



EFFECT OF PONZI SCHEMES ON FINANCIAL LOSSES IN NIGERIA: LESSONS FROM THE PAST AND RECENT SCAMS

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Abstract

This study examines the effect of Ponzi Schemes on Financial Losses in Nigeria by analyzing ten major schemes that operated between 2015 and 2025. The study population includes all publicly known fraudulent investment operations within this period, from which a purposive sample of ten schemes such as CBEX, MMM, MBA Forex, Crowd1, and FINAFRICA was selected based on financial scale, data availability, and public significance. Secondary data were gathered on variables including number of investors, promised return rates, scheme duration (in months), inflation, and unemployment. These data were sourced from the Central Bank of Nigeria (CBN), the Nigeria Deposit Insurance Corporation (NDIC), investigative media reports (BusinessDay, Proshare), and prior academic research. Using descriptive statistics, Pearson correlation, and multiple regression analysis, the study found that schemes offering the highest promised returns such as CBEX and Crowd1 produced the greatest financial losses. MBA Forex and FINAFRICA also recorded significant losses, regardless of their duration or investor count. Inflation was moderately associated with financial losses, indicating economic pressure as a contributing factor. Unemployment, however, showed a weaker influence, possibly due to lower risk-taking among jobless individuals. The findings suggest that investor vulnerability is driven by a combination of unrealistic return expectations, poor regulation, and economic instability. The study recommends stronger regulatory enforcement, public financial education, and economic reforms that address inflation and joblessness as strategies to reduce the appeal and impact of Ponzi schemes.

Keywords: Ponzi Schemes, Financial Losses, Promising Return, Inflation, Unemployment

JEL Code: G21, G23, E24

INTRODUCTION

Ponzi schemes continue to pose significant financial threats globally, particularly in developing economies like Nigeria where regulatory oversight and financial literacy are often limited. In advanced economies such as the United States and China, these fraudulent schemes have evolved with technological sophistication, often targeting unsuspecting investors online. However, the consequences are even more devastating in countries with weaker institutional frameworks. In Nigeria, recurring collapses of high-yield investment schemes have eroded public trust, drained household savings, and exposed regulatory lapses. The recent collapse of the CBEX Global Cooperative Investment Scheme in April 2025, which defrauded over 250,000 Nigerians of more than ₦1.3 trillion, underscores the severity of this issue. CBEX's promises of 100% returns within 30 days exploited widespread economic desperation.

Major financial breaches have been caused by Ponzi schemes, sometimes known as pseudo-investments, throughout history. Mr. Charles Ponzi, an Italian immigrant to the United States, developed a scheme in the early 20th century that offered investors a 50% return on their investment in 45 days or a 100% return in 90 days if they bought promotional postal reply coupons overseas and used them at face value in the US (Uroko, 2025). Ponzi didn't spend the money in actual projects; instead, he used it to pay back his prior investors and kept some for himself, after a while, the cycle continued, but when no new investors were contributing, the plan finally collapsed (Uppiah, 2018). The infamous Ponzi scheme Bernie Madoff employed a similar tactic, defrauding USD 65 billion in assets (Cross, 2020). Madoff, as opposed to Ponzi, was a prominent figure on Wall Street who occupied several significant roles in the US financial sector. Madoff gained the confidence of numerous unwary investors by using his credentials and reputation until his fraudulent plan ultimately failed in 2008.

Ponzi schemes operate as investment businesses that use incoming investments from new participants to repay funds to current investors (Adaramola *et al.*, 2024). According to Hardy *al.*, (2020), this fraudulent scheme is defined as one in which the schemer uses incoming contributions from new participants to steal investment funds and return them to deceived investors. Since existing funds from one investor are used to pay another, the hub serves as a way to produce new funds. Modern technologies and economic upheavals are being used by an increasing number of Ponzi schemes to trick investors into taking on little risks in exchange for inflated rewards. Due to the activities of international crime organizations that use internet platforms to draw in large numbers of victims, these criminal enterprises started in Southeast Asia and later spread throughout Africa, Eastern Europe, and Latin America (World Economic Forum, 2024).

Due to their financial difficulties, Nigerians are easily duped by financial schemes in an attempt to make quick cash. After more than three million people joined the Mavrodi Mundial Moneybox (MMM) scheme, which ultimately failed in 2016, Nigerians lost more than ₦18 billion, according to Proshare (2024). According to BusinessDay 2025 reports, CBEX is suspected of defrauding Nigerians out of ₦4.8 trillion, whereas MBA Forex and CBEX used similar fraudulent methods that followed MMM (BusinessDay, 2025). Conditions have gotten worse due to the country's high unemployment rate and massive price inflation. With 34.6% inflation, Nigeria is currently experiencing its highest level in 28 years, which is equivalent to 40% youth unemployment (Nigerian Economic Summit Group [NESG], 2024; Associated Press, 2024).

Nigerians' current economic uncertainty forces them to look for alternative sources of income, which leads them to fall for Ponzi schemes that promise inflated returns. The financial schemes have effects that go beyond personal financial loss since they undermine trust in legitimate banks and impede economic growth. Nigerian Ponzi schemes continue to thrive despite regulatory measures, underscoring the necessity for all-encompassing approaches to safeguard investors and preserve economic stability (ENACT Africa, 2024).

In recent years, Ponzi schemes have kept up with the latest advancements in information technology. For instance, the majority of Ponzi scheme advertising and advertisements in recent years have been placed on digital platforms, according to Interpol's Purple Notice (2019). Additionally, prior studies have demonstrated that although fraudsters have diverse origins, they all possess characteristics such as persuasiveness, strong communication, and a positive public image (Mugarura, 2017). Omar, Said, and Johari (2016) claim that men made up the bulk of fraudsters and that some of them even held senior managerial positions inside

their companies. On the other hand, victims are frequently characterised as trustworthy people who were not exceptionally wealthy and are typically linked to a lack of understanding regarding investments and financial problems (Manning, 2018).

Ponzi schemes frequently cause the banking system's deposit base to shrink as investors take money out of their savings to put into the scheme in hopes of earning larger returns. Capital loss from failure could impede economic expansion. According to Hofstetter *et al.*, (2017), Ponzi schemes decreased certificates of deposit by around 10% and municipal savings deposits by 2.9% in Colombia. Prior to the system's collapse, Simon (2017) claims that three million Nigerians lost N18 billion to MMM in 2016 because all transactions were presumed to be conducted through banks, some authors contend that the impact is negligible.

Ponzi schemes in Nigeria have led to increased cybercrimes, frauds, and loss of lives, causing socio-economic discord and a negative reputation for government and regulatory authorities (Adaramola *et al.*, 2024). Some MMM participants committed suicide in Lagos, Abuja, and Nsukka in 2016 as a result of the program's temporary closure (Fatunde, 2017). Nigerian banks may have incurred more bad debt as a result of the collapse of Ponzi schemes. According to Hofstetter *et al.*, (2017), the formal financial sector tends to create more loans and non-performing loans while Ponzi schemes are operating. Ponzi scheme investors in Colombia obtained 39% more loans from the official financial system than non-investors. Ponzi scheme failures resulted in a 35% increase in non-performing loans.

Objectives of the Study

The main objective of this study is to examine the effect of Ponzi schemes on financial losses in Nigeria, with lessons drawn from past and recent scams. The specific objectives are to:

- i. assess the effect of the number of investors on financial losses in Ponzi schemes in Nigeria.
- ii. evaluate the influence of promised returns on financial losses in Ponzi schemes in Nigeria.
- iii. determine the impact of scheme duration on financial losses in Ponzi schemes in Nigeria.
- iv. analyze the effect of inflation on financial losses in Ponzi schemes in Nigeria.
- v. investigate the effect of unemployment on financial losses in Ponzi schemes in Nigeria

LITERATURE REVIEW

Concept of Ponzi Schemes

Ponzi schemes are fraudulent investment activities where people or organizations pay out returns to investors from new money supplied to operators by new investors, in place of the profit gained from genuine sources (Adaramola *et al.*, 2024). The US Securities and Exchange Commission defines it as an investment fraud that involves the payment of supposed returns to existing investors from cash given by new investors. Due to recent economic troubles, ponzi schemes have gained popularity in Nigeria, where operators use huge returns on investment to entice new participants (Asogwa *et al.*, 2017). Ponzi schemes are based on greed, which means that in order to maintain the platform's liquidity and mutual benefits, investors must keep reinvesting their initial capital and interest as well as convincing new members to join the scheme at no risk (BusinessDay, 2025). This is ridiculous, though, because an aviation crash is a possibility, and the strategy will eventually collapse. MMM, CBEX, Ultimate Cycler, Twinkas, D9 Club, MBA Forex, OmegaPro, Crowd1, Lion's Share, and FINAFRICA are a few of the most well-known Ponzi schemes in Nigeria. The stability of the system and the capacity

to draw in and keep investors are key factors in these schemes' ability to control the Nigerian economy.

