding these socio-demographic patterns is important because effective prevention strategies require accurate knowledge of the populations most at risk.generate evidence that can support more targeted financial literacy initiatives, regulatory interventions, and community-based prevention strategies.

Ultimately, the study contributes to the growing literature on financial fraud in developing economies by providing a localized and demographically disaggregated understanding of Ponzi investment schemes within an important urban commercial centre in Nigeria. This approach moves beyond generalized assumptions and offers empirical evidence capable of informing policy responses that are sensitive to the social and economic realities of vulnerable populations.

Statement of the Problem

The persistence of financial scams in contemporary Nigerian city of Aba exposes a thoughtful contradiction within criminal sociology. Aba city is fairly populated by literate and skillful persons who systematically succumb to transparently unsustainable financial scam.

However, the very features that drive Aba's economic vitality, a massive informal economy, a highly concentrated youthful population, extensive digital financial penetration, and a dominant cultural reliance on informal credit and community trust networks, simultaneously render it a highly fertile incubator for fraudulent financial innovations. Following the shocks of the national economic recession and subsequent global disruptions, the population's vulnerability has intensified. In an ecosystem where formal credit is scarce and structural survival is intensely challenging, Ponzi schemes have deeply integrated into the local urban economy as pathological coping mechanisms (International Monetary Fund-IMF, 2016; Public Perception on The Resurgence of Ponzi Schemes in Nigeria- NOIPolls, 2017). There remains a distinct empirical and analytical gap regarding the precise socio-demographic and institutional stratifications that define vulnerability and agency within these fraudulent networks. Specifically, there is an absence of research mapping the interface between micro-level socio-demographic variables, such as gender distribution, age groups, income levels, and localized employment status, and the specific urban commercial spaces where these schemes are incubated. Without establishing a clear socio-demographic characterization of the victims of these financial scams in this digital age, existing regulatory, educational, and law enforcement interventions remain broadly generic and structurally ineffective.

The socio-demographic characteristics of Ponzi scheme victims are important because they provide empirical evidence on the population groups that are most vulnerable to investment fraud. Characteristics such as age, gender, educational attainment, occupation, income and marital status influence individuals' exposure to financial risk, access to investment information, financial decision-making and susceptibility to peer influence. Identifying these characteristics enables policymakers, financial regulators and consumer protection agencies to move beyond generalized anti-fraud campaigns and design targeted interventions for high-risk groups. For example, financial literacy programmes can be tailored to young adults and low-income earners, while awareness campaigns can be delivered through markets, tertiary institutions and community organisations where vulnerable populations are concentrated. The findings also provide evidence for regulators to allocate resources more efficiently and develop demographic-specific consumer protection strategies that reduce the incidence of Ponzi scheme victimization.

Aim and Objectives of the Study

The general objective of this study is to investigate how socio-demographic characteristics influence vulnerability to Ponzi investment schemes among residents of Aba City, Abia State, Nigeria. The specific objectives of the study are:

i. to investigate the socio-demographic variables that characterize victims of Ponzi investment schemes in Aba City, Abia State, Nigeria;
ii. to examine the socio-demographic profile of victims of Ponzi investment schemes in Aba City, Abia State;
iii. to determine the relationship between selected socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City.

Research Questions

i. What are the socio-demographic variables that characterize victims of Ponzi investment schemes in Aba City?
ii. What is the socio-demographic profile of victims of Ponzi investment schemes in Aba City, Abia State?
iii. What relationship exists between selected Socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City?

Research Hypotheses

The study was guided by the following null hypotheses:

H_o1: There are no significant socio-demographic variables that characterize victims of Ponzi investment schemes in Aba City.

H_o2: There is no significant socio-demographic profile of victims of Ponzi investment schemes in Aba City, Abia State.

H_o3: There is no significant relationship between selected Socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City.

Literature Review

Contemporary investment fraud has increasingly exploit online communication channels, peer-to-peer referrals and electronic payment systems to attract victims with promises of exceptionally high and guaranteed returns within short investment periods (Guan, 2024; Anderson, 2024). Consequently, researchers have shifted attention from the financial mechanics of Ponzi schemes to the socio-demographic and behavioural characteristics of individuals that are most vulnerable.

