EFFECT OF ENVIRONMENTAL MANAGEMENT PRACTICES ON TECHNOLOGICAL INNOVATION PERFORMANCE OF MANUFACTURING COMPANIES IN NIGERIA

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Abstract:
This paper investigates the effect of environmental management practices on technological innovation on the performance of manufacturing firms in Nigeria which is crucial in both research and practice as a result of the impact of manufacturing firms' activities on the environment. We sampled some manufacturing industries in the south eastern region of Nigeria particularly in Anambra state. A number of empirical studies have attempted to examine the practice of environmental management practices in Nigeria following waste management, however some other have pointed out the impact of environmental management accounting on firm's performance Current studies on environmental management practices dwelt on the profitability performance of the organization. Thus, it is imperative to explore the mechanism of how environmental management practices promote technological innovation performance so as to encourage this kind of practice among manufacturing companies in Nigeria. The data collected were analyzed with the aid of ordinary least square regression techniques. Result revealed that environmental management practices had a significant effect on technological innovation performance in manufacturing companies. Therefore, manufacturing companies and policy makers should note that environmental management practices remain crucial in enhancing the technological innovation performance of any manufacturing firm.
Keywords: Environmental management practices, Technological Innovation, Firm Performance, Product Innovation, Process innovation.

Introduction

Global warming leading to ocean overflow afterwards encroaching in sea shores, unremitting cases of recurring tsunami across the globe, climate change and many other occurrences has once more brought to the fore the consciousness of the fact that human activities on the earth affects life negatively. The extent of its effect on the environment is alarming in many parts of the world (Abdul, Nikhil & Bhangban, 2007). According Yakhon & Dorweiler (2004), the impact of business activities on the environment is found in several forms which includes air, water, underground pollution, oceans, atmosphere, and land pollution given rise to the need for corporate organizations to account for its activities impacting on the environment. Environmental management practices could provide an overall system view to deal with these environmental issues arising from organizational activities ranging from raw material inputs, production process, packaging, to waste disposal. Environmental management has the potential to play a pivotal role in the technological innovation performance of an organization as it remains the major strategy and driving force for firm's growth and survival in any competitive business environment. (Ukpabio, Siyanbola & Oyebisi 2017)

Throughout the world, many researches had been done on corporate environmental management practices, examining connection between the practice of environmental protection/management and performance of firms and these have generated mixed results. Some researchers came up with a negative view that implementing the practice of environmental management may damage a company's economic interests or reduce its competitive power; while society may gain benefits, the company itself bears all costs involved in such practices, Stanwick & Stanwick (1998) as cited in Jiehui, Qinglan , Juanmei & Chunlin (2015). A study by Amedu, Iliemena, and Umaigba (2019), revealed that most Nigerian manufacturing companies are silent on environmental information disclosure. In practice, it is obvious that some companies in Nigeria are not willing to practice environmental management programs despite their knowledge of the dependency of the organization on the environment, they still go as far as taking for granted strict environmental protection regulations. On the other end, some scholars came out with a different opinion that the practice of environmental management could ameliorate not only the environment but also economic performance of a company (wanger 2008; jyang etal 2015; Osemene, Kolawole, & Oyelakun 2016; Ucheagwu, Akintoye, & Adegbie 2019).

A number of empirical studies have attempted to examine the practice of environmental management practices in Nigeria following waste management (Afolalu et el 2019; Ogunmakinde et el 2019; Ayodeji et el 2020), however, some other have pointed out the impact of environmental management accounting on firm's performance (iliemena, 2020). Current studies on environmental management practices dwelt on the profitability performance of the organization. Thus, it is imperative to explore the mechanism of how environmental management practices promote technological innovation performance so as to encourage this kind of practice among manufacturing companies in Nigeria.

Earlier environmental management practices focused on contaminant control during productive process and end-of-pipe treatment, whereas, the practice of environmental management in this study will focus on how to prevent or reduce environmental impact of product in all product lifecycle stages, the application of environmental management system such as ISO14001, EMAS and then internal policies for environmental performance. Thus, it is needful to consider the effect of these practices on the process/ product innovation performance of manufacturing companies.

How does environmental management practices affect innovation performance of manufacturing company? Does compliance level meet policies guidelines checklist for manufacturing companies in Nigeria? What relationship exist between environmental practices tools, product / process lifecycle and manufacturing companies' sustainability? These are the major questions that this paper will explore.

Review of Related Literature

Conceptual Review

Environmental Management Practices

Countless environmental problems that have plagued the world today, made the subject of environmental management practices vital issue for consideration. According to Ameer & Othman 2011, incorporating environmental initiatives in the strategic decisions of companies is considered as an effective way to achieve benefits that will lift competitive advantage and positively impact the performance of an organization. Basically, the environmental management relates to reduction of the impact of an organization's operation on the natural system (both living and non-living) and the ecosystems (land, air and water). Environmental management practices can be seen as the effort and activities of an organization aiming at reducing their negative impact on the environment and improving environmental sustainability. Haj Mohammad, Vachon, Klassen, & Gavronski (2013) defined environmental management practices as "the level of resources invested in activities and know-how development that lead to pollution reduction at the source", including the application of environmental management systems (e.g., ISO14001). Environmental management practices are also efforts put in place by the organization to recycle materials and reduce waste, the practice of environmental audits, total quality management, pollution prevention plans, training employees on environmental sustainability, product life-cycle costing, hiring an expert on environmental management, Research and Development, environmental standards for suppliers, and employee incentive programs for environmental suggestions, and many more (Theyel 2000). Summarily, environmental management practices can be seen as the acts and precautions taken by organizations to reduce or eradicate their negative impact on the environment.

There are several factors that motivate organizations to practice environmental management. Considering Environmental regulations, though some companies in Nigeria risk fines and penalties, carry out their operations not minding the environmental regulations but in the real sense, a company can only be considered to be "Authentic" and avoid penalties if it meets the requirements of environmental regulation (Hunt 1990 as stated in Jiehui etel 2015). Another motivating factor is Economic interests. Apart from the fact that the practice of environmental management reduces negative impact of organizational activities on the environment, it also brings economic benefits by generating recycling revenue, boosting sales, achieving first-mover advantage, enhancing social reputation, and improving product quality (Rennings, Ziegler, Ankele & Hoffmann 2006). Gaining a competitive edge is another motivating factor for practicing environmental management. Jiehui etel 2015 in their work stated that environmental management practices are one of the strategic choices in order to gain competitive advantages. The practice such as using clean production technology and product re-design, optimizing production technology, improving resource utilization and reducing production costs can bring competitive advantages and business opportunities. Stating further, Weng, Chen & Chen (2015) found out that establishing a green image by implementing environmental management can lessen the negative impact of competitors, which have earlier implemented environmental management. The involvement of companies in Environment-friendly products, green marketing, and green consumption are advantageous to winning them recognition from the public and customers.

Product Life-Cycle Costing

Considering product life-cycle costing could contribute to the effects of environmental management practices. According to Iliemena 2020, lifecycle costing in environmental accounting requires that costs relating to the environmental consequence of a product be captured throughout the product lifecycle.

Technology Innovation Performance

The idea of technological innovation usually includes product and process innovation (Thuc and Caroline, 2010). It is a means for an organization to achieve a sustainable competitive advantage. According to Organization for Economic Cooperation and Development (OECD), technological innovation is defined as a procedure including product innovation and technological process innovation that involved repetition of steps to achieve the desired outcome starting from the conception of idea, development, production, commercialization and marketing of inventions based on new technology knowledge. technological innovation has been considered by several studies as being in form of processes or products and as being proxy by many scholar (OECD, 2005; Harty, 2005; Hagedoorn and Cloodt 2003 ; Chen and Chen 2006; de Valence, 2010,) by new product development, processing systems, production processes, physical equipment or tools, number of patents, R&D investment, patent citations, sale of innovative products, the cost and speed of new product development, the sales rate of new products, the success rate of innovative projects, and leading or participation in the development of industrial standard. In this study, we used the announcement, sales rate, and development speed of new products, R&D investment, and the success rate of innovative projects as the measure indicators of technological innovation performance.

Product innovation performance

Product innovation remains one of the major roots of competitive advantage to firms (Mohd and Syamsuriana, 2013). According to Hult et al. 2004 as cited in Ukpabio et al 2017, when firms engage in innovation, the quality of their goods and services is improved and this enhances the performance as well as the competitive advantage of the firm. Engaging in such an innovation protect a firm from threat and give such firm an opportunity of first-mover advantage. Product innovation entails introduction of new or significantly improved product, introduction of new machines and equipment, introduction of additional refurbished or second hand equipment, introduction of goods that are new to the market and introduction of goods that are new to the firm. These will be used to proxy product innovation in this study.

Process innovation performance

Process Innovation is as important as product innovation performance. Its essentiality is in the fact that it gives a firm an advantage over its competitors. Interestingly, studies have revealed that process innovation is positively related to performance of firms (Masood, 2013; Tuan et al., 2016). Process innovation can be defined as changes in the ways of producing or developing products, basically it rests on the use of new technologies to increase the efficiency and quality of production. Engaging in research aimed at producing specific inventions or modifying existing techniques is also a process innovation performance.

Theoretical Framework

Natural Resources based view theory

Natural resources-based view is an aspect of resources-based view which proposes that there are three key strategic capabilities: pollution prevention, product stewardship, and sustainable development. Each of these has different environmental driving forces, builds upon different key resources, and has a different source of competitive advantage. According to NRBV, pollution prevention technologies involve much tacit knowledge through skill development and "green" teams (Hart, 1995). The tacit knowledge results in a resource that is difficult to be replicated. Product stewardship technologies could produce knowledge of entire "product life cycle", which can be converted into the potential for competitive advantage through strategic priority. Further study by Hart & Dowell (2010), concluded that tacit knowledge and product life cycle knowledge, which are generated by environmental management practices, are significant for corporate competitiveness and performance. Hence the relevance of the theory to the present study.

Methodology

This study used the descriptive statistics method. Questionnaire was used to collect data. We generated twenty-five valid questionnaire through fact-to-fact interview with environmental management experts and manufacturing industries executives in south eastern region of Nigeria in general and Anambra states in particular.

For Environmental management practices, the scale of Xue & Gao (2004) was used. It includes eight items such as establishment of green management objectives, improvement of staff environmental awareness, increases in investment in environmental protection and so on.

A 5- point scale was used for the study:

1= No consideration
2= Planning to be considered
3= Having been considered
4= Being implemented to some extent
5= Having been implemented successfully

Cronbach alpha coefficient of 0.882, was obtained for the study. This is more than 0.7, indicating good reliability. The second state was the formal investigation state, where we asked senior managers in the manufactory industries selected using systematic random sampling technique. A total of 200 formal questionnaire were given out, and 150 questionnaires were received, which represented 75% response rate. Sample of manufacturing industries selected for the study include millennium industries Ltd, Awka, premier botting company Onitsha and Innoson automobile manufacturing company Nnewi

Variable measurement:

The measurement of the variables is carried out using dependent and independent variable. Dependent variable is innovation technology that comprises of process innovation and product innovation. Independent on the other hand is Environmental management practices.

Product innovation is proxied with five items; introduction of new or significantly improved product, introduction of new machines and equipment, introduction of additional refurbished or second hand equipment, introduction of goods that are new to the market and introduction of goods that are new to the firm. Process innovation on the other hand is proxied with introduction of new or significantly improved method of manufacturing; purchase/ lease of machines/equipment, introduction of supporting activities for manufacturing process and engagement in research aimed at producing specific inventions or modifying existing techniques.

The respondent was asked in the last five years if their firm have engaged in the above listed innovation activities. Their responses were based on yes=1 and No=2

Result and Discussion

Data were analyzed using ordinary least square regression techniques to know the effect of management environmental practices on innovation technological progress of listed manufacturing companies in Nigeria.

Research result presentation and interpretation

Table 1; environmental management practice introduced by manufacturing companies in Nigeria

Environmental management practice type	percentage	minimum	maximum
establishment of green management objective in last 10 years	95.10%	1	20
improvement of staff on environmental awareness in last 10 years	90.20%	1	5
Source; Author's compilation			

From the table 1 above, its shows that the establishment of green management objective in last 10 years at 95.1% indicated that environmental management practice in manufacturing companies is highly commendable. Similarly, improvement of safe environmental awareness in last 10 years at 90.2% demonstrated that the environmental management practices is sine-qua-non to the technology innovation progress in manufacturing company's performances in Nigeria.

Regression output

Dependent variable; INNTP

Method least square

Samples= 150

Included observation

	INNTR) dependent variable)			
variable	**coefficient**	**std-error**	**e-statistics**	**probability**
firm performance	**0.141112**	**0.037554**	**3.730737**	**0.0001**
firm age	**0.641289**	**0.123005**	**-5.009876**	**0.0000**
production innovation	**0.750445**	**0.107503**	**-6.980675**	**0.0000**
process innovation	**0.821332**	**0.113701**	**-5.972115**	**0.0000**
environmental management practice	**0.092908**	**0.01526**	**6.080785**	**0.0000**
c	**2.00987**	**13.2152**	**0.908792**	**0.5008**

R	0.85125	mxan direct var	7.826095
R^2	0.99953	S.D. dependent	0.552368
Adjusted R^2	0.95172	Akala infor criterial	-5.9477
S.E of regression	0.011134	Schwar	-5.80037
sum squared resid	0.007121	Durbin watso sat	1.28919
log likelihood	164.588		
F-statistics	37832.59		
prob. (f-statistics)	0.00000		

Source; estimated regression result from Eview 10.1

The results show that the entire estimated coefficient is highly statistically significant as their p-value are extremely small. This indicated that there is significant positive effect of environmental management practices on innovation technology performance of the listed companies in Nigeria.

The R^2 obtained from the innovation technological performance is at 0.99953. this suggest that the independent variable (environmental management practices) explain 99% of the innovation technological performance in manufacturing companies in Nigeria. Similarly, the correlation value at 0.85125 implies that there is positive relationship between environmental management practices and innovation technology in manufacturing companies.

The hypothesis tested used f-statistic value at 37832.59 with probability (0.00000) indicated there is significant effect of environmental management practices on innovation technology in manufacturing companies in Nigeria. Evidently, the empirical result shows that environmental management practices have a significantly positive effect on technological innovation performance of manufacturing companies in Nigeria. This result conforms with the research carried out by Jiehui et al (2015) in Ghana titled; the influence of environmental management practices and supply chain integration on technological innovation performance.

Conclusion and Recommendation

Result revealed that environmental management practices had a significant effect on technological innovation performance in manufacturing companies. Therefore, manufacturing companies and policy makers should note that environmental management practices remain crucial in enhancing the technological innovation performance of any manufacturing firm.

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ELECTRONIC BANKING AND BANK PERFORMANCE IN NIGERIA: A CO-INTEGRATION AND ERROR CORRECTION MODEL APPROACH

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Abstract
This study examined the relationship between electronic banking and the performance of deposit money banks (DMBs) in Nigeria using ex-post facto research design. Quarterly time-series data of mobile banking, automated teller machine, internet banking, point of sales and return on assets were obtained from the Central Bank of Nigeria Statistical bulletin during the period 2009-2019. Data obtained were analyzed using both descriptive (mean, standard deviation, and Pearson correlation) and inferential (unit roots, co-integration, error correction model, Jacque-Bera test and variance inflation factor test) statistical techniques. Findings revealed that mobile banking, automated teller machine and point of sales were statistically significant, suggesting that they are critical technological factors enhancing financial performance of banks. On the other hand, internet banking found to be statistically insignificant with financial performance of banks, implying that they are weak factor enhancing financial performance of banks in Nigeria. In effect, the study concludes that electronic banking has effect on deposit money banks financial performance in Nigeria. Based on the findings, it was recommended among others that banks should encourage their customers to key into their mobile banking ideology. Again, bank should be able to determine the technical background of the majority of its customers before endeavoring into the use of advanced technologies like mobile banking for their customers. Finally, deposits money banks should maintain steadily and encouraging mobile banking in their operations because the number of people with access to a mobile hand set is increasing every day.
Keywords: Automated teller machine; Electronic banking; Internet banking; Point of sales; Return on assets

Introduction

Over the years, the drive towards attaining a continuous performance has been a major concern for both management and stakeholders of banks in Nigeria, the world over. Basically, unceasing performance is one of the prime goals of any bank since only via performance, are they able to attain sustainable growth (Gavrea, Ilies & Stegerean, 2011; Wachira, 2013; and Monyoncho, 2015). To realize the unceasing performance, every firm whether financial or non-financial explores ways to be bench -racer in fierce competitive business environment and adapt to changes (Monyoncho, 2015); this seems to be the case for deposit money banks.

Globally, deposit money banks (DMBs) have strived towards attaining improved performance by developing and adopting new products in line with technological changes known as 'electronic banking'. Electronic banking consists of internet banking, automated teller machine (ATM), mobile phone banking among others. Oluwatayo (2012) noted that electronic banking gives opportunities and allow nearly many persons without bank accounts to access financial services. Thus, with electronic banking, DMBs are able to sustain competitiveness such that they have transformed from their conventional approach of 'bricks and mortar' into a 'click and mortar' in their methods of operations (Mateka, Gogo & Omagwa, 2016).

Noteworthy is the fact that electronic banking has brought about the use of automated machine, point of sales (POS), internet banking, and the use of debit cards; no doubt, these have led to the reduction in moral hazards, reduced regulatory costs, transparency, customization, reduction in transaction costs on the part of DMBs and ease of access to DMBs services and products, which has improved financial performance in aggregate.

The term electronic banking refers to the application of information communication technologies (ICTs) to bank operations (Kabiru & Farouk, 2012). Electronic banking services have made it possible to provide new kinds of value added services for customers and other stakeholders who are users of banks services (Matevu & Kerongo, 2015). Notwithstanding the undeniable import of electronic banking in promoting DMBs performance, the impact is still misunderstood, simply for two (2) vital reasons (Ngumi, 2013). *First*, there is inadequate understanding about the drivers of electronic banking technology; and *second*, technology impact on DMBs performance remains lowly empirically tested using bank data (Ngumi, 2013).

More worrisome is the fact that most extant studies from developed and developing nations (Mwania & Muganda, 2011; Pooja & Singh, 2009) have produced mixed results regarding electronic banking and DMBs performance. The few studies in Nigeria (Oluwagbemi, Abah & Achimugu, 2011; Jegede, 2014; and Olumide, 2014) had focused on electronic banking or e-payment system in areas of either ATM, internet banking, mobile banking or e-banking in relation to bank performance via the use of primary data (i.e. questionnaire) and also analysed with descriptive statistics, chi-square and ordinary least squares regression methods. It is at the centre of the mixed findings and the methodological bottleneck that has created and necessitated the need to carry out an investigation to establish the extent to which electronic banking contributes to DMBs performance in Nigeria.

In light of the foregoing, this study employed a robust methodological approach - the use of co-integration and error correction model in analyzing quarterly secondary data of electronic banking measures (mobile banking, automated teller machine, internet banking and point of sales) on bank performance (return on asset) from 2009-2020; thus, there lies a gap in literature in this regards, which this study fills.

Literature Review and Theoretical Framework

Bank Performance and Measures of the Study

Bank performance has been defined in various ways. Bank performance according to Harash, Al-Tamimi and Al-Timimi (2014a), is the achievement of bank objectives measured against known standards, totality and costs. Fauzi, Svensson and Rahman (2010) see bank performance as the bank's capability to achieve its goals by utilising resources in an effective and efficient way. The performance of bank arises because of the tactics bank employs to realize goals and objectives (Sacristan-Navarro, Gomez-Ansón & Cabeza-García, 2011; and Harash, et al., 2014a).

In management literature, DMBs performance is usually measured using a blend of financial ratios (Matevu & Kerongo, 2015). Owing to this, numerous measures of DMBs performance have evolved to include but not limited to operational, financial and non-financial, innovation, and quality performance (Ahmed, Francis & Zairi, 2007; Mwai, Memba & Njeru, 2018). DMBs performance via two dimensions: organizational and operational performance; however, Gavrea, et.al., (2011); and Fauzi et al., (2010) see DMBs performance in the areas of operational and financial performance.

Notwithstanding the categorization of DMBs performance can be seen in the light of financial and non-financial performance (Wachira, 2013; and Kolapo, 2012). Financial performance entails measures of market-based and accounting-based performances (e.g. stock prices, dividend pay-out and earnings per share, return on asset and return on equity, operating profit margin and net firm income, etc.) while non-financial performance entails product quality, marketing or distribution efficiency, among others. Regardless of the numerous measures of performance, this study adopts the financial performance standpoint, particularly return on asset. Return on asset measures the return on the firms' assets and is often used as an overall indicator of profitability.

Electronic Banking and Measures of the Study

The issue of electronic banking is associated with the idea of a flow – generation, application, dissemination of technologies (Matevu & Kerongo, 2015). Electronic banking is seen as the automated delivery of new and traditional banking products and services directly to customers via a labyrinth of network and interactive communication channels such as the use of computers, or mobile phones.

Electronic banking has led to vital changes in the financial sector in areas of deregulation, increased competition, higher cost of developing new product and the rapid pace of technological innovation. The services offered by electronic banking can either be provided by the banks having physical offices and by creating a website and providing services through a virtual means. Electronic banking begins with opening of bank account, and transactional activities such as funds transfer, bill payments, loans and other transactions (Nickel, 2018). In this study, four (4) measures of electronic banking were employed to include mobile banking, automated teller machine, internet banking and point of sales.

First, mobile banking is one form of electronic banking; it is used for performing balance check, account transactions, payments, credit applications and other banking transactions via a mobile device such as a mobile phone or personal digital assistant (PDA) (Ndunga, Njati & Rukangu, 2016). Monyoncho (2015) noted that mobile banking allow customers with convenience of accessing bank products and services via their phones. Thus, mobile banking is about getting banking services and products to the unbanked (those who do not have physical access to bank.

Second, automated teller machine allows bank customers to conduct banking transactions from almost every other ATM machine in the world. The basic form of non-branch banking is ATM, where bank customers' access bank services and products with their card and pin and check their balances, withdraw monies, and make payments. Ogbuji. (2012) observed the ATM is one of the existing replacements of the cascading labour intensive transaction system done through what is popularly known as paper-based payment instruments. Jegede (2014) showed that the use of ATM terminals have averagely improved the performance of Nigerian DMBs.

Third, internet banking offers bank customers with home banking services and products. Internet banking refers to banking services provided by banks over the internet. Some of the vital internet banking services includes paying of bills, funds transfers, viewing account statements, among others. Internet banking is performed via a computer system or similar devices that can connect to the banking site via the internet (Oruro & Ndungu, 2013).

Fourth, point of sales (POS) is another aspect of electronic banking. Ngumi (2013) sees POS as a retail payment system which reads a customer's bank's name and account number when a bank card or credit card is swiped (passed through a magnetic stripe reader). The use of POS has made bank services more accessible by customers', cost efficient and income generating streams for DMBs (Iftekhar, Schmiedel & Song, 2009; and Ngumi, 2013).

Theoretical Framework

This study is anchored on the Technology Acceptance Theory (TAT) originally developed by Davies (1986). TAT proposes the connection between users' acceptance of any innovation and the users' perceived ease of usefulness of such a technology (Mulwa, 2017; and Monyoncho, 2015). TAT deals with perceptions as opposed to real usage, and suggests that users are the key factors that influence how, where and when they will use such technology.

TAT proposes two frameworks - perceived usefulness which according to Davis (1986), is the degree to which a user believes that using a particular system will lead to improved performance (Britton & McGonegal, 2007) while the second is the perceived ease-of-use which shows the extent to which a person believes that making use of certain technology is not cumbersome. The relevance of TAT to this current study is that it explains users' acceptance of electronic banking and usage in the context of improving organizational performance.

Methodology

This study employed ex-post facto research design. The study is based on quarterly time series data covering the period 2009-2020. The choice of periods was necessitated following the CBN disclosure of electronic banking data in the statistical bulletin. A total of twenty-one (21) banks in Nigeria constituted the population of the study and hence the study sample. Specifically, the study population cuts across DMBs with international, national and regional coverage in Nigeria.

The data of the study comprised of electronic banking measures of mobile banking, POS, ATM and internet banking while performance measure comprised of return on asset, which were obtained from the CBN statistical bulletin. Data obtained were analyzed using both descriptive (mean, maximum,, minimum, standard deviation, skewness, kurtosis, and Jacque-Bera test) and inferential (Pearson correlation, Variance Inflation Factor, Breusch Pagan Godfrey, unit root, co-integration and error correction model) statistical techniques. Our model specification was adapted from Dinh *et.al*,(2015) who proposed a three variable linear regression model to assess the relationship between electronic banking and operational efficiency of Vietnamese DMBs as specified as below:

$$\text{Performance}_{it} = \sum_{k=1}^{4} \beta j * \text{MULTI}_{it}^{j} + \sum_{k=0}^{n} \delta * X_{i=t-1}^{k} + \sum_{t=1}^{n} \emptyset + \text{timedump } t + \in it$$

Where: $_{i,t}$ are bank index and time of observation, respectively) $\text{Performance}_{i,t}$ is the indicator of the operational efficiency of the bank i at time t, including the profitability ratio (ROE, ROA), operating costs (NIE/A), non-interest income (NONII/A); $X_{i=t-1}^{k}$ Consists of 3 variables controlling the performance indicators of the bank i at time t: ln(A) (asset size); Deposit/A (deposits / total assets ratio), Loan/A (loans / total assets ratio). $MULTI_{it}^{j}$ includes 3 dummy variables which represent the time period when commercial banks started to transact on internet banking to year t: MULTI1 (new internet banking when put into use), MULTI3 MULTI4 (impact of internet banking with latency 3 years and more than 4 years). For the purpose of this study, our model is specified in both implicit and explicit forms:

$$ROA = f\,(MB, ATM, INET, POS). \quad \ldots\ldots \quad Eq.\ 1$$

$$ROA_{it} = \beta_0 + \beta_1 MB_t + \beta_2 ATM_t + \beta_3 INET_t + \beta_4 POS_t + + \mu \ldots\ldots \quad Eq.\ 2$$

Where: ROA=Return on asset proxy for bank financial performance (dependent variable); K_0 = Constant or intercept; β_1, to β_4 = Coefficients or parameters of the proposed estimates; t = for time; MB= mobile banking (explanatory variables - ATM= Automated teller machine; INET= Internet Banking; POS= Point of sales)

Table 1: Operationalisation of Variables and A-Priori Expectations

S/N	Variables	Notation and Measurement	Apriori Sign
	Dependent Variable		
1	ROA	Bank financial performance will be proxied with: ROA which is return on asset is measured as profit before tax divided by total asset	
Independent Variables			
2	MB	Mobile banking is measured in this study as the total value of mobile banking transactions in a particular year respectively	+
3	ATM	Automated teller Machine is measured as the total value of ATM transactions in a particular year respectively	+
4	INET	Internet banking is measured as the total value of mobile banking transactions in a particular year respectively	+
5	POS	Point of sale is measured as the total value of POS transactions in a particular year respectively	+

Source: Researchers' Compilation, 2021

RESULTS AND DISCUSSIONS

Table 2: Descriptive Statistics

	ROA	MB	ATM	INET	POS
Mean	2.883000	116.9482	821.9903	35.15450	139.4075
Median	2.420000	61.72000	798.7050	20.47500	64.05500
Maximum	8.900000	592.9400	1832.550	340.3900	714.3500
Minimum	0.090000	0.060000	62.59000	3.370000	1.870000
Std. Dev.	1.922052	149.5240	540.4654	60.83085	190.9486
Skewness	1.678782	1.487693	0.234506	3.989112	1.614326
Kurtosis	6.170952	4.611240	1.847507	19.00975	4.637137
Jarque-Bera	35.54694	19.08170	2.580352	53.32736	21.84069
Probability	0.000000	0.000072	0.275222	0.000000	0.000018
Observations	40	40	40	40	40

Source: Researchers' Computation, 2021

The descriptive statistics in Table 2 showed that return on asset (ROA) had a mean value of 2.8830(3%) with maximum and minimum values of 8.9000(9%) and 0.0900 respectively coupled with the moderately high standard deviation, signified that in average DMBs in Nigeria achieved low rate of financial performance using electronic banking. Besides, the table showed DMBs performance with positive skewness value of 1.6788, an indication that its curve skewed towards right hand side, and kurtosis value of 6.1710 signified that the curve is positively peaked at leptokurtic level, suggesting that it is moving above normal distribution, while Jarque-Bera value of 35.5469 at probability value of 0.0.000 (less than 5% significance level), implied that the data for the result not normally distributed.

Similarly, mobile banking had maximum and minimum values of ₦592.94 billion and ₦0.060 billion with mean value of ₦116.95billion; this implies that mobile banking introduction has attracted reasonable amount for DMBs in Nigeria from absolute volume of transactions. Mobile banking with positive skewness and kurtosis values of 1.4877 and 4.6112 respectively, coupled with Jacque-Bera value of 19.0817 at probability value of 0.0001 (less than 5% significance level), indicates that mobile banking is not normally distributed. Automated teller machine (ATM) had mean value of ₦821.99 billion, with a maximum of ₦1832.55 billion and a minimum of ₦ 62.59 billion respectively; this signifies that the use of ATM has been realized by DMBs from absolute volume of ATM transactions. The skewness and kurtosis values of 0.2345 unit (skewed right hand side) and 1.8475 units (peaked at Platykurtic level since it is less than benchmark of 3units - Mersokurtic), with Jarque Bera value of 2.5804 at probability value of 0.2752 (27%), which is greater than the significance level of 5%, suggests that ATM is normally distributed.

Furthermore, internet banking (INET) with a mean value of ₦ 35.155 billion, maximum value of ₦340.39 billion and minimum value of ₦3.989 billion, indicated that DMBs in Nigeria have realized certain amount from absolute volume of internet banking. Internet banking showed a positive skewness value of 3.9891 and skewed to right hand side; kurtosis value of 19.0010 units showed that its graph is caved at leptokurtosis; and Jarque-Bera value of 53.3274 units at probability value of 0.000(0) which is less than 5% significance level, show that internet banking is not normally distributed. More so, point of sale (POS) had mean value of ₦139.41 billion, maximum value of ₦ 714.350 billion and minimum of ₦ 1.8700 billion; an indication that on the average, DMBs in Nigeria realized amount of money from volume of transactions. Meanwhile, POS had positive skewness value of 1.6143 units and positive kurtosis value of 4.6371 (carved at leptokurtic level) and Jarque-Bera value of 21.8407 units at probability value of 0.0000 which is less than 0.05 (5%) significance level indicated that the result is not normally distributed.

Table 3: Pearson Correlations

Variables	ROA	MB	ATM	INET	POS
ROA	1.000000				
B	0.305314	1.000000			
ATM	0.513533	0.883702	1.000000		
INET	0.116626	0.771821	0.516160	1.000000	
POS	-0.278370	0.887875	0.860684	0.779386	1.000000

Source: Researchers' Computation, 2021

The correlation coefficient (r), between the dependent variable (return on asset (ROA)) which is the proxy for bank performance and the independent variables (MB, r=0.3053; ATM, r=0.5135; INT, r=,0.1166) were positively correlated with DMBs performance. While POS r=-0.2784 was negatively correlated with DMBs performance. It is deduced that the highest is between mobile banking (MB) and point of sale (POS) with very high positive correlation coefficient value of 0.8879. impliedly, the results showed that the strength of correlations between most variables are high hence produced small effect of approximately (±.1166) while association between other variables produced moderate effect (±.5135) and high effect (±.8879) respectively. Furthermore, the correlation coefficients are relatively high, but the associations indicate absence of the problem of multicollinearity in the pairs of independent variables. To further confirm this, we performed a diagnostic test - Variance Inflation Factor (VIF).

Table 4: Test of Variance Inflation Factor

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.391793	6.193749	NA
MB	0.000159	8.943543	5.495522
ATM	1.48E-06	2.251790	6.677059
INET	6.35E-05	4.860978	3.620736
POS	7.67E-05	6.665530	4.309567

Source: Researchers' Computation, 2021

The result revealed a relatively low-centered VIF of 5.4955 for mobile banking (MB); 6.6771 for automated teller machine (ATM); 3.6207 for internet banking (INET) and 4.3096 for point of sale (POS). The results of the VIF showed the absence of multicollinearity in the variables since none of the values exceeded the threshold of 10 units as suggested by Hair, Black, Babin and Anderson (2010).

Table 5: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.655957	Prob. F(2,33)	0.4535
Obs*R-squared	1.76674	Prob. Chi-Square(2)	0.3676

Source: Researchers' Computation, 2021

The test reported F-statistic of 0.6560 and at probability value of 0.4535; the result is statistically insignificant, which by implication suggest no evidence of the presence of serial correlation in the model of electronic banking and DMBs performance.