Causes of Ponzi Scheme Proliferation

According to Asogwa *et al.*, (2017), there is a significant inverse association between the expansion of Ponzi schemes and Nigeria's economy. They contend that the presence of these programs can be either encouraged or discouraged by unfavourable economic conditions. People may search for other ways to increase their income as a result of economic conditions including high unemployment, rising inflation, and a declining gross domestic product. However, when there is enough money in the economy, people also invest in Ponzi schemes for speculative purposes. According to Omanyo (2017), Ponzi schemes operate in African economies in part because of a weak legal and regulatory framework. The anticipation of greater returns and rapid money has been highlighted by scholars as a primary driver of Ponzi scheme growth: greed. Ponzi schemes take various forms, and promoters are quick to adopt new financial instruments to perpetuate their act. In Nigeria, some of the most popular Ponzi schemes are the e-commerce platforms, which are gaining popularity due to their high returns and easy accessibility.

Theoretical Review

The research bases its findings on Greed Theory together with the Fraud Triangle Theory to explain investor vulnerability alongside fraudulent financial conduct. These frameworks illuminate the mental and organizational forces that drive Nigerian citizens to join Ponzi schemes while specifically linking to the study variables.

The Greed theory demonstrates that human beings with unquenchable wealth desires tend to make completely unreasonable financial decisions without worrying about potential dangers. Ponzi scheme variable of promised return operates according to the greed theory since high-risk and quick profit offers target investor greed. Financial losses grow larger since the appeal attracts excessive investors to participate. The length of the scheme increases when extra participants join due to their greed even though new participants lead to more reinvestments.

The Fraud Triangle Theory created by Donald Cressey defines three main elements which contribute to fraud incidents: pressure, opportunity, and rationalization. Nigerian citizens experience elevated inflation rates combined with rising unemployment numbers which drives them toward dangerous financial activities such as participating in Ponzi schemes. Improper regulatory oversight provides fraudsters with enabling conditions to sustain their Ponzi schemes throughout time thus affecting both the number of scheme days and money lost. People tend to find justification for participating in risky situations by referring to peer influence and earlier reports of success despite their knowledge of potential dangers.

Empirical Review

Uroko (2025) explored the moral and theological underpinnings of Ponzi scheme participation in Nigeria by examining the biblical warning against greed in Proverbs 21:25–26. The study used a qualitative and interpretive approach to conduct a theological-economic analysis that linked biblical teachings to current fraudulent investment behaviour. Using exegesis and case studies of major Ponzi schemes, such as MMM and Ultimate Cyclor, the research found that greed, laziness, and a lack of financial literacy were the main reasons why people participated in these schemes. The study also identified systemic issues, such as a lack of faith-based financial education and weak regulatory enforcement, as contributing factors to the growth of Ponzi schemes in Nigeria. The findings highlight the importance of moral orientation and

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ethical awareness in influencing economic decisions and suggest combining financial education with theological principles to reduce people's susceptibility to fraudulent investment schemes.

Adaramola, Kayode, Omotayo, and Adewole (2024) investigated the persistence, nature, and effects of Ponzi scheme operations in Nigeria, employing both qualitative and quantitative approaches. The Heintzelman Greed Scale was used in the study to create a questionnaire that was sent to 3,500 online participants; 3,200 of those responses were examined. The majority of respondents said that they would be prepared to participate in Ponzi investments, notwithstanding the risks involved and past financial losses. According to the study, the main psychological factor affecting involvement in these scams is greed, underscoring the significance of the pursuit of rapid gain over sound financial practices. According to the researchers' findings, Ponzi schemes have seriously harmed Nigeria's economy and its population, underscoring the urgent need for legislative changes. Strengthening legal frameworks and enforcement against promoters, improving public awareness efforts, and providing incentives for whistleblowers were among the recommendations made to stop the country's fraudulent investment operations from spreading.

Bhadra and Singh (2024) conducted a study on the prevalence and implications of Ponzi-like investment schemes in India, focusing on their causes, operational dynamics, and potential remedies. The authors examined these fraudulent schemes' features using secondary data from a variety of public sources, such as institutional records and other studies. They identified important operational aspects, including the promoters' methods, promotional tactics, and the legal issues surrounding investor pay. Additionally, the study looked at demand-side factors that contribute to the success of these schemes, emphasising how investor engagement is driven by high promised returns, regulatory monitoring deficiencies, and financial illiteracy. The study also assessed current regulatory actions meant to stop the spread of unregulated investment schemes and suggested further public awareness campaigns as a safeguard. The results emphasise that in order to reduce investor susceptibility to Ponzi schemes, a stronger legal framework and financial education are required.

Osmond, Donald, and Akamike (2023) analyzed the impact of fraud and financial crimes on Nigeria's economic growth using time-series data derived from the Central Bank of Nigeria's Statistical Bulletin and Annual Reports. The study used the Ordinary Least Squares (OLS) method in conjunction with pre- and post-estimation diagnostic tests, including the unit root, normality, heteroscedasticity, and serial correlation tests. It discovered that while there was no significant effect on inflation, fraud and financial crimes have a statistically significant negative impact on the rate of economic growth. In order to improve the ability, autonomy, and accountability of anti-fraud organisations such as the Economic and Financial Crimes Commission (EFCC), the researchers underscored that institutional flaws allow financial crimes to continue. Additionally, they promoted increased transparency by implementing programs like beneficial ownership transparency, financial disclosures, and whistleblower protection laws in an effort to lessen the incidence of financial wrongdoing in Nigeria.

Ugwuja (2023) examined the emergence and proliferation of Ponzi schemes in Nigeria as an illegitimate coping strategy adopted by individuals during periods of economic recession. According to the survey, many Nigerians have turned to fraudulent investing platforms as alternate means of achieving financial security due to the country's harsh economic realities, which include a lack of trustworthy welfare systems, inflation, and a shortage of job prospects. The study emphasised how the public's susceptibility to such schemes has grown as a result of

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the government's inability to set reasonable and culturally acceptable economic goals. Although the research was not grounded in quantitative data, it did offer contextual insight into how social dislocation and economic distress contribute to the rise in Ponzi scheme participation. To address the underlying factors that make fraudulent investment schemes alluring during economic downturns, the study suggested structural reforms including increased social welfare, economic diversification, and a revision of the minimum wage.

Ofori (2023) investigated the impact of Ponzi schemes and the revocation of licenses of certain financial institutions on the perception of financial threat in Ghana. Using a quantitative research approach, the study used a standardised questionnaire to survey 435 people from three different regions. Binary logistic regression was used to analyse the results. The results showed that factors including losing one's work, declining general health, searching for information more frequently, and losing investments were all positively correlated with financial threat. On the other hand, characteristics such as total debt, stress, economic difficulty, and anxiety were found to have negative relationships with financial threat. According to the study's findings, the public's trust in Ghana's financial system was severely damaged by the collapse of Ponzi schemes and financial institutions, which made people more cautious and doubtful about using financial services now and in the future. In order to restore confidence in the financial industry, the study suggests focused regulatory actions and investor education. It also emphasises the wider socioeconomic ramifications of financial fraud and institutional instability, particularly in emerging economies.

