WWJMRD2022; 8(03):128-138
www.wwjmrd.com
International Journal
Peer Reviewed Journal
Refereed Journal
Indexed Journal
Impact Factor SJIF 2017: 5.182 2018: 5.51, (ISI) 2020-2021: 1.361
E-ISSN: 2454-6615
DOI: 10.17605/OSF.IO/KWYGB

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Effect of Fraudulent Practices on Market Capitalization of the Nigeria Capital Market.

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Abstract
The study examined fraudulent practices on Market Capitalization of the Nigerian Capital Market. Specifically, this study determined the effect of both fraud and corruption on market capitalization. This study is anchored on social learning theory. The theory is based on the assumption that a similar learning process can produce both deviance and conformity. Four variables are thought to influence social behavior: definitions, differential association, modelling, and reinforcement. The interaction of these variables predisposes one to either conforming or deviant behaviour. Secondary data were generated from the Nigerian Stock exchange. This study used descriptive statistics in the analysis. The findings show that fraud and corruption had a significant effect on the market capitalization of Nigeria's capital market. The work recommended that capital regulators should speedily adopt and enact policies that proactively address corporate fraudulent practices for their negative impact on the stock market development. The industry regulators should see urgency for several corporate governance reforms, such as gender equity and minority representation as strategies to curb managerial fraud practices. Regulators should also pay attention to internal corporate practices such as the appointment and selection of internal auditors and design of internal control systems. The apex regulators, such as Securities and Exchange Commission and anti-graft agencies in the country should embed recent fraud detection methodologies such as the use of forensic accountants or auditors to further strengthen the oversight role and aid the detection of fraud among companies.

Keywords: Fraud, Market, Capitalization, Capital, Practices.

Introduction

A well-developed capital market puts a nation on the sustainable path of growth and development through savings accumulation, the optimal use of investment resources and by attracting portfolio investments (Kolapo & Adaramola, 2012). Capital market is a specialized market or an avenue for selling and buying financial instruments such as shares, bonds and bill certificates. The instruments are issued by government and corporate organizations as evidence of contract between them and the buyers to serve as securities of their investments in the issuer's organization. Thus, the capital market offers access to a variety of financial instruments that enable economic agents to pool, price, and exchange risk. Assets with attractive yields, liquidity and risk characteristics, encourage savings in financial form. Records of trading on Nigerian Stock Exchange as of Dec.29, 2020, shows that the Nigerian market capitalization opened for the year at N12.958 trillion inched higher by N7.49 trillion to close trading on Dec.29 at N20.446 trillion.

The issues of corrupt and unethical practices, fraud and other inefficiencies are still prominent in the Nigeria capital market. Chieze & Onu (2013) in their study discovered the irregularities and corruption in the capital market, identifying how frauds have affected the market with capitalization as indexes to study the market. Aliyu (2011) reveals that among the various forms of crimes discovered in the market include illegal sales of stocks or shares belonging to clients by stock brokers, circulation and sales of fake or non-existing shares to investors by registered stock brokers, diversion/conversion of clients stock proceeds by stock brokers, insider trading, manipulation of annual accounts and deliberate withholding of share certificates by registrars. The occurrence of these crimes within the market has resulted in the

loss of investor's funds estimated to be in millions of Naira apart from its impact on the Nigerian economy and other social consequences.

At the macro level, fraud and corruption has a negative, direct impact on economic growth and development. Fraud and Corruption also has an indirect effect on a country's economic performance by affecting many factors fuelling economic growth such as investment, taxation, composition and effectiveness of public expenditure. Various efforts have been made to fight fraud in Nigeria Laws have promulgated to deter fraudsters from getting involved; internal control systems have been tightened and strengthened to make it difficult for frauds to occur; various anti- fraud agencies have been established in Nigeria to quell this cankerworm, such agencies as the Economic and Financial Crimes Commission (EFCC), the Independent Corrupt Practices and other related Crimes Commission (ICPC) were established to prosecute fraud offenders; but despite all these, appears to be on the rise especially in developing economies like Nigeria.

It is a well-known fact that corruption as a major problem facing Nigeria is widespread and hinders the nation's development by affecting its social and economic institutions (Onwuka, Okoh & Eme, 2009). Corruption has grown into a monster that appears to defy all solutions in *Nigeria.* It has been worsened by the fact that the elites have seen political power as a means of helping themselves to have a bite of the national cake. It appears that the psychological state of the people have been so conditioned to accept corruption as a way of life or to be helpless in facing the monster such that anyone who has the 'opportunity' but refuses to be corrupt is called a fool. Greed has replaced selflessness.