Table 6: ADF Unit Roots Result

Series	Level	1st Difference	Critical Value 5%	Integration
ROA	-4.307647*	-9.076678*	-2.951125	I (1)
MB	-1.571501	-5.810599*	-2.951125	I (1) CME
ATM	-2.368662	-5.454654*	-2.951125	I (1) AC
INET	-0.649114	-4.365963*	-2.951125	I (1) FPI
POS	-1.784586	-3.860889*	-2.951125	I (1) HB

Source: Researchers' Computation, 2021;

Note *&** indicate the critical values at 1% and 5% level respectively. The critical value at 1% & 5% are -3.639407 and -2.951125 respectively.

Table 6, it can be deduced that return on asset (ROA) with value of -4.3076 ADF at level was higher than critical values of 2.9511 (5%) suggesting the presence of stationarity. The respective values of money banking (MB)), automated teller machine (ATM), internet (INET), and point of sales (POS) probability values were greater than 5 percent critical values at the levels series, but were less than the critical value at 5%

for the differenced series. The implication is that the time series were non-stationary in their levels but later stationary at first difference. Box and Jenkins (1978) noted that non stationarity time series in levels, be made stationary by taking their first differences.

This further suggested that, the variables were time-dependent and would not guarantee a long run relationship unless tested. Thus, the variables are integrated of order one (i.e. 1[1]). It is deduced that the ADF test statistic for each of the variables at first difference are greater than the 95% critical ADF values (in absolute terms) which is adjudged to be stationary.

Table 8: Co-Integration Residual Based (unit roots)Test

Series	ADF Level	PP Level	Integration
Residual	-3.8677**	-60.152*	I (1)
1 percent critical value = -4.1420.		5 percent critical level = -3.4969	

Source: Researchers' Computation, 2021;

Note * & ** indicate the critical values at 1 percent and 5 percent respectively. The critical values at 1 percent and 5 percent are -4.1448 and -3.4987 respectively.

Table 8 indicated that the variables in the model has a long-run relationships or co-integrated since the Augmented Dickey-Fuller (ADF) statistics are greater than critical values at 5 percent (5%) and 1 percent (1%) level respectively. Thus, we cannot reject the hypothesis of co-integration among the variables. As can be observed from the Table 8, the statistics indicated long run relationships among the series and that the variables are moving together in time. The diagnostic tests conducted earlier produced results to show that the variables under study possess desirable empirical characteristics that qualify them to be included in Error Correction Model (ECM).

Table 9: Parsimonious Result of Error Correction Model

Variable	Coefficient	Std. Error	t- Statistics	Prob.
C	-0.004810	0.078815	-0.061030	0.9519
D(MB)	2.760259	0.859093	3.212994	0.0039
D(ATM)	3.006796	0.702804	4.278285	0.0002
D(INET)	0.003910	0.015239	0.256569	0.7998
D(POS)	-0.196327	0.091307	-2.150193	0.0423
ECM(-1)	-0.836597	0.168876	-4.953924	0.0001
R^2 = 0.6386 **Adjusted R^2** = 0.5286 **F- Stat (Prob.) =5.8056** (0.00058) **DW** = 1.6681				

Source: Researchers' Computation, 2021

The error correction model (ECM) least square result reported a coefficient of determination R-squared (R^2) value of 0.6386 with return on asset (ROA) being the proxy for bank financial performance, signified that 64% of the systematic variations in the dependent variable being bank financial performance (return on asset, ROA) was accounted for by the explanatory variables of mobile banking (MB), automated teller machine (ATM), internet banking (INET) and point of sale (POS) While about 36% were unaccounted for, hence captured by the error terms. After adjusting the degree of freedom, adjusted coefficient of determination (adjusted R-square bar (R^2) which indicates 0.5286 with ROA, showed that approximately 53% of the changes in the bank financial performance which was proxied by return on asset (ROA) were explained by the independent variables of bank technological changes (mobile banking (MB), automated teller machine (ATM), internet banking (INET) and point of sale (POS), while, 47% of the variations were unexplained, hence captured by stochastic disturbance.

The F- Stat (Prob.) of 0.00058 indicates that there is a simultaneous linear relationship between the dependent variable and all the explanatory variables combined. This suggests that the joint effects of all the included variables in the model are significant in explaining bank financial performance in Nigeria. The Durbin Watson (D-W) statistic values for the equation of 1.6682 is sufficiently and approximately to be 2. Thus, there is the absence of a first order position autocorrelation in the model. The coefficient of ECM is statistically significant at 1 percent level and correctly signed. From the result, ECM coefficient indicated negative value of 0.8366. This suggested that about 84 percent of the disequilibrium in the model will be corrected every year. Interestingly, the overall model is highly significant and shows a high goodness of fit even at the 1 percent level.

Furthermore, three of the variables (DMB, DATM and DPOS) in the model were statistically significant with DMBs performance at the 5% level, except only variable DINET which passed the t-test at 79% level (statistically insignificant). That means internet banking is a weak determinant of bank financial performance substituted with (ROA). Since results in Table 4.8 showed a robust linear relationship between the variables, thus, the estimates were impressive, reliable for structural analysis and policy directions. The parsimonious result of error correction model was used to assess the effect of electronic banking measures on DMBs performance.

First, the mobile banking coefficient (β_1) is 2.7603; the coefficient is significantly different from zero, implying that a unit change in mobile banking would definitely increase patient flow by 2.7603 units. The t-statistic value is 3.2130 and the probability value is less than critical value of 5% significant level. The outcome of the test indicates that mobile banking is statistically significant. The finding is consistent with the viewpoints of Ngumi (2013), who found that mobile banking had a higher moderating effect than any bank technology or innovations when influencing financial performance of commercial banks. Lee, et al., (2007) showed that mobile banking presents an opportunity for financial institutions to extend banking services to new customers thereby increasing their market and performance.

Second, the positive coefficient (β_2) value of automated teller machine of 3.0068 unit, was significantly different from zero and this implied that a unit change in ATM will definitely increase bank financial performance by 3.0068 units. The t-statistic value is 4.2783 and the probability value is less than critical value of 5% significant level. The outcome of the test indicates that automated teller machine (ATM) is statistically significant. The finding conforms to apriori expectation that as more ATM are installed, the more likelihood to influence bank performance. The inference of this test is that ATM has a significant influence on DMBs performance in Nigeria. The finding is consistent with plethora of studies such as Kabiru and Farouk (2012); Jegede (2014); Olumide (2014); Monyoncho (2015); and Mwai, et al., (2018) who found that number of ATMs had a significant impact on DMBs performance in Nigeria.

Third, internet banking (INET) indicated positive coefficient (Υ_3) value of 0.00491. This showed that internet banking in relation to DMBs performance (return on asset) equation is slightly different from zero, indicating that a unit increase in internet banking could affect DMBs performance by 0.00491. The value of internet banking (INET) of t-statistic was 0.2566 and associated probability value of 0.7998. The t-statistics probability value in the estimates is higher than the critical value at the 5 percent (5%) significant level. Thus, this shows that internet banking is significantly low and that usage of internet banking is a weak factor having effect on DMBs performance. The finding agrees with the extant study of Mateka, et.al., (2016) who found that internet banking has positive influence on bank performance.

Fourth, point of sale (POS) indicated negative coefficient value with DMBs performance (ROA); impliedly, a unit increase in point of sales (POS) could negatively affect DMBs performance by -0.1963 units. The t-statistic was 2.1502 with probability value less than critical probability value of 5%. The result showed that point of sale is statistically significant. The findings conform to a priori expectation. The inference of this test is that point of sale (POS) has significant influence on DMBs performance in Nigeria. Nader (2011) study disagrees with our results indicating that point of sales do not improve DMBs performance and efficiency.

Conclusion and Recommendations

Results of the study showed that mobile banking, automated teller machine and point of sales were statistically significant, suggesting that they are critical or strong technological changes factors enhancing financial performance of banks in Nigeria. Similarly, internet banking was found to be statistically insignificant with DMBs performance, implying that they are weak factor enhancing DMBs performance in Nigeria. In effect, the study concludes that electronic banking has effect on DMBs performance in Nigeria. Given the findings of the study, it was recommended that:

(i) Banks should encourage their customers to key into their mobile banking ideology. Bank should be able to determine the technical background of the majority of its customers before endeavoring into the use of advanced technologies like mobile banking for their customers.

(ii) Automated teller machines should be located in major streets junctions in towns and cities. Also, automated teller machine should be cited in all the local government areas or rural areas in the country so as to ease banking transactions at reduced cost and to prevent the risk of carrying cash at long distance by customers of banks.

(iii) Banking institutions should considered intensifying the internet banking as this will ensure services accessibility by customers and thus improving financial performance. Also, banks should ensure that adequate internet securities are acquired to protect customers' accounts especially those using internet banking.

(iv) Banks should issue point of sale (POS) to all their customers especially those in different form of businesses so as to encourage cashless policy of the Central bank of Nigeria. Banks should closely monitor their customers' with POS or debit cards and track their transactions in case of fraudulent persons have access to it.

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ETHICAL DISCLOSURES AND FIRM VALUE OF CONSUMER GOODS COMPANIES: EVIDENCE FROM NIGERIA

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Abstract
The study investigates the signalling effects of ethical disclosures of non-financial nature, on firm value in the consumer goods sector of an emerging market; and to ascertain whether such disclosures have more signalling effect on firm value when moderated with corporate profitability. The signalling strength of ethical disclosures of human rights, environmental protection and other safety activities on firm value, and moderating such disclosures with financial performance in an emerging stock market is still quite an under-researched area in business ethics and financial reporting. Using data for the period 2012 to 2019, panel regression analysis was conducted using E-views 9.0 software. Results reveal that ethical disclosures exert insignificant influence on the value of consumer goods companies in Nigeria, but this effect is enhanced and significant when moderated with corporate profitability. The results confirm that ethical disclosures wield significant signalling effects, reduces information asymmetry and are significantly relevant in investors' valuation of consumer goods companies in an emerging stock market, if and only if such disclosures bring about improved financial performance. This implies that investors will only put ethical disclosures of human rights, environmental protection and other safety activities into consideration in the valuation of firms only when such disclosures are supported by satisfactory financial performance
Keywords: Ethical disclosures, Non-financial, Signaling theory, Profitability, Sustainability**.**
(JEL classification: M40, M41, M16)

Introduction
With the dynamic nature of business environments, stakeholders are continually in need of relevant information on various aspects of an entity's activities ranging from financial to non-financial, to enable them make informed decisions. The role of such information is crucial in the valuation of quoted companies. One of such information need is the firm's ethical disposition towards profit, and the responsiveness of firms to the wellbeing of people and the planet. Ethical disclosures are disclosures on human rights, environmental protection and other safety activities beyond the mandatory and conventional financial disclosures by firms. These information on ethical considerations serve as additional insights to capital market participants, especially in emerging markets where adequacy of information is still far fetched, limiting investors ability to make information based decisions (Weichieh, et al., 2014). Stakeholders' therefore see such ethical disclosures as veritable signals in the assessment of managerial competence and firm value (Sanders and Boivie 2004).

Several studies by KPMG, Global Reporting Initiative (GRI) amongst other surveys, point to the fact that reputable corporations worldwide are increasingly reporting on various aspects of their performance in line with the Triple Bottom Line (TBL) of reporting, supporting sustainability (Aondoakaa, 2015). Though Nigeria is yet to embrace a concrete framework on ethical conscious sustainability reporting, many firms are beginning to key into the line of reporting, considering the perceived effects on firm performance, value and overall wellbeing of the firm. Various scholars have over the years researched on the value relevance of ethical disclosures and practices, but their conclusions are divergent and contradictory. While some researches had evidence of value relevant ethical disclosures (Vijfvinkel, et al., 2011; Tilakasiri, 2012; Bidhari, et al., 2013) emphasizing the need for firms to be ethically responsible, others (Fauzi, et al., 2007; Nyirenda, 2013; Singh 2014), had results supporting the claim that the primary determinant of firm value is the ability to make profit within the ambit of law, rather than giving much attention to disclosure of ethically sound non-financial activities. They claim the non-financial aspect of ethical disclosures has no compelling influence on stakeholder's valuation of firms, therefore ethical considerations should not be given much preference ahead of profit maximization. There are limited empirical evidences on the extent of influence to which ethical considerations have on the valuation of firms in emerging markets. Hence, the need for this study. The study's objective is to examine the signalling effects of ethical disclosures on the valuation of consumer goods firms in an emerging stock market. It also ascertains whether ethical disclosures have more signalling influence on firm value when moderated with corporate profitability. In the light of the above review and the objectives of the study, it is hypothesized that:

H*o1*: Ethical disclosures exert no significant effect on the valuation of consumer goods firms in emerging markets

H*o2*: Corporate profitability does not exert significant moderating effect on ethical disclosures and the valuation of quoted consumer goods firms in emerging markets

The rest of the paper is divided into section two, which focuses on literature review. Section three captures the Material and methods adopted in the study. The results are presented and analyzed in section four, alongside the discussion of findings. The last section focuses on the conclusion and recommendations for policy implications and further studies, alongside the limitations of the study. This is followed by the references.

Review of Literature

This section focuses on some research papers that have tested the signalling influence of non-financial ethical disclosures in value relevance literature. Most of these studies are focused on sustainability, a term that captures the economic, governance, social and environmental facets of businesses.

Aondoakaa (2015) looks at the influence of economic performance, social performance and environmental performance on various indicators of corporate financial performance in selected firms in non-financial sectors of the Nigeria capital market using data for the period 2002 to 2012. The regression result reveals that sustainability based ethical disclosure has compelling positive effects on earnings per share, and other financial performance indicators considered in the study. Similarly, Hussein (2015) submits that sustainability reporting significantly impacts firm value positively. The various dimensions of sustainability exert unequal degrees of influences on financial performance and ultimately, the value of global fortune firms. He submits that the ethical dimensions of sustainability (social and environmental), have positive influence on the firm's financial wellbeing, but not same for economic dimension.

In another study on investors' perception of sustainability and its value relevance, Mervellskemper, et al., (2015) report that an entity's governance performances score is positively associated with firm value. For social and environmental performance scores, a negative nexus was observed with firm value. On the whole, sustainability score could not significantly exert influence on firm value in selected firms. This position contradicts Yu and Zhuo (2015) who used the Dow Jones Sustainability Index and reported a positive and significant nexus between sustainability and firm value just like Ioannou and Serafeim (2014).

Mulya and Prabowo (2018) examine the effects of the economic, labour and human right dimension of sustainability on firm value using data from 74 quoted firms on the Indonesia Stock market for 2014 and 2015 financial years. The result of the multiple regression analysis reveals that labour, human right and the economy jointly influence firm value significantly and that labour and human right can only have significant impact on firm value when the economic dimension of reporting is favourable. Similarly, Swarnapali and Luo Lee (2018) look at the reaction of firm value represented by Tobin Q, to corporate sustainability reporting. Using data from 220 selected firms quoted on the Sri Lanka Columbo Stock Exchange for the period 2012 to 2016, the fixed effect regression result reveals a positive and significant influence flowing from corporate sustainability reporting to firm value.

Olaoye and Oluwadare (2018) look at the contribution of stock prices, dividend and stock returns of firms in the Nigeria capital market, to their level of disclosure of corporate social responsibility using data from the annual report of selected firms for the period 2011 to 2017. Their correlation result reveals no significant association between stock prices and corporate social responsibility disclosure. The panel regression result shows that stock prices, dividend and stock prices are significant determinants of corporate social responsibility disclosures.

Emeka-Nwokeji and Osisioma (2019) investigate the effect of sustainability and ethical disclosure components (social, environmental, governance) on the market value of selected non-financial firms in Nigeria for the period 2006 to 2015. Using content analysis, relevant data on disclosures were extracted alongside firm market value from the annual reports of selected firms. Analyses were carried out using the pool Ordinary Least Square (OLS) regression technique. Their results reveal that sustainability disclosure variables have significant and positive impact on firm value, except for social sustainability disclosures, which exert a non-significant and negative influence on the valuation of firms in selected market.

Theoretical Framework of ethical disclosures and Firm Value

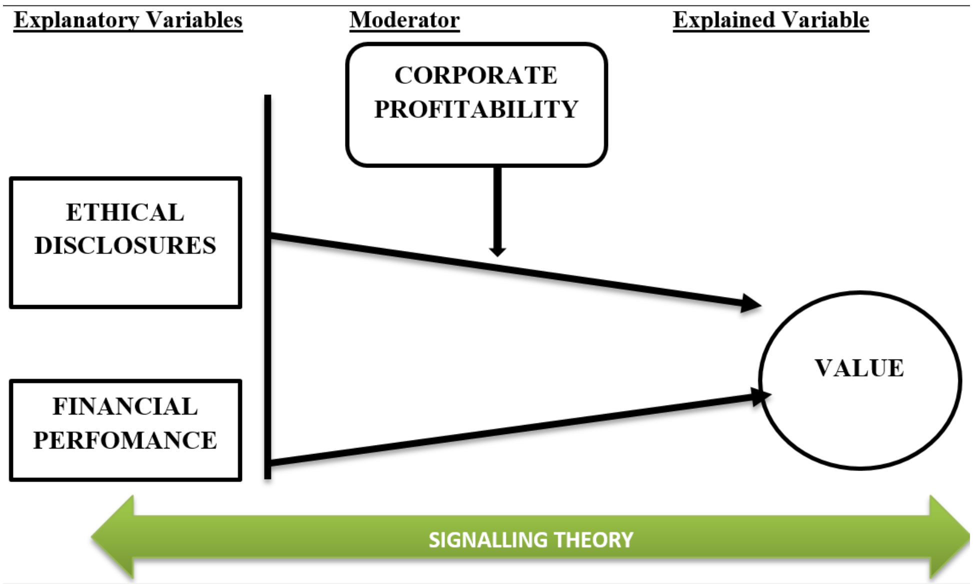
The study is built around the signalling theory. The theory popularized by Michael Spence (1973), explains incongruence in information at the disposal of two or more parties, where the sources of unevenness are predominantly on value and motive (Stiglitz 2000). Over the years, management and Accounting researchers such as Ramchander et al., (2012); Bukit and Nasution (2016), have embraced the signalling theory in clarifying and justifying the value significance and consequences of non-mandatory disclosures.

These ethical disclosures carried out by firms that transcends the mandatory financial and legal requirements could be an indicator of unobserved traits for relevant stakeholders, such as employees, shareholders, customers, and suppliers, among others (Fombrun et al. 2000). In emerging economies, ethical disclosures on corporate social and environmental related activities, could provide stakeholders with signals on the sustainability potentials of the firm. Firms that muddle through corporate social and environmental friendly practices may get resentment from customers, bringing about poor patronage (Wagner et al. 2009). Unethical firms could also suffer a loss of confidence from the investing public (Godfrey et al. 2009). In emerging capital markets where information is not always adequate, the disclosure of ethical information will no doubt provide invaluable support to stakeholders in evaluating an entity’s potentials and worth (Sanders and Boivie 2004)

Weichieh, et al., (2014) posit that in less developed economies, non-financial and ethical disclosures have more signalling influence on the valuation of firm, than in highly advanced markets. For highly advanced economies, capital market participants have easy access to various sources of information in evaluating the quality of a firm, and in taking certain investment decisions. Also, in less developed economies, capital market participants have no access to relevant information. Hence, rely on a firm’s voluntary disclosures to appraise a firm’s worth and potentials. Firms that disclose ethical information send pointers to market participants which distinguish them from their competitors (Cheung et al. 2010). There are empirical evidences revealing that firms that disclose ethical information elicit positive reactions from the organisation's workforces (Edmans 2011), customers (Lev, et al.,, 2010), suppliers (King et al. 2005), providers of capital (Hyunkwon and Robert, 2020), as well as present and potential investors and other capital market participants who give consideration to ethical behavior (Doh, et al., 2010).

Below is a diagram depiction of the study's theoretical framework, showing the linkages amid the explained and the explanatory variables alongside the moderating role of corporate profitability. This framework provides the foundation for the specified models.

Figure 1: Theoretical Framework



Source: Researchers' Compilation, 2021

Materials and Methods

An *expost-facto* research design within a panel data framework is used in this study. This design is chosen because all variables in the study have taken place already and the researchers cannot exert any form of influence or subject them to manipulation.

Secondary data on firm value; financial performance; disclosures on human rights, environmental protection and safety activities for the period 2011 to 2018 (eight years) were extracted from the financial statements and reports of all the twenty studied consumer goods firms.

Specification of Models

FIRMVALUE = (SED, ROA) (1)

FIRMVALUEit = $\beta 0$ + β1 SED it-1 + β2 ROAit-1 + εit (2)

FIRMVALUE it = $\beta 0$ + β1 SED it-1 + β2 ROAit-1 + β3 SED it-1 *ROAit-1 + εit (3)

Definition of variables proxy

Ethical Disclosures: measured by the SED index. The index is an adaptation of the Global Reporting Initiative (GRI) (2013) sustainability index. Using content analyses, the extent of disclosures on these ethical indicators were computed as shown in appendix I. The scores range from 0 (no ethical disclosure) to 1 (full ethical disclosure).

Financial performance: measured by the return on assets. It is the proportional relationship of earnings before interest, tax and depreciation and total asset. It reveals the firm's ability to generate profits from the available resources, representing returns on financial investments.

Firm value: in this study, firm value is measured by Tobin's Q. which captures both information on the stock market and internal mechanisms of the firm. Measured as (Median Price-based Market Capitalization +Total Liabilities)/Total Asset. The Tobin's Q ratio is a measure of the market value or the total stock value of a firm, in relation to the total value of the assets of the company. Market value of equity + book value of debt + book value of preference share / Book value of total assets. Tobin Q is often preferred as a representation of firm value because it measures firm value from investors' perspective, capturing both the internal performance and market parameters. It captures stakeholders' valuation of the potentials of the firm and their awareness on ethical issues (Haryono and Iskandar, 2015).

Results and Discussion

Below is the descriptive statistics table

Table 1: Descriptive statistics result

	Firm Value	**SED**	**ROA**
Mean	4.430813	0.546247	3.581188
Median	1.815000	0.500000	5.250000
Maximum	102.1400	1.000000	26.52000
Minimum	0.260000	0.000000	-127.3000
Std. Dev.	10.81196	0.276352	18.83248
Skewness	6.332481	0.128066	-4.303458
Kurtosis	49.30704	2.143810	26.05115
	Firm Value	**SED**	**ROA**
Jarque-Bera	15364.95	5.324431	4036.231
Probability	0.000000	0.069793	0.000000
Observations	160	160	160

Source: Researchers' Compilation (2020) using E-views 9.0

The descriptive statistics result displayed in table 1, reveals that the variables considered have a high tendency of being normally distributed as the mean to median ratio of each variable is close to 1:1. The Jarque-Bera test statistics and its corresponding probability value reject the null hypothesis of no normality of chosen variables. Following the presentation of descriptive statistics results, the result of the correlation matrix is shown in table 2 below.

Table 2: Correlation Matrix of variables

	Firm Value	SED	ROA
TQ	1.000000		
SED	0.255374	1.000000	
t-Statistic	3.320090	-----	
Probability	0.0011	-----	
ROA	0.606784	0.344454	1.000000
t-Statistic	9.595508	4.611956	-----
Probability	0.0000	0.0000	-----

Source: Researchers' Compilation (2020) using E-views 9.0

Below is the panel regression analysis result for firm value, the explained variable, and ethical disclosure as an explanatory variable as well as profitability as a control variable.

Table 3 Panel Regression Result

Variable	**Pooled OLS**	**Fixed effects**	**Random effects**
Dependent variable		**FIRMVALUE**	
SED	-0.814563 (0.7914)	3.758930 (0.2323)	0.131696 (0.9613)
ROA	-0.327189* (0.0000)	-0.133671* (0.0009)	-0.202515* (0.0000)
C	6.041725 (0.0018)	2.856209 (0.1139)	5.084119 (0.0083)
R^2	0.428215	0.703731	0.302738
ADJ R^2	0.417148	0.658646	0.295780
F-Stat	38.693651 (0.0000)	15.60917 (0.0000)	14.47724 0.0000)
D.W	2.358605	2.308100	1.810226
Hausman test: 0.0001			
Observations	160	160	160

Source: Researchers' Compilation (2020) using E-views 9.0

Although, the pooled Ordinary Least Square (OLS) and the random effect results indicate that ethical disclosures have an insignificant effect on the value of sampled listed consumer goods companies, the Hausman test was carried out and the result of 0.0001, informed the choice of the fixed effect in interpreting the regression result.

As seen in Table 4, the adjusted R-square of 0.65 depicts that the components of sustainability reports (financial performance, disclosures on human rights, environmental protection and safety activities) jointly account for about 65% of variations in the firm value of studied firms. This indicates that the remaining 35% of variations in firm value is explained by variables outside those captured in the model. A Dublin Watson statistics of 2.30 indicates the likelihood of no serial correlation in the model. The F statistics of 15.60917 compared to the probability value is quite high, implying that all the explanatory variables are jointly significant at 1% level in explaining firm value. The model is therefore statistically significant, depicting a strong connection between the explanatory and explained variables.

The result shows an ethical disclosures Coefficient of 3.758930 and a t-statistics of 1.199723. Thus, it aligns with the null hypothesis of the study. We therefore conclude that ethical disclosures have an insignificant effect on the value of listed consumer goods companies in an emerging market. The direction of the relationship is positive. The control variable profitability, exerts a significant influence on the value of studied firms. The direction of the association is positive, denoting that for each unit increase in profitability; firm value will increase by 0.133671, affirming prior studies that profitability is a significant determinant of firm value. By implication, investors prefer economic performance of firms before considering their social and environmental performance in the valuation of firms.

The result of the panel regression analysis considering the moderator is shown in table 4 below.

Table 4 Panel Regression Result (Considering Moderator)

Variable	**Pooled OLS**	**Fixed effects**	**Random effects**
Dependent variable		**FIRMVALUE**	
SED	-3.703644 (0.1846)	6.010875 (0.0450)	-3.703644 (0.0549)
ROA	-0.386797* (0.0000)	-0.030604 (0.4787)	-0.386797 (0.0000)
ROA * SED	0.255116 0.0772	-0.030604 (0.0000)	0.255116 (0.0107)
C	6.885567 (0.0000)	3.454809 (0.0421)	6.885567 (0.0000)
R^2	0.428215	0.742866	0.383136
ADJ R^2	0.417148	0.701574	0.371273
F-Stat	32.29734; (0.0000)	17.99073; (0.0000)	32.29734; (0.0000)
D.W	1.575802	2.351926	1.285191
Hausman test: 0.0000			
Observations	160	160	160

Source: Researchers' Compilation (2020) using E-views 9.0

When the variable, ethical disclosures is moderated with corporate financial performance in the model, the independent variables jointly account for about 70% of variations in the firm value of sampled quoted firms. A Durbin Watson statistics of 2.35 indicates the likelihood of no serial correlation in the model. The F statistics of 17.99073 compared to the probability value is quite high, implying that the explanatory variables put together are significant at 1% level in explaining firm value. The model is therefore statistically significant, depicting a strong connection between the explanatory and explained variables.

When ethical disclosure (SED) is moderated by profitability in the model, the result shows a SED Coefficient of 0.588017 and a t- statistics of 4.566295. Thus, this null hypothesis is rejected. We therefore conclude that corporate financial performance significantly moderates the nexus between ethical disclosures and market value in listed consumer goods firms in Nigeria. The direction of the relationship is positive, which implies that for each unit increase in ethical disclosures, firm value increases by 0.588017.

The study also conducted some post regression diagnostic tests. As shown in Table 9, all the variables considered have VIF's values of less than 10, giving no compelling warning of multi-collinearity. The study conducted the test for heteroskedasticity on the residuals, which revealed probability values over 0.05 (0.8507>0.05). Prompting us to accept that the residuals have no heteroskedasticity among them. The Lagrange Multiplier (LM) test result shows no evidence of the existence of serial correlation in the specified model. The probability values exceeding 0.05 in the Ramsey RESET test reveal that the models were not miss-specified.

Table 5: Diagnostic Test results

Test for Multicollinearity			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	2.424640	5.206575	NA
SED	6.962149	5.595561	1.134621
ROA	0.001499	1.175908	1.134621
Test for Heteroskedasticity: ARCH			
F-stat.	0.035531	Prob. F(1,157)	0.8507
Obs*R-sq.:	0.035975	Prob. Chi-Square(1)	0.8496
Test for Serial Correlation LM Test			
F-stat.	50.64156	Prob. F (2,154)	0.0000
Obs*R-sq.:	63.47972	Prob. Chi-Sq. (2)	0.0000
Model Mispecification (Ramsey Reset) Test			
	Value	Df	Prob.
t-stat.	0.073774	155	0.9413
F-stat.	0.005443	(1, 155)	0.9413
Likelihood ratio	0.005618	1	0.9403

Source: Researchers' Compilation (2020) using E-views 9.0

Discussion of Findings

The result of the first hypothesis indicated that ethical disclosures are not significantly value relevant on sampled firms in emerging market. The outcome of this enquiry may be linked to the relatively low presence of highly ethics driven investors in Nigeria, compared to the ethical disposition of investors in advanced stock markets. At the moment, capital market participants prefer the consideration of economic performance of firms before looking at their highly ethical dimension involving social and environmental based performances in the valuation of corporations. This implies that investor do not regard those ethically relevant social and environmental performance as important considerations, so far they can ascertain the financial viability of the company. Our result is in tandem with Emeka-Nwokeji and Osisioma (2019) who report that social sustainability disclosure, exert non-significant influence on the valuation of selected firms. Supporting this is Mervellskemper, et al., (2015), who report that sustainability score could not significantly exert influence on firm value in selected firms. Other researchers having similar submissions are Singh (2014); Nyirenda (2013); and Fauzi, et al., (2007). The result contradicts some prior studies by

Odoemelam and Okafor (2018); Ofoegbu et al., (2018); Okpala, and Iredele, (2018), Okafor (2018); Hussein (2015), Aondoakaa (2015) who report a significant impact of Non-financial ethical disclosures on firm value.

The result of the second hypothesis indicates that, ethical disclosure exert significant influence on firm value represented by Tobin Q when moderated by Profitability. This implies that investors will only consider the ethical dimension of disclosures in the valuation of firms, only when such disclosures are supported by satisfactory financial performance. This emphasizes the need to translate all forms of disclosures to improving the fortunes of the firm for it to have meaningful effect on firm value. Our result is in tandem with Mulya and Prabowo, (2018), who report that labour and human right dimension of sustainability can only have significant influence on the valuation of firms when the economic dimension of reporting is favourable.

Conclusion and Recommendations

With the objective of identifying the signalling potentials of the various components of sustainability reports on firm value in Nigerian consumer goods sector, the study carried out a panel regression analysis using data for the period 2012 to 2019. The study found social and environmental disclosures to be an insignificant determinant of firm value represented by Tobin Q, but eventually became significant when non-financial disclosure was moderated by financial performance. Our result implies that investors in the Nigerian stock market see financial performance as foremost consideration, among the various components of sustainability, following the triple bottom line of reporting profit, people and planet. Financial disclosures are therefore more value relevant that ethical non-financial disclosures in the sampled market.

It is therefore recommended that ethically driven non-financial disclosures in Nigeria consumer goods firms should not be done in isolation as an end in itself, but must be carried out with a view to improving the image and reputation of the firm, which culminates to improved revenue and reduced financed cost leading to better financial performance. Foreign direct investments should also be encouraged, as investors from advanced economics could influence local investors on ethical disposition and expectations.

Despite the contributions of the study, the study is not without weaknesses. First, it may be out of place to link the outcome of this study to corporate entities in other emerging stock markets. There are also possibilities that the ethical disclosure index used in this study have suffered some level of bias, as such disclosures are non-mandatory and no standard for such disclosures exist in Nigeria. As a modification of the Global Reporting Initiative index, some aspects of ethical information disclosed by sampled companies, may have been left un-captured in the index. Lastly, the focus of the study is on ethical disclosures in annual reports, leaving out ethical disclosures made on websites and the press.

It is therefore recommended that studies be carried out in other emerging stock markets and the range of ethical disclosures could be expanded beyond human rights, environmental protection and safety activities, to include the signalling effects of governance, tax aggressiveness, unethical advertising, unethical financial reporting, intellectual capital disclosure, and earnings manipulation.

