
Effect of Trust on Stock Market Participation Among Civil Servants in Borno State, Nigeria.

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Abstract

This research paper examines the relationship between trust and stock market participation among civil servants in Borno state, Nigeria. The study investigates how trust levels influence civil servants' decisions to engage in the stock market. Utilizing survey data, the research explores the role of trust in financial institutions, government policies, and social networks in shaping individuals' perceptions and behaviors regarding stock market participation. Findings reports a significant positive relationship between trust and stock market participation, while distrust may hinder their willingness to invest. Based on the findings therefore, the paper recommends that strategies aimed at building trust in financial institutions, improving transparency in government policies, and fostering supportive social networks could enhance civil servants' willingness to engage in the stock market among other things.

Keywords: Trust; Stock Market Participation; Civil Servants, Borno State, Nigeria.

1. Introduction

The Nigerian stock market plays a pivotal role in driving economic growth and development by mobilizing savings for productive investments. However, despite its potential, participation rates among certain demographics, such as civil servants, remain relatively low. One key factor influencing participation in financial markets is trust, which encompasses confidence in the integrity, transparency, and reliability of market institutions and participants (Parvin & Panakaje, 2022).

In the context of Nigeria, where socio-political and economic challenges have historically impacted trust in financial institutions, understanding the relationship between trust and participation in the stock market is critical for policymakers, regulators, and market participants. (Adaramola & Papoola, 2019). Borno State, located in northeastern Nigeria, presents a unique case study due to its complex socio-economic dynamics, including the effects of insurgency and conflict, which may further influence trust perceptions and participation behavior in the stock market among civil servants.

Previous researches such as Kuffour and Adu, (2019); Epaphra and Kiwia, (2021); Giriraj and Shekar, (2022); Lamichhane and Kulshrestha, (2022) have explored various determinants of stock market participation, including socio-economic factors, risk perceptions, and financial literacy. Similarly, research by Madawaki and Akinniyi, (2021) attributed the lack of investment in stock market to the presence of insurgency in Borno State. However, the role of trust as a determinant of participation in stock market among civil servants in Borno State

remains underexplored. This study seeks to fill this gap by investigating how trust influences civil servants' decision-making processes regarding participation in the Nigerian stock market. Participation in the stock market is defined as owning at least one kind of stock directly (i.e., not through mutual funds). Gambetta (2000) defined trust as "the subjective probability that an agent determines that another agent or group of agents will carry out a specific action." One key important consideration of stock market participation is that the degree of trust in stock market is shaken among people. Major scandals like the Enron and Madoff scams have demonstrated throughout history that the stock market is not always a fair game.

By employing quantitative survey research, this study aims to provide empirical insights into the relationship between trust and participation in the stock market among civil servants in Borno State. The findings are expected to contribute to both academic literature and practical policymaking by shedding light on the importance of trust-building initiatives and regulatory frameworks in promoting broader participation and fostering confidence in the Nigerian stock market. Ultimately, enhancing trust among civil servants and other stakeholders could unlock the market's potential to drive inclusive economic growth and financial stability in Nigeria.

2. Literature Review

2.1 Stock Market Participation and its Determinants

Stock market participation simply measures whether an investor invests in the stock market. A vast body of literature has been written about the stock market participation many of which showing a substantial variation in stock market participation between individuals, with many households not holding any stocks at all (e.g. Campbell, 2006; Guiso, Sapienza & Zingales, 2008). The stock market participation in Nigeria has been low as a result of challenges including small size of the market, problem of weak liquidity and slow growth of the market as well as delay in delivery of share certificates and lack of effective underwriting (Abubakar, 2020).

Various determinants of stock market participation have been investigated by many researchers across the globe. Shafi, (2014) categorized these determinants factors as demographic factors, psychological influences, risk bearing capacity, personal values, accounting information and economic factors. Cuong and Jian, (2014) found that overconfidence, excessive optimism, psychology of risk and herd behavior are the common determinants of stock market participation in Vietnam. In India, Pakistan and Netherlands however, financial literacy, risk perception, framing and herding effects; and Perceived Equity Risk Premium (PERP) were studied to be the common influencers of stock market participation (Rooji *et al.*, 2011; Khan, 2014; Sivaramakrishnan *et al.*, 2017; Brown, Veld & Merloulouva, 2018; Arts 2018; Lamichhane & Kulshrestha, 2022). Determinant factors such as income, education, age and occupation were reported as affecting the stock market participation in Tanzania (Marobe, 2013).