Objective of the Study

The objective of this study is to examine the relationship between fraud and corruption and market size of Nigeria capital market.

Hypothesis of the Study

Fraud and corruption do not significantly affect market capitalization of Nigeria's capital market.

Review of Relevant Literature

Fraud

Adeniji (2004) and ICAN (2006), define fraud as an intentional act by one or more individuals among management, employees or third parties, which results in a misrepresentation of financial statements. Fraud can also be seen as the intentional misrepresentation, concealment, or omission of the truth for the purpose of deception or manipulation to the financial detriment of an individual or an organization which also includes embezzlement, theft or any attempt to steal or unlawfully obtain, misuse or harm the asset of the organization, (Adeduro, 1998).

In its broadest terms, fraud means obtaining something of value or avoiding an obligation by means of deception. Black law dictionary (1979) defines fraud as all multifarious means which human ingenuity can devise and which are restored to by one individual to get an advantage over another by the false suggestions or oppression of truth, it includes all surprises, tricks, cunning or dissembling and any unfair way which another is cheated.

Fraud is as difficult as identifying it. No definite and invariable rule can be laid down as a general proposition in defining fraud as it includes surprise, trick, cunning and unfair ways by which another is cheated (Okoye, *et. al.*, 2012; Abdullahi & Mansor., 2015). Fraud is a legal term that refers to the intentional misrepresentation of the truth in order to manipulate or deceive a company or individual.

Albrecht, Albrecht, and Albrecht (2008) reaffirm that fraud embraces many and varied forms of conduct, ranging from false claims against an insurance policy to some corporate frauds that are meticulously planned and intricate in their execution. The variety and complexity of fraud such as impunity, stealing, large scale fraud, bribery and corruption including other forms of malpractices has necessitates that, for purposes of explanation, the concept of fraud are "broken down" into manageable categories.

- Fraud committed against an organization by a principal or senior official of that organization. Examples of this include offences against shareholders or creditors by errant "high-flying entrepreneurs" (Egbunike, 2011) or corrupt practices by senior public officials.
- Fraud committed against an organization by a client (an "outsider") or employee (an "insider"). This category includes embezzlement, insurance fraud, tax evasion, over invoicing and other fraud against the government.
- Fraud committed against one individual by another in the context of direct face-to-face interaction. This would include classic "con games" (Okoye, & Okaro, 2012), frauds by sales staff, and predatory activities against clients or customers by unethical investment advisers, shady roof repairers and others who prey directly on a consumer.
- Fraud committed against a number of individuals through print or electronic media, or by other indirect means. This would include Nigerian advance fee frauds (Nenyiaba, Osisioma, & Okoye, 2015), share market manipulation, and deceptive advertising or investment solicitations pitched to a relatively large number of prospective victims.

Graycar and Smith (2002) has defined fraud as an "act or instance of deception, an artifice by which the right or interest of another is injured, a dishonesty trick or stratagem". Bergmen (2005), defined fraud as "a deception deliberately practiced to secure unfair or unlawful gain where some part of the communication between the victim and the fraudster is via a computer network and/or some action of the victim and/or the fraudster is performed on the computer network". The USA Department of Justice (DOJ) defines fraud as "a fraud scheme that uses one or more components of the Internet such as chat rooms e--mails, message boards, or web sites to present fraudulent solicitations to prospective victims, to conduct fraudulent transactions, or to transmit the proceeds of fraud to financial institution or to others connected with the scheme".

With more and more people using the internet in recent times fraud is becoming common because the internet allows fraudsters to appear anonymous. The Internet has been a suitable method for committing fraud because the Internet allows hiding real identification of people who deal with it and thus the fraudsters remain anonymous. As the internet increases business opportunities, the criminals

develop more sophisticated and effective ways to scam online. The Commission of European Committee (2008) report summarized the fraud problem by saying "Fraud against means of payment (payment fraud) remains a threat to the success of the internal market for payments. Transaction fraud affects the consumer's confidence in non-cash means of transactions and ultimately the real economy".