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FIRM CHARACTERISTICS AND FINANCIAL REPORTING QUALITY OF LISTED CONSUMABLE GOODS COMPANIES IN NIGERIA

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Abstract

This study examined the influence of firm characteristics on the financial reporting quality of listed consumable goods companies in Nigeria from 2014 to 2019. The objective of this paper was to examine the link between firm characteristics like firm size, leverage, board composition, institutional shareholding, profitability, and liquidity and financial reporting quality of listed consumable goods companies in Nigeria. This study adopted a longitudinal panel research design. Data were sourced from annual financial reports of 13 selected consumable goods companies in Nigeria from 2014 to 2019. This study used panel least square regression analysis. The results revealed that the institutional shareholding, board composition, and liquidity influenced financial reporting quality positively and significantly. The firm size influences financial reporting quality negatively but significantly; while leverage and profitability were positive but had an insignificant influence on the quality of financial reporting.

Keywords: Financial reporting quality, Board composition, Profitability, Institutional shareholding, Liquidity

Introduction

The International fraudulent practice confronting the accounting profession in recent times has hindered the confidence of users of accounting information. For financial statement transparency, the presentation should not be deceptive while the user can grasp the information presented without much effort (IASB, 2008). Saliu and Adetoso (2018) submitted that financial reporting is the communication of financial data to several users of accounting information to formulate an investment decision, obtain credit facilities, and other financial decisions. Financial reports are official and complete statements describing the financial happenings of business entities while financial reporting quality refers to a wide and multifaceted concept.

Despite numerous measures by the foreign financial institutions to enhance the quality of financial reporting, which reached the peak at the beginning of International Financial Reporting Standards (IFRS) and its succeeding acceptance by a meaningful number of nations, the wave of firm offence and fraud was retained on a universal extent. Particularly, in 2014, Glaxo Smith Kline (GSK) or Glaxo China, after months of an examination was engaged in widespread corporate corruption to the tune of £320m as a result of the low quality of the financial report (Okunbor & Dabor, 2018). The suspension of the CEO, Chairman, and two other directors of Stanbic IBTC Bank by the Financial Reporting Council of Nigeria in 2015 for filing false financial statements during 2013-2014 has affirmed this and also explicitly proven that regulators now considered the matter of financial reporting quality serious. In addition, various financial reports in Nigeria are controlled by regulations and standards from diverse approved financial regulatory entities such as the Securities and Exchange Commission (SEC), the Financial Accounting Reporting Council of Nigeria (FRC), Nigeria Stock Exchange to say a few (Olowokure, Tanko & Nyor, 2015).

The higher the quality of financial reporting, the more important are the advantages earned by investors and users of financial reports (Herath & Albarqi, 2017). It is the heartbeat of a progressing company in which investors and other users find good, appealing, and promising information that facilitates their decision toward investing in such companies. Furthermore, over the years, the accounting scandals that took place in the foreign financial institutions and Nigeria have raised questions and worries regarding the quality of financial reporting (Agraval & Chadha, 2005; Brown, Falaschetti & Orlando, 2010). Notable firms like Enron, Worldcom, Marconi, Parmalat, Cadbury, and Bank Oceanic have engaged in financial fraud; this reduced the confidence of investors in the management and their published financial reports (Biddel, Hillary & Verdi, 2009).

Firm characteristics are described as firm demographic and managerial variables which in turn, include groups within the firm's environment (Zou & Stan, 1998 as cited in Egbunike & Okerekeoti, 2018). These characteristics cannot be overemphasized because of their importance in determining the quality of financial reporting. Hassan and Bello, (2013) listed seven independent variables which were chosen as substitutes for the firm's characteristics such as firm size, leverage, board composition, institutional shareholding, profitability, liquidity, and firm growth. Hassan and Bello (2013) further re-grouped the variables into three, namely: structure variables such as firm size and leverage, monitoring variables are boards' composition and institutional shareholding while performance variables are profitability and liquidity. Several studies were done on structure variables and financial reporting quality which show that; firm size has a relationship that is positively strong and significant with the financial reporting quality of listed manufacturing companies (Hossain, Momin & Leo, 2012; Ahmed, 2012; Mensah & Deajeon, 2013; & Asegdew, 2016). Egbunike and Okerekeoti, (2018) revealed that the firm characteristics, firm size, and leverage were significant while Olowokure *et al.*,(2015) showed that firm size, leverage, and financial reporting quality were not significantly related.

Moreover, studies were carried out on performance variables - profitability and liquidity. Soyemi and Olawale, (2019) revealed that highly profitable companies have high financial reporting quality; consequently, profitability should be a good pointer of poor or good financial reports. Wang, Zhu, and Hoffmire, (2015) submitted that financial reporting quality is more strongly associated with over-investment for a firm with a large free cash flow. Hamidzadeh and Zeinali, (2015) opined that liquidity affects financial reporting quality. Hossain *et al.*, (2012) showed that profitability and liquidity are insignificant with the level of internet financial reporting disclosure. Hassan and Bello, (2013) found that profitability and liquidity significantly influence the earnings quality of listed Nigerian deposit money banks after the adoption of IFRS. Given, the aforementioned problem and findings by several studies that have been undertaken on this topic; Hassan and Bello (2013) submitted a detailed report that firm characteristics impact financial reporting quality of Nigerian manufacturing firms, others are; Okunbor and Dabor (2018), Egbunike & Okerekeoti (2018). Concerning firm characteristics and quality of financial reporting quality, many studies have focused on listed manufacturing companies. Therefore, the study filled the gap of considering the impact of firm characteristics on the quality of financial reporting of Nigerian listed consumable goods companies from 2014 - 2019.

Objectives of the Study

The following fundamental objective was examined.

To ascertain the relationship between firm characteristics and financial reporting quality of Nigerian listed consumable goods companies.

Literature Review

Conceptual Review

Financial Reporting Quality

The rate by which financial reports of a company reflect its operating performance and how helpful in predicting future cash flows have an association with financial reporting quality (Nyor, 2013). Stergios and Michalis (2012) similarly observed using financial reporting quality from two broad angles. Firstly, the quality of financial reporting is determined and founded on the usefulness of the financial information to its users. Secondly, financial reporting quality is concerned with the idea of shareholder's protection. Hence, the process of communicating economic measurement, obligation, and accounting information about the resources and performance of reporting entities to those having realistic rights to such information to facilitate informed judgments and decision making is regarded as financial reporting quality.

Firm Characteristics and Financial Reporting Quality

Firm size and leverage are regarded as firm structure variables that could affect financial reporting quality. Firm size has become foremost in empirical corporate finance studies and has been broadly confirmed as the most important variable (Kioko, 2013). Ishak, Amran, and Abdul Manaf, (2018), argued that large firms are more likely to experience higher agency problems. It would be more difficult to manage the operations of large firms especially when it diversifies their line of business. Leverage means the ratio of debt to equity in the capital structure of a firm (Omondi & Mutur, 2013). Asegdew, (2016) assessed the factors of the financial reporting quality of manufacturing companies in Addis Ababa. The study disclosed that companies' shares have a positive link with financial reporting quality while firm size had a negative and statistically significant influence on manufacturing share companies' financial reporting quality. Olowokure *et al.,* (2015) employed the ordinary least square to investigate the companies' structural characteristics and financial reporting quality of Nigerian listed deposit money banks. They discovered that leverage and financial reporting quality are insignificantly related.

Board composition and institutional shareholding are firm monitoring variables, and are presumed as a function of financial reporting quality; because of their suitability for checkmating manipulative accounting activities by management. According to Fathi (2013), the board's size is a declining function of the effectiveness of control. The addition of a new member to the board of directors boosts the board's oversight capacity. Fathi (2013) stated that the capital of big corporations increases due to a large number of institutional investors gathered from the public and investors. Agency costs can be reduced due to their property in the capital of a company. Institutional investors have the motivation to intervene actively in the management of the firm and may also have the motivation to monitor managers, because of their largest share in the company. Mahboub, (2017) assessed the factors of financial reporting quality in the Lebanese banking sector; the study revealed that financial reporting quality of the annual reports in the banking sector can be realized due to a high proportion of debts, shareholders ownership, and large board size. Adebiyi and Olowookere, (2016) found that managerial ownership enhances the quality of yearly earnings by mitigating the levels of financial reporting manipulation.

The profitability of corporate organizations has been known from literature as another key interest of management experts, investors, and researchers (Charles, Ahmed & Joshua, 2018). Therefore, profitability is an essential and dependable index of corporate growth as it gives a wide index of the capability of companies to expand their level of income (Ahmed, Naveed, & Usman, 2011). According to Katchova and Enlow (2013), liquidity ratios measure the firm's ability to pay off its short-term debt obligations. Enakirerhi, Ibanichuka, and Ofurum, (2020) found that the outcome of profitability on the quality of earnings since the acceptance of IFRS is subjected to what measure of profitability was accepted. Return on equity has a negative (positive) effect while return on assets has a positive (negative) effect on discretionary accruals (earnings quality) while examined the firms' profitability and financial reporting quality between the Prior and Subsequent IFRS acceptance in Nigeria. Soyemi and Olawale (2019) examined the firm characteristics and financial reporting quality of non-financial firms in Nigeria. The study revealed that highly profitable companies have high financial reporting. They found that, because profitability is a business outcome, a company can either gain a profit or make a loss, subject on internal, political, and economic factors, it is natural to admit that managers would be more willing to convey good news (profit) faster than convey bad news (loss).

Theoretical Framework

This study was anchored by agency theory that was propounded by Jensen and Meckling (1976). Agency theory is considered to be a contract between shareholders and external auditors to regulate the activity of other agents (management). Shareholders delegate duties to be performed by management (agents). Duties to be cover mainly operating the organisation on behalf of shareholders to meet their goals and objectives. The most paramount basis of agency theory is that the managers are usually encouraged by their gains and work to exploit their interests rather than considering shareholders' interests and maximizing shareholder value whereas stakeholders act in a rational way to maximize their utility (Toukabri, Ben & Julani, 2014).

Methodology

Research Design

This study adopted the longitudinal (panel) research design. The current population entails 20 listed consumable good companies in the Nigeria Stock Exchange as of 31st December 2020. Purposive sampling techniques were used in selecting (13) listed consumable goods companies based on the accessibility of their financial reports. Data on financial reporting quality, firm size, leverage, board composition, institutional shareholding, profitability, and liquidity were gotten from annual reports of the listed consumable goods companies from 2014 to 2019. To establish the link between the identified independent variable and financial reporting quality; descriptive statistics and panel least square regression were employed.

Model Specification

The model specification for this study was based on the lessons learned from the review of theoretical literature as well as empirical literature on the link between firm characteristics and financial reporting quality and, also other factors of financial reporting quality. To empirically ascertain how firm characteristics influence the financial reporting quality of listed consumable companies in Nigeria, a model put forward by Soyemi and Olawale (2019) was used as specified in functional and stochastic forms.

$$Frq = f(Fs, Lev, Bc, Is, Prof, Liq) \qquad (1)$$

$$Frq_{it} = \lambda_0 + \lambda_1 Fs_{it} + \lambda_2 Lev_{it} + \lambda_3 Bc_{it} + \lambda_4 Is_{it} + \lambda_5 Prof_{it} + \lambda_6 Liq_{it} + \varepsilon_{it} \quad (2)$$

Where:

Frq = Financial reporting quality
Fs = Firm size
Lev = Leverage
Bc = Board composition
Is = Institutional shareholding
Prof = Profitability
Liq = Liquidity
ε = Error term
λ_0 = Constant term
$\lambda_1 \ldots \lambda_6$ = Regression Coefficients
i = company
t = time

Financial reporting quality was measured using the modified Dechow and Dichev (2002) model.

$$\Delta WCit = \lambda_0 + \lambda_1 CFO_{it} - 1 + \lambda_2 CFO_{it} + \lambda_3 CFO_{it} + 1 + \lambda_4 \Delta REV_{it} + \lambda_5 PPE_{it} + \varepsilon$$

Where; ΔWC= change in working capital, CFO= Cash Flow from Operations, ΔREV=change in revenue, PPE= property, plant and equipment.

Financial reporting quality in the second regression model specified for the study was represented by the residuals for the modified Dechow and Dichev (2002) model after inserting the sampled. Furthermore, the accrual quality was determined by the residuals; the smaller the residuals, the higher the quality of accruals, vice versa, McNichols (2002).

Table1: Measurement of variable

Dependent variable	**Variable Label**	**Measurement**	**Source**	**Expected Sign**
Financial Reporting Quality	FRQ	Discretionary Accrual (DAC)	Adebiyi and Olowookere (2016)	
Independent Variables				
Firm size	FS	Natural log of total assets	Rehman, Khan, Hussain (2019); Hassan and Bello (2013)	±
Leverage	LEV	The ratio of total debt to shareholders' equity	Olowokure, Tanko and Nyor (2015); Rehman, Khan, Hussain (2019)	±
Board Composition	BC	The ratio of independent non-executive directors to board size	Fathi (2013)	±
Institutional Shareholding	IS	Number of shares held by active institutional investors to the total number of outstanding	Affan, Rosidi, Liki, and Purwanti (2017)	±
Profitability	PROF	Return on Asset (ROA) is the ratio of net income to total asset	Enakirerhi, Ibanichuka and Ofurum (2020)	±
Liquidity	LIQ	Ratio of a current asset to current liability	Katchova and Enlow (2013); Hamidzadeh and Zeinali (2015)	±

Source: Authors' compilation (2020)

Analysis and Results

Correlation Analysis

The estimated coefficients among the variables were presented in Table 2. The result in Table 2 revealed a coefficient between the quality of financial reporting and institutional shareholding of 0.175. This implies that a positively weak relationship exists between financial reporting quality and institutional shareholding. A positively weak relationship was recorded between financial reporting quality and board composition of consumable goods companies in Nigeria as confirmed by a coefficient of 0.027. The leverage and financial reporting quality have a coefficient of 0.127 which implies that financial reporting quality has associated with the leverage of selected firms. The coefficient of 0.041 showed that firm size is positively related to financial reporting quality but weak. The relationship between financial reporting quality and return on asset, the estimated correlation coefficient of 0.076 but demonstrates a positively weak. Similarly, the coefficient of 0.137 indicates that there was a positively weak relationship between financial reporting quality and liquidity. In the subsequent section, these relationships were further probed using the panel regression technique

Table 2: Correlations Matrix

	Variables	1	2	3	4	5	6	7
1	Financial Reporting Quality	1.000						
2	Institutional shareholding	0.175	1.000					
3	Board composition	0.270	0.074	1.000				
4	Leverage	0.127	-0.077	0.045	1.000			
5	Firm Size	0.041	0.269	0.482	0.040	1.000		
6	Profitability	0.076	0.035	-0.136	0.244	0.207	1.000	
7	Liquidity	0.137	-0.133	0.014	0.090	0.206	0.094	1.00

Source: Authors' Computation, (2020)

The estimated coefficient among the independent variables reveals a weak relationship among the variables as the highest estimated coefficient which was found in both firm size and board composition as confirmed by 0.482. The relatively low coefficient which was less than 0.9 implies no high relationship among the independent variables. Therefore, the problem of multicollinearity among the independent variables was not expected in the model of this study. The presence of multicollinearity was probed further in the subsequence section using variance inflation factor (VIF).

Panel Regression Results

The estimated panel regression results for the model of this study were presented in Table 3. The Table contains the results estimated using pooled OLS, fixed effect (FE) and random effect (RE). To arrive at the best performing model out of the three, F-test for firm effect was carried out. The outcome of the diagnostic test provided in Table 3 shows an F-test value of 1.21 and 0.2869 p-value. The outcome of the F-test obtained implies that the null hypothesis of firm effect cannot be rejected. This prevents the need for both a fixed and random-effect model since endogeneity could not arise and OLS would produce estimated results that were best and unbiased. Therefore, the interpretations of the results were based on pooled OLS results in the second column of Table 3.

Table 3: Estimated Panel Regression Results

	(1)	(2)	(3)
VARIABLES	POLS	Fixed effect	Random effect
Institutional shareholding	0.0734*** (0.00994)	0.452*** (0.00196)	0.0734*** (0.00856)
Board composition	0.0112*** (0.000305)	0.0109* (0.0706)	0.0112*** (0.000180)
Leverage	0.00415 (0.364)	0.000257 (0.961)	0.00415 (0.361)
Firm size	-0.0168** (0.0121)	-0.0165 (0.333)	-0.0168** (0.0105)
Profitability	0.0955 (0.151)	0.143 (0.165)	0.0955 (0.147)
Liquidity	0.00454** (0.0336)	0.00620*** (0.00977)	0.00454** (0.0312)
Constant	0.0516 (0.602)	-0.184 (0.518)	0.0516 (0.601)
Observations	105	105	105
R^2	0.193	0.208	
No of cross sec		13	13

p-val in parentheses
***p<0.01, **p<0.05, * p<0.1
Source: Authors' Compilation (2020)

The coefficient of 0.0734 for institutional shareholding in Table 3 revealed that institutional shareholding influences financial reporting quality positively. The corresponding p-value of 0.00994 indicated that the positive influence of institutional shareholding was significant at all conventional levels of significance. The results implied that an increase in institutional shareholding would result in improved financial reporting quality in the sector. Besides, the result was in line with the work of Hassan and Bello (2013) who reported a positive and significant influence of institutional shareholding on the financial reporting quality of manufacturing sectors in Nigeria. The estimated board composition coefficient of 0.0112 revealed that board composition influences the financial reporting quality of listed consumer goods companies positively. The positive influence of board composition on financial reporting quality is significant at 1% with the corresponding p-value of 0.000305 < 0.01. The implication of the outcome was that increase in board composition improves the financial reporting quality of consumable goods companies.

The outcome of the pooled OLS showed a coefficient of 0.00415 for leverage and this result indicates that leverage influences financial reporting quality positively. The p-value of 0.364 was insignificant at the conventional level of significance, however, indicates that the leverage influences financial reporting quality positively but statistically insignificant. The non-significant impact of leverage found here contradicts the findings of Hassan and Bello (2013) who reported that leverage impacts financial reporting quality positively and significantly considering selected listed manufacturing firms in Nigeria. Financial reporting quality was influenced by firm size due to its coefficient of -0.0168. The associated p-value of 0.0121 showed that the negative impact was significant at a 5 percent level of significance since it was less than 0.05. This result implied that large companies report lower quality financial information. The estimated coefficient of 0.0955 for profitability indicates a positive induce of profitability on financial reporting quality. The corresponding p-value of 0.151, however, revealed that the positive impact of profitability was not significant at the conventional level of significance since it was greater than 0.10. This result agreed with the findings in previous literature which recorded that profitability impacts financial reporting quality positively; such as Rehman, Khan, and Hussain, (2019) in the Pakistan banking sector; also Soyemi and Olawale, (2019) in a sample of non-financial firms in Nigeria.

Finally, the reported coefficient of 0.00454 in Table 3 revealed that liquidity influences financial reporting quality positively considering listed consumable goods companies in Nigeria. The associated p-v of 0.0336 indicated a positive influence of liquidity was significant at a 5 % level of significance since it was less than 0.05. By implication, a rise in the company's liquidity leads to a rise in the quality of the financial report. This outcome aligned with the study of Soyemi and Olawale (2019) who disclosed that liquidity influence the financial reporting quality of selected listed Nigerian non-financial firms positively.

Table 4: Variance Inflation Factor test of Multicollinearity for the model

Variables	VIF	1/VIF
Firm Size	1.67	0.598996
Board composition	1.45	0.690818
Leverage	1.09	0.920138
Institutional shareholding	1.14	0.879042
Profitability	1.21	0.825020
Liquidity	1.11	0.902648
Mean VIF	1.28	

Source: Authors' computation (2020)

To ascertain that the assumption of no multicollinearity was violated in the model, the variance inflation factor (VIF) was calculated for all the regressors and the results are presented in Table 4. The decision rule of the VIF test was that the model was characterized with the problem of multicollinearity if any of the variables has VIF that was up to a threshold of 10. The results of the VIF in Table 4 indicate that firm size has a VIF of 1.67, board composition has a VIF of 1.45, leverage has a VIF of 1.09, institutional shareholding has a VIF of 1.14, profitability has a VIF of 1.21 and liquidity has a VIF of 1.11. Because the regressors in question's VIF is not near to the threshold of 10, the regressors do not exhibit a high linear relationship and thus there is no multicollinearity issue in this model.

The outcome of the study shows that firm size negatively influences the quality of financial reporting of listed Nigerian consumable goods companies. The outcome contradicts the study of Hassan and Bello (2013) who reported that firm size influences financial reporting quality positively and significantly considering a selection of listed manufacturing firms in Nigeria; and Rehman *et al.* (2019) who reported that firm size influences financial reporting quality positively considering Pakistan banking sector. It, however, agrees with the findings of Ishaq *et al*. (2018), and Asegdew (2016) who reported that firm size influences financial reporting quality negatively and significantly; examining a selection of listed firms in Malaysia, and manufacturing firms in Addis Ababa respectively. The results revealed that leverage influences financial reporting quality positively but statistically insignificant considering listed consumable goods companies in Nigeria. The non-significant influences of leverage found here contradicts the findings of Hassan and Bello (2013) who reported that leverage influence financial reporting quality positively and significantly considering listed manufacturing firms in Nigeria.

Board composition positively and significantly influence the financial reporting quality of listed consumable goods companies in Nigeria. This result corroborated the study of Mahboub (2017) who found that better financial reporting quality of the annual report in the banking industry can be attained by having a higher ratio of ownership by the shareholders, to higher board composition. The result reveals that institutional shareholding positively and significantly influences the quality of financial reporting listed Nigerian consumable goods companies. The results implied that an increase in the institutional shareholding would result in improved quality of financial reports in the sector. The results obtained here aligned with the theoretical framework and a priori expectation of the study. Furthermore, the positive influence found was consistent with the findings in previous literature of Hassan and Bello (2013) who reported that institutional ownership positively and significantly influences financial reporting quality using a selection of Nigerian manufacturing companies. The result indicated that profitability influences financial reporting quality positively but statistically non -significant considering listed consumable goods companies in Nigeria. This result agreed with the findings in previous literature which recorded the positive influence of profitability on financial reporting quality such as Rehmanl *et al*. (2018) in the Pakistan banking sector and Soyemi and Olawale (2019) who revealed that highly profitable have high financial reporting, consequently profitability should be a wonderful indicator of unsatisfactory or satisfactory financial reports in a sample of non-financial firms in Nigeria. Finally, liquidity influences financial reporting quality positively and significantly considering listed consumable goods companies in Nigeria. By implication, a rise in the firm's liquidity results in an increase in financial reporting quality. This outcome was under a priori expectation of this study. It also agreed with the previous empirical studies that, liquidity positively and significantly influences financial reporting quality in a selection of listed non-financial companies in Nigeria (Soyemi & Olawale, 2019).

Conclusions and Recommendations

This study has been able to provide empirical evidence on the influence of firm characteristics on financial reporting quality using listed consumable goods companies in Nigeria as a case study. The objective of this study is to examine the relationship between firm characteristics and the financial reporting quality of listed Nigerian consumable goods companies. The objective is achieved using pooled OLS panel regression technique based on the outcome of the F-test for firm effect. The outcome showed that firm size influences financial reporting quality negatively and significantly; whereas leveraging influences financial reporting quality positively but insignificantly considering listed consumable goods companies in Nigeria. Also, the results showed that board composition and institutional shareholding influence financial reporting quality positively and significantly considering listed consumable goods companies in Nigeria. The profitability has no significant influence on financial reporting quality; whereas liquidity positively and significantly influences the financial reporting quality of listed Nigerian consumable goods companies. Therefore, the study concluded that variables of firm size, board composition, leverage, liquidity, and profitability play remarkable functions in describing variation in company financial reporting quality. Specifically, the results which found a negative influence of firm size and a positive influence on board composition indicates the listed consumer goods companies in Nigeria have lower board members in relative terms; though the analysis revealed that consumer goods companies sampled comply with NSE regulation on the minimum of 6 (six) board members. This has important policy implications for the regulators of the consumer goods companies listed on the NSE. This study suggested that the security and exchange commission should review the current regulation on the minimum number of board members pegged at 6 for listed companies in Nigeria and new regulation should ensure varied minimum board size relative to the company size. The regulator should encourage the firms in the sector to declare their shareholding ownership ratio to attract institutional investors into the sector because of their financial reporting quality monitoring strength.

Limitation in this study focused on the consumable goods companies that are listed on the NSE and ignored companies that are not listed on the floor of the NSE. Also, companies possess numerous characteristics out of which only six were made use of in this study. Further studies can investigate the influence of other firm characteristics aside from the six used here to see their effect on financial reporting quality on the Nigerian consumable goods companies. The implication of the outcome was that increase in board composition results to improve financial reporting of listed consumer goods companies. The large company reports lower-quality financial information and also an increase in the firm's liquidity will invariably lead to an increase in the quality of financial reporting. An increase in the institutional shareholding would result in improved quality of financial reporting in the sector

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INVESTORS' SENTIMENTS, MARKET DYNAMICS AND STOCK MARKET RETURNS IN NIGERIA

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Abstract
This work studied the effects of investors' sentiments, real exchange rate and real interest rate on Nigeria's stock market returns 1985-2017. The study used secondary data from annual reports of Nigeria Stock Exchange. Regression analysis, unit roots and diagnostic test were used in the analysis. The Granger Causality test was applied to determine the direction of causality. The results from all our analysis show that investors' sentiment had a statistically positive significant relationship with stock market returns in Nigeria. Governments should support the stock exchange and securities commission with capital market policy guidelines and supports that would prevent extreme investors' sentiments that would lead to massive losses for retail and institutional investors. Investors' portfolio managers and other investing stakeholders should develop sentiment period market strategies and regularly review their investment sentiment biases in order to effectively manage investors' emotion biases. Policy makers such as Securities and Exchange Commission (SEC) should sensitize and enlighten investors on the negative consequences of psychology bias on the performance of the market in general and the performance of the investments in particular. The novelty of this research lies on the fact that it considered macroeconomic variables of real exchange rates and real interest rates on stock market returns as against the few empirical studies that focused only on investment sentiment.
Keywords: Investors' Sentiments, Real Exchange Rate, Real Interest Rate, Stock Market Returns

Introduction

The influence of a company's fundamentals cause stock prices to rise and fall. It is argued that in behavioural finance theory, investors are not necessarily rational, and may be prone to exogenous sentiment waves (Naik and Padhi, 2016; Pandey & Sehgal, 2019; Bolaman & Evrim-Mandaci, 2014). Investor's perception about the market lead them to a predisposition of illogicalities in an investment decision. Anusakumar and Wooi (2017) stated that sentiment is purported to affect returns as investors' optimism or pessimism may induce mispricing to occur in the stock market. During investment, investors behave differently according to their propensity to the risk and the future expectations which may be rational or irrational (Concetto & Ravazzolo, 2019; Ahmed, 2018).

The normal capital asset-pricing models denote that capital asset prices are an impartial process, which is founded on investors' approach towards risk and the realization of expected utility. Rashid, Fayyaz and Karim (2019) stated that however, it has been widely argued that the standard asset-pricing models cannot fully explain stylized patterns of stock returns due to the existence of a huge gap in theory and practice. Principally, these models are based on several unrealistic assumptions. These assumptions include financial markets are efficient and frictionless, investors are rational and risk-averse whose utility functions are better approximated by quadratic utility functions. With the development of the financial market, behavioural finance rejected the assumption of investors' perfect rationality and holds that investors tend to be affected by their sentiment while making decisions, which leads to a bias of irrationalities in investment decisions (Huang, Yang, Yang, & Hu, 2014; Rupande, Muguto, & Muzindutsi, 2019; Sayim & Rahman, 2015).

There is a prevalence of noise traders in every stock market but their effect is determined by the disposition of the market (emerging or stable) to contain such conditions instigated by these noise traders. If the effect of these noise traders does not cancel out in aggregate, then the risk for arbitragers increases. Noise traders have a major role in the disruption of regularity to the rational investors as their non-fundamental knowledge makes it riskier for the arbitrager, thus having a noise impact on the stock market returns and vice versa (Rehman, 2013; Khan & Ahmad, 2018). This means that the noise traders may survive in the market for protracted periods. Further, rational investors demand a risk premium to trade stocks that are prone to noise trading. This is because the unpredictability of the noise traders' beliefs creates a risk—termed as noise trader risk—in the price of the asset that deters rational arbitrageurs from aggressively betting against them.

Both fundamental and technical approaches to determining stock return most times reflect in the macroeconomic variables like real interest rate and real exchange rate. The likely effect of sentiment on returns is deduced from the investigation of other variables (Anusakumar and Wooi, 2017 as cited by Kurov, 2010; Kaplanski & Levy, 2012; Kaustia & Knupfer, 2012). Baker and Wurgler (2006) recognized investors' psychology as a vital component in the market pricing process of financial assets. This is because the sentiment of investors' may also reflect their risk profile and investors' emotion are displayed in different forms. Bormann, (2013) has unearthed strong evidence for the mispricing theory, discovering that market-wide investor sentiment is a key influence.
There has been a lot of work on investors' sentiment which focuses on the US and other developed stock markets (Bolaman & Evrim-Mandaci, 2014; Pandey & Sehgal, 2019; Xavier & Machado, 2017; Sayim & Rahman, 2015; Oprea & Brad 2014). Most of these works have been in controversies with regards to what triggers movement in equity prices in emerging equity markets. This disagreement among researchers have

taken a new dimension since the computation of indices for measuring investors' sentiment. The introduction of investors' sentiment as an explanatory variable in predicting equity price movement is being considered in emerging economies and could be useful if applied to Nigeria. Thus, the objective of the study is to examine the effect of investors' sentiment in conjunction with macroeconomic variables of real exchange rates and real interest rates on stock market returns.

Literature Review

Conceptual Review

Investors' Sentiment

Investors' sentiment in a general term refers to the attitude, emotions and biases that exhibit in the course of investment decisions. Baker and Wurgler (2006) explained it as the propensity to speculate optimism or pessimism of a given asset. Barker and Stein (2004) described investors' sentiment as the misevaluation that is created by a group of investors. Brown and Cliff (2005) opined that investors' sentiment is the discrepancy that exists between rational and irrational investors. This, therefore, means that investors' heterogeneity can also be called investors' sentiment. Prior empirical studies on investors' sentiment and how the concept can be measured have generated the issue of whether investors' sentiment is directly observable or not. This is why investors' sentiment is viewed by some researchers from a normative perspective. The definition of Baker and Wurgler (2007) confirms the subjective nature of investors' sentiment. They described investors' sentiment as what asset prices should be and not what it is.

Theoretical Framework

This study is anchored on the theory of Efficient Market Hypotheses (EMH) because of its disposition to changes in the information, noise, hearsay and bandwagon effect all of which are part of investors' sentiment. EMH equity prices would always reflect their true values and any deviation is immediately restored but this restoration process might be limited by information asymmetry and investors' irrationality. Rehman (2013) mentioned that the traditional concept of efficient market hypothesis is based on the principle that the prices of stock incorporate all available information and no investor can earn abnormal returns based on some private information has prevailed for a long time in explaining the stock returns. Information asymmetry and investors' irrationality are components of investors' sentiments. The Efficient Market Hypothesis (EMH) is one of the fundamental equity price models used to explain the movement of prices around their fundamental values. The theory relates important worth to the possible pay of stocks and that the current prices of any equity traded are based on its essential price. The fundamental value of equity in the theory was related to all forms of new information and any discrepancies between the current prices and the fundamental values would be random and short-lived. The basic theme of the random walk hypothesis theory of equity prices determination is traced to the assumption that the fundamental value of equity is determined by new information and when this new information gets to the market, the current prices would adjust to them immediately.

Empirical Review

Xavier and Machado (2017) studied the relationship between investor sentiment and value anomalies in Brazil. The sample included all non-financial firms listed on the B3 (*Brasil, Bolsa, Balcão*) stock exchange from July 1999 to June 2014. We used the Principal Component Analysis multivariate technique to capture the component common to four different proxies for investor sentiment. The study empirically tested the index series and its variation on the return series of Long-Short portfolios of 12 anomaly-based strategies. The study found that the measure of the sentiment index had a partial explanatory power for the anomalies only when included in the CAPM and when analyzing average returns after optimistic and pessimistic periods, the values in the empirical test were not statistically significant enough to infer the possible existence of short-sale constraints.

In a related study, Pandey and Sehgal (2019) determined investor sentiment and its role in asset pricing in India. The study experiment with the construction of alternative investor sentiment indices. It evaluates the role of the sentiment-based factor in asset pricing to explain prominent equity market anomalies such as size, value, and price momentum for India. Based on the findings, the Composite Sentiment index leads other sentiment indices currently in vogue in investment literature. The asset pricing models, including the more recent Fama French 5 factor model, are not fully able to explain the small firm effect which is captured by our sentiment-based factor which seems to proxy for the price over-reactions

Rupande, Muguto and Muzindutsi (2019) assessed investor sentiment and stock return volatility in South Africa. The study hypothesized that there are movements in risk that are driven by volatility linked to sentiment-driven noise trader activity whose patterns are irreconcilable with changes in fundamental factors. This assertion is tested using a daily sentiment composite index constructed from a set of proxies and Generalized Autoregressive Conditional Heteroscedasticity models on the South African market over a period spanning July 2002 to June 2018. The results show that there is a significant connection between investor sentiment and stock return volatility which shows that behavioural finance can significantly explain the behaviour of stock returns on the Johannesburg Stock Exchange. It is, thus, recommended that due to the inadequacies of popular asset pricing models such as the Capital Asset Pricing Model, consideration should be made towards augmenting these asset pricing models with a sentiment risk factor.