Recent literature identifies economic vulnerability as one of the strongest predictors of Ponzi scheme participation. According to the World Bank (2020), prolonged economic hardship, unemployment, declining purchasing power and widening income inequality increase individuals' willingness to undertake high-risk financial decisions in anticipation of quick economic relief. Similar observations have been reported in Nigeria, where inflationary pressures and persistent youth unemployment have weakened household incomes and increased dependence on speculative investment opportunities. Under such conditions, individuals may knowingly participate in risky investment arrangements despite awareness of potential losses because immediate financial survival becomes a higher priority than long-term financial security (International Monetary Fund [IMF], 2016).

Financial literacy has equally emerged as an important determinant of vulnerability to investment fraud. Financial literacy extends beyond formal educational attainment to include the knowledge, skills and competencies required to evaluate financial products, recognize fraudulent investment offers and make informed investment decisions. Studies conducted across several developing countries indicate that many victims of Ponzi schemes possess secondary or tertiary education but lack sufficient understanding of investment risk, portfolio diversification and regulatory safeguards (Anderson, 2024). This finding challenges the traditional assumption that fraudulent investment schemes primarily target poorly educated populations. Instead, contemporary evidence suggests that educated young adults, particularly those actively engaged in digital financial environments also become victims when financial literacy is inadequate.

The growing digitalization of financial services has further transformed the nature of Ponzi investment schemes. Guan (2024) observes that social media platforms have become powerful tools for promoting fraudulent investment opportunities because they enable perpetrators to create convincing digital identities, circulate fabricated testimonials and rapidly disseminate misleading financial information to large audiences. Another important dimension emphasized in contemporary literature is the role of social trust and interpersonal networks in facilitating investment fraud. Fraudulent investment schemes rarely depend solely on anonymous advertising. Rather, recruitment frequently occurs through trusted social relationships involving friends, relatives, colleagues, religious associates and business partners. Anderson (2024) argues that interpersonal trust substantially reduces individuals' perception of investment risk because recommendations originating from familiar persons are often regarded as more credible than warnings issued by regulatory institutions. Consequently, victims frequently invest not because they have independently verified the legitimacy of an investment platform but because trusted members of their social networks have endorsed it. Such findings reinforce the relevance of Social Learning Theory in explaining how investment behaviour is transmitted through observation, imitation and peer influence.

Socio-demographic characteristics have also received increasing scholarly attention in recent years. Existing studies consistently indicate that young adults constitute the socio-demographic group most frequently involved in digital investment activities. This pattern has been attributed to their greater familiarity with digital technologies, higher levels of social media engagement and stronger aspirations for rapid economic advancement. While younger individuals generally demonstrate greater willingness to adopt innovative financial products, this openness may simultaneously expose them to fraudulent investment schemes that imitate legitimate digital investment platforms (Anderson, 2024; Guan, 2024). Similarly, occupational status and income level have been identified as significant determinants of investment behaviour. Individuals engaged in informal employment, self-employment or unstable income-generating activities are often more attracted to investment opportunities promising unusually high returns because of persistent financial insecurity. Within the Nigerian context, regulatory agencies have repeatedly warned the public against fraudulent investment schemes. The Central Bank of Nigeria (2015) and the Nigeria Deposit Insurance Corporation (2022) have consistently issued public advisories emphasizing that investment opportunities promising extraordinarily high and risk-free returns should be treated with caution. Despite these warnings, Ponzi schemes continue to re-emerge under different organizational identities and technological formats. This persistence suggests that regulatory enforcement alone may be insufficient without complementary financial education and community-based awareness programmes targeted at vulnerable populations.

Theoretical Framework

This study is anchored on Rational Choice Theory and Social Learning Theory. The two theories provide complementary explanations for persistent vulnerability of Ponzi investment schemes victims.

1 Rational Choice Theory (RCT)

Rational Choice Theory was originally developed by the classical criminologists Cesare Beccaria (1764) and Jeremy Bentham (1789), and was later refined and applied to criminology by Cornish and Clarke (1986). The theory assumes that individuals are rational actors who evaluate the anticipated costs and benefits of alternative courses of action before making decisions. According to the theory, people are more likely to engage in an activity when they perceive that the expected benefits outweigh the potential risks or costs. Within the context of financial decision-making, Rational Choice Theory suggests that individuals evaluate investment opportunities based on their expectations of profit, available alternatives and prevailing economic circumstances. Where legitimate opportunities for income generation are limited by unemployment, inflation, declining purchasing power and economic uncertainty, individuals may perceive high-return investment schemes as rational alternatives despite recognizing the associated risks. In Nigeria's current economic environment, characterised by persistent inflation, youth unemployment and declining real incomes, many individuals are motivated by the expectation of rapid financial improvement. Consequently, victims of Ponzi investment schemes often make investment decisions believing they will recover their capital and earn substantial returns before the scheme eventually collapses. Their participation therefore reflects what scholars describe as bounded rationality, where decisions are made under conditions of limited information, economic pressure and uncertainty rather than complete rationality.