In some countries across Europe, financial literacy/stock market literacy, human capital, social interaction/sociability and trust are the most common determinants of stock market participation (Thomas & Spataro, 2018; Balloch, Nicolae & Philip, 2014; Qureshi *et al.*, 2014; Geogarakos & Pasini, 2011). While ageing and retired individuals showed that risk aversion, wealth, age, education and gender showed to have effect on stock market participation (Giriraj & Shekar, 2022; Alimohammadisagvand, Matos, Ashgarian & Lundtofte, 2012).

Similarly determinants such as a level of education, net wealth and degree of risk seeking liquidity constraint, life satisfaction, perceptions, awareness, trust transaction costs, cognitive skills and access to internet are the key factors of stock market participation by investors (Afsharha, 2014; Gumbo, 2015; Gumbo & Sandada, 2018).

It can be seen from the review that, there are numerous determinants that influence the investor's behavior in stock market. The factors were grouped into demographic, economic,

social and psychological factors. The most common determinants that have a significant impact on the investor's behavior are herding, over-reaction, cognitive bias, trust, irrational thinking, confidence (over or under), gender, age, income, education, risk factor, dividends, influence of people's opinion, past performances of the company, accounting information (financial literacy), ownership structure, bonus payments and expected corporate earnings. This study singles out trust to consider on stock market participation among civil servants in Borno state because stock trading is not always considered as fair by the people.

2.2 Trust and Stock Market Participation

This section contains review of prior studies on effects of trust on stock market participation from different economies. One of the earlier studies on the subject matter is by Adriani and Sonderegger's (2009) who studied peoples' rational construct and expectations about others, emphasizing the importance of trust on stock market participation. The study found that trustworthy people are less scared to participate in market-based trades where they can be exposed to opportunistic conduct, and they are more "optimistic" about others than opportunists. Tu and Butle (2010) conducted a research by gathering evidence from Rural China by exploring the relationship between trusting behavior and market integration. A trust experiment's outcome was correlated with real-world conduct and it was discovered that households with high levels of trust are more inclined to use formal marketplaces. Asgharian, Liu and Lundtote (2013) examined the relationship between stock market participation and trust. In their theoretical model, agents decide whether to invest in the stock market and update their beliefs in a Bayesian fashion based on observations of frauds. The data used was derived from the second wave of the Survey of Health, Aging and Retirement in Europe (SHARE), which contains comparable household-level data for individuals 50 years of age and older in 14 European countries. The study's findings indicate that trust significantly influence stock market participation.

Lintari (2011) carried out a study inspired by the trust issues on the Uganda Stock Exchange. The research findings showed that among investors, there is a significant positive correlation between trust and stock market efficiency which was a stronger predictor than other factors. Shuang-quan (2013) evaluated the effectiveness of the trust relationship that exists in the Chinese stock market between investors and listed companies based on the investors' response to the dishonest behavior of the listed corporations. The study revealed that trust affect participation in the market which will bring many hazards to the economic development of the country. According to the research carried out in Pakistan by Qureshi, Mehmood and Sarwar (2014), the findings showed that regulations and supervision, the disclosure of trustworthy information, willingness, obtaining returns, interpersonal trust, and perceived risk were the primary determinants that contributed 68% of the variation in investors' trust.

Geogarakos and Pasini (2015) investigated the significance of sociability and trust for participation in the stock market throughout Europe where it revealed that trust has a greater impact in nations with low average trust and low participation rates, which helps to explain why the wealthy in those nations have such incredibly low stockholding rates. A cross-sectional study based on 15 countries was carried out by Hagman (2015) to examine the effects of trust on stock market participation. They discovered evidence that the decision to participate in the stock market is significantly influenced by trust in other people and in governmental institutions. The cross-sectional research conducted by Kong and Fan (2017) discovered proof that personal trust positively impacts decisions to participate in the stock market. In a recent study, the investigations of Liu (2019) showed that increased stock market participation is correlated with a reduced trust gap between countries which seems to be more pronounced in active trading countries than thin-trading countries.