Rashid, Fayyaz and Karim (2019) evaluated investor sentiment, momentum, and stock returns as an examination for direct and indirect effects using sentiment and momentum factors on market risk, size, and value premiums by estimating the interacted asset-pricing model. To carry out the empirical analysis, monthly stock returns of firms listed on the Pakistan Stock Exchange are used for the period 2000–2013. The empirical results indicate that both investor sentiment and momentum factors have a significant impact on the required rate of returns. Specifically, it is found that the premium for both factors is positive and statistically significant. Further, the estimated results provide evidence that the inclusion of these two factors in the Fama-French three-factor model considerably increases the prediction power of the model. The results also reveal that the inclusion of the sentiment factor in the Carhart four-factor model significantly increases the prediction power of the model. The results of the interacted model provide evidence of a significant impact of investor sentiment and momentum factors on market risk, size, and value premiums.

Pei-En (2019) determined if investor sentiment and investor behaviour have considerable influence on the stock return. The study searched for predictable indicators and measure them based on two approaches: One is the investor behaviour indicator measured by using proxy variables (such as short-term rate of return, the long-term average rate of return, turnover rate, and earning-to-price ratio) and the other is the investor sentiment measured by using proxy variables (investor sentiment index, the consumer confidence index, and the market volatility index). In addition, this study creates a stock prediction using the neural networks technique and examines whether the predicted returns reflect the actual returns. Finally, this study expects that the empirical results not only provide important academic value in the financial field but also provide efficiently an investment strategy for investors and financial institutions.

In a related study, Concetto and Ravazzolo (2019) investigated how investor sentiment affects stock market returns and evaluates the predictability power of sentiment indices on U.S. and EU stock market returns. As regards the American example, evidence shows that investor sentiment indices have an economic and statistical predictability power on stock market returns. Concerning the European market instead, the investigation provides weak results. Moreover, comparing the two markets, where investor sentiment of U.S. market tries to predict the European stock market returns, and vice versa, the analyses indicate a spillover effect from the U.S. to Europe.

Another study on the emerging markets by Khan and Ahmad (2018) examines bi-directional contemporaneous and lead-lag relationships between investor sentiment and market returns of Pakistan from 2006 to 2016. The study employed a direct proxy namely Google search volume index (GSVI) and nine other indirect proxies. Besides conventional regression and the VAR model, the study applies Geweke's (1982) tests to investigate the nature of relationships between sentiment and returns. The results indicate a substantive role of sentiment in dragging the stock market away from its sustainable path as implied by economic fundamentals.

Ahmed (2018) conducted a study on the Pakistan stock market to find the relationship between stock market return and volatility. Different market proxies are used to examine the investor sentiments like Stock traded volume, first-day return on IPOs, Dividend Premium, Mutual Funds Flow, and Close Ends Funds Discount, Margin Borrowings, Stock Turnover Ratio. Investor sentiments are used as an independent variable and stocks market volatility is used as a dependent variable. The ARCH regression model was used to examine the association among dependent (Stocks Market Volatility) and independent variables (Investors sentiments). Arch regression model effect that it is a good fit to our research model, and according to results show that Stock Traded Volume Negative and insignificant relationship with volatility, First-day return on IPO have a positive but insignificant relationship with stock market volatility; Dividend Premium has a positive and significant relation with stock market volatility, Margin Funds Flow have a positive and significant impact on stock market volatility, Closed-end Funds Discount has a positive but insignificant effect on stock market volatility, Margin Borrowings have a negative and insignificant impact on stock market volatility, Stock Turnover Ratio have a positive and significant relationship with stock market volatility.

Anusakumar, Ali and Wooi (2017) explored the link between investor sentiment and stock returns in emerging Asian markets. Two dimensions of sentiment are examined: stock-specific sentiment and market-wide sentiment. Using panel regression with firm fixed effects shows that stock-specific sentiment strongly and positively affects stock returns after controlling for firm characteristics. Overall, there is a positive relationship between market-wide sentiment and returns but the relationship does not hold at the country level. For individual countries, there are substantial country-to-country variations in the influence of market-wide sentiment on returns. The evidence also suggests that stock-specific sentiment may have a greater influence on returns than market-specific sentiment. Furthermore, the effect of investor sentiment on stock returns in emerging Asian markets generally persists after accounting for macroeconomic factors.

Sayim and Rahman (2015) evaluated the effect of rational and irrational components of U.S. institutional and individual investor sentiment on Istanbul Stock Market (ISE) return and volatility. The results show that there is a significant spillover effect of U.S. investor sentiment on stock return and volatility of ISE. A breakdown of sentiment by the type of investor shows that the impact of institutional sentiment is greater than that of individual sentiment. A breakdown of sentiment by rationality shows that the effect of rational sentiment on ISE return is faster though not necessarily greater than that of irrational sentiment. The conclusion from these results is that the effect of U.S. investor sentiment is systemic and cannot be diversified away. U.S. investor sentiment, therefore, constitutes a priced risk factor and must be accounted for accordingly in international asset pricing models. The findings also provide some evidence of a negative relationship between U.S. investor sentiment and ISE return volatility.

Ahmed and Ullah (2012) investigated investors' sentiment and stock market dynamics in Pakistan. Their major purpose was to confirm whether investors' sentiments had any impact on the return of the Karachi Stock Exchange (KSE). Time series analysis of autoregressive distributive lag (ARDL) is used in this study. Their results on investor sentiments were proven to have a positive and significant coefficient that indicates its impact on KSE returns. The study proved that investor sentiments have a positive significant coefficient when it comes to explaining market returns.

Finter, Ruenzi and Ruenzi (2010) examined the impact of investor sentiment on the German stock market. Using a principal component analysis, they constructed a sentiment indicator that condenses information of several well-known sentiment proxies and their results show that this indicator explains the return spread between sentiment stocks and stocks that are not sensitive to sentiment fluctuations. However, the model did not have much predictive power of sentiment for future stock returns. Their findings were consistent with sentiment being of minor importance on the German stock market that is characterized by a low fraction of retail investors.

Fisher and Statman (2003) examined whether the consumer confidence index is a good proxy for the individual investors' sentiment and if the consumer confidence index predicts stock returns. Their result shows that changes in the consumer confidence index were accompanied by statistically significant changes in the individual investor sentiment about the stock market. The contemporaneous relationship between changes in consumer confidence and S&P 500 returns is positive. It observed that high consumer confidence is generally followed by low future S&P 500, NASDAQ and small stock returns.

Methodology

Research Design

The study adopts the ex post facto research design and utilises time-series data from secondary sources for this research includes the Central Bank of Nigeria (CBN) Statistical Bulletins of the relevant periods, Securities and Exchange Commission (SEC) and Nigerian Stock Exchange (NSE).

Model Specification

In this study, a multiple regression analysis is used with Stock Market Return as the dependent variable, Investors' sentiment, Real Exchange Rate and Real Interest Rate as independent variables. The model is adopted from the model of Zubairu (2014) and is presented thus as:

Smr = *f* (Sentpca +Exrt + Intr)……………………………………(i)
Explicitly, the model could be stated in logarithm form as:
LogSmr = β_0+Logβ_1Sentpca + Logβ_2 Rexrt + Logβ_3 Rintr + e ……(ii)

Where = Smr is dependent variable, Sentpca, Rexrt, Rintr = independent variables, Smr = Stock Market Return, LogSentpca = logarithms of Investor' Sentiment, LogRexrt = logarithms Real Exchange Rate, LogRintr = logarithms Real Interest Rate, B'^{s} = parameters to be estimated, e = error term. Using the principal component analysis, investors' sentiment was proxied by turnover ratio.

Analysis and Results

The descriptive statistics show the description of the mean, standard deviation and normality test. Below is the descriptive statistics of the variables under the period of 1985 to 2017.

Table 1: Descriptive statistics

Variables	Mean	Standard Dev	Jarque-Bera	Observation
SMR	0.056	0.12	10.173(0.0)	120
SENTP	-0.00058	0.126	9.654(0.0)	120
CA	20.471	4.657	9.813(0.0)	120
RINTR	77.01	61.95	15.857(0.0)	120
REXRT				

Source: Computer Output using E-Views 10.0.

The historically average Stock Market Returns (SMR) was 0.056 and a standard deviation of 0.12. The high standard deviation of stock market returns when compared to the mean shows that there have been stock market uncertainty in Nigeria. The historically average level of investors' sentiment (SENTPCA) was -0.00058 and a standard deviation of 0.126. The high standard deviation of the level of investors' sentiment when compared to the mean shows that there has been a presence of variation in investors' behaviour/sentiment in Nigeria (Amedu, 2010 & Oyetan, 2013). The real exchange rate (REXRT) had an average value of N77.01 and the standard deviation was 61.95. This means that the period under study was also characterized by exchange rate variations. In the case of the real interest rate (RINTR), its historical average was 20.4% from 1985 to 2017. This high-interest rate has been a major concern for users of borrowed funds in Nigeria. The standard deviation of 4.657 shows that there is low variation in the high real interest rate. The standard deviation (7.14) shows that there was dispersion in the variables over the period.

Figure 1: All Share Price Index from 1984 to 2017

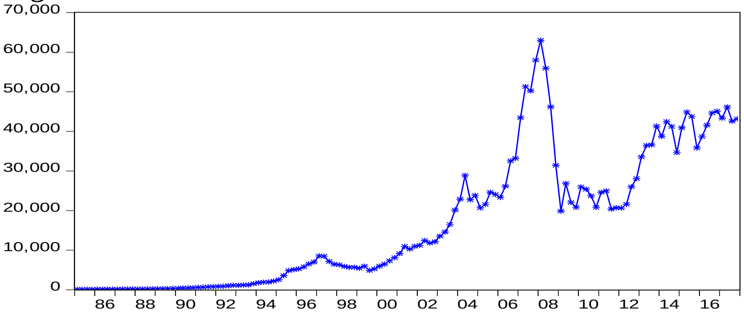
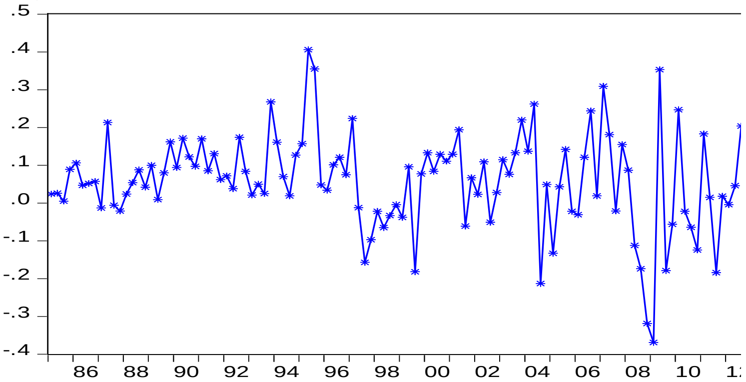
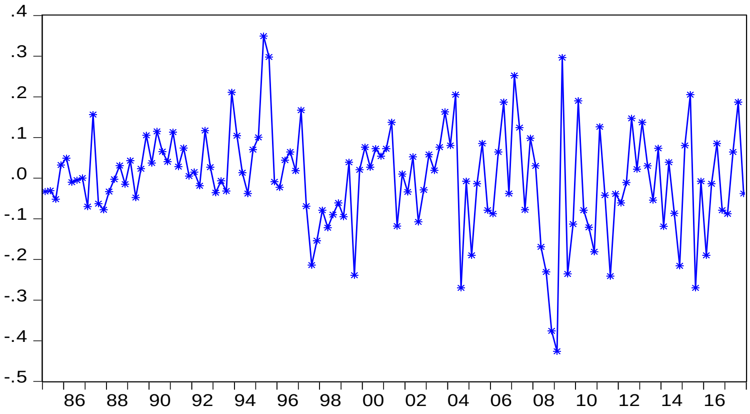


Figure 2: All Share Price Index Returns from 1984 to 2017



The All Share Price Index of Nigeria in the period shows a zero low-level movement until 1995 when the index began to improve for the first time in the period studied. It came to its peak in 2008 when share prices in Nigeria went to their all-time high levels before its crash in 2009. However, the index began to pick up again. The All Share Price Index Return graph is full of positive and negative movements. The same with that of the Investors' sentiment index. This dynamism has a lot of impact on the research methodology to determine the relationships among the variables.

Figure 3: Investors' Sentiment Index from 1984 to 2017



A cursory look at the graphs shows that the variables are dynamic especially all share price index returns and investors sentiment index. This, therefore, means a time series dynamic model will be more appropriate to study the relationship among our variables. The graphs also show that the unit root and co-integration tests will also be needed to test for stationarity and long-run equilibrium relationship.

Correlation Matrix

	SMR	SENTPCA	REXRT	RINTR
SMR	1.00			
SENTPCA	0.99	1.00		
REXRT	0.13	0.13	1.00	
RINTR	0.07	0.08	0.33	1.00

Source: Computer Output using E-Views 10.0.

Table 2 shows that Stock Market Returns (SMR) has a weak positive correlation relationship with real interest rate (RINTR =0.07). A close look at the value of the correlation coefficient results revealed that Stock Market Returns (SMR) had a relatively higher positive relationship with the exchange rate (EXRT= 0.13). This means that stock market investors in Nigeria are more likely to respond to exchange rate variations than to interest rates. The table also shows that Stock Market Returns (SMR) has a high positive correlation with the level of investors' sentiment (SENTPCA =0.99). This means that market sentiment/psychology is highly associated with stock market returns.

Unit Root Test

Table 3: Augmented Dickey-Fuller Unit Root Test at Level

	Variable	ADF Statistics	ADF (95%)	Order of Integration	Remark
Level	SMR	-8.819	-2.885	I(0)	Stationarity
	SENTPCA	-8.819	-2.885	I(0)	Stationarity
	EXRT	-0.264	-2.885	I(0)	Non-Stationarity
	INTR	-2.724	-2.885	I(0)	Non-Stationarity

Source: Computer Output using E-Views 10.0.

The empirical findings from the table above reveal that stock market returns (SMR) and investors' sentiment (SENTPCA) were stationary at level. While real interest rate (RINTR) and real exchange rate (REXRT) were not stationary at level. This, therefore, means that using the OLS regression techniques at levels in estimating our formulated model would lead to spurious regression results since some of the variables were not stationary at level. To resolve this problem, the first differences of the variables were taken and they were subjected to ADF Unit root test. Table 3, shows the results of the Unit root test at the first difference using the ADF test.

Table 4: Augmented Dickey-Fuller Unit Root Test at First Difference

	Variable	ADF Statistics	ADF (95%)	Order of Integration	Remark
First Difference	ΔSMR	-13.157	-2.886	I(1)	Stationarity
	ΔSENTPCA	-13.157	-2.886	I(1)	Stationarity
	ΔEXRT	-9.714	-2.886	I(1)	Stationarity
	ΔINTR	-10.178	-2.886	I(1)	Stationarity

Source: Computer Output using E-Views 10.0.

The empirical findings from table 4 above reveal that Stock Market Returns (ΔSMR), investors' sentiment (ΔSENTPCA), real interest rate (ΔRINTR) and real exchange rate (ΔREXRT) were stationary at first difference. This, therefore, means that using the OLS regression techniques at levels in estimating our formulated model would lead to spurious regression results since some of the variables were not stationary at level. This in other words means that after taking the first difference of the variables and testing for their stationarity property, they all became stationary. Thus, the best regression results were obtained when the first differences of the variables were used to estimate the model. The results also show that the variables are all integrated of order one.

Co-Integration Test

Co-integration among times series suggests that series may behave differently in the short run but that they will converge toward a common behaviour in the long run. According to Engle and Granger (1987), sets of series are co-integrated when their residual is stationary. The obtained residual which is often used to proxy the error correction representation (ECM) was therefore subjected to unit root test using the Dickey-fuller (DF) and Augmented Dickey-Fuller (ADF) tests. The Engle-Granger two stages framework suggested that the stationarity of the residual from a regression result implies the existence of a long-run stable relationship between the dependent and independent variables. Table 4.6, shows the co-integration test for the model adopted in this study.

Table 5: Co-integration Test

	Variable	ADF Statistics	ADF (95%)	Order of Integration	Remark
Level	ECM	-11.427	-2.886	I(0)	Stationarity

Source: Computer Output using E-Views 10.0.

The results from table 5, shows that the absolute value of the ADF statistic (-11.427) was greater than the absolute value of the ADF critical value at 5% level of significance (- 2.886). This implies that the dependent variable and independent variables are co-integrated. This in other words means that between 1985-2014 periods, there was a long-run stable relationship among Stock Market Returns (SMR), investors' sentiment (SENTPCA), real interest rate (RINTR) and real exchange rate (REXRT) in Nigeria such that any divergence in their behaviour in the short run will converge in the long run. Engel et al (1987) postulated that any co-integrated series has an error correction representation. Therefore, the existence of co-integration in our model necessitates the formulation of the error correction model. The Error Correction Model when estimated represents the short-run dynamics of the model. The existence of co-integration among the variables justified the use of Error Correction Model in this study.

Regression Results

Table 6: Regression Output on the Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.046377	0.021564	2.150653	0.0335
SENTPCA	0.926469	0.034043	27.21465	0.0000
REXRT	-0.000100	8.40E-05	-1.191177	0.2359
RINTR	0.000606	0.001087	0.557345	0.5783

R-squared	0.865509	Mean dependent var	0.048953
Adjusted R-squared	0.861135	S.D. dependent var	0.139251
S.E. of regression	0.051891	Akaike info criterion	-3.041051
Sum squared resid	0.331203	Schwarz criterion	-2.929643
Log-likelihood	199.6272	Hannan-Quinn criter.	-2.995785
F-statistic	197.8892	Durbin-Watson stat	2.213995
Prob(F-statistic)	0.000000		

Source: Computer Output using E-Views 10.0.

Test for Goodness of Fit Using Adjusted R Square

This is a test that measures whether the model used for the regression fits the research variables and the study. In the regression result, the Adjusted R Square as seen in Table 4.7 is 0.861135 x 100 = 86.11%. This shows that the explanatory variables included in the model accounted for 86.11% variation in the dependent variable. This by implication shows that in the research work, SENTPCA, REXRT and RINTR influenced SMR to the tune of 86.11%. The remaining unexplained variation is taken care of by the error term.

The regression equation is:

SMR = 0.046377 + 0.926469SENTPCA -0.000100REXRT + 0.000606RINTR

From the multiple regression results, there exists a direct and positive relationship between investor sentiment and stock market return in Nigeria within the period under study which implies that as investor's sentiment increases, stock market returns also increases. This relationship between investors' sentiment and stock market return is in line with apriori expectation because when investor sentiment is high, the stock market experiences high participation of the public in the stock market.

This will ultimately lead to high market capitalization and finally to a high All Share Price Index and returns. This is also against the findings of Delong, Shleifer, Summers and Waldman (1990), Miller (1997), Baker and Wurgler (2004) that investor' sentiment has a negative relationship with stock market returns. However, there is a negative and inverse relationship between real exchange rate and stock market returns in Nigeria as shown in the regression equation. This means that when the exchange rate decreases, the stock market returns increase It also implies that when the exchange rate is favourable to the Nigerian economy, the stock market returns increase. This result again is in line with apriori expectation because if the exchange rate is favourable to the Nigerian economy, the value of the Naira increases and the public can meet their cash needs and still have money to follow investors' sentiment and participate in the stock market. The real interest rate has a direct and positive relationship with Stock Market Returns. This means that as the interest rate increases the stock market returns also increases. When interest rate increases in the economy, investors would naturally demand higher interests on their investments and stock market investors are not exempted.

Beyond the negative and positive relationship that exists between the dependent and independent variables, the coefficients of the independent or explanatory variables reveal a lot about the nature and the strength of such relationship which is particular to the data of the research. In the research regression result, the coefficient of Investors' sentiment index SENTPCA is 0.926469. This is classified as a very high level of dependency of Stock Market Return on Investors' sentiment. It is almost a one for one relationship. It could be said that within the period under review, investors' sentiment accounted for almost all the changes in the stock market returns. This strong relationship between the stock market return and investors' sentiment can be harnessed to help the economy through strong participation in the stock market by the public to increase the All Share Price Index of the Nigerian capital market. The coefficients of the Exchange rate and Interest rate are –0. 000100 and 0.000606 respectively. These coefficients are classified as very low levels of dependency of stock market returns on these variables. From the analysis, SENTINV, REXRT, RINRT jointly affect Stock Market Returns in Nigeria.

Table 7: Test for Causality Using Pairwise Granger Causality

Null Hypothesis:	Obs	F-Statistic	Prob.
SENTPCA does not Granger Cause SMR	127	1.84922	0.1763
SMR does not Granger Cause SENTPCA		6.77929	0.0103
EXRT does not Granger Cause SMR	127	3.39522	0.0678
SMR does not Granger Cause EXRT		0.62250	0.4316
INTR does not Granger Cause SMR	127	0.42825	0.5141
SMR does not Granger Cause INTR		0.07841	0.7799
EXRT does not Granger Cause SENTPCA	127	3.02324	0.0846
SENTPCA does not Granger Cause EXRT		0.54890	0.4602
INTR does not Granger Cause SENTPCA	127	0.62400	0.4311
SENTPCA does not Granger Cause INTR		1.20538	0.2744
INTR does not Granger Cause EXRT	127	0.00514	0.9429
EXRT does not Granger Cause INTR		0.04260	0.8368

Source: Computer Output using E-Views 10.0.

The result of the test shows that only SMR granger causes SENTPCA at 5% level of significance because the probability value is less than 0.05. This result is in line with the OLS regression result.

Discussion of Findings

Investors' sentiment (SENTPCA), which is the major explanatory variable in this study had a significant positive relationship with stock market returns. This finding is against the contributions of Delong, Shleifer, Summers and Waldman (1990), Miller (1977), Black (1986), Baker and Wurgler (2004) and Shleifer and Vashny (1997) that investors' sentiment has a negative relationship with stock returns. Real Interest Rate (RINTR) which is part of the explanatory variable in this study had a positive and significant impact on stock market returns. This, therefore, means that increase in interest rate would significantly increase stock market returns. The real exchange rate (REXRT) which is part of the explanatory variable in this study had a negative and non-significant impact on stock market returns in Nigeria. This, therefore, means that changes in the exchange rate would insignificantly affect stock market returns in Nigeria in a negative and inverse relationship. The lag of exchange rate was found to have a negative and statistically significance on stock returns. This means that exchange rate disturbance has a short delay impact on the Nigerian capital market.

In conclusion, the empirical results from this study reveal that investors' sentiment which is a non-market factor is more important than macroeconomic fundamentals in understanding stock market returns dynamics in Nigeria. This, therefore, suggests the need for more research into behavioural finance to predict stock market returns.

Conclusion and Recommendation

This shows that investors in the Nigeria equity market are likely to take market sentiment news and exchange rate information more serious to the interest rate when investing in shares. Observation from the results of the analyses of macroeconomic fundamentals shows that exchange rate variations were potent in distorting stock market returns dynamics in Nigeria in a negative and non-significant manner. The study concludes that investors' sentiment and exchange rate disturbance matters more in predicting movement in equity prices in Nigeria. Based on the findings, the study recommends as follows:

1. The Nigeria stock exchange (NSE) should develop sound and test circuit breakers (System trading volume circuit breaker) in the exchange that would stop the trade in periods of high market sentiment. This recommendation was recently used in China to prevent total stock market collapse due to extreme market sentiment. The exchange and securities commission should also implement market regulations (maximum and minimum trading volumes) that would prevent noise trading and market frauds which often promote extreme investors' sentiment.
2. Policymakers such as the Securities and Exchange Commission (SEC) should sensitize and enlighten investors on the negative consequences of psychology bias on the performance of the market in general and the performance of the investments in particular.
3. Investors portfolio managers and other investing stakeholders should develop sentiment period market strategies and regularly review their investment sentiment biases to effectively manage investors' emotional biases.
4. In addition, Federal and State Governments should support the stock exchange and securities commission with capital market policy guidelines and supports that would prevent extreme investor's sentiments that would lead to massive losses for retail and institutional investors.
5. The significance of investors' sentiment in this study also suggested that we recommend the inclusion of the variable in the forecasting of equity prices in Nigeria.

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MONETARY POLICY INSTRUMENTS: EFFECT ON THE PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This study examines the effect of monetary policy instruments on the performance of deposit money banks in Nigeria from 2000 to 2020. Total private sector credit of deposit money banks was used to proxy the performance of deposit money banks while monetary policy rate, liquidity ratio, cash reserve ratio and loan to deposit ratio were used as proxies for monetary policy. The Ex-post Facto research design was adopted in this study. Data on total private sector credit of deposit money banks, monetary policy rate, liquidity ratio, cash reserve ratio and loan to deposit ratio obtained from the Central Bank of Nigeria (CBN) Statistical bulletin (2020). The hypotheses of this study were tested using the Ordinary Least Square regression statistics. The findings revealed that total private sector credit of deposit money banks has a significant relationship on monetary policy rate; liquidity ratio and cash reserve ratio; while loan to deposit ratio has an insignificant relationship with total private sector credit of deposit money banks. The researchers recommended among other things that the central bank of Nigeria should redefine these monetary policy instruments to make them more attractive to the banks.

Keywords: Monetary policy, Performance, Liquidity ratio, Monetary policy rate, Cash reserve ratio, Private sector credit

Introduction

The performance of every economy is determined by the effectiveness of its monetary and fiscal policies. These policies are formulated by the government through the monetary authority with the aim of ensuring a sound financial system. According to Jegede (2014), monetary policy is an aspect of macroeconomics which deals with the use of monetary instruments designed to regulate the value, supply and cost of money in an economy, in line with the expected level of economic activity. It covers series of measures or combination of packages intended to influence or regulate the volume, prices as well as direction of money in an economy per unit of time.

The monetary policy of the Central Bank of Nigeria is formulated with the aim of controlling the money supply in the economy (Agu, Nwankwo and Onah, 2018) The CBN annual report (2018) describes money supply as the total value of money in the economy and this consists of currency outside banks with the non-bank public (notes and coins) and deposits with the deposit money banks. Jegede (2014) also stated that monetary policy and deposit money banks are inextricably linked together and the assessment of the banking system (particularly in the areas of loans and advances) can be evaluated through the performance of monetary policy tools.

Monetary policy is Usually in two forms: expansionary monetary policy or contractionary monetary policy. Monetary policy is expansionary when the policy thrust of the authorities increases the supply of money in the system; and contractionary when the action reduces the quantity of money supply available in the economy or constrains the growth or ability of the deposit money banks to grant further credits (Udeh, 2015). Anwar and Okorie (2016) added that if the economy experiences a decline in economic activities and employment declines, policy makers will be moved to soften monetary policy so as to stimulate aggregate demand. This is called expansionary monetary policy. In contrast, if the economy is showing signs of overheating and inflation pressures are building, the Central Bank will be propelled to counter those pressures by tightening the economy in order to bring growth in aggregate demand below that of the economy's potential to produce.
The measures put together by the Central Bank of Nigeria to regulate money supply are known as monetary policy instruments. Uloma (2017) asserted that the monetary policy instruments can be categorized into: Direct and indirect monetary policy instruments. The direct monetary policy instruments include reserve requirements, special deposits, moral suasion, selective Credit control and prudential guidelines. The indirect or quantitative monetary policy instruments include: open market operations, lending by the Central Bank of Nigeria, Interest rate, Exchange rate, Rediscount rate and Cash reserve requirements. According to Osakwe, Ibenta and Ezeabasili (2019), monetary policy in Nigeria has experienced two main phases which are the era of direct control (1959-1986) and the era of market-based controls (1986-date). In the era of direct control, the CBN used directives targeted at specific sectors to fix or control interest rate, exchange rate and to determine credit allocation to choice sectors.

Concerning recent adjustments in Nigeria's monetary policy instruments, the CBN monetary policy committee in November 2020 retained the monetary policy rate (MPR) at 11.5 percent; retained the asymmetric corridor of +100/-700 basis points around the MPR; increased the Cash reserve ratio (CRR) to 27.5 percent; and retained the liquidity ratio (LR) at 30 percent (Emefiele, 2020). According to Emefiele (2020), the decision to raise the CRR from 22.5 to 27.5 percent was in response to the inflationary pressure in the economy. Currently, the inflation rate stands at 12.69 percent from 12.88 percent in 2020 and 11.40 percent in 2019.
A number of scholars have established that the frequent adjustments made on monetary policy instruments affect the performance of banks in terms of their lending activities. Whereas, an analytical look into the Central Bank statistical bulletin (2019), reveals

that there have been times when adjustments in monetary policy instruments did not amount to any tangible change in the level of interest rates and credit availability. Afolabi, Adeyemi, Salawudeen and Fagbemi (2018) noticed that the credit of deposit money banks to the private sector rose from N10,660.07 billion in 2011 to N18,674.15 in 2015 in spite of the adjustments carried out on the monetary policy instruments during that period. The view of some scholars that adjustments in monetary policy instruments affect the performance of banks needs empirical investigation. Hence, this research work intends to find out if there is really a significant relationship between monetary policy instruments and the performance of deposit money banks

Objectives of the study

1. To ascertain the effect of Monetary Policy Rate (MPR) on the total private sector credit of deposit Money Banks
2. To determine the effect of the Liquidity ratio (LQR) on the total private sector credit of deposit Money Banks
3. To assess the effect of the Cash Reserve ratio (CRR) on the total private sector credit of deposit Money Banks

Research Hypotheses

The research hypotheses below were all stated in the null:

1. **H_0:** There is no significant relationship between monetary policy rate and total private sector credit of deposit Money Banks
2. **H_0:** There is no significant relationship between liquidity ratio and total private sector credit of deposit Money Banks
3. **H_0:** Cash reserve ratio has no significant effect on total private sector credit of deposit Money Banks

Review of Related Literature

Conceptual Review

Monetary Policy

Among other things, monetary Policy refers to measures designed to regulate money supply in an economy. According to Olaoluwa and Shomade (2017), Monetary policy is an economic stabilization tool which involves measures taken by the Central Bank to regulate and control the volume, cost, availability and direction of money and credit in an economy to achieve some specified macroeconomic policy objectives and to counter all undesirable trends in the economy. The CBN annual report (2018) defines money supply as the total value of money in the economy and this consists of currency outside banks with the non-bank public (notes and coins) and deposits with the deposit money banks. For purposes of monetary policy, there are two variants of money supply in Nigeria — M1 and M2. M1 is the narrow measure of money supply which includes currency outside banks with the non-bank public and demand deposits (current accounts) at the deposit money banks. M2 is the broad measure of money supply and it includes M1 and savings and time deposits and foreign currency deposits at the deposit money banks. M2 measures total liquidity in the economy.

Udeh (2015) opined that bank regulation is a function of employing monetary policies as the primary tool to regulate the banking sector. Inherent in these policies are the different types of instruments that are used to regulate the operations of banks in the economy. In support of this, Okonkwo, Godslove, and Mmaduabuchi (2015) also pointed that in supervising the conduct of monetary policy to pursue certain objectives, Central banks in the world such as the Central Bank of Nigeria (CBN) often employ certain monetary policy instruments like bank rate, open market operations, changing reserve requirements and other selective credit control instruments to influence money in circulation. In using the direct monetary policy measures, the monetary authorities ultimately influence items in the statement of financial position of commercial banks.

Monetary Policy Rate

According to Bassey (2018), the monetary policy rate (MPR) is the interest rate set by the CBN to serve as indicative rate for transactions in the interbank market. It was introduced in December 2006 and is used as the operating target for monetary policy. It also serves as a signaling device for the monetary policy stance. Corb (2012) asserts that interest rate is an economic tool used by the CBN to influence money supply and to control inflation and to boost economic development. The transmission of monetary policy action is often affected through interest change. Being a cost for borrowing and a reward for lending, the interest rate is an important economic variable which need to be guided so as to achieve economic stability (Kelilume, 2014). The CBN (2018) reveals monetary policy rate as one of the money markets interest rates alongside Treasury bill rate. Several studies confirm that interest rates affect the financial performance of deposit money banks. The Monetary Policy rate is an intrinsic part of the monetary policy of the CBN and it is used to regulate the lending activity of the deposit money banks.