Rational Choice Theory is relevant to this study because it explains why victims in Aba City voluntarily invested in Ponzi schemes despite repeated warnings from government regulatory agencies such as the Central Bank of Nigeria (CBN), the Securities and Exchange Commission (SEC) and the Nigeria Deposit Insurance Corporation (NDIC). The theory suggests that Socio-demographic characteristics such as age, occupation, educational attainment and income level influence how individuals evaluate investment opportunities. For example, young adults with unstable incomes or limited employment opportunities may perceive speculative investments as reasonable financial choices because of their immediate economic needs. Thus, the theory provides a useful framework for explaining how the Socio-demographic characteristics of victims influence their investment decisions.

2 Social Learning Theory (SLT):

Social Learning Theory was propounded by Albert Bandura (1977) in his seminal work: Social Learning Theory. The theory proposes that human behaviour is acquired through observation, imitation and interaction with significant others within the social environment. According to Bandura, individuals learn behaviours by observing role models, receiving reinforcement and repeatedly interacting with members of their social groups. The theory emphasizes four major processes involved in learning behaviour: attention, retention, reproduction and motivation. Individuals first observe the behaviour of others, retain the information mentally, reproduce the behaviour when similar opportunities arise and continue the behaviour when positive outcomes appear to be achieved.

The emergence of digital communication technologies has considerably expanded the processes through which social learning occurs. Contemporary Ponzi investment schemes spread rapidly through WhatsApp groups, Facebook pages, Telegram channels, Instagram influencers and peer referrals. Potential investors frequently observe friends, colleagues, relatives or religious associates displaying apparent financial success through screenshots of payments, luxury lifestyles and testimonies of extraordinary returns. Continuous exposure to such messages gradually normalizes participation and reduces perceptions of financial risk.

Social Learning Theory is highly relevant to this study because it explains how victims of Ponzi investment schemes in Aba City become influenced by their social environment. Many victims are introduced to fraudulent investment schemes by trusted friends, family members, colleagues, classmates, church members or business associates rather than by anonymous advertisers. Repeated exposure to positive testimonies and successful investment stories encourages individuals to imitate the behaviour of others without adequately verifying the legitimacy of the investment platform. The theory also explains why Ponzi schemes spread rapidly among particular Socio-demographic groups, especially young people who maintain extensive social and digital networks. Individuals within the same age group, educational institutions, workplaces or commercial markets continuously exchange financial information, thereby increasing opportunities for behavioural imitation. Consequently, Social Learning Theory helps explain how Socio-demographic characteristics interact with peer influence and social networks to increase vulnerability to Ponzi investment schemes.

Relevance of the Theoretical Framework to the Study

The two theories complement each other in explaining the phenomenon investigated in this study. Rational Choice Theory explains why victims decide to invest, while Social Learning Theory explains how they become influenced to invest. Together, they provide a comprehensive explanation of the Socio-demographic characteristics associated with Ponzi investment scheme victimization in Aba City.

Specifically, Rational Choice Theory accounts for the influence of age, occupation, education and income on investment decisions under conditions of economic hardship, whereas Social Learning Theory explains how peer influence, family relationships, religious associations and digital communication networks reinforce participation in fraudulent investment schemes. The integration of these theories therefore provides a robust theoretical foundation for examining the Socio-demographic characteristics of Ponzi investment scheme victims and interpreting the empirical findings of this study.

Empirical Review

While many empirical studies establish the importance of economic hardship in explaining participation in Ponzi investment schemes, they provide only a partial explanation of the phenomenon. Anderson (2024) investigated the role of trust and technology in online investment fraud and found that digital platforms have transformed the operational strategies of Ponzi schemes. Using behavioural evidence from online investment fraud cases, the study demonstrated that perpetrators exploit social media platforms, fabricated testimonials and manipulated digital identities to create false credibility and encourage investment. Although technological innovations have transformed the operational structure of Ponzi schemes, technology alone does not fully explain why individuals continue to invest despite repeated regulatory warnings. Anderson further observed that recommendations from trusted friends, relatives and colleagues substantially reduce individuals' perception of investment risk. This finding supports the propositions of Social Learning Theory, which explains that behaviours and attitudes are acquired through observation, imitation and interaction within trusted social groups.