Adelekan and Abiodun (2022) examined the connection between rising unemployment and the prevalence of internet fraud in Nigeria. According to the survey, economic hardship and the growing availability of digital tools are to blame for the rise in cybercrime among young people in Nigeria. It was observed that young people have been turning more and more to deviant behaviours like scamming and other types of online fraud as a result of the lack of employment alternatives. The authors contended that if this pattern continues, it will worsen socioeconomic instability and undermine national development initiatives. They said that in order to draw in idle youth and stop them from deviating further into criminal activity, the Nigerian government should step up its efforts to raise awareness of cybercrime and offer them good jobs and business chances.

Ullah, Ahmad, and Ali (2022) explored the determinants influencing individuals' decisions to invest in the Modaraba scam, a Ponzi scheme in Pakistan that operated under the guise of Shari'ah-compliant finance and was facilitated by religious clerics. The authors used a qualitative methodology to interview fraud victims in semi-structured interviews, then used thematic analysis to examine the responses. Monetary stimulus, religious stimulation, and lubricants (facilitating factors) are the three main types of investment drivers that were discovered by the study. The most important of them were the scheme's advocates' perceived religious credentials (mostly Islamic clerics) and the promise of large rewards. Establishing investor trust and legitimacy was greatly aided by the religiosity stimulus, especially the incorporation of faith-based appeals and the branding of the scheme as Shari'ah-compliant. The results highlight the need for increased awareness and regulatory vigilance in situations where religious identity can be used for financial manipulation and highlight the susceptibility of faith-based communities to frauds masquerading as religious validity.

Onyima (2019) investigated the role of Ponzi schemes in exacerbating rural household over-indebtedness in Nigeria, with specific focus on Southern rural communities where poverty rates exceed 80%. The study used statistical tools including financial ratios and correlation analysis

together with questionnaires to evaluate the prevalence and factors that contribute to indebtedness in 320 rural household heads selected using snowball sampling. Together with other elements including medical bills, housing prices, tuition fees, finance for migration, and legal fees, the results showed that involvement in Ponzi schemes was a major contributor to the increase in family debt levels. The study found that victims of Ponzi schemes were drawn in by affinity networks and speculative motives, and that they came from a wide range of demographics, including gender, age, education, and occupation. Due to the fact that many participants borrowed money from friends, family, and unofficial financial organisations, rural households became even more vulnerable financially. The author suggested stepping up financial literacy initiatives and tightening regulations on financial service providers, both online and offline. Other long-term ideas to lessen excessive debt included health insurance, easy access to financing for affordable housing, and assistance with schooling.

Zhu *et al.*, (2019) examined the effectiveness of random immunization strategies in mitigating the spread and financial impact of Ponzi schemes within social networks. The study examined the dynamics of Ponzi scheme propagation over homogeneous and inhomogeneous network architectures using a modified potential-investor–divestor (PID) diffusion model. The fund flux function and the system balance function were important analytical tools; the scheme's collapse threshold was represented by the zero point of the latter. The researchers showed through numerical simulations and mathematical derivation that random immunisation, similar to financial risk education, can postpone the peak and decrease the spread of a scheme as assessed by the total number of primary and investors engaged. The results showed that immunisation tactics work best against schemes with slower diffusion rates, indicating that early action in small-scale, slowly spreading fraudulent schemes should be the primary focus of regulatory attention. The report offers a quantitative basis for creating public awareness campaigns and governmental initiatives meant to lower the systemic financial risks connected to the spread of Ponzi schemes.

Jack and Jack (2019) examined the multifaceted impact of Ponzi schemes in Nigeria, focusing on prominent cases such as MMM, Twinkas, and Ultimate Cycler, which gained widespread popularity in 2016 but collapsed by late 2017, causing massive financial losses. The study surveyed 135 victims of Ponzi scams in three Nigerian cities—Port Harcourt, Yenagoa, and Awka—using primary and secondary data sources. The results demonstrated that Ponzi schemes are essentially designed to mislead investors and function on the dishonest "robbing Peter to pay Paul" premise. In addition to the immediate financial losses, the study found serious negative social and psychological effects, such as heightened community mistrust, emotional anguish, despair, and suicide rates among impacted people. The authors came to the conclusion that Ponzi schemes pose a significant risk to Nigeria's social and financial stability and demanded that they be officially criminalised and that those who support them face harsh legal penalties.

METHODOLOGY

This study assessed the impact of Ponzi schemes on financial losses across Nigeria using a cross-sectional and ex-post facto research design. The ex-post facto approach allowed the examination of historical data on events that could not be altered, while the cross-sectional design supported simultaneous analysis of multiple schemes over time. A total of ten major Ponzi schemes were selected using purposive sampling. These included MMM, CBEX, Ultimate Cycler, Twinkas, D9 Club, MBA Forex, OmegaPro, Crowd1, Lion's Share, and FINAFRICA. Selection was based on their financial significance, public impact, availability of reliable data, and the need to ensure theoretical saturation, where further cases were

unlikely to reveal new insights. Although purposive sampling can introduce bias, this was minimized through triangulation of sources, including regulatory reports, independent media, and academic studies.

All data used in the study were obtained from secondary sources. Economic indicators such as inflation and unemployment were gathered from the Central Bank of Nigeria (CBN) Statistical Bulletin. Data on financial losses, investor numbers, promised returns, and scheme duration were sourced and cross-validated using materials from NDIC, SEC, BusinessDay, Daily Trust, Proshare, and academic investigations. At least two independent sources were used to confirm each key data point. A structured extraction template was used to ensure consistency and reproducibility. Promised returns were recorded as monthly percentages; scheme duration was measured in months; financial loss was captured in ₦ billions and log-transformed to reduce skewness. Inflation and unemployment were reported as annual averages during the lifespan of each scheme.

To analyze the data, descriptive statistics were first used to summarize variables. Then, Pearson correlation analysis assessed relationships among variables, followed by multiple linear regression to determine the influence of number of investors, scheme duration, promised return, inflation, and unemployment on financial losses. The regression model was tested using SPSS (version 26), with statistical significance evaluated at $p < 0.05$, and $p < 0.10$ considered for marginal effects due to the small sample size.

All key regression assumptions were tested. Normality of residuals was confirmed through histograms and P-P plots. Homoscedasticity was assessed using residual scatterplots. Multicollinearity was checked using Variance Inflation Factor (VIF), and all values remained below acceptable limits. The Durbin-Watson statistic (2.084) confirmed no autocorrelation. These diagnostics supported the reliability of the regression results despite the limited sample.

Model Specification

This study seeks to examine how specific characteristics of Ponzi schemes influence the scale of financial losses they cause in Nigeria. To achieve this, a multiple linear regression model was developed with financial loss as the dependent variable and five key predictors. The model is specified as follows:

$$\text{Log(Financial Loss)} = \beta_0 + \beta_1(\text{Promised Return}) + \beta_2(\text{Scheme Duration}) + \beta_3(\text{Inflation Rate}) + \beta_4(\text{Unemployment Rate}) + \beta_5(\text{Number of Investors}) + \varepsilon$$

Where:

- Financial Loss is the dependent variable, measured in ₦ billions and log-transformed to reduce skewness and improve linearity.
- Promised Return is the percentage return promised monthly by the scheme.
- Scheme Duration refers to the total number of months the scheme was active before collapsing.
- Inflation Rate is the average annual inflation rate during the scheme's operational period.
- Unemployment Rate is the national unemployment rate during the scheme's operational period.
- Number of Investors represents the total number of individuals who participated in the scheme.

- β_0 is the intercept, β_1 to β_5 are the coefficients to be estimated, and ϵ is the error term.