The monetary Policy rate refers to the amount that is charged by the Central Bank of Nigeria (CBN) for lending to the Banks in the performance of its function as the lender of last resort and also as a signal of the desired direction of monetary policy (CBN, 2018).

Liquidity Ratio

According to Ekpung, Udude and Uwalaka (2015), Liquidity is defined as the ability to obtain needed cash **quickly** at a reasonable cost. It also means being able to meet financial obligations as they fall due, whether it is withdrawing from the current account, savings account or inter-bank deposits. The CBN (2018) describes the liquidity ratio as the ratio of total specified liquid assets to total current liabilities and reflects the liquidity position of a bank. Olweny and Chiluwe (2012) defined liquidity ratio as the proportion of total deposits to be kept in specified liquid assets mainly to safeguard the ability of banks to meet depositor's cash withdrawals and ensure confidence in the banking system.

Douglas (2014) asserted that Liquidity at a bank is a measure of its ability to readily find the cash it may need to meet demands upon it. Liquidity can come from direct cash holdings in currency or on account at the Federal Reserve or other central bank. More commonly it comes from holding securities that can be sold quickly with minimal loss. This typically means highly creditworthy securities, including government bills, which have short-term maturities. Douglas (2014) also highlighted means by which banks can achieve adequate liquidity. These means include: shorten asset maturities; improve the average liquidity of assets; lengthen liability maturities; issue more equities; reduce contingent commitments; obtain liquidity protection.

Cash Reserve Ratio

Udeh (2015) defines cash reserve ratio as the proportion of total deposit liabilities which the deposit money banks and other financial institutions are expected to keep as cash with the Central Bank Nigeria (CBN). According to Otalu, Aladesanmi and Mary (2014), it is the statutory cash reserves that banks are to keep with the CBN and this ratio was designed to help rescue the liquidity of the banks and hence control the volume of banks credit that can be extended by the deposit money banks.

According to Bassey (2018), the Cash reserve requirement (CRR) is the proportion of specified total deposit liabilities of Deposit Money Banks (DMBs) that is kept with the CBN as reserves. It is mostly unremunerated and is measured based on a daily average of resolvable liabilities over a two-week period. It serves prudential monetary control and liquidity management objectives. Changes to the CRR require banks to make abrupt adjustments in their portfolios and as such can induce volatility in financial market prices. An increase in the CRR, particularly when it is unremunerated, imposes additional costs on banks, which then get passed on to the economy in the form of wider interest rate spreads. The CBN (2018) asserted that the cash reserve ratio is the percentage of deposit money banks' cash deposits with the CBN in relation to their total demand deposits, savings and time deposits. The cash ratio requires the deposit money banks to keep a certain proportion of their total deposit liabilities as cash balances with the CBN, while the liquidity ratio stipulates the proportion of total deposits to be kept in specified liquid assets, mainly to safeguard the ability of banks to meet depositors' cash withdrawals and ensure confidence in the banking system. The CBN also has powers to call for special deposits from banks for the purpose of controlling liquidity.

Private Sector Credit: A Determinant of Banks' Financial performance

As financial intermediaries, lending is one of the main activities of banks. The Commercial Banks mostly grant credit on short-term basis except in few occasions where they lend on medium and long-term basis provided it will not hamper the liquidity of the bank. Commercial banks' loans must be given with collaterals or securities to back up the loans in case of a default. Often, there are policies that guide commercial bank lending which must be adhered to before loans are granted. The level of interest rate has a very great role to play in commercial bank lending practices (Akujuobi and Nwezeaku, 2015).

Nwaru and Okorontah (2014), stated that bank credit involves financing economic activities such as manufacturing, production, commerce et cetera, through the provision of loans and overdrafts by banks. Bank credit involves financing economic activities such as manufacturing, production, commerce et cetera, through the provision of loans and overdrafts by banks. The private sector of an economy is the non-government sector. It comprises of private individuals and corporations. Credit to private sector refers to financial resources provided to the private sector, such as loans and advances, purchases of non-equity securities, trade credits and other accounts receivable, which establish a claim for repayment (Olowofeso, Adeleke and Udoji, 2015).

Financial Performance of Deposit Money Banks

Rosemary (2013) defines financial performance as the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats. According to the NDIC Annual Reports (2017), the financial performance of deposit money banks can be grouped into capital adequacy of DMBs; the Asset quality of banks; earning and profitability; and liquidity management of deposit money banks. Selected performance indicators include Total assets; Total loans and advances; capital adequacy; non-performing loans to total loans ratio; return on assets; Profit before tax and Loan to deposit ratio.

According to Mwongeli (2016), the determinants of financial performance can be classified into two: the micro-economic (internal factors) and the macro-economic (external factors). The micro-economic (internal factors) include: capital adequacy, asset quality, management efficiency and liquidity management. The external factors include: Gross Domestic Product (GDP), macroeconomic policy stability, inflation, interest rate and political stability.

Theoretical Review

Theory of Savings Mobilization

This research paper is anchored on the savings mobilization theory. This theory proposes how bank credits are made possible through the mobilization of savings by banks. However, this role of banks is being influenced by exogenous factors such adjustments in monetary instruments.

Financial institutions perform savings mobilization as one of their major functions. As banks in an economy mobilize savings from the savers' side in their millions, it is also important that they channel same to the deficit spending units. This will in a way, enhance economic growth and development. One major determinant of the development process (in terms of the relations between output growth rate and capital stock) is capital accumulation. He added that capital plays the dual role of increasing production capacity and effective demand. Solow (1956) assumed separately that capital stock (investment) equals saving. A continuous increase in income level largely determines the increase in investments, and what savings will likely be. However, the savings of some economic agents is what serve as banks' credit (Kolapo, Ojo and Olaniyan, 2013).

Empirical Review

Borio, Gambacorta and Hofmann (2015) investigated how monetary policy affects bank profitability. The study used data for 109 large international banks headquartered in 14 major advanced economies for the period 1995–2012. Overall, it was discovered that there exists a positive relationship between the level of short-term rates and the slope of the yield curve (the "interest rate structure", for short), on the one hand, and bank profitability – return on assets – on the other.

Udeh (2015) examined the impact of monetary policy instruments on the profitability of commercial banks in Nigeria using the Zenith Bank Plc. experience. The paper used descriptive research design. It utilized time series data collected from published financial statements of Zenith Bank Plc. as well as Central Bank of Nigeria Bulletin from 2005 to 2012. The study discovered that cash reserve ratio, liquidity ratio and interest rate did not have significant impact on the profit before tax of Zenith Bank Plc. However, minimum rediscount rate was found to have significant effect on the profit before tax of the bank. The paper concluded that a good number of monetary policy instruments do not impact significantly on profitability of commercial banks in Nigeria.

Anowor and Okorie (2016) opined that Nigeria has over the years been controlling her economy through various macroeconomic policies of which monetary policy is among using some monetary policy instruments in efforts to drive along the desired path. They carried out a reassessment of the impact of monetary policy on economic growth of Nigeria adopting the Error Correction Model approach. The study utilized time series secondary data spanning between 1982 and 2013. The result showed that a unit increase in Cash Reserve Ratio (CRR) led to approximately seven units increase in economic growth in Nigeria.

Onodugo, Okoro and Amujiri (2013) examined the impact of monetary policy regimes on the performance of commercial banks in Nigeria. The study was divided into Structural Adjustment Program (SAP) period (1986-1999) and post-SAP period (2000-2013). The study discovered that monetary policy regimes during the SAP period did not have significant impact on the total assets value, deposit mobilization, loans and advances and credit to the private sector respectively.

Dare and Okeya (2017) assessed the impact of monetary policy on the performance of commercial banks in Nigeria using the United Bank for Africa (UBA) Plc. as a case study. The study made use of a panel cross sectional data covering the period from 2009 to 2014. Multiple linear regression technique was employed to test the relationships inherent in the explanatory and dependent variables with the aid of Statistical Package for Social Sciences (SPSS), Version 20. The estimated model expresses banks' operating performance as a function of monetary policy represented by Monetary Policy Rate (MPR), Cash Reserve Requirement (CRR) and Liquidity Ratio (LR) while Return on Assets (ROA) is used as a proxy for banks' credit performance. The study found out that there is a positive but statistically insignificant relationship between MPR and ROA in the chosen bank. The analysis further indicated negative and statistically insignificant relationships between CRR, LR and ROA. The study concluded that the rationale for the statistically insignificant relationships observed might not be far from the commercial banks low rate of compliance with monetary policy guidelines.

Afolabi, Adeyemi, Salawudeen and Fagbemi (2018) investigated the relationship that exists between monetary policy instruments and Deposit Money Banks' Loans and Advances in Nigeria. An annual time series data covering a period of 36years from 1981-2016 were sourced from Central Bank of Nigeria and used for the study. The study employed Toda and Yamamoto granger non-causality model to examine the relationship existing between Deposit Money Banks loan and advances and monetary policy variables in Nigeria. The findings revealed that structural changes in monetary policy system exerted positive significant impact on loan and advances of Deposit Money Banks in Nigeria. Findings also revealed bidirectional relationship existing between MPR and loan and advances of Deposit Money Banks in Nigeria. Precisely, MPR proved to be a significant variable which causes Deposit Money Bank loans and advances in Nigeria. The other explanatory variables; broad money supply (LM2), liquidity ratio (LR), inflation rate (IFR) and cash reserve ratio (CRR) does not granger cause loan and advances of Deposit Money Banks in Nigeria within the study period.

Osakwe, Ibenta and Ezeabasili (2019) examined the effect of monetary policy on the performance of the Manufacturing sector in Nigeria. The explanatory variables were monetary policy rate, Treasury bills rate, Cash reserve requirement and money supply; while the dependent variable is the Manufacturing (MANU) sector output. The study covered a period of 32 years (1986 to 2017). The results indicated that: monetary policy tools have significant effect on the manufacturing sector output in Nigeria in the short run only. The study concluded that monetary policy tools may not be a long run policy instrument for the growth of the manufacturing sector output in Nigeria but rather short run instruments.

Research Methodology

The research design used for this study is the ex-post-facto research design which considers the past in order to produce explanations for things that had already occurred. Secondary data was used for this research study. The data for the analysis was sourced from the CBN annual reports and accounts and from the CBN statistical bulletin from 2000 till 2020. Ordinary least square regression analytical tool was used in analyzing the data

Model Specification

The ordinary least square regression econometric model for the study is stated below

$Y= \beta_0+\beta_1X_1 +\beta_2X_2 +\beta_3X_3 + e$………… (1)

$TPSC = \beta_0 + \beta_1MPR + \beta_2LQR + \beta_3CRR + e$………… (2)

Where:

TPSC = Total Private Sector Credit

MPR=Monetary Policy Rate

LQR=Liquidity Ratio

CRR=Cash Reserve Ratio

B_0 = Constant Term

B_1, β_2, β_3 = Coefficients of the independent variables

e= Error Term

This model is in line with the model that was adopted in the works of Dare and Okeya (2017)

Data Presentation

Table 1: Dependent and Independent variables

YEAR	TPSC	MPR	LQR	CRR
	N' BILLION	%	%	%
2000	508.30	14.00	64.1	5.1
2001	796.16	20.50	52.9	10.8
2002	954.63	16.50	52.5	10.6
2003	1,210.03	15.00	50.9	10.0
2004	1,519.24	15.00	50.5	8.6
2005	1,976.71	13.00	50.2	9.7
2006	2,524.30	10.00	55.7	2.6
2007	4,813.49	9.50	48.8	2.8
2008	7,799.40	9.75	44.3	3.0
2009	8,912.14	6.00	30.7	1.3
2010	7,706.43	6.25	30.4	1.0
2011	7,312.73	12.00	42.0	8.0
2012	8,150.03	12.00	49.7	12.0
2013	10,005.59	12.00	63.2	12.0
2014	12,889.42	13.00	38.3	20.0
2015	13,086.20	11.00	42.3	20.0
2016	16,117.20	14.00	46.0	22.5
2017	15,775.44	14.00	49.1	22.5
2018	15,417.47	14.00	61.0	22.5
2019	15,946.18	13.50	75.8	22.5
2020	18,579.99	11.50	30.00	22.5

CBN Statistical Bulletin

TPSC: Total private sector credit deposit of deposit money banks
MPR: Monetary policy Rate
LQR: Liquidity Ratio
CRR: Cash Reserve Ratio

Data analysis

Table 2: Descriptive statistics of the input data

	TPSC	MPR	LQR	CRR
Mean	8190.500	12.50000	48.97143	11.90476
Median	7799.400	13.00000	49.70000	10.60000
Maximum	18579.99	20.50000	75.80000	22.50000
Minimum	508.3000	6.000000	30.00000	1.000000
Std. Dev.	6054.377	3.249038	11.51821	7.925937
Skewness	0.182965	0.052377	0.218060	0.187313
Kurtosis	1.662550	3.743566	3.020508	1.617406
	TPSC	**MPR**	**LQR**	**CRR**
Jarque-Bera	1.682342	0.493381	0.166794	1.795422
Probability	0.431205	0.781382	0.919986	0.407501
Sum	172000.5	262.5000	1028.400	250.0000
Sum Sq. Dev.	7.33E+08	211.1250	2653.383	1256.410
Observations	21	21	21	21

source: *Authors computation from E-views 9*

From table 2, total private sector credit of deposit money bank average 8190.500 between 2000 and 2020 while monetary policy rate of deposit money banks average 12.50000 between 2000 and 2020. Also, liquidity ratio and cash reserve ratio of deposit money banks average 48.97143 and 11.90476 respectively between 2000 and 2020. The Jarque–bera probability for total private sector credit of deposit money bank, monetary policy rate, liquidity ratio and cash reserve ratio of deposit money banks are all above 0.05 which shows that all the variables are normally distributed.

Test of Hypothesis One:

H_0: There is no significant relationship between monetary policy rate and total private sector credit of deposit money banks.

H_1: There is a significant relationship between monetary policy rate and total private sector credit of deposit money banks.

Table 3: Regression Estimates for MPR and TPSC

Dependent Variable: TBSC
Method: Least Squares
Date: 05/31/21 Time: 11:38
Sample: 2000 2020
Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MPR	-412.6418	416.8884	2.989814	0.0247
C	13348.52	5376.140	2.482919	0.0225

R-squared	0.249775	Mean dependent var	8190.500
Adjusted R-squared	0.123205	S.D. dependent var	6054.377
S.E. of regression	6057.447	Akaike info criterion	20.34636
Sum squared resid	6.97E+08	Schwarz criterion	20.44584
Log likelihood	-211.6367	Hannan-Quinn criter.	20.36795
F-statistic	0.979731	Durbin-Watson stat	2.098026
Prob(F-statistic)	0.024704		

Source: *Author's computation from E views 9*

From Table 3 above, the prob (F-statistic) (0.0247) is less than 0.05, therefore we reject the null hypothesis. Therefore, there is a significant relationship between monetary policy rate and total private sector credit of deposit money banks in Nigeria. The T-statistic value of 2.989814 is more than two showing that the relationship between monetary policy rate and total private sector credit of deposit money banks in Nigeria is significant. The coefficient value of -412.6418 reveals that there is a negative relationship between monetary policy rate and total private sector credit of deposit money banks in Nigeria. It follows that an increase in the monetary policy rate will result to a decrease on total private sector credit of deposit money banks in Nigeria. The R-squared of 0.249775 reveals that only about 24% of the variation in total private sector credit of deposit money bank in Nigeria is explained by variation in monetary policy rate. According to the adjusted R-squared, adjusting for the number of regressors, the goodness fit reduces to 0.123205 indicating that only about 12% of total private sector credit is explained by monetary policy rate. The Durbin-Watson statistics is up to two therefore the model is free from the problem of auto-correlation. We there conclude that a significant negative relationship exists between **MPR and TPSC**

Test of Hypothesis Two:

H_0: There is no significant relationship between liquidity ratio and total private sector credit of deposit money banks.

H_1: There is a significant relationship between liquidity ratio and total private sector credit of deposit money banks.

Figure 4: Regression Estimates for LQR and TPSC

Dependent Variable: TBSC
Method: Least Squares
Date: 05/31/21 Time: 11:39
Sample: 2000 2020
Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LQR	-82.00363	119.1125	2.688455	0.0195
C	12206.33	5984.797	2.039557	0.0555

R-squared	0.224339	Mean dependent var	8190.500
Adjusted R-squared	-0.087012	S.D. dependent var	6054.377
S.E. of regression	6135.602	Akaike info criterion	20.37200
Sum squared resid	7.15E+08	Schwarz criterion	20.47148
Log likelihood	-211.9060	Hannan-Quinn criter.	20.39359
F-statistic	0.473971	Durbin-Watson stat	2.157392
Prob(F-statistic)	0.019487		

Source: *Author's computation from E views 9*

From figure 4, the p-value (0.019487) is less than 0.05, therefore we reject the null hypothesis. Therefore, there is a significant relationship between liquidity ratio and total private sector credit of deposit money banks. The T-statistic value of 2.688455 is greater than two showing that the relationship between liquidity ratio and total private sector credit of deposit money banks in Nigeria is significant. The coefficient value of -82.00363 reveals that there is a negative relationship between liquidity ratio and total private sector bank credit of deposit money banks in Nigeria. It follows that an increase in the liquidity ratio will result in to a decrease on total private sector credit of deposit money banks in Nigeria. The R-squared of 0.224339 reveals that only about 22% of the variation in total private sector credit of deposit money bank in Nigeria is explained by variation in the liquidity ratio. According to the adjusted R-squared, adjusting for the number of regressors, the goodness fit reduces to 0.087012 indicating that only about 8% of total private sector credit is explained by liquidity ratio. The probability F –statistics is less than 0.05 suggesting that the relationship between total private sector credit and liquidity ratio is significant. The Durbin-Watson statistics is up to two therefore the model is free from the problem of auto-correlation. We there conclude that a significant negative relationship exists between **LQR and TPSC**

Test of Hypothesis Three:

H_0: Cash reserve ratio has no significant effect on total private sector credit of deposit money banks.

H_1: Cash reserve ratio has a significant effect on total private sector credit of deposit money banks.

Table 5: Regression Estimates for CRR and TPSC

Dependent Variable: TBSC
Method: Least Squares
Date: 05/31/21 Time: 11:40
Sample: 2000 2020
Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CRR	571.4277	116.2950	4.913604	0.0347
C	1387.789	1651.030	0.840559	0.4110

R-squared	0.559609	Mean dependent var	8190.500
Adjusted R-squared	0.536431	S.D. dependent var	6054.377
S.E. of regression	4122.178	Akaike info criterion	19.57654
Sum squared resid	3.23E+08	Schwarz criterion	19.67602
Log likelihood	-203.5537	Hannan-Quinn criter.	19.59813
F-statistic	24.14351	Durbin-Watson stat	2.272132
Prob(F-statistic)	0.034696		

Source: *Author's computation from E views 9*

From table 5, the p-value (0.0347) is less than 0.05, therefore we reject the null hypothesis Therefore there is a significant relationship between liquidity ratio and total private sector credit of deposit money banks. The T-statistic value of 4.913604 is greater than two showing that the relationship between liquidity ratio and total private sector credit of deposit money banks in Nigeria is significant. The coefficient value of 571.4277 reveals that there is a positive relationship between liquidity ratio and total private sector credit of deposit money banks in Nigeria. It follows that an increase in liquidity ratio will result in an increase on total private sector credit of deposit money banks in Nigeria. The R-squared of 0.559609 reveals that only about 56% of the variation in total private sector credit of deposit money bank in Nigeria is explained by variation in the liquidity ratio. According to the adjusted R-squared, adjusting for the number of regressors, the goodness fit reduces to 0.536431 indicating that only about 53% of total private sector credit is explained by liquidity ratio. The probability F–statistics is less than 0.05 suggesting that the relationship between total private sector credit and liquidity ratio is significant. The Durbin-Watson statistics is up to two therefore the model is free from the problem of auto-correlation. We there conclude that a significant positive relationship exists between **CRR and TPSC**

Discussion of Findings

The main aim of this study was to examine the effect of monetary policy instrument on the performance of deposit money banks in Nigeria. To conduct this investigation, the total private sector credit was selected as a measure for bank performance in Nigeria while the selected variables for monetary policy instruments includes; monetary policy rate, liquidity ratio, cash reserve ratio and loan to deposit ratio. The OLS regression were used to examine the variables for relationship.

The findings of the study revealed that monetary policy rate was found to have negative and significant relationship with total private sector credit of deposit money banks. These tend to match the prior expectation of the researcher. The negative relationship indicates that an increase in monetary policy rate would result to a decrease in the total private sector credit and vice versa. These findings tend to disagree with the findings of Dare and Okeya (2017) who found monetary policy rate to have a statistically insignificant relationship with return on asset of commercial banks but tend to agree with the find of Afolabi et all (2018) who found monetary policy rate to have a significant relationship with loan and advances of deposit money banks.

The finding also revealed that liquidity ratio has a negative and significant relationship with total private sector credit of deposit money banks. However, this tends agree with the findings of Akanbi and Ajagbe (2012) who found liquidity ratio to have a significant relationship with the profit of selected banks. Also, this finding tends to agree with the researcher prior expectation. However, the finding tends to disagree with finding of Jegede (2014) who found liquidity ratio to have an insignificant relationship with commercial bank loan and advances.

The finding of the study revealed that cash reserve ratio has a significant relationship with total private sector credit of deposit money banks. It was shown that cash reserve ratio had a positive and significant relationship with total private sector credit. The positive relationship implies that increase in cash reserve ratio will lead to an increase on total private sector credit of deposit money banks. However, these tend to agree with the priori expectation of the researcher. These finding tend to match the findings of Akanbi and Ajagbe (2012) who found a significant relationship between Cash reserve ratio with the profit of selected banks. However, the findings tend not to align with the findings of Udeh (2015) who found cash reserve ratio to be insignificant relationship with profit before tax of zenith bank.

Conclusion

From the study conducted it is seen that monetary policy rate, liquidity ratio, and cash reserve ratio all have a role to play on the credit ability of deposit money bank especially relating to the private sector. The study therefore concludes that monetary policy instrument has a significant effect on the performance of deposit money banks in Nigeria.

Recommendations

1. Monetary authority should manage the quantitative tools of monetary policy properly for it to be attractive and affordable for investors to borrow money from the bank.
2. The Central bank of Nigeria should redefine these monetary policy instruments to make them more attractive to the banks.

3. Monetary policy rate, liquidity ratio, cash reserve ratio and loan to deposit ratio should be looked into by monetary authority in a way that is friendly to loan advancement especially relating to the private sector.

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THE IMPERATIVES OF CONTINUOUS AUDITING IMPLEMENTATION FOR PERFORMANCE EVALUATION OF BUSINESSES IN NIGERIA: A QUALITATIVE EXAMINATION

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Abstract
Continuous auditing methodology has gained prominence and it is replacing the traditional annual (end of the year) audit business across the globe. It is in view of this, that the study attempts to examine the nature of the auditing approach, its advantages /benefits and steps to take by organizations in maintaining and keeping the auditing approach working. This is with the view of enlightening business operators and auditors in the Nigerian environment on the need to embrace the approach in their auditing process. The study is a descriptive one that made use of relevant literature (theoretical and empirical on the subject matter. Findings suggest that while many businesses in advanced economies like USA have adopted continuous model in their auditing processes, the adoption and implementation of the auditing approach is still low in developing nations like Nigeria the focus of the study. It was further revealed that issues such as inability of develop reliable system of Internal Control, inability of auditors to access required information instantaneously on client's transactions and inadequate technology of auditors to assist real time access to data have hindered the adoption of continuous auditing approach in Nigerian business environment. The study concluded by recommending that organizations in Nigeria should develop reliable Internal Control System, allow auditors access to required information and auditors on their own part should invest in technology and automation to be able to access information on clients' operations on real-time basis
Keywords: Continuous auditing, Annual audit, Reliable Internal Control, Invest in technology, Nigerian environment.

Introduction

The first application of Continues Auditing (CA) was developed at AT&T Bells laboratory in 1989 known as Continues Process of Auditing System (CPAS) was meant to provide measurement monitoring and analyzing company's billing information. It was later expanded to incorporate metrics, analytics and alarms pertaining to financial information of business entities. Since its development in 1989, the methodology (CA) has gained tremendous prominence especially the 1990s and 2000s as a result of accounting and reporting scandals that brought transparency issues of many corporate organizations around the world. The occurrence of scandals in these entities has necessitated the incorporation of CA as key component of risk monitoring strategy of internal auditing departments fair, prompt and on the performance of enterprises (Hynes & Jarus 2017)

The essence of financial reporting is to provide information to business stakeholders for decision making. For the information to be useful, it has to be accurate, reliable, timely, free from material errors, and fraud that could induce decision regret of users. It is in this regard increased efficiency and effectiveness of audit process in critical in modern day economy where businesses operate in real time and reporting daily, becomes a necessity. Daily and prompt reporting of financial information of enterprises is a key factor in transparency that hinges on CA mentioned in the report of America Institute of Certified Public Accountant (AICPA) (Ganite, Beuhan & Tugba, 2014) Transparency is a function of continuous reporting of financial and non-financial information on a real-time basis. The purpose is to allow external parties access to information as underlining effects occur. Supporters of CA argue that real-time information would provide users with the ability to take advantage of important business moves as they happen (Burl & Dafor, 2011). As important as CA is, opponents of the implementation think of its implementation believe that continuous reporting of financial information of entity would give away important strategic moves and undermining competitive advantage (Donley & Sally 2014). As tenable as the argument of the opponents of CA may be Demola and Taju (2018) viewed that with globalization continues the integration of companies within their department and other companies, desire for data exchange prices and ability of integrity of information checked corrected and show promptly, the demand for CA will continue to rise.

Statement of the Problem

The normal traditional audit or the year-end audit has not kept pace with the demand for real-time reporting of transactions and events that accrue in enterprises (Chapman & Cole, 2015). Inability to capture transaction as when first materialize is a compounding one as many of the viable data for processing is mostly omitted. (Suman & Mann, 2014) The observation of Suman& Mann, (2014) is an affirmation of the problem of decision making based on unaudited data highlighted in a special committee's report of the American Institute of Certified Public Accountants (AICPA) on Assurance Service (AS) in 1995 that is still lingering.

Describing the issue of real-time assessment of the performance of the enterprise in Sub-Saharan Africa and Nigeria in particular, Demola and Taju (2018) viewed that performance evaluation of businesses in Nigeria is a daunting task as accounts of these enterprises are not properly audited with a lot of impediment in trying to access the necessary records and pressure on auditors to complete the audit-job in an audit cycle. Collaborating the new of Demola & Taju (2018) on the issue of CA implementation in the Nigerian business environment, Nolie and Nochie (2019) discovered that unreliable system of internal control instituted by management inadequate digital technology for access to client data in real-time and processing inadequate knowledge of auditors knowledge on computer technologies and inadequate data analysis and analytical models for monitoring continuous controls and performance of clients. The inadequacies of CA implementation factors have negatively affected prompt reporting and assessment of the performance of enterprises in Nigeria continuously (Nolie & Nochie, 2019).

Objective of the Study

The objective of the study is to explore the importance and the benefits of CA and the actions of auditors and organisations that can trigger/inspire the implementation of the auditing approach in the Nigerian business environment. Therefore, the recommendations of the study are meant to inculcate the necessity of CA as a modern auditing approach and the derivable benefits of its implementation in the Nigerian business environment.

Literature Review

Continuous Auditing (CA)

CA is an automatic method used to perform auditing activities such as control and risk assessment on a more frequent basis (Dalli & Ernell 2011). It is technology-driven as identification of exceptions or anomalies, analysis of patterns within the digits of key numeric fields, trend review, test controls and identification of irregularities in the client's system are normally done with the use of technology. CA represents a systematic process enabling electronic auditing pieces of evidence to be collected for providing an opinion regarding financial statements prepared in a paperless and real-time environment and presented truthfully (Rezaee, Elam & Sharbatoghlie, 2001). It an approach, an internal process that examines accounting records, policies, practices, risk controls, compliance, information technology system and business procedures of an entity on an ongoing basis and a shift from the traditional audit paradigm. It is an auditing methodology in the modern-day economy for prompt detection and correction of operational irregularities in a system and reporting organizational performance accurately on a real-time basis (Valtine & Scholla, 2013).

Organizational Performance (OP)

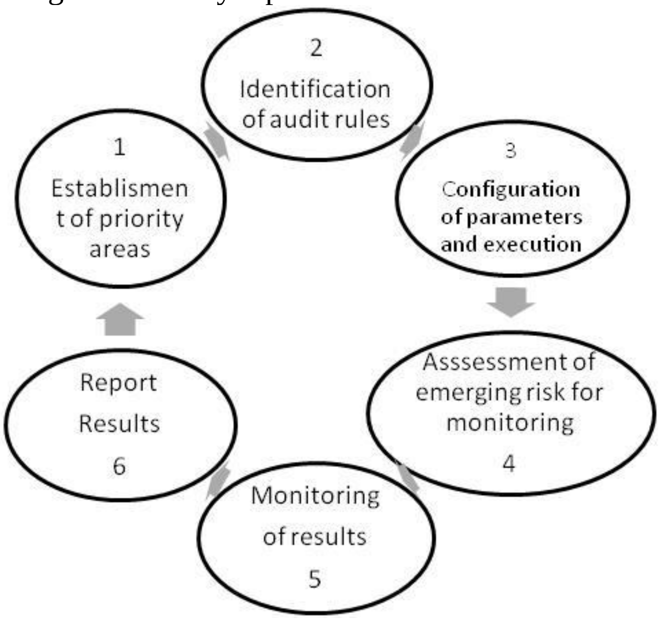
This refers to how well or badly a business organization operates or is carrying on its activities (Khanles & Murphy, 2012). OP comprises the real results or outputs/outcomes of an organization compared with the set standard. Harry (2009) Viewed OP in terms of how successful an enterprise organize its human resources (people) towards the realization of its set goals/objectives. It involves carrying out an action, task or function towards a desired outcome or output. At the end of a period, an analysis of the rate of performance is usually made to ascertain whether the outcome/results are conforming to the set standard.

According to Mc Nolly and Stan (2011) segregated OP of an entity into three namely; (i) Financial Performance (FP) which has to do with the financial health, return investment revenue or assets and value-added (ii) Market Performance (MP) that has to do with finding out whether an enterprise has gained or lost its market share whether the new product(s) is/are being added or whether an upgrade of existing products is/are in the pipeline and (iii) Shareholder Values (SV) which has to do with how an enterprise is making its shareholders richer. SHV performance according to Rennol and Karl (2012) is the ultimate measure of a company's performance/success. The richness of shareholders (owners of a business) is based on the amount distributed as dividends and is a function of profitability. The results/outcome of the organization's activity in terms of the three (FP, MP and SHV) are the key performance indicators (KPIs). KPIs are measurable values that demonstrate how effectively and efficiently an enterprise is achieving its key business objectives (Conham & Denma, 2011) Central to the purpose of CA is continuous checking of the business operations for early detection of anomalies to could deter attainment of set objectives (Evans & Collins, 2013).

Maintenance and Benefits of CA

Hynes & Jarus (2017) viewed that CA operation is critical to the efficiency and effectiveness of internal audit management and the auditing approach (CA) has to be maintained to perpetually monitor KPLs. The steps to follow in maintaining CA according to Hynes & Jarus (2017) are (i) Establishment of priority areas for continuous monitoring (ii) Identification of audit rules (iii) Configuration of parameters and execution (iv) Assessment of emerging risk for monitoring (v) Monitoring of results of the operation to ascertain any deviation from the set standard and (vi) Report results.

The steps are diagrammatically represented below:



Source: Author's diagrammatical representation of CA maintenance steps

The implementation and maintenance of CA are beneficial to organizations and auditors themselves. The benefits of CA maintenance for monitoring and reporting results of operation according to Chapman and Cole (2015) are as follows:

- CA and monitoring results can reduce the risk of financial loss through early detection of material error that could mar the performance.
- Reporting results of operation continuously is a means for providing management with additional information that can be used to improve efficiency in all areas of operation.
- CA implementation is a means for providing continuous assurance over risk management and internal control system which can spur performance.
- The auditing approach is useful for the early detection of errors, frauds for rectification critical for credible and reliable reporting.
- CA implementation paves for early completion of accounts and quick presentation of financial statements. With early completion and presentation of accounts, prompt filing of returns to government authorities is possible (Othman & Sen, 2015). Further, as a result of prompt completion of accounts early meetings of shareholders can be called and distribution of profits (dividends) could be made without delay.
- With CA, the performance of organizations can be made in real-time almost on daily basis. Continuous reporting to shareholders is an act that stimulates the confidence of investors and a spur for more investment in an enterprise (Othman & Sen, 2015).