Another important area of empirical investigation concerns financial literacy and educational attainment. Contrary to earlier assumptions that Ponzi schemes primarily target poorly educated individuals, recent evidence indicates that victims are often educated but financially inexperienced. Anderson (2024) reported that many victims possessed secondary or tertiary education but lacked adequate knowledge of investment risk, portfolio diversification and regulatory safeguards. These findings suggest that formal education does not automatically translate into financial literacy or the ability to detect sophisticated investment fraud.

Beyond economic and technological explanations, researchers have also begun to examine the socio-demographic characteristics associated with investment fraud victimization. Existing empirical evidence consistently indicates that young adults constitute the socio-demographic group most vulnerable to digital investment fraud because of their greater exposure to online financial platforms, higher digital engagement and stronger aspirations for rapid economic advancement (Guan, 2024). Studies further indicate that individuals with unstable employment, irregular income and limited access to formal credit are more likely to participate in speculative investment schemes because they perceive them as opportunities for improving their economic circumstances.

Within Nigeria, regulatory institutions have continued to express concern over the persistent resurgence of Ponzi investment schemes. The Central Bank of Nigeria (2015) and the Nigeria Deposit Insurance Corporation (2022) have repeatedly warned the public against investment opportunities promising unrealistic returns with little or no risk. Despite these public advisories, fraudulent investment schemes continue to emerge in different forms, suggesting that regulatory warnings alone are insufficient to prevent victimization. This underscores the need for evidence-based financial education programmes tailored to vulnerable socio-demographic groups.

Reviewed empirical studies demonstrate that Ponzi investment schemes are shaped by economic conditions, technological developments, financial literacy and social influences. Nevertheless, the literature remains fragmented, with most studies examining these factors independently rather than integrating them within a single empirical investigation. More importantly, there is limited empirical evidence on the socio-demographic characteristics of Ponzi investment scheme victims in major commercial cities such as Aba, where youthful populations, informal economic activities and widespread digital financial adoption intersect. This gap justifies the present study, which investigates the socio-demographic characteristics of Ponzi investment scheme victims in Aba City, Abia State, Nigeria.

Methodology

This study adopted a mixed-methods cross-sectional survey design to investigate the socio-demographic characteristics and vulnerability of 564 Ponzi investment scheme victims in Aba, Abia State, Nigeria. Quantitative data were collected using a 10-item semi-structured 4-point Likert scale questionnaire while qualitative evidence was generated through Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). The study was conducted in Aba City, comprising Aba North and Aba South Local Government Areas of Abia State, Nigeria, one of the country's foremost commercial and entrepreneurial centres. The study population consisted of persons aged 16 years and above who had previously been victims of Ponzi investment schemes within the study area. The age limit of 16 years was adopted because individuals within this category have enrolled into senior secondary education, are digitally literate, active users of social media and online financial platforms. They are also sufficiently knowledgeable to provide reliable information regarding investment experiences. The 2026 projected population of Aba City is 1,183,712. The population of study derived from 2026 projected population is 751,657 persons aged 16 years and above of the applicable age-structure estimate of 2006 census (~63.5%). Because there is no official population register identifying victims or potential victims of Ponzi investment schemes, the exact size of the study population could not be determined; hence, a sufficiently large and manageable sample was selected to provide broad representation across Aba North and Aba South. Out of the 600 questionnaires administered, following data screening, 564 (94.0% of the administered sample) were found valid and retained for analysis. Thus, the final sample of 564 represeLoed a high response and valid-response rate and provided a substantial empirical basis for analysing the demographic characteristics and experiences of Ponzi investment scheme victims in Aba City.

A multi-stage sampling procedure was employed. Major educational institutions, commercial markets, business districts and public establishments were identified as sampling clusters, from which twelve clusters were purposively selected. Thereafter, systematic sampling techniques were used to recruit eligible respondents. The instrument underwent expert review and pilot testing to establish validity, clarity and consistency before the main survey. Data were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, frequencies, percentages, cross-tabulations, one-sample statistics,multiple regression and chi-square analyses were used where appropriate, while qualitative data were analysed thematically. Ethical approval was obtained from relevant authorities, participation was voluntary, informed consent was secured, anonymity and confidentiality were maintained, and no personally identifiable information was collected.

Projected Population of Aba North and Aba South Aged 16+ (2026)

LGA	2026 Total	16+ Projection
Aba South	683,712	434,157
Aba North	500,000= (1,183,712)	317,500 =(751,657)

Source: *CityPopulation* Population Projections (2026) and World Population Review projections (2026).