Empirical studies on the effect of trust on the participation of individuals in stock market is scarce. And most of the reviewed studies showed that trust has a significant effect on stock market participation. However, when the study was conducted among respondents with varying ages and educational background, trust revealed no significant effect Gumbo and Sandada (2018). Contributing to the existing literature therefore, this study will assess whether or not trust affects participation of Borno state civil servants in stock market. To test this relationship empirically therefore, the research develops this hypothesis.

H₀₁: There is no significant relationship between trust in the Nigerian stock market and participation among civil servants in Borno State.

3. Methodology

This study employs the use of quantitative survey method to collect data in-person from 348 civil servants working in various departments and ministries within Borno State. This stratification was employed to ensure representation across different levels of government and administrative units. The research measures the relationship between the dependent variable: Stock market participation (e.g., whether or not respondents invest in shares) measured by asking a Yes/No question as used by (Gumbo & Sandada, 2018). And the independent variable: Trust in the Nigerian stock market (e.g., perceived integrity of institutions, transparency of information) measured using Five-Point Likert Scale questions.

Data gathered were analyzed using a combination of descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation were used to summarize and describe the research data, while binary logistic regression analysis was employed to test the hypothesis formulated. The used of binary logistics is informed because the research measures the effect of one continuous independent variable against one dichotomous dependent variable. And the research used SPSS version 25.0 to conduct the analysis.

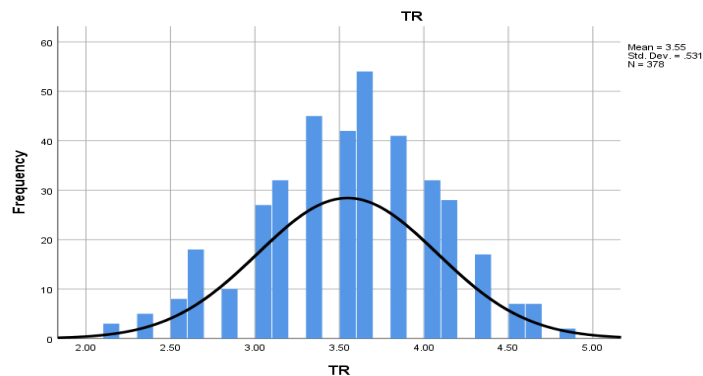
4. Data Analysis and Discussion

Data collected were coded numerically by assigning proxies and values to the questions and responses on the questionnaire respectively. Questions on trust were coded as TR 1 – 6; and question on stock market participation was coded as SMP.

Responses were coded numerically using 0 and 1 for the Yes/No (No = 0; Yes = 1) question and 1 – 5 for the 5 – Point Likert Scale (Strongly Agreed = 5, Agreed = 4, Undecided = 3, Disagreed = 2 and Strongly Disagreed = 1).