To audits firms, CA is of advantage to auditors as it is an innovation in an auditing approach that enhances proper planning of audit work and in-depth checking of accounts of clients. Thus, Karto and Clara (2019) viewed that one of the key benefits of CA to auditors is that it helps the experts (auditors) to increase the scope of coverage to almost 100% against the limited scope of sampling it is also a means to keep the audit staff (external auditors) busy and a morale check on internal audit staff. Prompt detection of irregularities and correcting promptly through CA are critical to the attachment of organizational objectives.

Empirical Review

Slobodan, Jelena, Aleksandar, Sandra and Andrea (2015) did a study on the importance of continuous audit of financial statements of companies in the EU countries. It was a theoretical exposition of the importance of CA of financial statements of companies particularly for those in the EU. It was found that CA is significant in triggering the performance of enterprises. Pall, Kishore and Peter (2019) conducted a study on exploring CA solutions and internal auditing: A research note. The aim was to ascertain the opportunity that lies in exploring the adoption, implementation and application of CA in the context of internal auditing. It was an exploratory study that reviewed the literature on the subject matter. The existing pieces of literature were used as data built upon a similar framework. Findings from the study suggested that CA implementation is critical to effectiveness in the auditing process.

Marc and Artur (2018) carried out a study on the current state and future directions of CA research: An analysis of the existing literature. The aim was to ascertain the extent to which CA is accepted and implemented by practitioners within the internal audit departments and external firms. In a content analysis of 100 papers on CA from 38 different journals published between 1983 and 2015, it was found that the requirement for the auditing profession has changed from the traditional annual audit to the new auditing technology of CA. Michael, Fernando, Miklos and Edson (2006) did a study on CA: The US experience and consideration for its implementation in Brazil. It was exploratory research aimed at ascertaining the extent of adoption and implementation of CA among companies in the USA, Findings revealed that 50% of companies in the USA use CA and 31% of the rest have already made plans to follow suit as it is a viable auditing methodology for real-time assessment of organizational performance.

Zabihollah, Rick and Ahmad (2001) did a study on CA; The audit of the future. It was a theoretical review of the importance of CA. Findings from the study indicated that CA is the audit of the future involving the use of software that would allow for online real-time preparation, publication examination and extraction of financial information. Charlton and Marx (2009) investigated the impact of CA on the external auditors of the four largest banks in South Africa. It was a theoretical review that focused on CA from an external auditors' perspective. The result of the study showed that external auditors of the banks use CA.

David and Miklos (2011) did a study on the innovation and practice of CA. it was a theoretical study that explored CA as a potential successor of the traditional audit paradigm. Findings suggested that the traditional audit pattern is outdated in the real-time economy. Michael Alexander and Miklos (2008) did a study on putting CA theory into practice: Lessons from two pilot implementations. The survey of the state of CA after two decades showed that CA implementation has impacted positively on modern-day auditing that thrives on technology.

Koen and Scherrenburg (2013) conducted a study on continuous auditing and continuous monitoring: How to overcome hesitation and achieve success. It was survey research meant to describe the main outcome of continuous audacity/continuous monitoring and lessons from its implementation. The survey was conducted among organizations in EMA (Europe, Middle East and Africa) countries it was found that though these organizations understand the benefits of CA and monitoring, the adoption of the auditing approach is still low.

Theoretical Framework

The study is anchored on the theory of inspired confidence. The theory focuses on both the demand and supply of audit services. The service is delivered through examination and expression of opinion of the experts (auditors) on the financial statements prepared by managers of enterprises through which Stewardship and accountability are rendered. However, as outside parties cannot monitor any material misstatement or bias in financial reports, the demand for an independent reliable audit arises.

The continuous monitoring and reporting on a real-time basis are to ensure that stakeholders have prompt information about the performance of enterprises in which they have vested interests. The theory assures that auditors' reports prepared on a continuous and real-time basis regarding an organization's performance are confidence-inspiring and key to the fulfilment of stakeholders' expectations.

Methodology

It is an expository study that reviewed both theoretical as well as empirical studies on the imperatives of CA as a contemporary model for audit examination and reporting results of operations of enterprises. The study was targeted at the Nigerian business environment where the implementation of CA is not given much-needed attention. The findings from the literature, therefore, formed the basis for recommending the auditing approach in the Nigerian environment for benefits that can accrue to business for adoption and implementation of the auditing approach.

Findings and Discussion

Implementation of CA is generally deemed as a necessity, a model and future of auditing (Zabitholla Rick & Ahmad 2001) As a future of auditing, the CA approach has been adopted and implemented by many businesses in the USA since the early 2000s (Michael, et al 2006). With the increasing demand for technology, increase in the number of transactions of enterprises all across the globe and the need for provision of not only accurate but on a real-time basis and reliable financial information, implementation of CA has become imperative for improved performance and prompt reporting or results of organizations (Valtine & Scholla, 2013). Timely information on organizational performance made possible through continuous monitoring and reporting results is of advantage as it helps managers and auditors to identify risk factors that could impede the realization of objectives (Hynes &Jarus, 2017). It is on this numerous advantages of CA that many enterprises in developed nations have adopted the CA model in their auditing process, for instance in the USA, there is high acceptance of CA by businesses and urging businesses in countries like Brazil to adopt same.

Unfortunately, in developing nations of Africa, particularly Nigeria adoption and implementation of the CA auditing model is still low (Koen & Scherrenburg, 2013 and Nolie & Nochie 2019). The issue of non-implantation of CA methodology is so severe that real-time assessment of performance/results of operations of enterprises in Nigeria is quite difficult to make (Demola & Taju, 2018). The major impediments/hindrances to the implementation of CA by enterprises in the country being technologically inadequate and access issues to records of operation (Nolie&Nochie, 2019). The ultimate negative effect being the inability of stakeholders to promptly assess the performance of enterprises in they have vested interest. Inability to assess the performance of a business in a country can impede microeconomic growth.

Conclusion And Recommendations

CA has come to stay as an innovation in both internal and external auditing approaches adopted by firms especially those in advanced economies. The methodology of CA is a key component of corporate management in the modern-day economy as the demand for reliable, valid and real-time decision making continues to grow. Though CA methodology has introduced innovation to auditing practice, the rate of its implementation by organizations in Nigeria is still low as the information flow and availability of online real-time enterprise systems is still rare. It is quite unfortunate that most organizations in this country still rely on the traditional annual audit where auditors issue an ex-post opinion, a relic of the pre-digital age. The traditional audit approach is archaic as control deficits, faults irregularities and general organizational performance cannot be captured and reported on real-time basins.

CA is an auditing approach that has built the confidence of stakeholders in the operation of businesses worth adopting and implementation by organizations in Nigeria. For successful implementation of the auditing approach by organizations in the country, the following recommendations are put forward.

1. Organizations must develop a highly reliable system of Internal Control and auditors and other stakeholders must be allowed to access the required information instantaneously.
2. Auditors should invest heavily in technology and automation that will assist real-time access to data processing for prompt reporting of anomalies in business operation.
3. Auditors as a matter of necessity should be conversant with audit-related issues in the client organization, information system, computer technology, data analysis and analytic models for monitoring risks, controls and performance of clients continuously.

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EFFECT OF TAXATION ON ECONOMIC GROWTH IN NIGERIA: A TIME SERIES ANALYSIS BETWEEN 1981-2019

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Abstract
The study assessed the effect of taxation on economic growth in Nigeria during the period of 1981-2019. To do this, secondary data of taxation measures (personal income tax, company income tax, and value added tax) and economic growth measure (gross domestic product) were obtained from the Central Bank of Nigeria statistical bulletin, National Bureau of Statistics and World Bank Indicators. Data obtained were analyzed via descriptive (Mean, Standard Deviation, Minimum and Maximum Values, Skewness, Kurtosis, and Correlation) and inferential(Unit Root and Co-integration, Augmented Dickey Fuller, Bound Test for Co-integration, Ganger Causality Wald, and Vector Auto Regression Tests) statistical tools. The Vector Auto Regression results indicated that while all taxation variables significantly affect economic growth; however, the relationship was negative. The negativity attributable to taxation in the country could be that the tax collection mechanisms and administrative structure put in place are weak. In view of the findings, it was recommended among others that there is the need for the government to ensure that all companies and individuals are captured in the tax net and fully comply with the payment of tax. As a matter of fact, there is the need to enforce penalty for companies and individuals that evade tax and strengthen the tax collection mechanisms in the country.
Keywords: Gross domestic product; Personal income tax; Company income tax; Value added tax

Introduction

For Nigerian government to effectively carry out its primary function and other subsidiary functions, she requires adequate funding. Government responsibilities has continued to increase over time especially in developing countries like Nigeria due to the increasing size of the population, and infrastructural decay. But quite unfortunately the revenue of the government has not been growing above her expenditure to enable capital formation possible. Taxation is seen as an essential part of a country’s investment and growth pattern (Appah, 2004).

Tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create condition for the economic wellbeing of the society (Okafor, 2012). The funds provided by tax are used by the states to support certain obligations such as education systems, health care systems, and pensions for the elderly, unemployment benefits, and public transportation. Tax is a major player in every society of the world (Azubike, 2009). The tax system is an avenue for government to use in collecting additional revenue needed in discharging its pressing obligations.

A tax system is one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating an enabling environment to promote economic growth. Towing this line of argument, Nzotta (2007), also argued that taxes constitute key sources of revenue to the federation account shared by the federal, state and local governments. Hence, a tax policy represents key resource allocator between the public and private sectors in a country. Anyanfo (1996) and Anyanwu (1997) stated that taxes are imposed to regulate the production of certain goods and services, protection of infant industries, control business and curb inflation, reduce income inequalities etc.

Similarly, Tosun and Abizadeh (2005) submitted that taxes are used as proxy for fiscal policy (negatively or positively). They outlined five possible mechanisms by which taxes can affect economic growth. First, taxes can inhibit investment rate through such taxes as corporate and personal income, capital gain taxes. Second, taxes can slow down growth in labour supply by disposing labour leisure choice in favour of leisure. Third, tax policy can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other sectors that may have lower productivity. Lastly, high taxes on labour supply can distort the efficient use of human capital high tax burdens even though they have high social productivity (Jhingan, 2005).

Abomaye-Nimenibo (2017) is of the view that tax is a compulsory contributions made by animate and inanimate beings to government being a higher authority either directly or indirectly to fund its various activities and any refusal is meted with appropriate punishment. Taxation is therefore seen as the transfer of resources as income from the private sector to the public sector for its utilization to achieve some if not all the nation's economic and social goals such as provision of basic amenities, social services, educational facilities, public health, transportation, capital formation etc.

In essence, taxation is a core pillar of a country's regulatory framework for investment and growth. Hence, this study looks at econometric consequences of taxes for both GDP per capita levels and their transitional growth rates, with a large part of the empirical analysis devoted to assessing the effects of different forms of personal income tax(PIT), company income tax (CIT) and value added tax (VAT) on productivity and growth of the Nigerian economy. Therefore, the aim of this research work is to evaluate empirically the impact of taxation on economic growth in Nigeria from 1981 to 2019.

Literature Review

Overview of Taxation

Taxation is the most important component of the financial structure of any country. Taxes are imposed upon individuals and business entities that are paid to the government or the state. Taxes are considered to be contributions made by the individuals and business entities for the economic growth and development. In simple words, it is the source of revenue for the government to manage public expenditure. According to Success, Success and Ifurueze (2012), taxation is a required payment imposed by the government on the income, profit or wealth of individuals, group of persons, and corporate organizations.

Anyanwu (1997) stated that, tax is more or less compulsory, non-returnable contribution of money used occasionally for goods and services and flows from private individuals, institutions or groups to the government. It may be levied upon wealth or income of a person or body corporate or in form of surcharge on prices. Okafor (2012) asserts that tax is a compulsory contribution imposed by the government on citizens in accordance with legislative provisions and paid by them through agents to defray the cost of administration. Success, *et al* (2012), justified tax as a compulsory contribution imposed upon persons for the general purpose of the government. Once levied, every taxable person must pay tax. He also added that taxes are benefits, but for providing the government with funds necessary for the general administration of the country.

Taxation in summary is the transfer of income or resources from the private sector to the public sector in order to enable the public sector to carry out some, if not all of the Nation's economic and social goals. The goals may be in the form of provision of Government basic services regularly and particularly in the educational, public health, transportation sectors, amenities and capital formation. Taxes may be levied upon wealth or income or in the form of surcharge on prices. In this study, three components of taxation were assessed – company income tax, value added tax and personal income tax.

First, company income tax is a tax under the Companies Income Tax Act that a resident or non-resident company incorporated in Nigeria has to pay. The Companies Income Tax Act 1961 was replaced by Companies Income Tax Decree 28 of 1979. Several other amendments has since been enacted as either acts or decrees such as: Companies Income Tax Act (CITA) 1990 which itself was amended by Decree 3 of 1993, Decree 30 of 1996, Decree 31 of 1996, and Decree 32 of 1996 etc.

Companies Income Tax Act, 1990 is the enabling law that governs the collection of taxes on profits made by companies operating in Nigeria, excluding companies engaged in Petroleum exploration activities. This Tax is payable for each year of assessment of the profits of any company at a rate of 30% (Adereti, Sanni & Adesina, 2011). Festus and Samuel, (2007) in their study of company income tax and the Nigerian economy, concluded that Company income tax is a major source of revenue in Nigeria but non-compliance with tax laws and regulations by tax payers is deep in the system because of weak control. There is therefore, the need for a general tax reform in the Nigerian company income tax system.

Second, personal income tax is the tax levied on the income of an individual after all allowances have been deducted from the gross emolument and is deducted at source. Third, value added tax (VAT) is called consumption tax and is being defined as the amount charged by the government for every goods or services purchased from time to time. This means it can only be paid when there is consumption of goods or services. VAT is an indirect tax, which is imposed on goods and services at each stage of production, starting from raw materials to final product. VAT is levied on the value additions at different stages of production.

Economic Growth

Economic growth is the increase in the value of goods and services produced by a country over a period and real gross domestic product (RGDP) is used as a proxy for economic growth. RGDP is an inflation-adjusted measure which reflects the value of all goods and services produced by an economy in a given year, usually expressed in base-year prices, and is often graded as constant-price. For economic growth to occur, there must be sufficient availability of factors of production of the right quality and sufficient demand in the market.

First, there must be sufficient labour skill in the techniques and technologies of production .The producer must therefore be skilled and educated, or at least in a position where they are capable of being trained and willing to learn new skills. Second, there must be sufficient capital. The purchase of new capital equipment requires finance which must be available from retained profits of firms or well organized capital market (or in the case government investment from taxation. Third, land must be available and must be a suitable infrastructure (roads, railways communication networks etc.) to support commercial activity. Fourth, the government policy should be to achieve economic growth because if there is an alternative economic objective (e.g. restoring a balance of payment equilibrium) government policy might suppress growth.

Fifth, international trade should be encouraged as a means of growth; this is because international trade opens up new markets for exporters and same for importers. Lastly, technical progress is very important source of faster economic growth. Technical progress means that the same amounts of the factor of production can produce higher output. The industrial production the western world has was a period of concentrated technological developments leading to an understanding in the rate leading to an outstanding increase in the rate of their growth.

Theoretical Framework

The theoretical framework of this paper is anchored on the expediency theory of taxation. The theory proposed that every tax proposal must pass the test of practicality. It must be the only consideration weighted by authorities in choosing a tax proposal. Economic and social objectives of the state and the effects of a tax system should be treated as irrelevant (Bhartia, 2009).

Bhartia (2009) explained that the expediency theory is based on a link between tax liability and state activities. It assumes that the state should charge the members of the society for the services provided by it. This reasoning justifies imposition of taxes for financing state activities by inferences, which provides a basis, for apportioning the tax burden between members of the society. This proposition has a reality embedded in it, since it is useless to have a tax which cannot be levied and collected efficiently

Empirical Studies

Umoru and Anyiwe (2013) investigated the correlation between the New National Tax Policy and economic growth in Nigeria, using co-integration technique and error correction model to analyze data. They stated that taxes can be structured into direct and indirect. Examples of direct taxes include petroleum profit tax, companies' income tax, education tax and personal income tax. While indirect taxes include custom and excise duties, and value-added tax. The results of their analysis revealed that direct taxation revenue had significant positive relationship with economic growth, while indirect tax revenue had insignificant but negative impact on economic growth in Nigeria. They concluded that Nigeria's tax policy towards indirect taxation lack justification, rather the country should strengthen the structures of direct taxation.

Macek (2014) investigated the impact of taxation revenue on economic growth in OECD countries, using time series secondary data for the period 2000 – 2011. A mathematical multiple regression model was adopted to capture the linearity correlation between the variables of the study. Tax variables by OECD classification include personal income tax, corporate income tax, social security contribution, property tax, value-added tax and tax on consumption. The World Tax Index classification is only short by social security contribution. While economic growth variables captured in the model include gross domestic product, capital accumulation, human capital and government spending.

Michael and Ben (2016) explored the causes and consequences of the spread of value added tax (VAT). A panel study of 143 countries for 25 years were observed. The result showed that VAT has a significant but mixed impact on economic growth and total tax revenue. This implies that while some countries would have gained revenue from the adoption of VAT, others would not.

Cornelius, Ogar, and Oka, (2016) examined the impact of taxation on the Nigerian economy. Their finding revealed a significant relationship between personal income tax and the growth of the Nigeria economy while no significant relationship was found between company income tax and the growth of the Nigeria economy. They concluded and recommended that government should endeavor to provide social amenities to all nooks and crannies of the country; engage in a complete reorganization of the tax administrative machineries; in order to reduce tolerable problems of tax evasion and avoidance.

Methodology

This study refers to the approaches, framework or the overall strategy of conducting research studies. Nachmias and Nachmias (2009) opined that research design is the blue print that enables the investigators to come up with solutions to the problems and guide the researcher in the various stages of the research. In carrying out this study, the researcher adopted the ex-post - facto research design. The design was adopted because it seeks to established the factors that associate with certain occurrence or type of behavior by analyzing past events of already existing condition. Here the researcher has no control over certain factors or variances as the events already exist can neither be manipulated or change.

This study employed secondary data relating to the dependent and independent variables which was obtained from Central Bank of Nigeria (CBN) Statistical Bulletin and National Bureau of Statistics (NBS) during the period of 1981-2019. (i.e. a period of 39years). The method of data Analysis was econometric method of Ordinary Least Square (OLS), Co-Integration and Granger Causality test. The dependent variable is economic growth measured by gross domestic product (GDP) while the independent variable is taxation, measured via personal income tax (PIT), company income tax (CIT) and value asset tax (VAT). The model of the study is given as:

$$GDP = f(PIT, CIT, VAT) \qquad eq.1$$

Equation 1 above can be rewritten as follows:

$$GDP = f(PIT) \qquad eq\ .2$$

$$GDP = f(CIT) \qquad eq\ .3$$

$$GDP = f(VAT) \qquad Eq\ .4$$

Equation 2-4 can be rewritten in their explicit forms as shown in equation 5-7

$$gdp = \alpha_0 + \beta_1 pit_t + u_t \qquad eq\ 5$$

$$gdp = \alpha_0 + \beta_1 cit_t + u_t \qquad eq\ 6$$

$$gdp = \alpha_0 + \beta_1 vat_t + u_t \qquad eq\ 7$$

Given that gross domestic product (GDP) is expressed in billions of Naira while the other variables (PIT, CIT and VAT) were expressed in millions of Naira, GDP was scaled to natural logarithm while variables of PIT, CIT and VAT were scaled by GDP in order to avoid scaling problems as shown in equations 8-10:

$$lgdp = \alpha_0 + \beta_1 pit/gdp_t + u_t \qquad eq\ 8$$

$$lgdp = \alpha_0 + \beta_1 cit/gdp_t + u_t \qquad eq\ 9$$

$$lgdp = \alpha_0 + \beta_1 vat/gdp_t + u_t \qquad eq\ 10$$

In this study we adopted the co-integration estimation technique in analyzing our data. Co integration is an econometric technique used for testing the correlation between non-stationary time series data. Usually, time series data are non-stationary due to fluctuations that do characterize such information.

Result And Discussion

Table 1: Descriptive Statistics of Independent and Dependent Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
lgdp	39	3.661544	1.056718	1.9746	5.159
citgdp	39	.0242154	.0505964	0	.2262
pitgdp	39	.0222205	.0447723	0	.2036
vatgdp	39	.0034564	.0028518	0	.0092

Source: Computed by Researcher via STATA 13.0

Presented in Table 1 are the descriptive results of independent variables scaled by gross domestic product (company income tax – cit/gdp, personal income tax – pit/gdp and value added tax – vat/gdp) and dependent variable (gross domestic product – gdp) during the period 1981-2019. The results revealed that economic growth (GDP) recorded a mean of 3.66 while taxation measures of company income tax (CIT), personal income tax (PIT) and value added tax (VAT) recorded means of 0.024, 0.022 and 0.0035 respectively.

The standard deviation for GDP, CIT, PIT and VAT are 1.0567, 0.0506, 0.0448 and 0.0029 respectively. In addition, the mean and low standard deviation values for all the variables are clear indications that the variables are not constant over time and describes that overall, the data for GDP, CIT, PIT and VAT deviate from both sides by 1.06%, 0.51%, 0.45% and 0.029% respectively and the variations are not too dispersed from each other.

Table 2: Tests for Normality of Data

Mardia mSkewness	=	20.5268	chi2(20) =	148.132	Prob>chi2 =	0.0000
Mardia mKurtosis	=	33.96033	chi2(1) =	20.152	Prob>chi2 =	0.0000
Henze-Zirkler	=	3.543339	chi2(1) =	120.990	Prob>chi2 =	0.0000
Doornik-Hansen			chi2(8) =	112.102	Prob>chi2 =	0.0000

Source: Computed by Researcher via STATA 13.0

The skewness and kurtosis (Mardiam), Henze-Zirkler and Doornik-Hansen tests of normality of the dependent and independent variables are presented in Table 2. The kurtosis, skewness, Henze-Zirkler and Doornik-Hansen implied that there is the presence of fatter tail than the normal distribution. According to Gujarati (2003), a variable is said to be normally distributed on the basis of the kurtosis. From the above, it showed that the variables satisfy the normality condition that the variables of the study are normally distributed.

Table 3: Correlation Matrix

	lgdp	citgdp	pitgdp	vatgdp
lgdp	1.0000			
citgdp	-0.4212	1.0000		
pitgdp	-0.4947	0.2082	1.0000	
vatgdp	0.7599	-0.4381	-0.5027	1.0000

Source: Computed by Researcher via STATA 13.0

The correlation results revealed that the value added tax (VAT) is positively related with gross domestic product (GDP) while company income tax (CIT) and personal income tax (PIT) are negatively related with gross domestic product (GDP). This implies that VAT positively affects economic growth while variables of company income tax and personal income tax negatively affect economic growth in Nigeria.

Table 4a: ADF Unit Root Results for GDP

Augmented Dickey-Fuller test for unit root Number of obs = 37

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.042	-3.668	-2.966	-2.616

MacKinnon approximate p-value for Z(t) = 0.7375

From table 4a, the null premise for gross domestic product (*GDP*) was rejected at levels 1% and 5%, since the absolute values of test statistics were greater than its critical value.

Table 4b: ADF Unit Root Results for CIT

Augmented Dickey-Fuller test for unit root Number of obs = 37

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.209	-3.668	-2.966	-2.616

MacKinnon approximate p-value for Z(t) = 0.0195

From table 4b, the null premise for company income tax (*CIT*) was rejected at levels 1% and 5%.

Table 4c: ADF Unit Root Results for PIT

Augmented Dickey-Fuller test for unit root Number of obs = 37

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.813	-3.668	-2.966	-2.616

MacKinnon approximate p-value for Z(t) = 0.3741

From table 4.4c, the null premise for personal income tax (*PIT*) was rejected at levels 1% and 5%.

Table 4d: ADF Unit Root Results for VAT

Augmented Dickey-Fuller test for unit root Number of obs = 37

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-1.389	-3.668	-2.966	-2.616

MacKinnon approximate p-value for Z(t) = 0.5876

From table 4d, the null hypothesis for value added tax (*VAT*) was rejected and the alternate hypothesis accepted at levels 1% and 5%. Given Augmented Dickey Fuller (ADF) results, Lag Order Selection Criteria (LOSC) was done to verify if there is long-run equilibrium relationship in the study variables.

Table 5: Lag Order Selection Criteria

Selection-order criteria
Sample: 1983 - 2019 Number of obs = 37

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-34.5399				.47058	2.08324	2.14464	2.25739
1	43.324	155.73*	1	0.000	.007389*	-2.07157*	-1.99482*	-1.85388*
2	43.4219	.19591	1	0.658	.007768	-2.02281	-1.93071	-1.76158

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Lagrange-multiplier test

lag	chi2	df	Prob > chi2
1	0.2762	1	0.59920
2	0.0873	1	0.76767

H0: no autocorrelation at lag order

Having found that the series are of order I (1) and I (0), the study proceeded to determine the optimal lag using the Akaike information criterion (AIC). From the table, AIC showed that the optimum lag is two. In addition, the Lagrange-multiplier result is an indication that there is no autocorrelation at lag order among the variables of the study.

Table 6: Johansen Co-Integration Results

- - -

maximum rank	parms	LL	eigenvalue	trace statistic	5% critical value
0	12	-315.37733	.	59.8844	29.68
1	17	-302.60085	0.52837	34.3315	15.41
2	20	-292.13398	0.45974	13.3977	3.76
3	21	-285.43512	0.32568		

Cointegrating equations

Equation	Parms	chi2	P>chi2
_ce1	2	1.579526	0.4540

*(**) denotes rejection of the hypothesis at 5% and 1%, significance level
LL. test indicates 2 co-integrating equation(s) at 5% significance level

Using the likelihood ratio, the results showed that there are two co-integrating equation at 5 and 1 percent level of significance; this implies that there is presence of long-runrelationship between the dependent and independent variables of the study.

Table 7: Vector Auto-Regression Result for GDP and PIT

Sample:	1983 - 2019	No. of obs	= 37
Log likelihood	= 43.16044	AIC	= -2.11678
FPE	= .0070565	HQIC	= -2.055383
Det(Sigma_ml)	= .0056796	SBIC	= -1.942627

Equation	Parms	RMSE	R-sq	chi2	P>chi2
lgdp	4	.0798	0.9942	6396.314	0.0000

lgdp	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lgdp						
lgdp						
L1.	1.053323	.162153	6.50	0.000	.7355095	1.371137
L2.	-.0698102	.1618799	-0.43	0.666	-.3870889	.2474686
pitgdp	-.1172514	.3409335	-0.34	0.731	-.7854687	.550966
_cons	.1425483	.0628477	2.27	0.023	.0193691	.2657275

Source: Computed by Researcher via STATA 13.0

Table 7 showed the regression of personal income tax (PIT) and economic growth (GDP) in Nigeria during the period 1981-2019. The R-Squared is 0.9942, indicating that the independent variable explained about 99% of the systematic variation in economic growth (GDP). The result further showed that personal income tax (*vat*= -0.34) insignificantly and negatively affects economic growth. Besides, the p-value (0.731) indicated that there is no significant relationship between personal income tax and economic growth in Nigeria and the relationship is negative.

Table 8: Vector Auto-Regression Result for GDP and CIT

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Sample:  1983 - 2019                                No. of obs      =        37
Log likelihood =  43.12361                          AIC             =  -2.11479
FPE            =  .0070705                          HQIC            = -2.053393
Det(Sigma_ml)  =  .0056909                          SBIC            = -1.940637
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Equation	Parms	RMSE	R-sq	chi2	P>chi2
lgdp	4	.079879	0.9942	6383.521	0.0000

lgdp	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lgdp						
lgdp						
L1.	1.051088	.1621075	6.48	0.000	.7333627	1.368813
L2.	-.0660419	.1614737	-0.41	0.683	-.3825245	.2504407
citgdp	-.0595953	.282613	-0.21	0.833	-.6135066	.4943161
_cons	.1360232	.0590876	2.30	0.021	.0202136	.2518328

Source: Computed by Researcher via STATA 13.0

Table 8 showed the regression of company income tax (CIT) and economic growth (GDP) in Nigeria during the period 1981-2019. The R-Squared is 0.9942, indicating that the independent variable explained about 99% of the systematic variation in economic growth (GDP). The result further showed that company income tax (*vat*= -0.21) insignificantly and negatively affects economic growth (GDP). Besides, the p-value (0.833) indicated that there is no significant relationship between company income tax and economic growth in Nigeria and the relationship is negative.

Table 9: Vector Auto-Regression Result for GDP and VAT

```
Sample:  1983 - 2019                              No. of obs      =        37
Log likelihood =  43.22015                        AIC             = -2.120008
FPE            =  .0070337                        HQIC            = -2.058611
Det(Sigma_ml)  =  .0056613                        SBIC            = -1.945855
```

Equation	Parms	RMSE	R-sq	chi2	P>chi2
lgdp	4	.079671	0.9943	6417.11	0.0000

lgdp	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lgdp						
lgdp						
L1.	1.04982	.1615106	6.50	0.000	.7332649	1.366375
L2.	-.0566364	.1609044	-0.35	0.725	-.3720033	.2587305
vatgdp	-3.258394	6.675313	-0.49	0.625	-16.34177	9.824979
_cons	.1173305	.0551588	2.13	0.033	.0092212	.2254398

Source: Computed by Researcher via STATA 13.0

Table 9 showed the regression of value added tax (VAT) and economic growth (GDP) in Nigeria during the period 1981-2019. The R-Squared is 0.9943, indicating that the independent variable explained about 99% of the systematic variation in economic growth (GDP). The result further showed that value added tax (*vat*= -0.49) insignificantly and negatively affects economic growth (GDP). Besides, the p-value (0.625) indicated that there is no significant relationship between value added tax and economic growth in Nigeria and the relationship is negative.

Table 10: Granger Causality Wald Results

Equation	Excluded	chi2	df	Prob > chi2
_	ALL	6487.9	5	0.000

Source: Researcher's Computation via STATA 13.0

The Granger Causality Wald Test (Table 10) was conducted between taxation and economic growth measures. The results were obtained at different lag levels and indicated a unidirectional causality relationship running from taxation to economic performance; impliedly, augmenting the taxation measures would stabilize/improve economic growth (GDP) to the extent that improved taxation mechanisms connote increased gross domestic product.

Furthermore, the lag order two showed the role of inertia in taxation in promoting economic growth.On the other hand, the hypothesis of whether taxation Granger causes economic growth was confirmed by the Granger Causality Wald test. Overall, the conclusion is that taxation insignificantly and negatively affects economic growth in Nigeria, particularly during the period investigated. The findings of the study agree with the result of Cornelius, Ogar and Oka, (2016).

CONCLUSION

The results of the study are quite insightful; *first,* empirical result indicates that there is long-run relationship between taxation and economic growth in Nigeria during the period 1981-2019; however, a negative relationship exist between taxation measures (personal income tax, company income tax and value added) and economic growth (gross domestic product). Given the findings of the study, the following recommendations were given:

1. The reason for the negative influence of company income tax on economic growth may be connected with the fact that all companies in Nigeria are yet to be fully captured in the tax net; hence, there is the need for the government to ensure that all companies are captured in the tax net and fully comply with the payment of tax. As a matter of fact, there is the need to enforce penalty for companies that evade tax.
2. There is the need to enhance the mechanisms for the collection of petroleum profit tax; this would help in the promotion of economic growth in Nigeria.
3. Government should further strengthen the collection of value added in order to promote economic growth in Nigeria.

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HUMAN AND STRUCTURAL CAPITALS AND GROWTH STRATEGIES: EVIDENCE FROM LISTED NON-FINANCE FIRM ON THE NIGERIAN STOCK EXCHANGE

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Abstract
This study examined the relationship between human and structural capitals and growth strategies of firms in Nigeria. A total of seventy-five (75) non-finance firms listed firms on the Nigeria Stock Exchange were studied during the period 2012-2019. Data of structural and human capitals, and growth strategies (revenue growth in percentage - current year revenue minus previous year revenue divided by previous year revenue) were obtained from the annual reports and accounts of the non-finance firms. Data obtained were analyzed via descriptive results (mean, median, minimum and maximum values, standard deviation, kurtosis and skweness); pre-estimation results (correlation matrix, fixed and random effects, principal component analysis); and post-estimation results (variance inflation factor, and Hausman specification test). Findings indicated that human and structural capitals insignificantly affect firms' growth strategies. Given the findings, it was recommended that management of firms should reduce the staff costs since it has been proven that structural capital insignificantly affects growth strategies of firms. Also, there is the need for non-finance firms to disengage staff that are not productive and recruit viable staff, since the study establish that the human capital of non-finance firms does not significantly affect growth strategies of firms.
Keywords: Human capital; Structural capital; Growth strategies; Intellectual capital; Nigeria

Introduction

In contemporary times, the use of intellectual capital by firms in driving growth strategies has gained prominence, given that a firm's capability is strongly linked to its intellectual capital or its ability to exploit knowledge resources to actualize its growth strategy. Predominantly, intellectual capital has become one of the most valuable assets of modern organizations that are keen on outperforming competitors, becoming sustainable and realizing improved performance (Sardo & Serrasqueiro, 2018; Ahmad &Mushraf, 2011). In management literature, intellectual capital has been broadly defined and has diverse characterizations.