Data Presentation and Analyses

In this section, the study presents and discusses the socio-demographic tables of the characteristics and vulnerability rating of Ponzi investment schemes victims in Aba City.

Research question 1: What are the socio-demographic variables that characterise victims of Ponzi investment schemes in Aba City?

Table 1: Socio-demographic variables that characterize Ponzi Investment Scheme Victims in Aba City (N = 564)

Variable	Category	Frequency	Percentage (%)
Age	16–25	410	72.7
	26–33	80	14.2
	34–41	30	5.3
	42 years and above	44	7.8
Sex	Male	356	63.1
	Female	208	36.9
Marital Status	Single	484	85.8
	Married	60	10.6
	Widowed	20	3.5
	Separated/Divorced	0	0.0
Educational Level	Primary	100	17.7
	Secondary	220	39.0
	Tertiary	244	43.3

Source: Field Survey, 2026

In the table above, the majority of victims were young adults (16–25 years), male, single, and possessed secondary or tertiary education.

Socio-demographic Table for Research Question 2

Research Question 2: What is the socio-demographic profile of victims of Ponzi investment schemes in Aba City, Abia State?

Table 2: Socio-economic Profile of Ponzi Investment Scheme Victims in Aba City (N = 564)

Variable	**Category**	**Frequency**	**Percentage (%)**
Occupation	Farming	10	1.8
	Trading	194	34.4
	Civil/Public Service	130	23.0
	Artisan	10	1.8
	Apprentice	130	23.0
	Student	80	14.2
	Unemployed	10	1.8
Monthly Income	< ₦30,000	180	31.9
	₦30,000–₦60,000	90	16.0
	₦61,000–₦90,000	20	3.5
	₦91,000–₦120,000	20	3.5
	> ₦120,000	80	14.2
	No. Monthly Income	174	30.9
Household Size	1–3	130	23.0
	4–6	370	65.6
	7–9	50	8.9
	10+	14	2.5
Religion	Christianity	540	95.7
	Islam	10	1.8
	Traditional Worship	14	2.5

Source: Field Survey, 2026

Victims were predominantly traders, apprentices and civil/public servants, with most earning below ₦30,000 monthly or having no regular income.

Research Question 3: What relationship exists between selected Socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City?

Table 3 Tabulated Socio-demographic variables and their vulnerability rating to Ponzi investment schemes in Aba City.

Variable	Category	Frequency (f)	Percentage (%)	Vulnerability Level
Age	16–25 years	410	72.7	High
	26–33 years	80	14.2	Moderate
	34–41 years	30	5.3	Low
	42 years and above	44	7.8	Low
Education	Primary	100	17.7	Moderate
	Secondary	220	39.0	High
	Tertiary	244	43.3	Moderate
Occupation	Trading	194	34.4	High
	Civil/Public Service	130	23.0	Moderate
	Apprentice	130	23.0	High
	Student	80	14.2	High
	Farming	10	1.8	Low
	Artisan	10	1.8	Low
	Unemployed	10	1.8	High (small subgroup)
Sex	Male	250	44.3	Moderate
	Female	314	55.7	Moderate
Marital Table 4.11 Multiple Regression Model Predicting Vulnerability to Ponzi Investment Schemes	Single	484	85.8	High
	Married	60	10.6	Moderate
	Widowed	20	3.5	Low
	Separated/Divorced	0	0.0	Not applicable
Monthly Income	Less than ₦30,000	180	31.9	High
	₦30,000–₦60,000	90	16.0	Moderate

	₦61,000–₦90,000	20	3.5	Low
	₦91,000–₦120,000	20	3.5	Low
	More than ₦120,000	80	14.2	Low
	No Monthly Income	174	30.9	High
Household Size	1–3 persons	130	23.0	Low
	4–6 persons	370	65.6	Moderate
	7–9 persons	50	8.9	Moderate
	10 and above	14	2.5	High
Religion	Christianity	540	95.7	Not classified
	Islam	10	1.8	Not classified
	Traditional Religion	14	2.5	Not classified

Source: Field Survey, 2026

Table 4: Relationship between selected socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City?

Characteristic	**Finding**	**Relationship to Vulnerability**
Age	Majority aged 16–25 years	Young adults were the most vulnerable.
Income	62.8% earned below ₦30,000 or had no regular income	Economic hardship strongly increased vulnerability.
Education	Most had secondary/tertiary education	Education alone did not prevent victimization.
Sex	Males predominated	Male respondents were more represented.
Religion	Predominantly Christian	Religion was not a distinguishing factor.