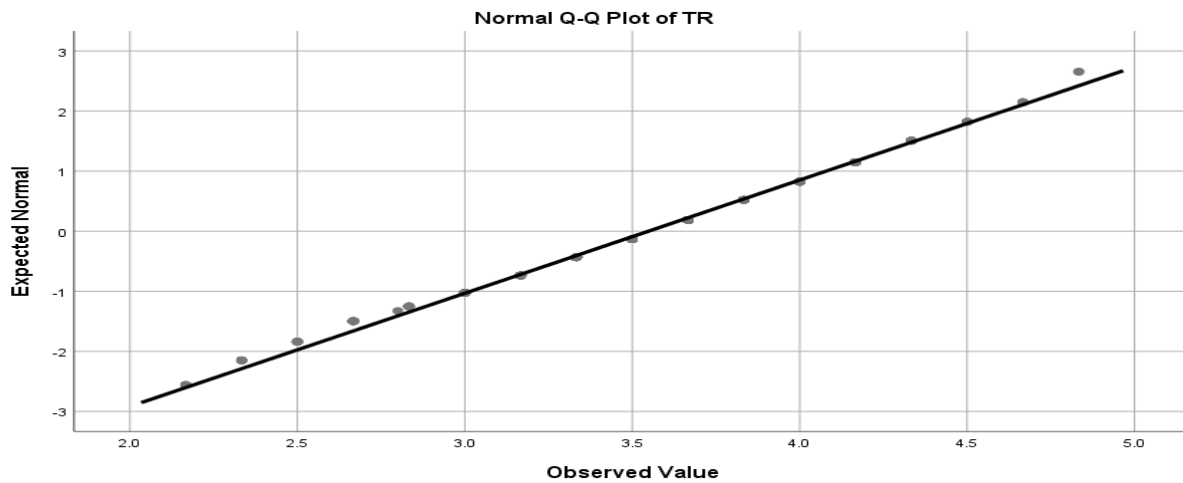
Multivariate outlier analysis was conducted on all the dataset and found out that 49 cases were outliers and have been removed from the analysis, leaving 340 cases in the dataset. After identifying and removing the outliers from the dataset, a test was conducted using histogram and Q-Q plot on all the variables which shows that the data is normally distributed as follows:

Figure 1: Histogram of Trust (TR)



Source: Field survey, (2023)

Figure 2: Normal Q–Q Plot Of Trust (TR)
 Source: Field survey, (2023)



It can be seen from figure 1 and 2 for histogram and Q–Q plot respectively, that the histogram displayed a bell-shaped, symmetric distribution with no apparent outliers. The Q–Q plot showed a close alignment of points around the diagonal line. The Shapiro-Wilk test further supported normality ($p > 0.05$). Based on these results, we then concluded that the data is normally distributed and proceeded with parametric statistical tests.

4.1 Descriptive Statistics

Table 1: Stock Market Participation of the Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	335	98.5	98.5	98.5
	Yes	5	1.5	1.5	100.0
	Total	340	100.0	100.0	

Source: Field Survey, (2023)

It can be deduced from Table 1 that, in measuring the respondents’ participation, a question was asked about individuals having investment on the stock market (do you have an investment on the stock market?) The respondents answered with a yes or no. The analysis revealed that 335 (98.5%) respondents have no investment on the stock market while 5 (1.5%) respondents have investments on the stock market. Evidently, this shows that majority of the respondents do not participate on the stock market.

Table 2: Descriptive Frequencies Relating to Trust on Stock Market Participation

Code	Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
Frequency (Percentage %)							
TR 1	I have much confidence on listed companies.	67 (19.7%)	123 (36.2%)	67 (19.7%)	73 (21.5%)	10 (2.9%)	340 (100.0%)
TR 2	Generally speaking, I will say that people can be trusted.	32 (9.4%)	81 (23.8%)	84 (24.7%)	99 (29.1%)	44 (12.9%)	340 (100.0%)
TR 3	I will rather have to be very careful in dealing with people.	134 (39.2%)	162 (47.6%)	30 (8.8%)	11 (3.2%)	3 (0.9%)	340 (100.0%)

TR 4	I trust my bank official or broker as financial adviser for my investment decisions.	71 (20.9%)	128 (37.6%)	88 (25.9%)	36 (10.6%)	17 (5.0%)	340 (100.0%)
TR 5	There might be a perceived probability that I will be cheated in my investments.	53 (15.6%)	125 (36.8%)	94 (27.6%)	55 (16.2%)	13 (3.8%)	340 (100.0%)
TR 6	As an investor, I trust stocks that give higher yield every year.	82 (24.1%)	129 (37.9%)	82 (24.1%)	28 (8.2%)	19 (5.6%)	340 (100.0%)

Source: *Field Survey (2023)*

Table 2 shows that 67 (19.7%) of the respondents strongly agreed that they have much confidence on listed companies, 123 (36.2%) agreed, 67 (19.7%) undecided, 73 (21.5%) disagreed while 10 (2.9%) strongly disagreed. It can be deduced that majority of the respondents agreed with having much confidence on listed companies.