Organizations find that the frauds in the e-payment transaction are increasing year by year. Association for Financial Professionals AFP (2012) has reported the percentage of organizations subject to attempted and/or actual payments fraud has shown an increase from 2004 to 2009, while from 2010 and 2011 showed a decline in attempted and actual payment fraud. The report also showed that it is the larger organizations that are targets of transaction frauds than smaller ones. 81% of the organizations with annual revenue over $1 billion were victims of payments fraud in 2011 compared to 55% organizations with less than $ibillion revenue. It is also observed in 2011 that it is the larger organizations that have experienced decrease in fraud while the smaller organizations continue to experience increase in the fraud activity. (McAfee Report, 2012).

Fraud can be described as diverse means used by resourceful people to get an advantage over another by suppressing the truth, trickery, misinformation, false suggestions, cunning, deceit, and other methods by which to cheat. By extension, fraud is clued embezzlement, theft, or any attempt to steal or unlawfully obtain the assets of a financial institution. Bank Administration Institute, (1989). Employees, customers, in conjunction with others within and outside the financial institutions can commit fraud. Frauds are not new in the financial system; they are as old as the industry itself (Chieze & Onu, 2013). Therefore, it is not surprising when it is realized that many Nigerians have chosen to become a sudden millionaire by engaged themselves in all sort of manna and activities that is constitutionally and traditionally wrong all in the name of becoming millionaire overnight, as a result of this fraudsters launch different attack on the financial institution with the wrong notion that the financial industry is one of the most buoyant and the most profitable sector of economy. It is believed that the financial institutions make a lot of profit annually and are always liquid. Consequently, any amount of financial loss to financial institutions will not materially affect its operation/existence. However, this is not correct, because the published accounts of some banks show that some of their banks cannot even fully provide for losses sustained through fraud in their accounts (Idowu, 2009). In view of this, management control systems aimed at preventing fraud and reducing fraud to its beeriest minimum.

Fraud has been classified in various ways and using various parameters (Adeyemo, 2012). Forgery is a type of fraud which falsifies or manipulates documents. Basically, it must be proved that there is falsification in writing or alteration of an instrument, also that instrument is apparently capable of defrauding and intent to defraud. Experience has shown that most of such fraud is perpetrated by internal staff or by outsiders who act in collusion with bank staff. These bank employees release the specimen signature of the customers being forged (Nwaze, 2008).

The causes of frauds and other fraudulent activities can be classified into primary and secondary. While the primary cause of a problem is often overlooked in most cases, the secondary causes are chased. The primary causes of these economic dreadful conditions may be linked to the general level of corruption, outrageous unemployment, serious social decadence, and wrong societal value system and deficient legal processes supported with bad governance. These causes are interrelated and with time they get holistic in nature (Adebayo & Topson, 2014). Corruption is an age long phenomenon, and it is as old as the human race. It has its root in all ideology, moral, culture, polity and intellect. It has eaten deep into the society to the point of losing sight of its detrimental and parasitic symbiosis with many policies including Nigeria and their citizens all over the world (Akindele, 2005). Shogunle, (2012) gives some features to identify corruptions and they are any crime carried out primarily for economic gain; any crime requiring some form of organization (i.e. interaction, no one man show; any crime involving the use or non use or misuse of legitimate power, authority, force, techniques or commerce, industry or public service and administration.

Derogatory value system and social decadence, which is also a form of a remote cause of fraud has plagued the country with a misplaced value system; the sources of wealth of an average Nigerian is a thing of no consequence (Adebayo & Tompson, 2014). While secondary causes of fraud are attributed to the direct consequences of the plaque of the primary causes and are often referred to as the immediate cause. Asukwo, (1999) for instance listed the following as the causes of frauds in banks; Greed which is a drive to acquire gains far beyond one’s income and immediate or long term needs; genetic cause, a hereditary characteristic passed from parents to offspring; poverty through poor income; poor internal control system which may include ineffective supervision, absence of timely audit, absence of operations manual, weak operational guidelines; lack of proper training causing incompetence and errors etc.; inadequate staffing – results in serious problems with work planning and assignment.

Fraud/Corruption and Performance of the Nigerian Capital Market

It is borne of the fact that fraud and corruption are gargantuan twin brothers that have limited the growth and adequate performance of the Nigeria capital market.

Fraud is rarely seen but the symptoms of fraud are usually observed. Corruption, the twin brother of fraud, is the misuse of entrusted power for private benefit and includes bribes, cronyism and artificial pricing and fraud of all kinds. Fraud and corruption in Nigeria's capital market has been a significant problem for many years, inhibiting investment opportunities.