Source: Field Survey, 2026

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Table 5: Relationship between selected socio-demographic variable (financial literacy) and vulnerability to Ponzi investment schemes in Aba City.

S/N	I don't have a good financial and investment education to help me identify ponzi schemes.	Frequency	%
1	I strongly Agree	340	60.28
2	I Agree	184	32.62
3	I Disagree	22	3.90
4	Undecided	18	3.19
5	Total	564	100

Source: Field Survey, 2026

Table 6: Relationship between social media participation, desire to get quick economic returns and vulnerability in ponzi investment schemes in Aba City.

S/N	Items	SA	A	D		Total
1	Online Ponzi schemes use the social media to promote and promise high returns on investment.	300	260	2	2	564
2	Online Ponzi schemes often use social media platforms to recruit new investors.	310	230	4	20	564
3	Online Ponzi schemes are becoming more sophisticated in their fraudulent marketing tactics.	270	210	80	4	564
4	Participation in Online ponzi schemes often relies on the promised returns in excess of ₦100,000 per month.	130	300	120	14	564

Source: Field Survey, 2026

Table.7: Relationship youthfulness, desire to get quick economic returns and vulnerability in ponzi investment schemes in Aba City.

	nterest in online investment grew because i am young enough to make money.	ncy	
	e		
	t Agree		
	know		

Source: Field Survey, 2026

Testing of Research Hypotheses

Investigating the Socio-Demographic Characteristics and Vulnerability of Ponzi Investment Scheme Victims in Aba, Abia State, Nigeria

Hypothesis One

H_{01}: The observed level of financial and investment literacy among Ponzi investment scheme victims in Aba City does not differ significantly from the hypothesised level of the measurement scale.

Table 8: One-Sample t-Test for Hypothesis One

Variable	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**
Lack of financial/investment literacy	10.123	563	< .001	0.987

Since $p < .001$, which is less than the 0.05 significance level, the null hypothesis (H_{01}) is rejected. The result indicates that the reported level of financial and investment literacy among the 564 victims differs significantly from the hypothesised reference level. The positive mean difference (0.987) indicates a substantial tendency towards inadequate financial and investment knowledge. The t-test establishes the significance of the literacy gap; demographic characteristics should be interpreted as descriptive evidence rather than variables directly tested by this statistic.

Hypothesis Two

H_{02}: There is no statistically significant association between selected socio-demographic characteristics and vulnerability to Ponzi investment schemes among victims in Aba City.

Table 9: Pearson Chi-Square Test of Independence

Statistic	Value	Significance
Pearson Chi-Square	12.456	df = 1; p < .001

Since $p < .001 < 0.05$, the null hypothesis (H_{02}) is rejected and the alternative hypothesis (H_{12}) is accepted. The result demonstrates a statistically significant association between the selected socio-demographic characteristics and vulnerability to Ponzi investment schemes, $\chi^2(1, N = 564) = 12.456, p < .001$. Descriptive findings point particularly to youthfulness, low or unstable income and limited investment knowledge as characteristics associated with heightened vulnerability. These may interact with social-media exposure and expectations of unusually high or rapid returns.

Table 10: Relationship between selected socio-demographic variables and vulnerability

Test Statistic	VaH$_0$3:There is no significant relationship between selected Socio-demographic variables and vulnerability to Ponzi investment schemes among residents of Aba City.lue	df	Sig. (p-value)
Pearson Chi-Square	18.742	2	< .001
Likelihood Ratio	19.105	2	< .001

The Pearson Chi-Square test is statistically significant, $\chi^2(2, N = 564) = 18.742, p < .001$. This indicates a statistically significant association between the two categorical variables examined. Therefore, the null hypothesis of no significant association is rejected at the 0.05 level. Investment knowledge and greater exposure to persuasive social-media investment promotions may report higher levels of vulnerability. The result suggests that vulnerability is not simply a demographic characteristic but may reflect the interaction of knowledge deficits, digital exposure and investment expectations.

Hypothesis 3

H_{03}: Socio-demographic and socio-economic characteristics (age, gender, marital status, educational level, employment status and income) do not significantly predict vulnerability to Ponzi investment schemes among respondents in Aba City.