Stewart (1997) sees intellectual capital as total stock of knowledge, information, technologies, intellectual property right, experience, organization learning/ competence, customer relation, brands and team communication systems that are able to generate values for a firm. The view expressed by Stewart (1997) is supported by Isabel and Bailoa (2017) that intellectual capital is a set of intangible assets that generate value for firms and seems to be the determining raw material in creation of sustained competitive advantages.

Similarly, Adnan, Ozlem and Mutlu (2014) see intellectual capital as the difference between a firm's market value and cost of replacing its assets. However, this study follows the characterization by Adnan *et al* (2014); and Isabel and Bailoa (2017); since they are closer constructs to management. Intellectual capital as opined by Kostopoulos, Papalexandris, Papachroni and Ioannou (2011), consists of human, social, structural and external (customer) capitals; this classification is admitted in general in accountancy and management.

In this study, two components of intellectual capitals were assessed – human and structural capitals. According to Hamideza, Ruzita and Parastou (2015), firms that employ intellectual capital do so in order to enhance growth strategies, due to transformation of the business landscape as a result of growth in information and knowledge. Moreover, with increasingly competitive and dynamic business landscape, where invention is the maxim, it is vital that firms must improve and sustain their ability to strategically manage and maximize the value that derives from their intellectual capital (Isabel &Bailoa, 2017).

On the other hand, growth strategy of firms is the outcome of decisions made to guide a firm with respect to its environment, structure and processes (Adnan *et.al.* 2014). Shakina and Barajas (2013); Khan and Terziovski (2014) believed that as firms move deeper into the information and knowledge era, management of knowledge turns out to be a critical element in their efforts to focus on growth strategies in order to solve more common problems. More significant to that is the role of intellectual capital as a corresponding medium for leveraging resources by providing a nexus to expedite the exchanging of valuable resources, new information and knowledge (Soheila, 2013).

In the Nigerian context, firms have witnessed unprecedented upsurge in growth in physical asset as opposed to intellectual capital (human and structural).While investment in human and structural capitals are gradually increasing, many Nigerian firms are still faced with the issue of how human and structural capitals can be harnessed in order to augment growth strategies. As a matter of fact, Nigerian firms largely depend to a considerable extent on their human and structural capitals for harnessed growth strategies.

Prior studies (Hoang, Bui & Nguyen, 2018; Isabel &Bailoa, 2017; and Rezvan, Merhrdad& Mohammed, 2016), especially in developed countries have depicted that intellectual capital plays a vital role in the growth process of firms; thus, indicating an link between intellectual capital and growth strategies of firms. However, little is known about the link between human and structural capitals and growth strategies of firms in Nigeria.

This issue is paramount for Nigeria specifically because it is aiming for a developed nation status by 2020. With only 1year remaining, its main intellectual capital indicators (human and structural) are still lagging behind those of developed nations like Europe and Asia (Orezi, 2018). In view of the above, this study was carried out with the view to examining the extent of relationship between human and structural capital and growth strategies of Nigerian firms.

Literature Review and Theoretical Framework

This section dealt with both the conceptual review and theoretical framework of the study. Several concepts were reviewed – human, and structural capitals as well as growth strategies while the theoretical framework of the study was anchored on the human capital theory.

Human Capital

The term human capital (HC) has been defined in diverse ways. According to Schultz (1993), HC refers to a firm's asset in the form of employee needed in order to increase productivity as well as sustaining competitive advantage. HC refer to processes that relate to education, training and other professional initiatives in order to enhance the level of skills, knowledge, values, abilities, and social assets of employees which will lead to improved strategies and eventually performance.

Rastogi (2000) opined that HC is a vital input for firms especially for employees' incessant enhancement primarily on skills, abilities and knowledge. Thus, HC is the skills, abilities and knowledge entrenched in people aimed at facilitating the creation of social, personal and economic well-being (Organization for Economic Co-Operation and Development, 2001).

Bontis *et al.* (1999) believed that HC capital which is a source of innovation strategic reconstruction is pivotal for growth strategies. Similarly, Roos and Roos(1997) opined that employees create intellectual capital via competence, attitudes, and their mental agility. In the same vein, Chen, Zhu and Xie (2004) argued that HC as a basis of IC refers to factors such as skills, competencies and attitudes of employees, which results in improved growth strategies, attracting customers, and performance.

These knowledge and skills according to Chen, et.al (2004), are in the mind of employees meaning that their mind carries skills and knowledge. Moreover, HC facilitates providing comprehensive information for investors or potential investors. Despite the increasing import of HC, most organizations, traditionally, report the money they spend for HC in financial statements as an expense and not an investment. In this study, human capital was measured or computed as revenue minus cost of revenue divided by staff cost.

Structural Capital

Structural capital (SC) can be defined as the infrastructure or groundwork regulating, authorizing and supporting intellectual capital (IC). Altinok (2005) sees SC as knowledge that does not go home and stay at the organization. Therefore, SC articulates the combination of all elements which are entrenched as methods and policies which a firm has and may range from information technologies-databases to records and diverse documentation, from management thinking to organization culture, from financial affairs to patents.

Moon and Kym (2006) opined that SC is less palpable and more specialized than other components of IC. Kong (2008) asserted that SC is the routine of all those knowledge deposited in procedures, databases, organizational culture and publications, which generates value for a firm. In other words, SC is the knowledge entrenched in a firm's processes, practices and routines (Jansen, Tempelaar, Van-den Bosch &Volberda, 2009). SC according to Watson and Stanworth (2006) encompasses non-human storehouses of knowledge in an organization and supports it IC, specifically the human component of intellectual capital.

More importantly, effective SC is built via the process, information system, culture and administrative system of a firm (Tseng & Goo, 2005). Moreover, it is only SC that belongs to and can be shared or reproduced within the firm. Thus, SC not only creates systems for knowledge acquisition (Crossan, Lane & White, 1999), but also provides a mechanism for collecting and integrating acquired knowledge (Grant, 1996).

Generally, human capital returns to their respective homes each night and the task of management therefore is to build ICs which do not return home at night; this can be achieved via SC. SC creates an atmosphere by which knowledge is crafted, ready to enter the market (Roos & Roos, 1997) and thus create value for a firm. SC should create IC assets and relates to mechanism and structure of a firm which helps employees in efficient intellectual functioning and increasing performance levels.

Besides, SC is the off shoot of human capital given the fact that human capital is the determining dynamics in the organizational form and thus, are dependent on each other. In this study, structural capital was measured or computed as the revenue minus cost of revenue and staff cost divided by revenue minus cost of revenue; this measurement considers the efficiency of structural capital of non-finance companies.

Growth Strategies

In reality, growth is fundamental to all forms of organisations for several reasons; these reasons among others encompassed attracting and keeping quality management, being economically upright, enhancing competitive advantage, meeting consumers' demands, increasing productivity, market share and overall, business performance (Ojukwu, 2006). For organisations to achieve growth certain strategies are needed to drive the growth process; these strategies may entail operational problems, achieved benefits, business targets, performance, quality products and services, and no doubt are aimed at attracting and retaining consumers.

As observed by Akomea-Bonsu and Sampong (2012), growth strategies of firms are usually more influenced by operational problems, achieved benefits, business targets and performance. More specifically, growth is a function of summation of achieved benefits, targets, and performance excluding operational problems. The level of reduced effect of operational problems represent a negative indicator on growth, thus they are deducted from the sum of other three indicators (e.g. achieved benefits, targets and performance).

Noteworthy is the fact that one of the fundamental subcomponents of growth strategies indicators is the level of achieved performance, which according to Hoang, *et al*, (2018); Xu and Wang (2018) can be determined by revenue growth rate experienced by firms over a given period. The use of revenue growth rate is fundamental in assessing firms growth strategies due to the fact that when firms are able to effectively and efficiently realize their growth strategies, they expect an increase in the growth rate of revenue (Rezvan, *et.al*, 2016; Hoang, *etal*, 2018).

In this study, growth strategy was measured using revenue growth rate (in percentage); revenue growth rate in percentage is computed as current year revenue minus previous year revenue divided by previous year revenue. This measure of assessing growth strategies of firms is similar to those employed by Egbu (2004); Huang and Liu (2005); and Enweroke (2018).

Theoretical Framework

The human capital theory (HCT) is deep-rooted in the field of organizational development theory and propounded by Schultz (1993) and popularized by Becker (1993). Becker (1993) argued that there are diverse kinds of capitals available to an organization and suggests that human capital is not simply costs but investment with valuable returns for an entity, given the fact that investments in human capital improves the skills, knowledge, attributes, health and raise earnings or profits of an organization.

More also, human capital considers labour as a commodity that can be traded in terms of purchase and sale. Emphasizing the social and economic import of HCT, Becker (1993) notes the most valuable of all capital is that investment in human. Becker distinguishes firm-specific human from general-purpose human capitals. For instance, firm-specific human capitals are expertise obtained via education and training in management information systems, accounting procedures or other expertise specific job tasks. On the other hand, general-purpose human capital is knowledge gained via education and training in areas of value to a variety of firms like generic skills in human resource development.

The criticism connected with HCT is that the theory fails to see other forms as capital as drivers of growth strategies and organizational performance. For instance, aside human capital, there is intellectual capital which this theory fails to see as a driver of growth strategies and performance. In view of this, the resource-based theory was employed to substantiate the deficiencies of the HCT.

Regardless of the application, Becker considers education and training to be the most fundamental investment in human capital. The significance of HCT to the current study is that human capital fits the description of strategic capital, given the fact that it is valuable and investment in human capital promotes organizational strategies and overall, performance.

Research Methods

The current study is written to examine empirical link between human and structural capitals and growth strategies of selected non-finance firms in Nigeria. Therefore, the study used the quantitative research method of data collected on annual frequency with the aim of finding systematic validation of the assertion that companies with better record of human, and structural capitals practically account for some setout growth strategies. The study population comprised of all listed non-finance firms.

As at 31st December, 2019, there are ninety-one (91) non-finance firms listed on the floor of the Nigerian Stock Exchange (NSE); hence the study population is made up of the ninety-one (91) non-finance firms. A sample size of seventy-five (75) non-finance firms was obtained using the Taro-Yamane sample size determination formula. Data was obtained from secondary sources - the NSE Factbook and Annual Reports and Accounts of the listed firms in the non-financial subsector for the period 2012-2019.

The choice of this period is based on the fact that this era experienced improvements in financial reporting across the globe due to transition to the International Financial Reporting Standards (IFRSs) and the high demands for quality financial statements in the most capital markets of the world, including Nigeria. Following the submission of Kostopoulos, *et al.* (2011) intellectual capital was measured using human and structural capitals, while according to Rezvan, Merhrdad and Mohammed (2016) growth strategy can be measured by revenue growth in percentage. Putting these extremes together, intellectual capital and growth strategy equation is given as:

$$REVG = F(HUMC, STRUC) \qquad (3.1)$$

Where: REVG, represents revenue growth rate; HUMC, human capital; STRUC is structural capital. Eq. 3.1 can be expanded explicitly in a linear equation model, which the econometric set up may be rewritten as follows:

$$REVG_{it} = \beta_0 + \beta_1 HUMC_{it} + \beta_2 STRC_{it} + \varepsilon_{it} \qquad (3.2)$$

Where; β_0-β_{it} are parametric constants; and with time; ε $error$ term. The analysis was done in phases: descriptive (mean, standard deviation, minimum and maximum values; correlation); post-estimation (variance inflation factor; and principal component analysis); and inferential (fixed and random effects; and Hausman specification tests).

Table 1: Measurement of Variables

S/N	Variables	Measurement
1.	Structural Capital (STRC)	Structural capital efficiency ratio, measured as revenue minus cost of revenue and staff cost divided by revenue minus cost of revenue.
2.	Human Capital (HUMC)	Human capital efficiency ratio, measured as revenue minus cost of revenue divided by staff cost
3	Growth Strategies (REVG)	Revenue growth in percentage, computed as current year revenue minus previous year revenue divided by previous year revenue.

Source: Compiled by the Researcher, 2021

Results and Discussions

Table 2: Descriptive Statistics of the Variables

Statistics	revg	humc	strc
Mean	10.08015	3.77939	.591487
Median	4.5829	2.99510	.702500
Maximum Value	1354.255	73.3844	18.6774
Minimum Value	-100	-83.3867	-15.8750
Standard Deviation	76.8696	5.98658	1.44561
Skewness	11.5212	-2.16593	-1.41012
Kurtosis	179.1533	109.526	96.2171
Counts	587	587	591

Source: Computed by Researcher, via STATA 13.0 software

Presented in Table 2 is the descriptive statistics of dependent variable (growth strategies – revg); independent variables (human capital – humc; and structural capital – strc). It can be observed that none of the variables exhibited negative average values (mean); this is expected, given the characteristics of the periods covered (2012-2019), which is as a result of the impact of disclosure requirements by quoted non-finance companies driven by the International Financial Reporting Standards (IFRS).

Furthermore, the yearly standard deviations values range from 76.8696 (*revg*), 5.98658 (*humc*), and 1.44561(*strc*). The yearly standard deviations values were not too dispersed from each other; except *revg*; an indication that the studied non-finance firms' intellectual capitals and growth strategies are closely related.

Remarkably, all panel data series (*revg*, *humc*, and *strc*), displayed non-zero skewness. Also, the variable of *revg* (11.5212) was skewed to the right as shown by the positive values while *humc* (-2.16593), and *strc*(-1.41012) are negatively skewed. Notably, all the variables have a normal distribution as indicated by kurtosis values, which are above three (3) (Gujarati, 2003); this suggests that all the study variables are normally distributed.

Table 3: Correlation Matrix of the Variables

Variables	Revenue growth	Human Capital	Structural Capital
Revenue Growth	1.0000		
Human Capital	0.4272	1.0000	
Structural Capital	0.0072	0.0739	1.0000

Source: Computed by Researcher, via STATA 13.0 software

Table 3 shows the correlation matrix for human, and structural capitals and growth strategies; the results showed that correlation between human and structural capitals and revenue growth strategies are positive. This implies that during the studied period, the intellectual capital measures *inter-alia* are positively related with growth strategies. Besides, the Karl Pearson coefficient did not exceed the maximum threshold of 0.9, as recommended by Gujarati (2003), indicating the absence of multicollinearity among pairs of the independent variables of the study.

Table 4: Variance Inflation Factor (VIF) Results of Variables

Variables	VIF	1/VIF
Human Capital	1.99	0.503530
Structural Capital	1.15	0.872495
Mean VIF	1.57	

Source: Computed by Researcher, via STATA 13.0 software

Table 4 shows the VIF for multicollinearity test; the mean VIF = 1.57, which is less than the accepted VIF value of 10.0, suggesting that there is absence of multicollinearity problem in the model. Impliedly, the VIF result provides evidence that the empirical models of human, and structural capitals and growth strategies is without bias.

Table 5: Factor Loadings (Pattern Matrix) and Unique Variances

Factors	Factor 1	Factor 2	Factor 3	Factor 4	Uniqueness	Commonality Σ(loading)2 or 1(-uniqueness)%
Humc	0.9379	-0.1129	-0.2661	0.1930	-0.0005	-95.00%
Strc	0.2345	0.9618	0.1103	-0.0885	-0.0000	-100.00%

Source: Computed by Researcher, via STATA 13.0 software

Presented in Table 5 is the factor loading estimates; it was found that the two (2) variables are strongly related with some specific factors and indicates the extent to which those variables load on the factors. In addition, the unique variances suggest that human capital (*-95.0%)* is highest commonality variables while structural capital (*-100.00%*) is the lowest commonality variable. This implies that human capital predict growth strategies of non-finance firms in Nigeria the most.

Table 6: Fixed and Random Effects Results for Human and Structural Capitals and Growth Strategies of Listed Non-Finance Firms in Nigeria

<table>
<tr><td>Variables</td><td>Human capital</td><td>Structural capital</td></tr>
<tr><td colspan="3">FIXED EFFECT MODEL</td></tr>
<tr><td>Coefficient
t_ Statistics
Prob._t</td><td>0.733098
(1.35)
{0.177}</td><td>1.28188
(0.68)
{0.497}</td></tr>
<tr><td colspan="3">No. of Obs. = 580; F(4, 568) = 94.30; Prob.>F (0.0000); R^2 (within) = 0.3991; R^2 (between) = 0.1638; R^2 (overall) = 0.3944</td></tr>
<tr><td>Coefficient
t_ Statistics
Prob._t</td><td>0.733098
(1.35)
{0.177}</td><td>0.6121097
(0.35)
{0.728}</td></tr>
<tr><td colspan="3">RANDOM EFFECT MODEL</td></tr>
<tr><td colspan="3">No. of Obs. = 580; Wald Chi2(4) = 374.43; Prob.>F (0.0000); R^2 (within) = 0.3991; R^2 (between) = 0.1614; R^2 (overall) = 0.3944</td></tr>
</table>

Hausman: = 0.9892; *Note: t & z -statistics and their respective probabilities are represented in () and {}*

*Where: *** represents 1% & ** represent 5% level of significance*

Source: Researcher's Computation, 2021 via STATA

Table 6 provides summary result obtained from both fixed and random effect models for human and structural capitals and growth strategies. The model has higher beta coefficient when RE is used; the RE beta coefficient are *humc*(0.733098), and *strc*(-0.6121097), which is higher than FE. A careful look at the Hausman specification result showed that the random effect model was appropriate for use. However, the study confirmed the result by taking a look at the p-value (0.9892).

The t-test result confirms that human and structural capitals are insignificant in explaining the variations in growth strategies of listed non-finance firms in Nigeria. Again, R^2 is 0.3944 for RE; impliedly, human and structural capitals explained about 39.44% variation in growth strategies of quoted non-finance firms in Nigeria.

In fact, prior studies (Hoang, Bui & Nguyen, 2018; Isabel &Bailoa, 2017; Rezvan, Merhrdad & Mohammed, 2016), particularly in developed nations have revealed that intellectual capital plays a fundamental role in the growth process of firms; however, whether this is the case in the Nigerian context, is an issue that has not been deeply researched. Intellectual capital was decomposed into two (2) components structural and human capitals. The study found that human and structural capitals insignificantly affect growth strategies of non-finance firms in Nigeria. The findings correspond in part with the results of Egbu (2004); and Huang and Liu (2005); and Enweroke (2018).

Conclusion and Recommendations

This study examined the relationship between human and structural capitals and growth strategies of non-finance firms in Nigeria from 2012-2019. A total of seventy-five (75) firms were selected and data obtained were analyzed by means of both descriptive and inferential statistical techniques. Findings indicated that human and structural capitals do not affect growth strategies.

Given the findings of the study, it was recommended that management of firms should reduce the staff costs since it has been proven that structural capital insignificantly affects growth strategies of firms. More so, there is the need for non-finance firms to disengage staff that are not productive and recruit viable staff, since the study establish that the human capital of non-finance firms does not significantly affect growth strategies of firms.

This study contributes to knowledge by reaffirming the viewpoints of extant studies. More so, the study established that human and structural capitals are not significantly linked with the growth strategies of firms. Again, the study established that human capital is the most significant capital influencing firms' growth strategies when compared to structural capital.

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QUALITY OF WORK-LIFE AND EMPLOYEE JOB COMMITMENT: A STUDY OF SELECTED MOBILE TELECOMMUNICATIONS FIRM IN DELTA STATE, NIGERIA

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Abstract
This study is designed to investigate the effect of quality of work-life on employee's job commitment of selected mobile telecommunication firms in Delta State of Nigeria. Quasi-experimental research design was adopted and data were obtained from primary source (questionnaire). A total of two hundred and twenty-two (222) questionnaires were administered via simple random technique out of which, one hundred and fifty (150) were fully completed and retrieved. Five (5) qualities of work-life dimensions (job security, reward and recognition, career growth plan, open communication and employee participation in decision-making were regressed on employee job commitment. Data obtained in the survey were analyzed via descriptive (mean, standard deviation and Pearson correlation) and inferential (multiple regression) statistical techniques. Findings indicated that there is no significant relationship between job security, reward and recognition and career growth plans and employee commitment. On the other hand, it was found that open communication and employee participation in decision-making positive and significantly affect employee's job commitment of the selected mobile telecommunication firms. Given the findings of the study, it was recommended among others that management of mobile telecommunication firms should constantly engage employees by means of partaking in the decision-making process since it has been found to contribute to employee's job commitment. More so, management should ensure that the communication channels within the firm are transparently open to all employees notwithstanding their cadre so as to further stimulate and strengthen employee's commitment to work. Again, quality of work-life dimensions (job security, reward/recognition and career growth plans) of mobile telecommunication firms should be improved upon so that employees' job commitment to work can be further strengthened.
Keywords: Employee job commitment; Quality of work-life; Employee participation; Job security; Rewards

Introduction

In contemporary times, employee job commitment is central to the existence of firm, given the vital role it plays in the sustenance of competitive advantage strength, productivity, and work relationship between the employers and employees. Princy and Rebeka (2019) asserted that employee's commitment is instrumental to the firm wellbeing; this is because when employees are committed to their jobs or tasks, turnover rates will reduce and when turnover rate is reduced, the firm saves more money and stress linked with human capital acquisitions, developments and retention drop. Molly (2018) posits that when the firm keeps hiring and training new employees, it costs them time, stress and more financial resources.

Employee job commitment is highly instrumental to the firm and employee's performance such that when employees are happy with their job and hold their job in high esteem, they become very productive, dutiful and effective, and more importantly, such employees do not spend good time looking for other jobs outside in firm or engage in things that may impact negatively on the overall success of the firm (Gigli, 2018). Employee job commitment in the views of Molly, (2018) refers to the feeling of responsibility an employee has towards the mission and goals of the firm. Apparently, when an employee is committed to the job, he/she is more likely to perform designated tasks and responsibilities that will help the firm realize its goals and objectives.

Similarly, Prem (2015) sees employee job commitment as the feeling of responsibility ignited by quality of work life (QWL) in the firm. Nevertheless, to ensure that employees are at their best in the workplace, firm needs to consciously institute and promote QWL (Smiriti & Chand, 2015). Princy and Rebeka (2019) opined that employees would prefer to identify with firms that set up outstanding QWL practices such as rewards and recognitions, career growth plans, work engagement, job security, open communication, employee participation in decision making, and job enrichment and training among others.

QWL emphasizes on the employee as a person rather than just the work done by the employee. According to Jonathan (2009), QWL is becoming an increasingly popular concept because it is anchored on the methods in which the firm ensures the holistic wellbeing of the employee rather than just focusing on work-related aspects of the firm. Chand (2014) identified several dynamics linked with QWL to include *economic benefits* (satisfaction with earnings, fringe benefits, health insurance and pension and *non-economic benefits* (degree of autonomy and control the employee has over his/her job and the extent to which he/she receives intrinsic rewards from the work).

Pragmatically, QWL is a comprehensive program designed to improve employees' commitment and satisfaction. In a critical facet, employees are core resource, assets and constitute prime strength to the organization (Abraham, 2015). In most cases, firms often give credence to the materials, technologies, and systems than the employee; thus absenting the employees who drive the materials, technologies, systems and executes decision for the firm. According to Gili (2018), the absence of QWL often leads to dissatisfaction on the job, increases absenteeism, lack of motivations and morale, and lack of productivity among others. These in the views of Princy and Rebeka (2019), are the major reasons for firms non-performance.

In the light of the above, this paper therefore seeks to investigate the relationship between quality of work-life and employee's job commitment of telecommunication firms in Delta State, Nigeria with the view to measuring QWL via provision of job security, rewards and recognitions, career growth plans, employee participation in decision-making, and open communication. The residual part of this paper is sectioned as follows: Literature and Theoretical Framework, Methodology, Results and Discussions, Conclusion and Recommendations.

Literature Review and Theoretical Framework

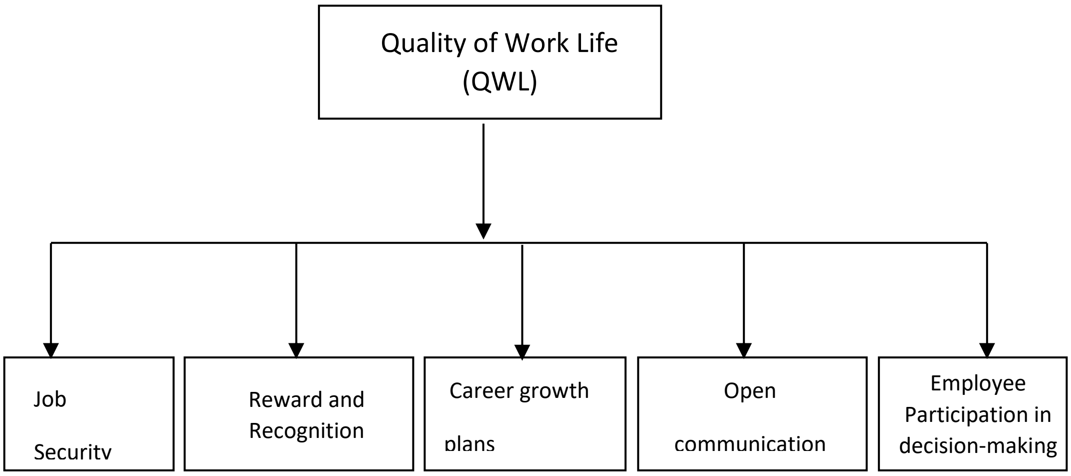
Quality of Work-Life (QWL)

The evolution of QWL originated in the late 1960s and emphasizes the human dimensions of work that focused on the quality of relationship between the worker and working environment (Tabassum, Rahman & Jahan, 2011). QWL is a behavioural science concept, and the term was first introduced by Davis at the 43rd American assembly on the changing world of work at Columbia University. Since QWL emerged in the management literature, the method of defining it varied and encompassed several diverse perspectives.

Prior studies on QWL(Timossi, Pedros, Francisco &Peletti, 2008; Preeti, Neetu, Garg & Akshay, 2012; Bansal & Shaliastovich, 2014; Abraham, 2015; Princy & Rebeka, 2019) have proposed eight (8) conceptual categories relating to QW to include adequate and fair compensation, safe and healthy working conditions, immediate opportunity to use and develop human capacities, opportunity for continued growth and job security, social integration in the workplace, work and total life space, constitutionalism in the workplace, and social relevance of work life. These views expressed by prior studies pinpoint that QWL is a humanistic and social tasks.

Furthermore, lending credence to the concept of QWL, Herzberg(1959) used the 'hygiene factor' and 'motivation factor' to distinguish between the separate causes of employee job commitment, satisfaction and dissatisfaction. The hygiene and motivation factors suggest that employees are committed to the job due to intrinsic and extrinsic value such as interpersonal relationships, better salaries, improved working condition and security (Bansal & Shaliastovich, 2014). In the same vein, Lawler and Nadler (1984) suggested that QWL is associated with satisfaction with wages, hours of work and working conditions, safe work environment, equitable wages, equal employment opportunities and opportunities for career advancement.
Again, Jamal (1991) identified several indicators for assessing QWL to include job satisfaction, work-role ambiguity, work-role conflict, work-role overload, job stress, role autonomy, career advancement, and belongingness. According to Bansal and Shaliastovich (2014), QWL refers to the extent to which member of a work organization are able to satisfy their personal needs via their work experience in the firm; it thus, it covers the employee's feelings about every facet of the work including economic rewards, benefits, security, equity, working conditions, employee

participation, career opportunities, and interpersonal relationships, which are meaningful in the employee's life. The value-based process is aimed at meeting the firms' goals of enhanced effectiveness and QWL for the employees. Jonathan (2009) posited that, though every firm has its own way of realizing QWL; however, the most common elements used are shown in fig. 1:



Source: *Modified* Jonathan's Model of QWL (2009).

In this study, the modified Jonathan's model (2009) was adopted as the basis for measuring QWL. *First*, **provision of job security** provides the employee with confidence that his/her job is secure, hence, they are more relaxed and can perform better in the job. It accords the employee the confidence that even when something goes wrong by mistake, their job will not be at stake. Arabi, (2000) emphasized that job security is the feeling of having a proper job and the assurance of its continuance in future as well as the absence of threatening factors. Princy and Rebeka (2019) showed that job security is one of the creators of job satisfaction and commitment.
Second, **rewards and recognitions** help employees perform even better on the job, both in good and hard times in the work place. For instance, when an employee is rewarded and recognized by the firm for engaging in a productive task, the employee becomes committed and satisfied (Sarker & Afroze, 2014). *Third*, **employee participation** in decision-making process, strategies and feedback is something which helps to increase the employees' QWL and contribution towards a particular role (Smiriti, 2015). *Fourth*, **open communication** brings about transparency between the employers and employees and accords them confidence as they are updated with the business and also feel at ease for being appreciated (Tabassum, Rahman and Jahan, 2011).

Fifth, **career growth plan** refers to the future of the employee in the firm; an interesting facet of the job which promotes career developments. According to Prem

(2015), career growth plans propel the employees to exert more energy to maintain a desirable pace of commitment. Finally, employee participation in decision-making.

Garg, Neetu, Bansal and Akshay, (2014) outlined several benefits derivable by the firm when they adopt the approach of improved QWL. These benefits among others encompasses more job involvement on the part of the employee, job satisfaction and loyalty and better sense of liberation in job performance, greater commitment and performance on the job, lower cases of absenteeism. In addition to the benefits identified by Garg*et al*(2012) are high rates of employee productivity, better and increased employees and employers relationships, lover cases of civil unrest/agitation, better sense of belonging and cordiality among employees and management in the workplace, and balanced between work and private life of employees. Impliedly, employees are able to balance their work life in the firm and personal life in a better form which invariably leads to reduction in stress and stress-related outcomes in the workplace, high degree of quality of work life in the firm, increased profits, and high employment demands in the market.

Employee Job Commitment

Generally, commitment has its roots in motivation and conditions of work in the firm. The multi-disciplinary interests in employee job commitment spurred a myriad of theoretical approaches (see Mathieu &Zajac, 1990; Meyer &Allen, 2002, Cohen,2003; and Molloy & Brinsfield, 2012). For instance, Meyer and Allen's (1997) multidimensional framework is, however, by far the most used and validated approach to employee job commitment. Meyer and Allen (1997) defined employee job commitment as an internal force (mindset) that binds the employee to a target (social or non-social) and/or to a course of action of relevance to that target in the firm (Meyer, 2009).

Biljana (2004) stated that employee job commitment is vital because it can be used to predict employee's performance, absenteeism and other work-related behaviours. Komal, Bhatti, and Samina (2011) opined that job satisfaction has the highest impact on employees' job commitment and productivity. Employee job commitment is the employees' decision to stay with a firm regardless of the organizational climate or the change there in. Similarly, Klein et al., (2012) believed that employee job commitment conveys the significance of a relationship between partners and their will to proceed with the relationship in the future.

Meyer and Allen (1997) defined employee job commitment as a psychological state that typifies the employee's relationship with the firm and has an association for the decision to continue as a member in the organization. Rajendran and Raduanche(2005) opined that the firm's commitment is a subset of employee job commitment, which comprised to work, career and organizational commitments. Brown, Mchardy and Taylor (2011) argued that high employee job commitment increases job satisfaction among employees, job performance, overall productivity, sales and also high employee job commitment lessens employee turnover, intention-to-leave and absenteeism. Grover and Crooker (1995) research finds a positive relationship between pay, rewards and availability of such benefits and employees' job commitment.

In the same vein, Sarker and Afroze (2014) research revealed that poor compensation is the main cause of employee's dissatisfaction which leads to absenteeism, lateness and strike. Abraham (2015) argued that by providing fair and reasonable working practices it is possible to enhance employee's job commitment. In this study, employee job commitment was measured using the Mayer and Allen's (1997) model:

Table 1: Dimensions of Mayer Allen's Commitment Model

Commitment	Mindset	Description
Affective	Perceived desire	The desire grows when the employee becomes involved in the value-relevance of and/or derives his/her identity from associating with the firm or pursuit of course of action.
Normative	Perceived obligation	The outcome of internalization of norms via socialization, and benefits that include a need to reciprocate and/or accept the terms of psychological contract
Continuance	Perceived cost	When the employee recognizes he/she stands to lose investments, and/or perceives that there are no other alternatives than to pursue a course of action of relevance to a specific target.

Sources: Mayer and Herscovitch, (2002).