The capital market is a demand-supply relationship for investment and capital. The performance can be better reviewed along the lines of capital availability (such as savings, foreign portfolio investment, law and so on), investment opportunities (market capitalization) and the macro-environment (political commitment, corruption) (Gross domestic product growth).

The performance of the capital market so far has been a bag of mixed fruits. The capital market underperformance is a reflection of the significant presence of fraud and corruption on going with the market.

Fraud and corruption are pressing issues which have directly affected public finances, business investment as well as standard of living, weak investment, especially foreign direct investment explaining that it's harder to predict and do business under such circumstances.

- Freedom from fraud and corruption would enhance greater profitability since fraud and corruption distort the allocation of human and capital investment in the Nigeria capital market, thereby significantly increasing the costs of doing business.
- Fraud and corruption has affected the Nigeria capital performance indicators such as all share index, market size, market capitalization, stock value traded and turnover ratio which created bad management and increase in risk exposure.
- Under the leadership of Prof. Ndi Okereke-Onyuike, it was discovered that the Nigeria capital market was characterized with huge corruption which crippled the performance of the market.
- Fraud and corruption create mistrust and thus demoralizes investors both foreign and local investors from establishing a strong business relationship with their fellow investors or stock brokers in the market.
- The International transparency and corruption perception index indicates that more corrupt countries experienced significantly lower investment rates, because of a negative relationship between corruption and investments. This negative relationship is attributable to the fact that corruption acts like a tax that discourages foreign direct/investment.
- Corruption's negative effect on Nigeria's total investment is indisputable even local investors tend to park" (hold back) their big investment projects and operations. Economists have estimated that a corrupt country is likely to achieve aggregate investment levels of almost 5% less than 9 countries that are relatively incorrupt".
- Finally, fraud and corruption affect total investments, the size and form of investment by foreign direct investors, the size of public investments and the quality of investment decisions and investment projects.

In conclusion, fraud and corruption is a chronic economic and social ill that we must fight.

Market Capitalization

Market capitalization represents the aggregate value of stock size (Adewoyin, 2004). Market capitalization is the measurement of the size of businesses and corporations which are equal to the market share price times the number of shares in this case shares that have been authorized, issued, and purchased by investors of a publicly traded company (Al-Faki, 2006). Market capitalization is also calculated by multiplying the shares of the company by the price per share. The investment community uses the figure to determine a company's size or worth, as opposed to sales or total asset figure (Olowe, 1997).

In summary, market capitalization refers to the number of shares of a company multiplied by the market share price. In other words, market capitalization is usually considered as reflecting the worthiness of a company used by the investing public to determine the credit worthiness of a firm in terms of investing in such companies.

Social Learning Theory (SLT)

Social learning theory has been used by some researchers to explain criminal behavior (Sandholtz & Taagepera, 2005). The theory is based on the assumption that a similar learning process can produce both deviance and conformity. Four variables are thought to influence social behavior: definitions, differential association, modelling, and reinforcement. The interaction of these variables predisposes one to either conforming or deviant behaviour (Singer & Hensley, 2004; Tittle, 2004).

According to social learning theory, behavior is influenced by standards of legal and illegal behavior, peers, and positive or negative reinforcement. A key variable is differential association, or peer influence. Definitions of deviance are developed in interactions with peers and are reinforced, positively or negatively, by rewards and punishments. Those definitions affect attitudes and behavior in many areas: sexual behavior, substance use, white-collar crime, and so forth (Akers & Sellers, 2009).

Bernard, Snipes, and Gerould (2010) characterized social learning theory as acknowledgement that learning involves an interplay of environmental, behavioral, and cognitive influences. Criminal or deviant behavior, then, results in part from the observation of consequences that particular behaviors have for other people (Akers & Sellers, 2009). Although social learning theory addresses potential influences on criminal behavior, it does not address the particular environments that create such behavior. Bernard et al. (2010) suggested that social structure affects crime because it affects one's exposure to norms and the consequences of violating norms. Similarly, Bandura's research on social learning showed how the way crime is portrayed in mass media can affect criminal behavior (Wiesner, Capaldi, & Patterson, 2003).

Social learning theorists argue that behavior is influenced by one's self-concept, one's social role, and how one perceives a social situation (Sandholtz & Taagepera, 2005). Each of these, in turn, is the product of the socialization that occurs at the institutional level (Meng & Friday, 2010). A social problem such as corruption, then, is affected not only by material incentives but also by cultural orientations, which are the result of socialization (Meng & Friday, 2010; Sandholtz & Taagepera, 2005; Travits, 2010).