Table 11: Multiple Regression Model Predicting Vulnerability to Ponzi Investment Schemes

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.684	.468	.462	.531

Table 12: ANOVA Predicting Vulnerability to Ponzi Investment Schemes

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	112.846	6	18.808	66.72	< .001
Residual	128.112	557	.230		
Total	240.958	563			

Table 13: Coefficients

Predictor	B	Std. Error	Beta (β)	t	Sig.
Constant	1.214	.184	—	6.60	< .001
Age	−.118	.029	−.154	−4.07	< .001
Gender	.092	.031	.108	2.97	.003
Marital Status	−.076	.028	−.091	−2.71	.007
Educational Level	−.143	.034	−.132	−4.21	< .001
Employment Status	−.126	.030	−.146	−4.20	< .001
Income Level	−.201	.032	−.219	−6.28	< .001

Dependent variable: Vulnerability to Ponzi Investment Schemes. N = 564. R^2 = .468 indicates that the six predictors jointly explain 46.8% of the variance in vulnerability.

Regression Model: Vulnerability = 1.214 − 0.118(Age) + 0.092(Gender) − 0.076(Marital Status) − 0.143(Educational Level) − 0.126(Employment Status) − 0.201(Income Level). $Y = 1.214 - 0.118X_1 + 0.092X_2 - 0.076X_3 - 0.143X_4 - 0.126X_5 - 0.201X_6 + \varepsilon$

Where Y = vulnerability to Ponzi investment schemes; X_1 = age; X_2 = gender; X_3 = marital status; X_4 = educational level; X_5 = employment status; X_6 = income level; and ε = error term.

The test of Hypothesis three is statistically significant, $F(6, 557) = 66.72$, $p < .001$, indicating that the selected socio-demographic and socio-economic characteristics jointly significantly predict vulnerability to Ponzi investment schemes. The model explains approximately 46.8% of the variance in vulnerability ($R^2 = .468$). Income has the strongest standardized contribution among the predictors ($\beta = -.219$, $p < .001$), followed by age ($\beta = -.154$, $p < .001$), employment status ($\beta = -.146$, $p < .001$), educational level ($\beta = -.132$, $p < .001$), gender ($\beta = .108$, $p = .003$), and marital status ($\beta = -.091$, $p = .007$). Therefore, the null hypothesis is rejected.

Discussion of Findings

The study found that Ponzi investment scheme victims in Aba City possess a distinctive socio-demographic profile, with younger respondents forming the largest proportion of the victim population. The concentration of victims among persons aged 16–25 years is particularly important because this age group is generally more active in digital communication, social networking and online information exchange. The profile also indicates a substantial representation of single persons and respondents with secondary or tertiary education. These findings suggest that formal educational attainment should not automatically be equated with financial or investment literacy. In the context of Ponzi schemes, the ability to use digital platforms may coexist with limited capacity to evaluate investment risks, verify investment claims and distinguish legitimate opportunities from fraudulent propositions. The findings therefore support the study's emphasis on socio-demographic characteristics as a description of the victim population rather than treating any single characteristic as a direct cause of victimisation.

The socio-economic profile further shows that economic circumstances constitute an important context within which Ponzi victimisation occurs. A substantial proportion of respondents reported monthly incomes below ₦30,000 or no regular monthly income, while trading, civil/public service and apprenticeship constituted major occupational categories. This pattern suggests that vulnerability may be heightened where individuals face limited or unstable financial resources and consequently have strong incentives to seek opportunities capable of producing rapid financial improvement. Ponzi operators can exploit this context by presenting unusually attractive returns as solutions to everyday economic pressures. The finding is consistent with the logic of Merton's Strain Theory, which explains how a gap between desired economic goals and legitimate opportunities for achieving them can create pressure to consider risky or unconventional alternatives. Low income should not, however, be interpreted as making individuals inherently susceptible to fraud; rather, economic insecurity may provide a context in which promises of rapid returns become more attractive.

A major finding concerns financial and investment knowledge. The responses show very high agreement that respondents lacked adequate financial and investment education to help them identify Ponzi schemes. Respondents similarly agreed that limited investment knowledge increases susceptibility, that inadequate education fuels unrealistic expectations, that investors may have difficulty critically evaluating opportunities, and that gaps in investor education contribute to Ponzi scheme success. The previously reported one-sample test for the financial-literacy construct was statistically significant ($t = 10.123$, $df = 563$, $p < .001$), providing evidence that the observed response pattern differed significantly from the specified reference level. This finding is important because general schooling is not necessarily equivalent to functional financial literacy. What appears more relevant is the capacity to assess returns, understand risk, verify investment claims and recognise the structural characteristics of Ponzi operations.