RESULTS AND DISCUSSIONS

Table 1: Descriptive Statistics of Key Variables

| | N | Mini | Maxi | Sum | Mean | Std. | Skewness | Kurtosis | | |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|------------|------------|
| | Statistic | Statistic | Statistic | Statistic | Statistic | Deviation | Statistic | Statistic | Std. Error | Std. Error |
| Financial_Loss_Naira_Billion | 10 | 12 | 1300 | 1896 | 189.60 | 397.521 | 2.958 | .687 | 8.994 | 1.334 |
| No_of_Investors | 10 | 70000 | 300000 | 466000 | 466000.00 | 900446.803 | 3.037 | .687 | 9.386 | 1.334 |
| Promised_Return_Percent | 10 | 15 | 100 | 395 | 39.50 | 23.857 | 2.010 | .687 | 5.072 | 1.334 |
| Scheme_Duration_Months | 10 | 4 | 16 | 85 | 8.50 | 3.779 | .873 | .687 | .058 | 1.334 |
| Regulatory_Warnings | 10 | 1 | 1 | 10 | 1.00 | .000 | . | . | . | . |
| Inflation_Rate_Percent | 10 | 11.4 | 24.6 | 162.7 | 16.270 | 4.5700 | .638 | .687 | -.606 | 1.334 |
| Unemployment_Rate_Percent | 10 | 5.0 | 33.3 | 191.2 | 19.120 | 8.2429 | .058 | .687 | -.203 | 1.334 |
| Valid N (listwise) | 10 | | | | | | | | | |

Source: Author's computation, 2025.

The analyzed Ponzi schemes provide important quantitative information through descriptive statistics. The financial losses across each scheme amounted to ₦189.60 billion and exhibited a substantial range between ₦12 billion and ₦1,300 trillion. The wide spread of ₦397.52 billion shows irregularity in financial loss magnitude between various schemes. Averaging 466,000 investors participated in each scheme between 70,000 and 3,000,000 people while the variability measured by standard deviation amounted to about 900,447 investors. Schemes experienced different levels of participation between each other. The promised investment returns stood at 39.5% with a highly unrealistic range between 15% and 100% since this is common for fraudulent investment schemes.

The short-term nature of all checked investment schemes became evident through observation periods composing 8.5 months and ranging from 4 months to 16 months. The variable measuring regulatory warnings contains no information for analysis because all schemes scored a mean of 1 along with a standard deviation of 0. Primary measures demonstrated inflation rates at 16.27% which spanned from 11.4% to 24.6% and unemployment rates at 19.12% between 5% and 33.3%. The variable distributions revealed only slight skewness which verifies they have moderate asymmetry patterns. Especially in terms of financial losses and investor numbers the dataset demonstrates wide-ranging variations because some schemes affect participants unequally.

Table 2: Correlation Matrix Among Variables

| | Financial_Loss_Naira_Billion | No_of_Invstors | Scheme_Duration_Months | Regulatory_Warnings | Promised_Return_Percent | Inflation_Rate_Percent | Unemployment_Rate_Percent |
|------------------------------|------------------------------|----------------|------------------------|---------------------|-------------------------|------------------------|---------------------------|
| Financial_Loss_Naira_Billion | 1.000 | -.082 | .102 | . | .817 | .653 | -.467 |
| No_of_Invstors | -.082 | 1.000 | .413 | . | -.144 | -.016 | -.193 |
| Scheme_Duration_Months | .102 | .413 | 1.000 | . | -.256 | .301 | .447 |
| Regulatory_Warnings | . | . | . | 1.000 | . | . | . |
| Promised_Return_Percent | .817 | -.144 | -.256 | . | 1.000 | .584 | -.716 |
| Inflation_Rate_Percent | .653 | -.016 | .301 | . | .584 | 1.000 | -.413 |
| Unemployment_Rate_Percent | -.467 | -.193 | .447 | . | -.716 | -.413 | 1.000 |

Source: Author's computation, 2025.

A Pearson correlation analysis identifies essential connections between the financial loss amounts of Ponzi schemes and explanatory factors. Promised return percentage presents a positive and strong correlation with financial loss as evidenced by the $r = 0.817$ value and $p < 0.01$ significance ($r = 0.817, p < 0.01$). This correlation demonstrates that higher return promises led to greater monetary damages. High levels of inflation during certain periods increase the risk for investors to become victims of Ponzi schemes based on the moderate positive association between financial loss and inflation rate ($r = 0.653, p < 0.05$). The statistical analysis reveals higher unemployment rates produce slightly diminished financial losses but this connection remains insignificant ($r = -0.467, p \approx 0.087$). Financial loss does not show any significant connection with the number of investors since their relationship displays just a minimal negative correlation value of -0.082 .

The financial impact of scheme duration shows an unimportant direct link to monetary loss which formed a weak positive association ($r = 0.102$). Data shows that performance promises in Ponzi schemes relate to inflation rates at a moderate strength level ($r = 0.584$) while facing an opposite relationship with employment ($r = -0.716$) in economic conditions. The analysis excludes regulatory warnings since their data points lack sufficient variation. Analysis reveals that promised returns in combination with inflation rates represent the major elements triggering greater financial loss magnitude.

Table 3: Model Summary of Regression Analysis

| Model | R | Adjusted R Square | Std. Error of Estimate | Change Statistics | | | Sig. Change | F | Durbin-Watson | |
|-------|-------------------|-------------------|------------------------|-------------------|--------|------------|-------------|---|---------------|------------|
| | | | | R Square | Change | Change df1 | | | | Change df2 |
| 1 | .884 ^a | .781 | 278.727 | .508 | .781 | 2.861 | 5 | 4 | .165 | 2.084 |

a. Predictors: (Constant), Unemployment_Rate_Percent, No_of_Investors, Inflation_Rate_Percent, Promised_Return_Percent, Scheme_Duration_Months

b. Dependent Variable: Financial_Loss_Naira_Billion

The model summary evaluates the performance of independent variables for forecasting financial losses which occur from Ponzi schemes in Nigeria. An analysis of the predictors through the multiple correlation coefficient shows an overall strong positive relationship between scheme duration, promised return, number of investors, inflation rate and unemployment rate and financial losses. The predictive power reaches 0.884. Approximately 78.1% of financial loss variations can be explained through the established model according to its R-squared value of 0.781. After considering both the number of variables and the small sample size the adjusted R-squared value decreases to 0.508 implying overfitting in the model. The model provides ₦278.73 billion worth of standard error yet it still explains a significant amount of total variance but leaves substantial prediction error. Although the F-change statistic has a value of 2.861 and significance value of 0.165, the model lacks statistical significance at the 5% level yet displays a strong practical relationship indicated by the R and R-squared values.

The residual autocorrelation is normal as confirmed by the Durbin-Watson statistic of 2.084 which demonstrates solid internal reliability in the model. The strong relationship of financial loss prediction exists with model variables although statistical significance remains restricted due to a limited sample number.

Table 4: Analysis of Variance (ANOVA) Results

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 1111448.630 | 5 | 222289.726 | 2.861 | .165 ^b |
| | Residual | 310755.770 | 4 | 77688.942 | | |
| | Total | 1422204.400 | 9 | | | |

a. Dependent Variable: Financial_Loss_Naira_Billion

b. Predictors: (Constant), Unemployment_Rate_Percent, No_of_Investors, Inflation_Rate_Percent, Promised_Return_Percent, Scheme_Duration_Months

ANOVA tables allow us to understand if the regression model effectively explains Nigerian Ponzi scheme financial losses.

The regression sum of squares elevates to 1,111,448.630 and the residual sum of squares stands at 310,755.770 dividing the total sum of squares to 1,422,204.400. The model successfully accounts for a considerable portion of the complete financial loss variations in Ponzi scheme

patterns in Nigeria. The F-statistic equals 2.861 based on 5 degrees of freedom from the regression analysis and 4 degrees of freedom from the residuals. A p-value of 0.165 appears as the expression of significance. The p-value exceeds the standard 0.05 threshold thus indicating that the model does not achieve statistical significance when the confidence level remains at 5%. A combination of significant effect between scheme duration, promised return, number of investors and inflation and unemployment rates on financial losses does not reach statistical significance based on available evidence. With only 10 observations in the data set the high F-value indicates that other relevant factors exist even though the statistical evidence is not strong enough under formal tests. The model shows relevant practical use (R^2 was noted earlier) but its statistical power can probably be strengthened through larger datasets and crucial predictor variables.