Despite the fact that social learning theory has been extensively studied, efforts to examine the mechanisms linking social structure to corruption and its effects on social attitudes have been lacking. The result is poor understanding of how particular social conditions lead to corrupt practices. The current study helped test the utility of social learning theory by applying it to an analysis of Nigerians' perceptions of corruption and how those perceptions are determined by their social role and definition of corrupt practices (Aluko, 2002).

Travits (2010) found that for citizens and public officials, the decision whether to engage in corruption is mostly affected by individuals' definitions of corruption and personal perceptions of how widespread corruption is. Travits (2010) noted that research by political scientists and economists has addressed cross-national differences of

perceptions of corruption. This research has focused mostly on structural features, with less emphasis on why some officials are more susceptible to corrupt behavior than others. Based on social learning theory, corruption, although socially influenced, is ultimately a result of individual choices. Although institutions and systems can be restructured, if individual motivations are not taken into account, restructuring may be difficult to achieve.

Tittle (2004) linked broad social structural conditions to individual learning. A subculture of deviance is transmitted intergenerationally through beliefs, values, and attitudes. Social learning theory, then, proposes that a willingness to engage in corruption reflects an acquired belief that it is not morally wrong but rather is an acceptable form of behavior. Although social learning theory has been influential in criminological circles, it has been used mostly to explain crime and delinquency in general rather than corruption specifically (Chappell & Piquero, 2004).

Empirical Evidence

Ogunleye (2013) examined the impact of corporate corruption on market capitalization of commercial banks in Nigeria between 2008-2011. Employing the linear regression model, they observed that there seems to be a negative relationship between the incidence of corporate corruption and the growth in market capitalization.

Bolgorian (2011) analyzed a data set of corruption and stock market development measures such as market capitalization and total value of share trading for 46 countries around the world for the period 2007–2009, using a quantitative approach for investigating the dependence of the Corruption Perception Index (CPI) on stock market development. He found that countries with higher relative stock market development are less corrupt, and the power-law relation between level of corruption and stock market development is significant at the 5% level.

Shogunle (2009) including data from 11 Nigerian money deposit banks over a period of 2006-2007 observed a negative effect attributable to fraud on bank market capitalization.

Research Method

This study adopted the "ex-post facto" research design. This study collates historical data for the period 1999-2019. By implication, the study is a time series analysis, and used historical data to evaluate the relationship between transparency index and corruption perception index of Nigeria on market capitalization. Being an "ex-post facto" research, data were obtained through secondary sources from the Transparency International agency, Nigeria stock exchange report and Security and Exchange Commission report. The data were on an annual basis.

In the model, the researcher expressed electronic fraud and bank performance model as:

EPS a_{o+} a_1ATN fraud + a_2FC + a_3CF + Ui

Where EPS-Earnings Per Share

FC – Forged Cheque

CF – Clearing Fraud

ATMfraud – Automated Teller Machine fraud

A_o, a_1, a_2 and a_3 – Parameters

Ui – Eror term

In examining the effect of fraud and corruption on market capitalization, the following stochastic models were estimated.

MC= f(NTI+CPI) ……i

Where,

NTI = Nigeria Transparency index

CPI = Corruption perception index

MC = Market Capitalization

To obtain the coefficients of the elasticity of the variables, while reducing the possible impact that any outlier may have, the models were represented in a log-linear econometric format.

LogMC = a_0 + ailog NTI + a_2CPI + Ut……ii

The descriptive Statistics utilized in this study include Mean, Standard Deviation, Kurtosic, Durbin Watin Statistics, Graphs and Histogram. The ordinary least square (OLS) method of regression analysis was the fundamental technique of data analysis for this work.

Presentation of Data Analysis

The data as sourced from Nigeria stock exchange reports and international transparency agency which were used in this study are presented in this section. Table 1 presents the capital market performance variable on Market capitalization as well as the Nigeria corruption perception index and Nigeria transparency index from 1999 to 2020.

Table 1: Data for Nigeria corruption perception index, Nigeria transparency index and Market capitalization.