The study also found that social media constitutes an important enabling environment for Ponzi scheme exposure and persuasion. A very large majority of respondents agreed that online Ponzi schemes use social-media platforms to promote high returns and recruit new investors, while 88.7% reported that their interest in online investment grew because of frequent advertisements on social media. The high aggregate mean for the social-media items further indicates strong respondent agreement concerning the role of digital platforms in Ponzi promotion. This finding is consistent with Social Learning Theory because social-media environments expose individuals to repeated demonstrations of apparently successful investment behaviour, testimonials, endorsements and peer-based persuasion. It also complements Rational Choice Theory by showing how fraudulent operators can manipulate the information available to potential investors, thereby affecting perceived benefits, risks and credibility. Digital exposure, attractive return promises and limited investment knowledge may therefore combine to create a persuasive environment for victimisation in Aba City.

Furthermore, the findings demonstrate that Ponzi investment scheme victimisation in Aba City is better understood as the product of interacting demographic, socio-economic, informational and technological conditions rather than as the consequence of a single victim characteristic. Youthfulness and digital exposure provide access to online investment information; economic constraints and expectations of financial improvement may increase receptiveness to attractive returns; while inadequate financial and investment knowledge can reduce the capacity to critically evaluate such propositions. The findings therefore support a multidimensional understanding of vulnerability in which individual characteristics interact with structural and technological conditions. Because the study deliberately examined victims rather than comparing them with non-victims, the findings establish the characteristics and vulnerability conditions observed among victims but should not be interpreted as estimates of the probability that any demographic group will become a victim. Prevention should therefore combine targeted financial and investment literacy, digital fraud awareness, verification skills and sustained public education on the characteristics of Ponzi schemes, particularly through social-media channels used by younger and digitally active populations..

Conclusion

The study concludes that vulnerability to Ponzi investment schemes in Aba City is shaped by a combination of demographic, socio-economic and behavioural factors. The findings indicate that young people constitute a particularly important group among victims, while low or unstable income and limited economic opportunities may increase susceptibility to attractive but unrealistic investment promises. The study also demonstrates the importance of digital and social-media environments in facilitating exposure to Ponzi schemes. Overall, vulnerability should therefore not be understood simply as a consequence of individual gullibility; rather, it reflects the interaction of socio-economic pressures, limited financial capacity, demographic characteristics, digital exposure and decision-making behaviour. The study consequently concludes that effective prevention requires interventions that combine financial education, digital literacy, employment opportunities, stronger public awareness and appropriate regulatory responses.

Recommendations

The study recommends the following:

i. Government agencies, financial institutions, universities and civil-society organisations should intensify financial-literacy programmes, particularly for young people and low-income groups. Such programmes should teach individuals how to identify unrealistic returns, verify investment operators and distinguish legitimate investment opportunities from Ponzi schemes.

ii. Relevant regulatory authorities should strengthen monitoring of social-media platforms and digital channels used to advertise investment schemes. Investment operators should be required to demonstrate appropriate registration and regulatory compliance before publicly soliciting funds.

iii. Since the findings indicate substantial vulnerability among younger respondents and those with limited or unstable income, preventive campaigns should be specifically designed for these groups. Universities, youth organisations and community associations can serve as important channels for such interventions.

iv. Government and relevant development agencies should expand employment, entrepreneurship and skills-development initiatives. Reducing economic desperation and improving legitimate income opportunities may reduce the attractiveness of schemes promising unusually high or rapid financial returns.

Limitations of the Study

The study has some limitations that should be considered when interpreting its findings. First, the study was geographically restricted to Aba City, comprising Aba North and Aba South Local Government Areas, and therefore the findings should not automatically be generalised to all Ponzi-scheme victims in Abia State or Nigeria. Second, the study relied substantially on respondents' self-reported experiences and perceptions, which may be affected by recall errors, reluctance to disclose financial losses or socially desirable responses. Third, because there is no comprehensive official register of Ponzi-scheme victims in Aba City, the study could not draw its sample from a complete sampling frame of known victims. Fourth, the cross-sectional design captures respondents' experiences at one point in time and therefore cannot establish definite causal relationships between socio-demographic characteristics and vulnerability. Finally, the rapidly changing nature of digital investment platforms and social-media practices means that patterns of exposure and vulnerability may evolve over time. These limitations notwithstanding, the study provides useful empirical evidence on the demographic, socio-economic and behavioural dimensions of Ponzi-scheme vulnerability in Aba City.

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