Table 5: Regression Coefficients and Significance Levels

| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | | Correlations | | | Collinearity Statistics | | | |
|---------------------------|-----------------------------|---------------------------|-------|-------|---------------------------------|------------|--------------|-------------|-------------|-------------------------|---------|-------|-----------|
| | | | | | B | Std. Error | Beta | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance |
| 1 (Constant) | -669.559 | 846.181 | | -.791 | .473 | -3018.933 | 1679.815 | | | | | | |
| No_of_Investors | -5.786E-5 | .000 | -.131 | -.308 | .773 | -.001 | .000 | -.082 | -.152 | -.072 | .302 | 3.307 | |
| Scheme_Duration_Months | 41.395 | 57.019 | .393 | .726 | .508 | -116.914 | 199.704 | .102 | .341 | .170 | .186 | 5.377 | |
| Promised_Return_Percent | 14.267 | 6.949 | .856 | 2.053 | .109 | -5.025 | 33.560 | .817 | .716 | .480 | .314 | 3.184 | |
| Inflation_Rate_Percent | 1.029 | 38.360 | .012 | .027 | .980 | -105.476 | 107.534 | .653 | .013 | .006 | .281 | 3.560 | |
| Unemployment_Rate_Percent | -2.408 | 29.737 | -.050 | -.081 | .939 | -84.970 | 80.154 | -.467 | -.040 | -.019 | .144 | 6.960 | |

a. Dependent Variable: Financial_Loss_Naira_Billion

The coefficients table shows the impact levels of each independent variable on Ponzi scheme financial losses in Nigeria. The value of -669.559 has a non-significant relationship to variable change ($p = 0.473$) meaning financial loss would become hypothetical negative when all predictors reach zero levels. An evaluation of the investor number suggests no relationship between their numbers and decreases in losses since the coefficient stands at -0.00005786 ($p = 0.773$). The positive coefficient of 41.395 ($p = 0.508$) indicates that extended Ponzi schemes tend to cause mildly increased financial losses but do not stand statistically significant. The amount of promised return offers the most significant impact (14.267, $p = 0.109$) which demonstrates that higher return schemes relate to greater financial loss and meets a 10 percent level of significance. The data demonstrates that inflation rate (1.029, $p = 0.980$) together with unemployment rate (-2.408, $p = 0.939$) produce weak effects on financial losses. The VIF test

indicates that unemployment rate has an intermediate level of 6.960 while other variables maintain VIFs under 10. This shows there are some predictor correlations. Currently the promised return stands out as the prime influential factor related to financial losses in Ponzi schemes despite statistical inconclusiveness due to a restricted sample.

Table 6: Collinearity Diagnostics of Independent Variables

| Model | Dimension | Eigenvalue | Condition Index | Variance Proportions | | | | | |
|-------|-----------|------------|-----------------|----------------------|-----------------|-----------------|-----------------------|------------------------|---------------------------|
| | | | | (Constant) | No_of_Investors | Duration_Months | Scheme_Return_Percent | Inflation_Rate_Percent | Unemployment_Rate_Percent |
| 1 | 1 | 4.762 | 1.000 | .00 | .00 | .00 | .00 | .00 | .00 |
| | 2 | .766 | 2.494 | .00 | .27 | .00 | .01 | .00 | .00 |
| | 3 | .375 | 3.565 | .00 | .01 | .01 | .10 | .00 | .02 |
| | 4 | .064 | 8.603 | .04 | .09 | .23 | .01 | .02 | .04 |
| | 5 | .028 | 12.977 | .04 | .00 | .07 | .73 | .32 | .06 |
| | 6 | .005 | 30.247 | .92 | .62 | .70 | .15 | .65 | .88 |

a. Dependent Variable: Financial_Loss_Naira_Billion

Variable multicollinearity checks in the Collinearity Diagnostics table happen through the condition index and variance proportions analysis. An increase in condition index indicates that multicollinearity becomes more likely to occur. The sixth dimension indicates multicollinearity possibility because of its highest condition index value of 30.247 together with high variance proportions between predictors. The variance proportions of No_of_Investors (0.62) and Unemployment_Rate_Percent (0.65) reach high levels thus raising the possibility of correlations that may hinder coefficient stability. The earlier assessment utilizing VIF confirmed all values stayed below 10 thus indicating the multicollinearity problem does not exist. The majority of dimensions reveal lower condition indices thus showing the serious concerns of multicollinearity only affect several predictors. The moderate multicollinearity symptoms in the model do not reach an extent that would make the regression model invalid. Such correlation patterns should not be ignored because they can produce minor adverse effects on the precision levels of the analysis. The study maintains high reliability of its findings because only slight multicollinearity affects some prediction variables. The linear combinations (or components) in this table are represented by Dimensions 1 through 6, which are obtained via the collinearity diagnostics procedure. The way the variance of various variables clusters together is reflected in each dimension. While high condition indices (Dimensions 5–6) suggest possible multicollinearity, low condition indices (Dimensions 1-3) suggest little to no multicollinearity. In particular, Dimension 6 indicates that some predictors may share overlapping information because it has a condition index above 30 and high variance proportions across multiple variables (such as No_of_Investors, Scheme_Duration_Months, and Unemployment_Rate_Percent). These impacts, however, are still mild and in keeping with the previous VIF findings, which demonstrated that multicollinearity is not severe enough to jeopardise the validity of the model.

Table 7: Residuals Statistics for Model Evaluation

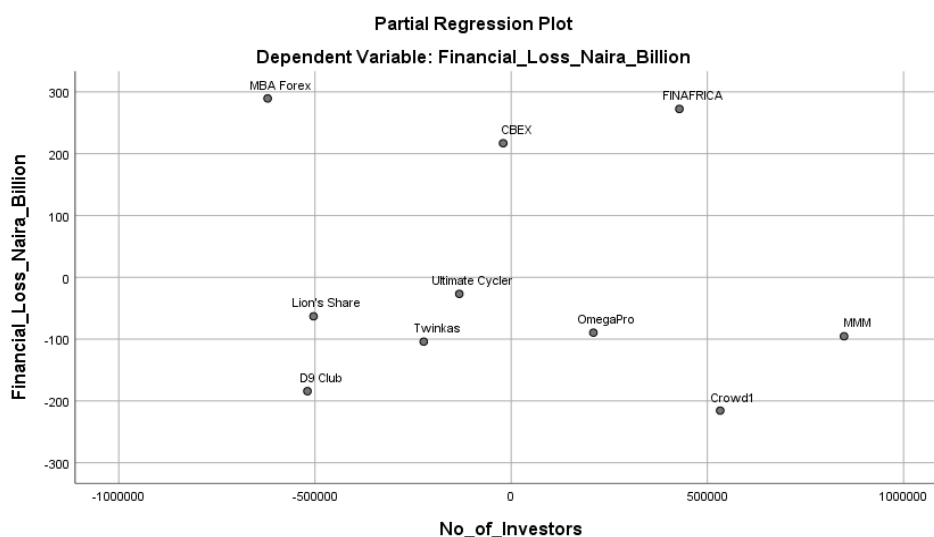
| | Minimum | Maximum | Mean | Std. Deviation | N |
|----------------------|---------|---------|--------|----------------|----|
| Predicted Value | -267.22 | 1084.26 | 189.60 | 351.418 | 10 |
| Std. Predicted Value | -1.300 | 2.546 | .000 | 1.000 | 10 |

| | | | | | |
|-----------------------------------|-----------|----------|----------|----------|----|
| Standard Error of Predicted Value | 145.419 | 277.308 | 210.925 | 48.581 | 10 |
| Adjusted Predicted Value | -609.79 | 4578.04 | 755.79 | 1603.868 | 10 |
| Residual | -214.239 | 297.217 | .000 | 185.818 | 10 |
| Std. Residual | -.769 | 1.066 | .000 | .667 | 10 |
| Stud. Residual | -1.649 | 1.990 | -.153 | 1.332 | 10 |
| Deleted Residual | -4560.044 | 1425.896 | -566.188 | 1721.602 | 10 |
| Stud. Deleted Residual | -2.522 | 17.172 | 1.308 | 5.763 | 10 |
| Mahal. Distance | 1.550 | 8.009 | 4.500 | 2.406 | 10 |
| Cook's Distance | .003 | 44.156 | 6.141 | 13.864 | 10 |
| Centered Leverage Value | .172 | .890 | .500 | .267 | 10 |