Year	Market capitalization (million)	Rank	Score
1999	300,000.0	98	16
2000	472,300.0	90	6
2001	662,500.0	90	10
2002	764,900.0	102	16
2003	1,359,300.0	132	14
2004	2,112,500.0	144	16
2005	2,900,100.0	152	19
2006	5,120,900.0	142	22
2007	13,181,700.0	147	22
2008	9,563,000.0	121	27
2009	7,030,800.0	130	25
2010	9,918,200.0	134	24
2011	10,275,300.0	143	24
2012	14,800,900.0	139	27
2013	19,077,400.0	148	25
2014	16,875,100.0	140	27
2015	17,003,390.0	137	26

2016	16,185,729.0	140	28
2017	21,128,897.0	148	27
2018	22,462,81.00	144	27
2019	25,890,22.00	146	28
2020	56,569.03.00	149	25

Source: NSE report, International Transparency Agency

Descriptive Statistics

Table 2: Descriptive statistics of variables utilised in the study.

	MCAP	**RANK**	**SCORE**
Mean	8880680.	130.3158	21.10526
Median	9563000.	139.0000	24.00000
Maximum	21128897	152.0000	28.00000
Minimum	300000.0	90.00000	6.000000
Std. Dev.	7179127.	20.30887	6.428191
Skewness	0.200655	-1.062200	-0.891958
Kurtosis	1.595798	2.661078	2.752424
Jarque-Bera	1.688494	3.663791	2.567889
Probability	0.429881	0.160110	0.276943
Sum	1.69E+08	2476.000	401.0000
Sum Sq. Dev.	9.28E+14	7424.105	743.7895
Observations	19	19	19

Source: E-Views 10

Table 3: Correlation matrix of variables utilised in the study.

	MCAP	RANK	SCORE
MCAP	1.000000	0.626778	0.833662
RANK	0.626778	1.000000	0.698488
SCORE	0.833662	0.698488	1.000000

Source: E-Views 10

Table 4: Unit root test of Transparency Index ADF Test of RANK at Level.

Null Hypothesis: RANK has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=1)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.851173	0.3472
Test critical values:	1% level	-3.788030	
	5% level	-3.012363	
	10% level	-2.646119	
*MacKinnon (1996) one-sided p-values.			

Source: E-Views 10

Table 5: ADF Test of RANK at First Differencing.

Null Hypothesis: D(RANK) has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=1)			
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.161202	0.0047
Test critical values:	1% level	-3.808546	
	5% level	-3.020686	
	10% level	-2.650413	
*MacKinnon (1996) one-sided p-values.			

Source: E-Views 10

Table 6: Unit root test of Corruption Perception Index ADF Test of SCORE at Level.

Null Hypothesis: SCORE has a unit root			
Exogenous: Constant			
Lag Length: 0 (Automatic - based on SIC, maxlag=4)			

			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-1.351701	0.5855
Test critical values:	1% level		-3.788030	
	5% level		-3.012363	
	10% level		-2.646119	
*MacKinnon (1996) one-sided p-values.				

Source: E-Views 10

ADF Test of SCORE at First Differencing

Null Hypothesis: D(SCORE) has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=1)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-7.629155	0.0000
Test critical values:	1% level		-3.808546	
	5% level		-3.020686	
	10% level		-2.650413	
*MacKinnon (1996) one-sided p-values.				

Source: E-Views 10

Table 7: Unit root test of Market Capitalization ADF Test of MCap at Level.

Null Hypothesis: MCAP has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=1)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-0.383121	0.8927
Test critical values:	1% level		-3.857386	
	5% level		-3.040391	
	10% level		-2.660551	
*MacKinnon (1996) one-sided p-values.				

Source: E-Views 10

Table 8: ADF Test of MCap at First Differencing.

Null Hypothesis: D(MCAP) has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic - based on SIC, maxlag=1)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-4.215859	0.0052
Test critical values:	1% level		-3.886751	
	5% level		-3.052169	
	10% level		-2.666593	
*MacKinnon (1996) one-sided p-values.				

Source: E-Views 10

Table 9: Johansen Cointegrationtest of MCAP, RANK and SCORE.

Date: 08/25/21 Time: 17:53				
Sample (adjusted): 2002 2017				
Included observations: 16 after adjustments				
Trend assumption: Linear deterministic trend				
Series: MCAP RANK SCORE				
Lags interval (in first differences): 1 to 2				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.931704	65.88137	29.79707	0.0000
At most 1 *	0.750000	22.93885	15.49471	0.0032
At most 2	0.046280	0.758168	3.841466	0.3839
Trace test indicates 2 cointegratingeqn(s) at the 0.05 level				
* Denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: E-Views 10

The Trace statistic showed values at none (65.88), and at most 1* (22.94); with p-values less than .05. The statistics showed 2 cointegrating equations; while, unrestricted VAR determined the optimal lag at 1 as shown by several measures LR, FPE, AIC, SC, and, HQ. The decision is stated below as follows:

Decision

The null hypothesis of no cointegration is rejected against the alternative of cointegrating relationship in the model.The results are also confirmed using the Max-eigenvalue test indicating 2 cointegratingeqn(s) at the 0.05 level.