Additionally, 32 (9.4%) respondents strongly agreed that people can be trusted, 81 (23.8%) agreed, 84 (24.7%) were undecided, 99 (29.1%) disagreed and 44 (12.9%) strongly disagreed. This shows a slightly higher percentage of respondents disagreed with the believe that people can generally be trusted.

Similarly, individuals will rather have to be very careful in dealing people. To this statement, 134 (39.2%) strongly agreed, 162 (47.6%) agreed, 30 (8.8%) were undecided, 11 (3.2%) disagreed whereas 3 (0.9%) strongly disagreed. This can be deduced that majority of the respondents agreed they would rather be careful in dealing with people.

While assessing the trust respondents have on their bank official or broker as financial adviser for their investments, 71 (20.9%) strongly agreed, 128 (37.6%) agreed, 88 (25.9%) were undecided, 36 (10.6%) disagreed while 17 (5.0%) strongly disagreed. This concludes that a higher percentage of the respondents agreed that they trust their bank official or broker for their investment decisions.

However, 53 (15.6%) of the respondents strongly agreed that there might be a probability they could be cheated in their investments and 125 (36.8%) respondents also agreed. Whereas 94 (27.6%) were undecided, 55 (16.2%) disagreed and 13 (3.8%) strongly disagreed. This shows that the respondents largely agreed that they might probably be cheated in their investments.

Lastly, investors can trust stocks that give higher yield every year as 82 (24.1%) of the respondents strongly agreed and 129 (37.9%) agreed. However, 82 (24.1%) were undecided about trusting high yielding stocks, 28 (8.2%) disagreed and 19 (5.6%) strongly disagreed. This analysis implies that respondents have general problem with issue of trust either the stock market institutions on people handling transactions there-in. To empirically test the effect of trust on stock market participation among civil servants in Borno state, binary logistics regression test was run below.

4.2 Test of Hypothesis

Null hypothesis was formulated for this research on the relationship between the dependent and independent variable which proposed that the independent variable (trust) have no significant effect on stock market participation among civil servants in Borno State.

Table 3: Binary Logistic Regression Predicting the Effect of Trust on Stock Market Participation								
		B	Wald	Df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
	TR	7.634	7.610	1	.006	20.347	9.118	46.469
	Constant	-31.309	6.948	1	.008	.000		

Source: Field Survey (2023)

Binary logistic regression was performed to assess the effect of trust on stock market participation among the likelihood that respondents would report that they do not participate on the stock market. The model contained one independent variable (trust), the full model containing the predictor was statistically significant, $\chi^2 (1, N = 340) = 28.947, p < .001$, indicating that the model was able to distinguish between respondents who participate and did not participate on the stock market. The model as whole explained between 8.2% (Cox & Snell R Square) and 57.4% (Nagelkerke R Square) of the variance in stock market participation and correctly classified 97.9% of cases.

Trust as a predictor is reporting a low level of stock market participation among civil servants in Borno State, with an odds ratio of 20.347. This indicated that respondents who had no trust in the stock market investments were over 20 times more likely to not participate in the stock market than those who trust the stock market investments. The opinion expressed by respondents shows that the respondents have little trust on stock market investments. Therefore, the study concluded that there is a significant relationship between trust and stock market participation among civil servants in Borno State. The paper therefore concludes that, trust made a unique statistically significant contribution to the model. This concurred with the literature reported in the paper.

5. Conclusions and Recommendation

In conclusion, this research highlights the importance of trust in influencing stock market participation among civil servants in Borno state. By addressing trust-related barriers and enhancing confidence in financial markets, policymakers and stakeholders can promote broader and more inclusive participation, thereby contributing to the development of a robust and resilient financial system. Based on the above conclusion therefore, the paper recommends that strategies aimed at building trust in financial institutions, improving transparency in government policies, and fostering supportive social networks could enhance civil servants' willingness to engage in the stock market. Promoting financial education and literacy programs tailored to address trust-related concerns may also contribute to increasing participation rates.

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