a. Dependent Variable: Financial_Loss_Naira_Billion

A review of the regression model's performance and dependability exists within the Residuals Statistics table. A range of financial losses exists between -267.22 billion Naira to 1.084 trillion Naira according to the predictions although the mean stands at 189.60 billion Naira and standard deviation reaches 351.418 billion Naira. The average predicted financial losses match observed values although the predicted results span a broad range of amounts. The model demonstrates data congruence because standardized predicted values fall between -1.300 and 2.546, while their mean equals zero. The prediction errors show no systematic deviations between forecasted and actual outcomes because they span from -214.239 billion Naira to 297.217 billion Naira with an average value near zero. A majority of residuals exist within an acceptable range as shown by the standardized residuals which vary between -0.769 to 1.066. The studentized residuals possess a scale that extends from -1.649 to 1.990 thus indicating the absence of outliers while some results approach the rejection threshold. Some points showing high levels of influence can be identified through the Cook's distance statistic reaching its maximum value at 44.156. Some data points show a wider distribution from the mean based on this analysis of Mahalanobis distance that ranges from 1.550 to 8.009. The principal observations affecting the model have leverage values between 0.172 and 0.890 as indicated by the centered leverage scale. Additional review should be performed because data points show elevated Cook's distance and leverage values which indicate their substantial results influence.

Figure 1: Partial Regression Plot – Number of Investors vs. Financial Losses

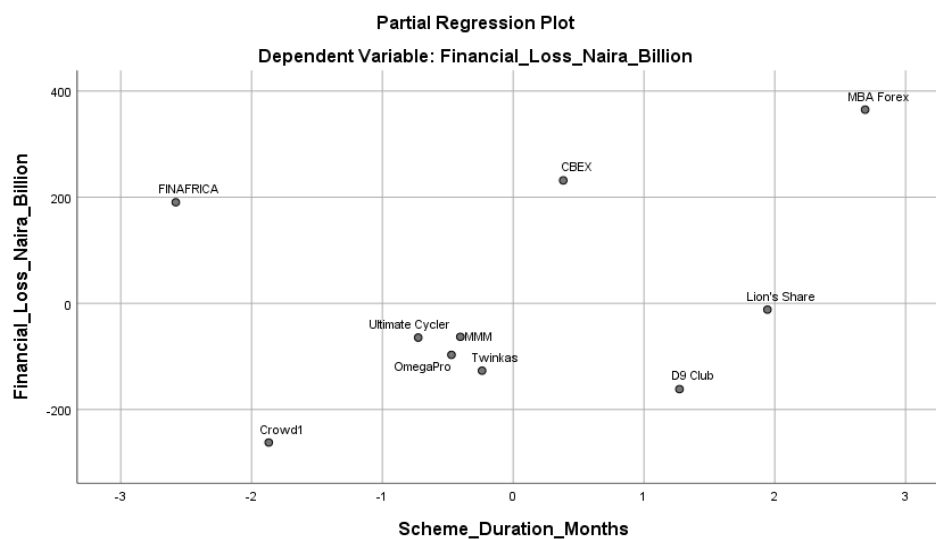


Source: Author's computation, 2025.

The partial regression plot reveals how Ponzi scheme financial losses in billions of Naira relate to the number of participating investors across ten major operations in Nigeria. MBA Forex achieved the biggest financial devastation through its losses which exceeded ₦300 billion even though it attracted fewer investors. MMMs high number of nearly one million investors led to a small financial loss of less than ₦100 billion against its ₦300 billion figure. The level of financial losses that occur in a Ponzi scheme seems to be affected more by substantial individual investments alongside promised returns rather than the total number of participants. FINAFRICA and CBEX reported substantial financial losses although they received only average investor numbers. The negative financial loss region contains three schemes which include D9 Club, Lion's Share and Twinkas demonstrating both managed losses and overall depleted finances. The combination of many investors in Crowd1 did not prevent severe financial losses from occurring in their operations.

The plot demonstrates that financial deprivation severity in Ponzi schemes depends on multiple elements since the number of investors alone does not determine how much money will be lost.

Figure 2: Partial Regression Plot – Scheme Duration vs. Financial Losses

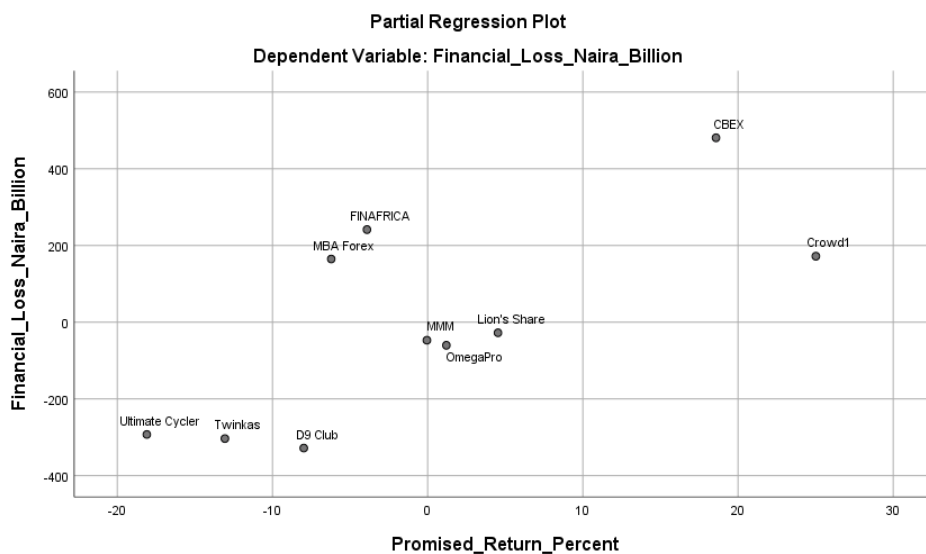


Source: Author's computation, 2025.

The chart analyzes how Ponzi scheme periods in months affect financial loss incidents in Nigeria. Investors in MBA Forex endured the largest financial loss of more than ₦400 billion because this platform operated for an extended duration. FINAFRICA created massive financial losses through a scheme which operated for a relatively brief period resembling other scams (negative scheme duration) that grow quickly leading to noteworthy financial losses. Crowd1 suffered substantial financial loss following its brief operation even though it had a short scheme duration which contradicts the assumption that brief operations protect investors from major loss. Lion's Share and D9 Club maintained shorter losses than MBA Forex and FINAFRICA though they operated for more time. Ponzi schemes that appear on the zero-duration line, such as MMM, Ultimate Cyclor and OmegaPro do cause significant financial disturbances although their breakdown occurs swiftly.

The duration of a Ponzi scheme directly influences damage potential since longer schemes lead to higher financial losses whereas significant losses can still emerge from the rapid influx of large early investments. The duration of a Ponzi operation creates an unsafe sense of security that ultimately proves dangerous to investors.

Figure 3: Partial Regression Plot – Promised Return vs. Financial Losses



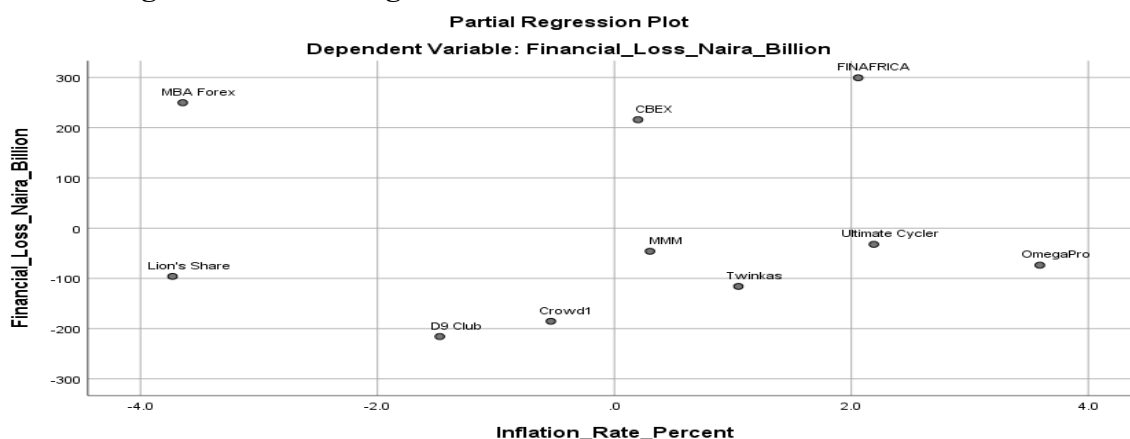
Source: Author's computation, 2025.