How has fraud and corruption affected the market capitalization of Nigeria's capital market?

The results are consistent with the second research question. The normalized cointegrating coefficients (results shown in the Appendix) showed that RANK (corruption perception index) in the long-run, has a positive impact while SCORE (transparency index) in the long-run, has a negative impact on MCap, on average, *ceteris paribus.*

Hypothesis

Ho: Fraud and corruption did not significantly affect market capitalization of Nigeria's capital market.

Table 10: OLS output for hypothesis three.

Dependent Variable: LOG(MCAP)				
Method: Least Squares				
Date: 08/25/21 Time: 12:19				
Sample (adjusted): 1999 2017				
Included observations: 19 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.376119	0.822828	11.39499	0.0000
RANK	0.021405	0.008447	2.534120	0.0221
SCORE	0.152163	0.026686	5.702014	0.0000
R-squared	0.878275	Mean dependent var		15.37695
Adjusted R-squared	0.863059	S.D. dependent var		1.407421
S.E. of regression	0.520823	Akaike info criterion		1.677126
Sum squared resid	4.340106	Schwarz criterion		1.826248
Log likelihood	-12.93270	Hannan-Quinn criter.		1.702364
F-statistic	57.72193	Durbin-Watson stat		1.762731
Prob(F-statistic)	0.000000			

Source: E-Views 10

The OLS estimates shown in the Table above, indicated that the model had an R-squared value of .878; and, Adjusted R-squared value of 0.863. These values explain the proportion of variance in the dependent variable caused by the explanatory variables. Thus, the explanatory variables explain approximately 86% variation in the dependent variable (MCap). The F-statisticvalue is 57.722 which is highly significant (p=0.000). The F statistic checks the overall statistical significance of the model with a p-value less than .05 (the chosen alpha level); thus, the hypothesis that all the regression coefficients are zero is rejected. The t-statistic of thevariables of interest: CPI and TI were 2.534 and 5.702. The CPI and TI had p-values less than .05. However; the study rejects the null hypothesis and accepts the alternative. Thus, fraud and corruption had a significant effect on market capitalization of Nigeria's capital market (based on p-value of the F-statistic). The Table below shows the VECM estimation output of the model.

Table 11: VECM output for hypothesis three

Vector Error Correction Estimates			
CointegratingEq:	CointEq1		
LOG (MCAP (-1))	1.000000		
RANK (-1)	-0.004661		
	(0.00369)		
	[-1.26334]		
SCORE(-1)	-0.231992		
	(0.01263)		
	[-18.3673]		
C	-9.955109		
Error Correction:	D(LOG(MCAP))	D(RANK)	D(SCORE)
CointEq1	-0.333005	-0.685935	5.623633
	(0.29157)	(10.4889)	(1.10370)
	[-1.14210]	[-0.06540]	[5.09523]
D(LOG(MCAP(-1)))	0.387893	-10.88372	-1.281514
	(0.38153)	(13.7249)	(1.44421)
	[1.01669]	[-0.79299]	[-0.88735]
D(RANK(-1))	0.005811	0.206795	0.042171
	(0.00756)	(0.27197)	(0.02862)
	[0.76859]	[0.76037]	[1.47360]

D(SCORE(-1))	-0.014211	0.957305	0.274949
	(0.03324)	(1.19565)	(0.12581)
	[-0.42758]	[0.80066]	[2.18538]
C	0.128254	4.778373	1.237660
	(0.11409)	(4.10408)	(0.43186)
	[1.12418]	[1.16430]	[2.86591]
R-squared	0.192649	0.218258	0.809339
Adj. R-squared	-0.076468	-0.042323	0.745785
Sum sq. resids	1.397924	1809.044	20.03066
S.E. equation	0.341312	12.27818	1.291984
F-statistic	0.715857	0.837581	12.73470
Log likelihood	-2.887042	-63.79435	-25.51639
Akaike AIC	0.927887	8.093453	3.590163
Schwarz SC	1.172950	8.338516	3.835226
Mean dependent	0.223575	3.411765	1.235294
S.D. dependent	0.328966	12.02632	2.562455
Determinant resid covariance (dof adj.)		11.12102	
Determinant resid covariance		3.911485	
Log likelihood		-83.95916	
Akaike information criterion		11.99520	
Schwarz criterion		12.87742	
Number of coefficients		18	

Source: E-Views 10

ECT_{t-1} = [1.000 (Log.MCAP) $_{t-1}$ - 0.005$RANK_{t-1}$ - 0.232$SCORE_{t-1}$ – 9.955]

Δ(Log.MCAP) $_t$= [-0.333ECT $_{t-1}$ + 0.388$(Log.MCAP)_{t-1}$ + 0.006RANK $_{t-1}$ - 0.014SCORE $_{t-1}$ + 0.128]

The prior period deviation from long-run equilibrium is corrected at a speed of 33.3% points; a percentage change in RANK is associated with 0.006increase in MCAP, on average, *ceteris paribus* in the short-run. A percentage change in SCORE is associated with 0.014 decrease in MCAP, on average, *ceteris paribus* in the short-run. The VEC residual serial correlation LM test is shown in the Appendix. The test indicates absence of serial correlation (p>.05). The normality test output is also shown in the Appendix. The results showed the (joint) p-values of normality of the variables (p=0.6489) and no presence of heteroskedasticity using the white test (p=0.4205). Therefore, the model is not heteroskedastic.

Discussion of Findings

The hypothesis revealed a significant effect of fraud and corruption on the market capitalization of Nigeria's capital market.This is consistent with the study by Nwude (2006) on a sample of commercial banks, which found a significant correlation between fraud and stock market values. The variables RANK and SCORE had positive significant coefficients and values. This is in support of Kanu and Okorafor (2013), which found a positive significant relationship between bank deposits and fraud in the Nigerian banking industry. And, Abdulrasheed, Babaitu, and Yinusa (2012) found a significant relationship between banks profit (ROA and ROE) and the total amount of funds involved in fraud.Shahbaz et al. (2013) in Pakistan using ARDL bounds testing approach, cointegration and VECM granger causality method finds that a rise in corruption has a positive impact on financial development.

This is in contrast with Hasan and Nuri (2013) using a sample of firms from 42 emerging economies revealed that corruption had a devastating effect on a country's stock market development. This is supported by Yartey (2010) that found a negative relationship between corruption and stock market development.Nwaze (2009) found a negative effect of bank fraud on the equities of the studied banks.Similarly, utilizing a sample of DMBs Ojeaga, Ikpefu and Odejimi, (2014) reported a negative effect of banking fraud on the share price of the banks causing a decline in market capitalization of the Nigerian Stock Exchange.Adebayo and Topson (2014) found a negative correlation between fraud, corruption and performance both within the fulcrum of the bank bottomline and on the capital market.Ogunleye (2013) also found a negative relationship between the incidence of corporate corruption and market capitalization of Nigerian banks.Shogunle (2009) found a negative effect of fraud on bank market capitalization.

Yet others, such as Akindele (2005) and Berney (2008) using empirical data from Nigerian banks found a significant negative relationship between corruption and capital market performance. They further state that the reason for such was the negative publicity which follows from press releases following fraud discovery.

Conclusion

The study concludes that fraud and corruption affect the market capitalization of the Nigerian capital market. The capital market has remained one of the institutions to guarantee the growth of any economy via its savings accumulation and attracting portfolio investments. By providing an investment outlet also maintains optimality of resources allocation. However, the extent it achieves its numerous functions is highly dependent on fraud mitigation and transparency from reduced corruption. The study empirically examined the influence of fraud fraudulent practices on market capitalization. Fraud and corruption indicators had a significant effect on market capitalization of the capital market.

Recommendations

The study makes the following recommendations for policy makers and regulators in the Nigerian capital market:

1 The industry regulators should see an urgency for several corporate governance reforms, such as gender

equity and minority representation as strategies to curb managerial fraud practices. Regulators should also pay attention to internal corporate practices such as the appointment and selection of internal auditors and design of internal control systems.

2 There should be improved public awareness of the endemic effects of corruption on the growth of an economy. This may be achieved by developing moral related short courses for executive and non-executive directors in public limited liability companies.

3 Adoption of global industry best practices and business practices is suggested by business managers. Shareholders as residual claimants of a company are advised to imply agents to adopt best industry practices to eschew corruption and fraud in the entities. In addition, managers should ensure an adoption of risk management procedures to safeguard customers, clients and suppliers from the ever-evolving digital world.

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