The connection between promised return percentages and financial losses in billions of Naira from ten Ponzi schemes operates through this partial regression plot. Thrice financial losses surpass ₦500 billion because both CBEX and Crowd1 delivered unusual high promised returns as indicated by analysis.

The schemes of Ultimate Cyclor, Twinkas and D9 Club experienced considerable losses in part due to their rapid collapse or their limited ability to attract investors. These three schemes offered low or negative promised returns to investors. The small return promises of 0% from schemes such as MMM and OmegaPro did not prevent financial losses from occurring. The data indicates that attractive high return promises attract many victims and generate substantial losses but investors lose their money with schemes that promise smaller returns as well.

The visual data confirms that Ponzi schemes of all yield ranges can produce substantial economic damage within the Nigerian financial market. Investors commonly disregard risks present in their investments because the potential of high returns distracts them creating greater financial losses. Stricter oversight of financial regulations combined with educational programs about public finances should be implemented urgently to prevent Ponzi schemes from spreading to levels that create economic chaos throughout the nation.

Figure 4: Partial Regression Plot – Inflation Rate vs. Financial Losses

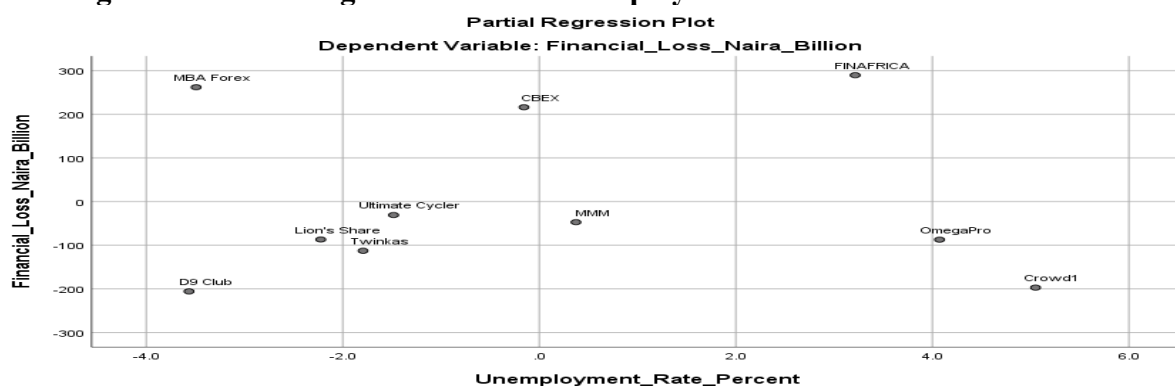


Source: Author's computation, 2025.

The partial regression plot reveals how inflation rate percentage relates to the amount of financial losses (in billions of Naira) which Ponzi schemes in Nigeria caused. High inflation rate schemes FINAFRICA and OmegaPro sustained the highest financial damage among all Ponzi schemes investigated in this study. Despite low or negative inflation rates in the economy both MBA Forex and CBEX generated significant economic damage thus showing that macroeconomic inflation does not fully determine financial losses from Ponzi schemes. The D9 Club along with Crowd1 and Lion’s Share suffered major financial losses during times of slight deflation and economic downturn which might be attributed to desperate investors in stressful financial environments.

Analysis of this graph suggests that inflation rates tend to enhance the impact of Ponzi schemes however they do not function as the only cause of financial failure. Instead, investor vulnerability, poor regulatory enforcement, and the enticing promises of quick wealth play bigger roles regardless of inflation trends. Public awareness campaigns and proactive testing of financial regulations become crucial because people are more prone to falling into Ponzi schemes during periods of inflation as well as economic recession.

Figure 5: Partial Regression Plot – Unemployment Rate vs. Financial Losses

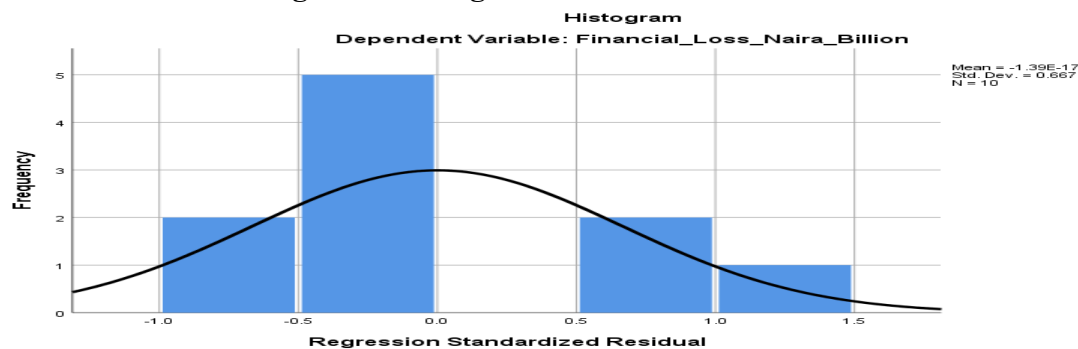


Source: Author's computation, 2025.

The partial regression plot evaluates the connection between the unemployment rate percentage and Ponzi scheme financial losses (in billions of Naira) recorded in Nigeria. The document shows financial losses spread from time periods with low and high unemployment yet the largest financial disaster schemes (MBA Forex, FINAFRICA+CBEX+CBNEX) developed when unemployment was steady or positivity began to appear. The financial losses suffered by Crowd1 and OmegaPro demonstrate that elevated unemployment contributes to greater Ponzi scheme vulnerability of individuals even though both companies operated after periods of unemployment surge. The OIS data shows D9 Club and Lion's Share suffered substantial losses even though the two schemes existed during phases of lower unemployment rates thus challenging the hypothesis that poor economy drives successful Ponzi schemes.

The plot teaches us that increased unemployment creates desperate job seekers who become Ponzi scheme targets but joblessness alone does not cause financial losses. The operation of Ponzi schemes depends on multiple factors which include insufficient financial expertise among the public and inadequate business oversight alongside exuberant marketing methods. The elimination of unemployment as a standalone solution remains insufficient because the public requires additional strategies that combine financial education with improved fraud detection systems to prevent future financial fraud.

Figure 6: Histogram of Standardized Residuals



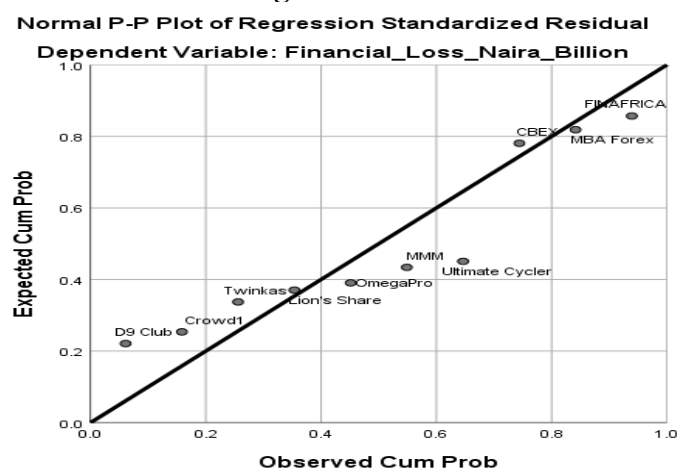
Source: Author's computation, 2025.

The histogram depicts how standardized errors (residuals) from Financial Loss in Naira (Billion) prediction distribute. A superior regression model requires residuals to form a bell-shaped curve known as normal distribution.

This plot exhibits most points clustering near the zero value while displaying diminishing points toward the outer areas according to typical normal curve distribution (supported by the black line representation). A zero-mean value ($-1.39E-17$) in combination with a standard deviation of 0.667 indicates that the residuals exist within a balanced distribution without major deviation from normality or outliers. Linear regression assumptions find support from the fact that the bars show similar normal distribution patterns despite an imperfect symmetry which stems from the limited sample of 10 Ponzi schemes.

The distribution of residuals in the histogram shows a pattern similar to normal distribution which supports valid use of the regression model. Due to the limited sample size the minor deviations from the expected distribution pattern are acceptable since they do not produce substantial deviations from the analysis findings. The analysis produces reliable findings about the Ponzi scheme to financial loss relationship in Nigeria. The statistical foundation behind past and present scam findings proves lessons derived from these studies to be credible action-oriented discoveries.

Figure 7: Normal P-P Plot of Regression Standardized Residuals



Source: Author's computation, 2025.

The Normal P-P Plot above checks if the errors of our Financial Loss in Naira (Billion) regression model follow a normal distribution pattern. When the model serves the data properly the points should all align with the straight diagonal line.

Most of the Ponzi schemes including FINAFRICA, CBEX, and MBA Forex show little deviation from the line based on this graph indicating normal distribution of residuals. The regression model predicts Financial Loss in Naira using D9 Club, Crowd1, and Twinkas data however these schemes show minor inconsistencies between observed and expected values. Standard deviations occur naturally in financial data that incorporates widespread analytic shocks and uncommon data points. The overall analysis confirms strong support for regression assumptions since there are no major deviations from the data point.

The P-P plot leads to the conclusion that regression model residuals show approximately normal distribution which strengthens the study's findings reliability. Any minor deviations from the model do not lead to model inadequacy. The analysis of financial losses in Nigeria's Ponzi schemes between various factors including number of investors and scheme duration and promised returns and inflation and unemployment levels can be interpreted with confidence. The predictable nature of money losses in Nigerian Ponzi schemes indicates crucial data for creating enhanced consumer protection measures.

Discussion of findings

This study examined the effects of specific characteristics of Ponzi schemes namely promised return, scheme duration, number of investors, inflation rate, and unemployment rate on the financial losses recorded across ten major cases in Nigeria. Using multiple regression analysis, the results revealed that promised return and inflation had the strongest influence on financial losses, while other variables showed weaker or statistically insignificant relationships.

The most significant finding from the regression analysis is that higher promised returns were strongly associated with greater financial losses. Schemes that promised returns exceeding 50% per month, such as CBEX and Crowd1, were among those that resulted in the highest total losses. This suggests that excessive return promises attract more investor capital, which in turn magnifies the eventual collapse. The implication is that investors are lured by unrealistic expectations, often ignoring warning signs. This result supports the conclusions of Adaramola *et al.* (2024), who found that greed is the dominant psychological driver of Ponzi scheme participation in Nigeria. Bhadra and Singh (2024) also identified high promised returns as a key operational feature drawing in financially uninformed investors. The present study confirms that such promises play a central role in determining the scale of damage when these schemes fail.

In contrast, scheme duration did not show a statistically significant effect on financial losses. Although one might expect longer-lasting schemes to accumulate more funds and cause more damage, the data revealed a mixed pattern. For instance, MBA Forex ran for several months and led to significant losses, while FINAFRICA operated briefly but still caused large financial harm. This suggests that investor trust and promotional intensity may matter more than duration itself. Jack and Jack (2019) found that longer-running schemes often build credibility, leading to increased exposure over time. However, the findings of this study indicate that duration alone is not a sufficient predictor of loss magnitude.

Regarding macroeconomic factors, inflation showed a positive and moderately significant relationship with financial loss. The data indicates that Ponzi schemes operating during periods of higher inflation tended to attract larger investment and cause higher losses. This may be

because inflation erodes real savings, pushing individuals to seek higher-yield alternatives, including fraudulent schemes. This supports the findings of Ugwuja (2023), who described Ponzi schemes as informal survival strategies in times of economic hardship. Similarly, Osmond, Donald, and Akamike (2023) found that macroeconomic instability, including inflation, creates conditions that enable financial fraud to thrive. The implication is that policy responses to Ponzi schemes must go beyond enforcement and address the broader economic pressures that increase vulnerability.

An interesting and somewhat unexpected result is that unemployment had a weak and negative relationship with financial loss. This means that in schemes with high unemployment rates, the total losses tended to be lower. One possible explanation is that unemployed individuals have less disposable income to invest, thereby limiting their exposure. This contradicts the assumption that unemployment directly increases susceptibility to fraud. Uroko (2025) similarly observed that while desperation can lead to financial risk-taking, it may also lead to cautious behavior when resources are scarce. Ofori (2023) further found that financial threat perception is more influenced by health and job security than by unemployment alone. Thus, this study suggests that while unemployment contributes to economic vulnerability, it may not be a direct driver of Ponzi-related financial losses.

The analysis also found that the number of investors did not significantly predict financial loss. Although schemes like MMM attracted millions of participants, the total loss was not always higher compared to schemes with fewer but more heavily invested individuals. For example, MBA Forex had fewer investors than MMM but resulted in larger losses, suggesting that the amount each investor contributes (capital intensity) plays a larger role than raw participation numbers. Zhu *et al.*, (2019) highlighted the importance of understanding both the size and the structure of investment networks in predicting the impact of fraudulent schemes. The current findings align with that view, showing that total investor count is not a strong standalone indicator of risk.

Finally, while the regression model captured several important predictors, it did not include potentially influential control variables such as regulatory response, media exposure, or social trust due to data constraints. For example, the regulatory warnings variable was uniform across all schemes, limiting its analytical use. Future research could expand the model by incorporating variables like publicity level, enforcement actions, or religious and social influences. Studies such as Ullah, Ahmad, and Ali (2022) demonstrated how religious legitimacy was used to gain investor trust in the Modaraba Ponzi scheme in Pakistan. Adelekan and Abiodun (2022) also emphasized how systemic unemployment and digital access are linked to youth involvement in fraud. These broader structural and cultural elements are important for understanding the full ecosystem that supports Ponzi activity.

In summary, the study finds that promised return and inflation are the most significant predictors of financial loss in Ponzi schemes, while unemployment, number of investors, and scheme duration show weaker and more nuanced effects. These findings add to the growing understanding of what drives financial harm in fraudulent schemes and suggest that both economic conditions and investor behavior must be addressed through policy, education, and enforcement to reduce future risks.

CONCLUSION AND RECOMMENDATION

Conclusion

The research evaluated Ponzi scheme financial losses in Nigeria through data analysis of major Ponzi schemes CBEX, MMM, MBA Forex and FINAFRICA. The study evaluated the impact of investor numbers as well as promised returns and scheme duration and inflation rates and unemployment rates on financial losses. Schemes that offered extraordinarily high profit rates ended up inflicting bigger financial losses on their investors. CBEX together with Crowd1 provided investors with substantial profits through schemes which later turned out to be fraudulent strategies. MBA Forex and FINAFRICA generated massive financial losses which proves that Ponzi schemes inflict damage both during short and prolonged fraud operations. The increase in inflation increased investment risk because people invested their money during unfavorable economic conditions to attain fast profits. People who were unemployed exhibited less financial damage than other groups because they possessed limited investing funds. Research reveals that Ponzi schemes expand in Nigeria through three main factors: economic troubles and inadequate regulatory oversight together with limited financial literacy among Nigerian residents. These fraudulent scams damage trust within the financial system as well as inflict major harm to both the economy and its individuals. For reducing problems related to fake investments strong laws need to be enacted with improved enforcement and increased educational efforts to help people recognize fraudulent schemes.

Recommendations

- i. The government of Nigeria should strengthen Ponzi scheme law enforcement together with appropriate penalties for those who operate them.
- ii. The populace needs proper education to develop their ability for making sound financial decisions. Financial agencies together with the government must establish educational initiatives for Nigerian citizens to teach them how to detect deception in investments.
- iii. People require access to safe investment opportunities through proper explanations so they can wisely invest their funds without getting scammed.
- iv. The government must fix unemployment and inflation problems since high joblessness and economic instability drive people toward getting involved with fraudulent services.

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