Theoretical Framework

The theoretical framework for this study is anchored on the theory of motivation. There are numerous theories of motivation which include but not limited to Abraham Maslow, Herzberg (two factors theory) and Douglas Macgregor's theories of motivation (theory X, and Theory Y). However, this study was hinged on the Douglas McGregor's theory of motivation. Apparently, QWL has its roots in the theory of Maslow, Herzberg and McGregor. The needs for fulfillment as that of Abraham Maslow's motivational theory of needs hierarchy are comparable with those of the factors of QWL. Basic needs such as monetary benefits come first, accompanied by good working conditions; later it comes with career planning, growth and development of human capabilities to satisfy the employees /needs.

QWL concerned itself with satisfying both hygiene factors and motivators as identified by Herzberg to improve the work life of employees. The assumption of McGregor can be divided into two: those under 'theory X" and 'theory Y' gave realization of changing attitudes values and work culture of employees. QWL assumes that all employees basically belong to "theory Y". Thus it is evident that QWL has had its origin in these theories of motivation (Selahatlin & Omer, 2012).

Methodology

In this study, the quasi-experimental survey design was used and the study population consists of 500 employees of all categories in mobile telecommunication firms in Delta State, Nigeria. The Taro-Yamani's sample size determination formula was adopted for the purpose of obtaining a statistically reliable sample for the study. Given the Taro-Yamani's sample size determination formula, sample of 222 employees were selected as the sample size of the study. The probability sampling techniques w adopted given that the population of the study is known. With this technique, all target respondents had equal probability of being selected.

The study employed primary data (structured questionnaire) as it source of data collection. The structured questionnaires was designed on a four point adjusted Likert scale of Strongly Agree (SA), Agree(A), Disagree(D) and Strongly Disagree(SD) and was administered to the employees of selected mobile telecommunications firms across Delta State. A period of 3 weeks was used to administer and retrieved the instruments. The study was composed of 5 QWL dimensions of job security, rewards and recognitions, career growth plans, open communication and employee participation in decision-making alongside employee job commitment dimension (affective commitment) recommended by Mayer and Allen (1997) as a basis for assessing job commitment.

Data obtained in the survey were analyzed using both descriptive (mean, standard deviation, and correlation) and inferential (regression estimation technique) statistical tools. Given the nature of the data, multiple regression models were estimated. The study composite model is given as:

$$Empjc = f(quality\ of\ work\ life) \qquad eq.\ 1$$

In order to validate the relationship between employee job commitment and the several QWL dimensions, disaggregated models were estimated as follows:

$$Jc = \alpha_0 + ß_1 js + \mu_t \qquad eq.2$$
$$jc = \alpha_0 + ß_1 rr + \mu_t \qquad eq.3$$
$$jc = \alpha_0 + ß_1 cgp + \mu_t \qquad eq.4$$
$$jc = \alpha_0 + ß_1 oc + \mu_t \qquad eq.5$$
$$jc = \alpha_0 + ß_1 epdm + \mu_t eq.6$$

Where: *jc*=Employee job commitment; *js*=Job security**;** *rr*=Reward/recognition**;** *cgp*= Career growth plan; *oc*=Open communication; *epdm*=Employee participation; $\alpha_0, ß_1$=Regression coefficients of the model**;** μ_t= Error term. The questionnaire items were validated based on the mean and standard deviation; questionnaire items above 2.00 cut-off point of mean suggests that all respondents agree to that particular item and a mean below 2.00 invalidate such questionnaire items. The choice of using 2.00 cut-off point of mean was based on questionnaire items scale of 4-point. Pearson correlation was used to assess the extent of relationship between the dependent and independent variables while the multiple regression was used to assess the effect of QWL on employees' job commitment. The statistical analysis was carried out via STATA 13.0.

Results and Discussions

Table 2: Analysis of Questions on Provision of Job Security

S/N	Items	N	Mean	SD	Outcome
1	I am satisfied with the overall security of my job, and thus give me good sense of commitment to work.	150	2.77	0.71	√
2	The organization where am working has a firm policies that protects the life, right and properties of employee.	150	2.81	0.78	√
3	I feel relaxed in my job, thus I think more about growth of my job and that of the firm since my job is secured.	150	2.65	0.69	√
4	I am secured, hence unwilling to leave my current job	150	3.01	0.92	√
5	I prefer staying with my present firm till retirement.	150	2.96	0.81	√
6	Job security lead to increased job commitments.	150	3.12	0.94	√
7	Job security is a motivational factor in the workplace and has the potentials to keep employee in the firm	150	2.79	0.83	√
	Grand Mean &SD		**2.87**	**0.81**	**√**

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 2 showed the responses on provision of job security among the selected employees of the mobile telecommunication firms in Delta State, Nigeria. The result revealed that all the seven (7) items on provision of job security scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on provision of job security. Also, this result is confirmed by the grand mean of 2.87 and standard deviation of 0.81, indicating that provision of job security is prevalent among the selected mobile telecommunication firms studied.

Table 3: Analysis of Questions on Rewards and Recognitions

S/N	Items	N	Mean	SD	Outcome
1	I feel a good sense of belonging in the work place anytime my contributions are recognized and rewarded.	150	2.56	0.61	√
2	I enjoy increased fair job responsibilities and initiative.	150	2.71	0.68	√
3	I feel motivated with the reward system in the firm.	150	2.86	0.74	√
4	Management is fair with the reward systems in the firm.	150	2.51	0.58	√
5	I do receive fair treatment from management and my contributions do receive commendation as well.	150	2.62	0.64	√
6	Reward system in the firm take the form of money, promotions, training/development, medical scheme	150	2.74	0.69	√
7	Management recognition of my contributions has made me see myself as part of the firm.	150	2.63	0.65	√
8	I received extra reward from management for overtime.	150	2.81	0.70	√
9	Management sees employees as assets in the firm.	150	2.55	0.60	√
	Grand Mean & SD		**2.67**	**0.65**	√

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 3 showed responses on rewards and recognitions among selected mobile telecommunication employees in Delta State. The result revealed that all the nine (9) items on reward and recognition scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on reward and recognition. In addition, this result is confirmed by the grand mean of 2.67 and standard deviation of 065, indicating that reward and recognition is part of employee quality work life among the selected mobile telecommunication firms under study.

Table 4: Analysis of Questions on Career Growth Plan

S/N	Items	N	Mean	SD	Outcome
1	Management offers staff opportunity to develop their careers on the job.	150	2.94	0.70	√
2	The future of my career growth plan is of paramount concern to management.	150	2.85	0.71	√
3	I feel better equipped with requisite and cognate skills on the job than at entry point	150	3.01	0.78	√
4	An attempt to reach the firm's set goals, my personal goals of growth and development were equally reached.	150	2.64	0.61	√
5	Am confident of my ability to succeed in my present job with or without supervision due to on-the job training.	150	2.75	0.67	√
	Grand Mean & SD		**2.84**	**0.69**	√

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 4 showed responses on career growth plan among the selected mobile telecommunication employees in Delta State. The result revealed that all the five (5) items on career growth plan scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on career growth plan. In addition, this result is confirmed by the grand mean of 2.84 and standard deviation of 0.69, indicating that career growth plan is part of employee quality work life among the selected telecommunication firms under study.

Table 5: Analysis of Questions on Open Communication

S/N	Items	N	Mean	SD	Outcome
1	The relationship between me and my boss and other colleagues are very cordial.	150	2.74	0.65	√
2	The relationship between me and my boss and other colleagues are not that very cordial hence it does not permit discussion concerning employee's private matters.	150	2.89	0.73	√
3	Channels of communication in the organization are very effective and transparent.	150	3.06	0.79	√
4	I feel a sense of belonging each time I participate in open communication with management on related matters.	150	2.69	0.62	√
5	Open communication system being practiced in the firm encourages me to be committed to work.	150	2.80	0.69	√
6	I feel very comfortable sharing my personal issues with my boss and other colleagues in the workplace.	150	2.98	0.76	√
S/N	**Items**	**N**	**Mean**	**SD**	**Outcome**
7	I feel inspired with the firm open communication system.	150	2.93	0.74	√
8	Management rarely communication with employee, thus decisions are elusive to me.	150	2.81	0.69	√
	Grand Mean & SD		**2.86**	**0.71**	**√**

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 5 showed responses on open communication among the selected mobile telecommunication employees in Delta State. The result revealed that all the eight (8) items on open communication scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on open communication. In addition, this result is confirmed by the grand mean of 2.86 and standard deviation of 0.71, indicating that open communication is part of employee quality work life among the selected telecommunication firms under study.

Table 6: Analysis of Questions on Employee Participation in Decision Making

S/N	Items	N	Mean	SD	Outcome
1	I feel greater sense of importance & relevance anytime management requests my participation in decision making	150	2.66	0.57	√
2	I see myself as part of the organization because am well carried along with developments in the work place.	150	2.57	0.53	√
3	Participation in meeting of discussion with management in workplace increases my work commitment/boost my moral	150	2.81	0.66	√
	Grand Mean & SD		**2.68**	**0.59**	√

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 6 showed responses on employee participation in decision making among the selected mobile telecommunication employees in Delta State. The result revealed that all the three (3) items on employee participation in decision making scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on employee participation in decision making. In addition, this result is confirmed by the grand mean of 2.68 and standard deviation of 0.59, indicating that employee participation in decision making is part of employee quality work life among the selected telecommunication firms under study.

Table 7: Analysis of Questions on Job Commitment

S/N	Items	N	Mean	SD	Outcome
1	**Desire:** Generally, employees in my company are emotionally attached to their job schedules.	150	3.01	0.76	√
2	**Obligation:** Most employees within my organization have come to accept the fact that they have an obligation to put in all the required efforts to achieve desired targets.	150	2.99	0.68	√
3	**Cost:** By the nature of employee' work environment, employees generally do not have other alternatives other than pursuing stipulated courses of actions relevant to targets specified by management.	150	2.78	0.64	√
	Grand Mean & SD		**2.93**	**0.69**	√

Source: Field Survey, 2021; N=Number of Observations; SD: Standard Deviation

Table 7 showed responses on job commitment among the selected mobile telecommunication employees in Delta State. The result revealed that all three (3) items on employee participation in decision making scored above 2.00 cut-off point of mean, suggesting that all the respondents agree that they are familiar with all the items on job commitment. In addition, this result is confirmed by the grand mean of 2.93 and standard deviation of 0.69, indicating that job commitment is part of employee quality work life among the selected telecommunication firms under study.

Table 8: Correlation Matrix of Quality of Work-life and Job Commitment

	jc	js	rr	cgp	epdm	oc
jc	1.0000					
js	0.1399	1.0000				
rr	-0.0183	-0.3563	1.0000			
cgp	0.0885	0.1773	0.1167	1.0000		
epdm	0.6289	0.0473	0.0339	0.0167	1.0000	
oc	0.1705	-0.0394	0.1380	0.0108	0.1956	1.0000

Source: Field Survey, 2021

The result in Table 8 showed that there is the association between each pair of the variables used. However, the correlation matrix revealed that all the other variables were positively correlated except rewards and recognitions (rr) that was negatively correlated to job commitment (jc). Variables of js(0.1399), cgp(0.0885), epdm(0.6289) and oc(0.1705) were positively related to jc. Inspite of the inverse correlation among the variables (positive and negative), none of the correlation coefficients exceed 0.8. The above result implies that there is absence of multi-colinearity among the variables of *jc, js, cgp, epdm, rr* and *oc*.

Table 9a: Regression Result of Job Security (JS) and Job Commitment (JC)

Source	SS	df	MS		
				Number of obs =	150
				F(1, 148) =	2.95
Model	.141005132	1	.141005132	Prob > F =	0.0878
Residual	7.06847828	148	.047759988	R-squared =	0.0196
				Adj R-squared =	0.0129
Total	7.20948341	149	.048385795	Root MSE =	.21854

jc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
js	.2045124	.1190239	1.72	0.088	-.0306935	.4397183
_cons	.9192231	.3072908	2.99	0.003	.3119788	1.526467

Source: *Field Survey, 2021.*

Table 9a showed the regression result of job security (JS) and job commitment (JC) among the selected mobile telecommunication employees in Delta State. The result revealed that there is positive relationship between job security in the organization and employee commitment to his/her job (t= 1.82), however, the relationship was insignificant (p-value 0.088<0.05). This outcome was further supported by the f-ratio of 2.95, suggesting that there is no significant relationship between job security in the organization and employee commitment to his/her job. The implication is that job security does not significantly affect employee commitment.

Table 9b: Regression Result of Reward and Recognition (RR) & Job Commitment (JC)

Source	SS	df	MS		
				Number of obs =	150
				F(1, 148) =	0.05
Model	.00241405	1	.00241405	Prob > F =	0.8241
Residual	7.20706936	148	.048696415	R-squared =	0.0003
				Adj R-squared =	-0.0064
Total	7.20948341	149	.048385795	Root MSE =	.22067

jc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
rr	-.006771	.0304109	-0.22	0.824	-.0668667	.0533246
_cons	1.468123	.0995111	14.75	0.000	1.271477	1.664769

Source: *Field Survey, 2021*

Table 9b showed the regression result of reward and recognition (RR) and job commitment (JC) among the selected mobile telecommunication employees in Delta State. The result revealed that there is negative relationship between reward and recognition in the organization and employee commitment to his/her job (t= -0.22), however, the relationship was insignificant (p-value 0.824 <0.05). This outcome was further supported by the f-ratio of 0.05, suggesting that there is no significant relationship between reward and recognition in the organization and employee commitment to his/her job. The implication is that reward and recognition does not significantly affect employee commitment.

Table 9c: Regression Result of Career Growth Plans (CGP) & Job Commitment (JC)

Source	SS	df	MS
Model	.056445428	1	.056445428
Residual	7.15303798	148	.048331338
Total	7.20948341	149	.048385795

Number of obs	=	150
F(1, 148)	=	1.17
Prob > F	=	0.2816
R-squared	=	0.0078
Adj R-squared	=	0.0011
Root MSE	=	.21984

jc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
cgp	.0465864	.0431081	1.08	0.282	-.0386005	.1317733
_cons	1.304217	.132725	9.83	0.000	1.041936	1.566498

Source: *Field Survey, 2021*

Table 9c showed the regression result of career growth plans (CGP) and job commitment (JC) among the selected mobile telecommunication employees in Delta State. The result revealed that there is positive relationship between career growth plans in the organization and employee commitment to his/her job (t= 0.282), however, the relationship was insignificant (p-value 0.282 <0.05). This outcome was further supported by the f-ratio of 1.17, indicating that there is no significant link between career growth plans in the organization and employee commitment to his/her job. The implication is that career growth plans does not significantly affect employee commitment.

Table 9d: Regression Result of Open Communication (OC) & Job Commitment (JC)

Source	SS	df	MS
Model	.209513222	1	.209513222
Residual	6.99997019	148	.047297096
Total	7.20948341	149	.048385795

Number of obs	=	150
F(1, 148)	=	4.43
Prob > F	=	0.0370
R-squared	=	0.0291
Adj R-squared	=	0.0225
Root MSE	=	.21748

jc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
oc	.0121232	.0057601	2.10	0.037	.0007406	.0235059
_cons	1.379403	.0364225	37.87	0.000	1.307427	1.451378

Source: *Field Survey, 2021*

Table 9d showed the regression result of open communication (OC) and job commitment (JC) among the selected mobile telecommunication employees in Delta State. The result revealed that there is positive relationship between open communication in the organization and employee commitment to his/her job(t=2.10), however, the relationship was significant(p-value 0.037>0.05). This outcome was further supported by the f-ratio of 4.43, suggesting that there is positive significant link between open communication in the organization and employee commitment to work. Impliedly, that open communication significantly contributes to employee commitment.

Table 9e: Regression Result of Employee Participation (EPDM) & Job Commitment (JC)

Source	SS	df	MS		
				Number of obs =	150
				F(1, 148) =	96.85
Model	2.85166011	1	2.85166011	Prob > F =	0.0000
Residual	4.35782331	148	.029444752	R-squared =	0.3955
				Adj R-squared =	0.3915
Total	7.20948341	149	.048385795	Root MSE =	.17159

jc	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
epdm	.1974633	.0200651	9.84	0.000	.1578122	.2371144
_cons	.6796491	.0791559	8.59	0.000	.5232273	.8360709

Source: *Field Survey, 2021.*

Table 9e showed the regression result of employee participation in decision making (EPDM) and job commitment (JC) among the selected mobile telecommunication employees in Delta State. The result revealed that there is positive relationship between employee participation in decision making in the organization and employee commitment to his/her job (t= 9.84), however, the relationship was significant (p-value 0.000>0.05). This outcome was further supported by the f-ratio of 96.85, signifying a positive significant relationship between employee participation in decision-making and employee commitment to work. Impliedly, employee participation in decision-making significantly contributes to employee commitment to work.

The analyses has shown some insightful revelation; *first*, job security and employee commitment revealed a positive relationship between (t= 1.82), however, the relationship was insignificant (p-value 0.088 <0.05); this finding is at variance with those of Bansal (2014);and Garg,*et al*(2012). *Second*, the result of rewards and recognitions and job commitment revealed a negative relationship between rewards and recognitions and employee commitment to his/her job (t= -0.22), however, the relationship was insignificant (p-value 0.824 <0.05). *Third*, the result of career growth plans and job commitment revealed a positive relationship between career growth plans and employee commitment to his/her job (t= 0.282), however, the relationship was not significant (p-value 0.282 <0.05); this finding is in conformity with that of Chandranshi and Gloholamreza (2012).

Fourth, the result of open communication and job commitment showed a positive relationship between open communication and employee commitment to his/her job (t= 2.10), however, the relationship was significant (p-value 0.037>0.05); this finding is in line with that of Chandranshi and Gloholamreza (2012); Chand (2014); and Green, (2006). *Fifth*, the result of employee participation in decision-making and job commitment showed a positive relationship between employee participation in decision-making and employee commitment to his/her job (t= 9.84), however, the relationship was significant (p-value 0.000>0.05); this result is in line with those of Balaji, (2014); and Smriti, (2015). Overall, it was established that QWL affects employees' job commitment in the selected mobile telecommunication firms in Delta State, Nigeria and the results agree with the prior works of Neubert& Wu (2009); Klein, *et al* (2012); and Schweizer, *et al* (2012) and agrees with the theoretical predisposition of the theories of motivation.

Conclusion and Recommendations

Job commitment is highly instrumental to the firm and performance of the employees, that is to say, if employees are happy with their job and hold their job in high esteem, unwaveringly, they become productive, dutiful and effective; hence will not spend good time looking for other jobs outside or engage in things that may not impact positively on the overall success of the firm. In this study, the link between quality of work-life and employee job commitment was assessed and findings revealed that quality of work-life significantly contributes to employee job commitment. On the basis of the findings, the following recommendations are proffered:

1. Management of mobile telecommunication firms should constantly engage employees by way of partaking in the decision-making process since it has been found to improve employee job commitment.
2. Management should ensure that the communication channels within the firm should be transparently open to all employees irrespective of their cadre so as to further stimulate their commitment to work.
3. That employee job security, rewards and recognitions and career growth plans of mobile telecommunication firms should be improved upon so that via these dimensions of work-life quality will promote employees' job commitment to work.

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THE ROLE OF EFCC IN PROSECUTING CORPORATE FINANCIAL CRIMES IN NIGERIA

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Abstract
This study centered on the role of EFCC in prosecuting corporate financial crimes in Nigeria. Its specific objectives were to ascertain the determinants of corporate financial crimes in Nigeria; to investigate the economic implication of corporate financial crimes in Nigeria; as well as to examine the effectiveness of EFCC in prosecuting corporate financial crimes in Nigeria. To this end, the researcher administered two hundred (200) questionnaires to respondents, out of which one hundred and ninety-eight (198) were recovered.
The researcher employed chi-square statistical tool in testing the stated hypotheses. At the end of the exercise, the researcher found that lack of control over management by directors of corporate organizations, corporate culture, weakness in traditional auditing style have contributed to corporate financial crimes among other factors responsible for corporate financial crimes in Nigeria, that there are economic implication of corporate financial crimes on Nigeria economy, such as discouragement of foreign capital inflow, as well as reducing economic performance; that the EFCC have not being effective in prosecuting corporate financial crimes in Nigeria due to over protection of top corporate officials involved in financial crime, insincerity on the part of the presiding judges, etc.
Deriving from the findings of this study, the researcher recommends that the rule of law must be upheld to instill sanity in the administration of justice. Equal treatment of corrupt officials is a necessity. There should be no exceptions to the rules as the law is no respecter of any person.
Keywords: Corporate Financial Crimes, EFCC, Nigeria Economy, Economic Performance, Corrupt Officials and Administration of Justice.

Introduction

Recent statistics regarding economic crime show that corporate financial crime is one of the most problematic issues for businesses around the world (Sadique, Roudaki, Clark and Alias, 2010). Voon, Puah and Entebang (2008) opine that issues regarding corporate financial crime are getting more prominent among the public, especially investors, investment managers and also regulators. Corporate financial crime is a serious crime that relates to ethical behaviour which should not be taken lightly, as it does not only have deep impact on the reputation of the company affected, but also causes greater financial loss and loss of investors' confidence.

Corporate financial crimes have a negative impact on the company's brand(s), staff morale, external business relations, relations with regulators, and the value of the company's shares. It can be fairly said that corporate financial crime impacts on the company, its shareholders, and society at large by way of employment and social stability. The need for a more effective way to regulate, enforce, detect and prevent financial crime has increased since one cannot rely upon accidental detection to combat such crime. The regulators have to be more vigilant and effective in their efforts to fight corporate financial crimes. According to (Dada, Owolabi and Okwu, 2013), the negative effect of corruption/financial crimes on development has made Nigerian government to seek for solution on how to combat the menace.

Corporate financial crime enjoys worldwide condemnation and therefore laws are made to daunt perpetration of financial crime in the society. Nigeria is not an exception in this area, with several Acts on ground to carry out prosecution. Adeleke (2012) believe that the zeal to tame financial crime became very high in Nigeria with the establishment of Independent Corrupt Practices and other Related Offences Commission (ICPC) in 2002 and Economic and Financial Crimes Commission (EFCC) in 2003. Several achievements have been made by these two bodies, particularly the EFCC, in exposing, recovering of loots and sentencing of the people who were guilty of corruption. In the light of the above discussion, this study intends to examine the role of EFCC in prosecuting corporate financial crimes in Nigeria.

Recently, fraud has received tremendous public attention and it tends to become serious corporate problems and challenges in today's competitive business environment. Corporate crime has caused most of the organizations suffer from various form of damages such as a loss of assets and reputation, decreased staff motivation, and damaged business relations (Mung-Ling, Sze-Ling and Chin-Hong, 2008). The effect of financial crimes is enormous, Emeh and Obi (2013) attributes the collapse of Enron, WorldCom, Tyco, Adelphia, to corporate fraud where over $460 billion was said to have been lost. In Nigeria, Cadbury Nig Plc whose books were criminally manipulated by management was credited to have lost $15 million. In the case of nine commercial banks that were involved in fraudulent financial crimes in Nigeria, about one trillion naira was reported to have been lost through different means.

The broad objective of this study is to examine the role of EFCC in prosecuting corporate financial crimes in Nigeria and the specific objectives are:

1. To ascertain the determinants of corporate financial crimes in Nigeria.
2. To investigate the economic implication of corporate financial crimes in Nigeria.
3. To examine the effectiveness of EFCC in prosecuting corporate financial crimes in Nigeria.

Review of Related Literature

Conceptual Review of Related Literature

The concept of financial fraud, according to (Fich and Shivdasani, 2005), opine that financial fraud typically has a substantial adverse valuation effect on companies. In order to interpret this valuation effect, it is helpful to understand the stylized sequence of information released to the market. Often, indications of fraud surface with the release of certain trigger events. Most commonly, a trigger event is a self-initiated press release by a firm alerting investors to the potential for accounting or other financial irregularities. They enumerated the following to be the typical crimes committed by employees; theft, or “skimming” of cash; theft of inventory, merchandise or equipment; writing company checks; falsifying revenue reports; processing fraudulent invoices; customer identity theft; money laundering; intellectual property theft; credit card fraud; overstated expense reports and payroll fraud

Mung-Ling, Sze-Ling and Chin-Hong (2008) opine that corporate crime can be defined as in the making if one tries to deliberately plan, deceive or cheat with the intention of depriving other’s property or rights, regardless of whether the perpetrator gain any benefit or not in the process. According to (Njanike, Dube and Mashayanye, 2009), fraud together with its sister white-collar crimes which came into being later in the 19th and 20th century inter alia corruption, money laundering, tax evasion, externalization of foreign currency to itemize just a few have stood as potent weapons capable of hemorrhaging the entire world economies, particularly the banking sector because of its high risk factor.

Obuah (2012) says that over the years various administrations in Nigeria have articulated polices and measures designed to combat corruption. Examples include General Murtala Muhammed’s crusade of confiscation of assets illegally acquired by Nigerians; Shehu Shagari’s ethical revolution to combat corruption through the introduction of code of conduct for public servants, General Buhari’s operation war against indiscipline, General Ibrahim Babaginda’s ethical and social mobilization crusade, etc.

Financial Crime

Financial crime, also often referred to as white collar crime, covers a wide range of criminal offences which are generally international in nature. Closely connected to cybercrime, financial crimes are often committed via the internet and have a major impact on the international banking and financial sectors-both official and alternative. Financial crimes affect private individuals, companies, organizations, and even nations, and have a negative impact on the economic and social system through the considerable loss of money incurred.

Financial Crime in Nigeria

Prior to the enactment of the Act of 2002 as amended by the EFCC Act 2004 there was no comprehensive definition of what constitute the financial crime. Section 46 of the EFCC Act 2004 define financial crime as a nonviolent criminal unlawful action concerned with the objective of earning wealth illegally either individually or a group or organized manner thereby violating existing legislation governing the financial actions of a government and its administration and includes any forms of fraud such as: money laundering, embezzlements, bribery, looting and any form of corrupt malpractices, illegal arms deal, smuggling, human trafficking and child labor, illegal oil bunkering, theft of intellectual property and piracy, open market abuse, dumping of toxic waste and prohibited good. This statutory definition reveals that the crime could reasonably include a wide variety of criminal offences. (Establishment Act, 2004).

Economic and Financial Crime Commission (EFCC)

Based on Mallam Nuhu Ribadu, chairman of EFCC address to the US congressional house committee on international development (2006) corruption had been part of Nigerian existence for 39 years of military rule after independence in 1960. The desire of stealing public treasury, decapitated public institutions and free speech restrictions led to secrecy in the running of affairs of government. The outcome was complete insecurity, poor economics management, abuse of human rights and ethnic conflicts Ribadu (2006). After all this trauma democracy was restored to Nigeria in May 1999, with the election of civilian president under the leadership of Olusegun Aremu Obasanjo. One notable performance of the President is the formation of Economics and financial crime commission and Independent corrupt practices commission in 2000 and 2003 respectively to fight against corruption and waste in the public service. (Sowunmi and Raufu, 2010), one of the biggest killer diseases in Africa is corruption; apart from its distortion of macroeconomic indices, it ensures that basic facilities such as Medicare, water; schools; roads and other infrastructure are unavailable.

The Functions and Powers of EFCC

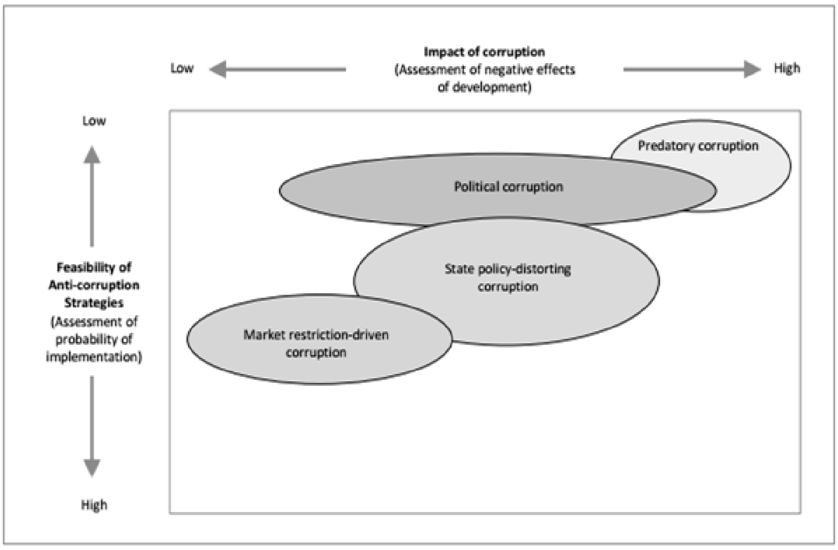
The commission's broad, statutory duties and responsibilities cover dealing with Economic and Financial Crimes, as well as combating terrorism and terrorist tendencies. The mandates of the commission with respect to its functions of fighting economic and financial crimes include the following; a) Enforcement and the due administration of the provision of this ACT. b) Investigation of all financial crimes including advance fee fraud, money laundering and counterfeiting, illegal change transfers, future market fraud, fraudulent encashment of negotiable instrument, computer credit card fraud, contract scam, etc. c) The co-ordination and enforcement of all economic and financial crimes laws and enforcement functions conferred on any other person or authority. d) Adoption of measures to identify, trace, confiscate proceeds derived from terrorist activities, economic financial crimes related offences. e) The adoption of measures which includes coordinated preventive and regulatory actions, introduction and maintenance of investigative and control methods on prevention of economic and financial related crimes. f) Facilitation of rapid exchange of scientific and technical information and the conduct of joint operations geared towards the eradication of economic and financial crimes. g) The examination and investigation of all reported cases of economic and financial crimes with a view to identifying individuals co-operate bodies or groups involved. h) Collaborating with government bodies both within and outside Nigeria carrying on functions wholly or in part analogous with those of the commission concerning - i. Identification, determination, of the whereabouts and activities of persons suspected of being involved in economic and financial crimes; ii. The movement of proceeds or properties derived from the commission of economic and financial and other related crimes; iii. The exchange of personnel or other experts; iv. The establishment and maintenance of a system for monitoring international economic and financial crimes in order to identify suspicious transactions and persons involved.

Corruption in Nigeria and the Role of the EFCC

As outlined in (Khan, Andreoni, Roy, 2017), corruption is a structural feature of governance in developing countries where strikingly high levels of informality make it difficult for formal rules to be enforced. Nigeria is no exception (Roy, 2017), and has acquired a reputation as one of the most corrupt countries in the world. Indeed, in 1996 it was ranked by Transparency International's Corruption Perception Index (CPI) as the most corrupt country in the world. Anti-corruption strategies in developing countries have typically been based on vertical enforcement using prosecutions, legal requirements for transparency and accountability, and impartiality for rule of law. While there have been some successes in these types of anticorruption efforts in some countries, sustainable progress has been difficult due to the weakness of horizontal enforcement at a societal level: developing and emerging countries have a high level of 'informality', which suggests that large parts of society do not follow formal rules. The problems are unfortunately compounded in Nigeria due to the presence of a significant number of oil reserves. With enormous oil reserves, the culture of rent seeking has been entrenched in the extractive sectors, particularly the oil sector which accounts for majority of Nigeria's revenue. Political corruption is a feature of this informality and is most clearly observed in how rents are allocated.

The Anti-Corruption Evidence (ACE) framework (Figure 1) provides a unique matrix with which to test how potentially successful anti-corruption policies are likely to be.

Figure 1: ACE framework



Source: Khan et al. (2017).

For the purposes of our research on the EFCC for ACE, however, the researcher decided to measure the effectiveness of the EFCC in terms of successful prosecutions and, to a lesser extent, public education and its efforts to sensitize citizens on the effect of corruption in Nigeria. Most studies of ACAs tend to rely on statistics on investigations or responses to complaints; however, an analysis of the proportions of investigations to prosecutions and the prosecutions to convictions, as well as the nature of the prosecutions, can provide important insights into the effectiveness of an ACA that only focusing on investigations cannot provide.

The Effectiveness of the EFCC as a Prosecuting Agency

By virtue of the provisions of the EFCC Act,53 the Commission has adopted criminal prosecution as its primary tool in the anti-corruption crusade. Based on data obtained through interviews with judicial officers, ACA officers, documentary analysis and participation in various focus group discussions on Nigeria's anti-corruption drive organized under the ACE project in Abuja on 16 August 2018, this section examines how effective the EFCC is in fulfilling its criminal enforcement and prosecution mandate, particularly with respect to high profile prosecutions. The EFCC has recorded some reasonable achievements since its establishment, however certain responsibilities have been constrained as a result of the political corruption described in section 3.

Theoretical Framework

The finance theory is more related to this study.

Simple Finance Theory

Simple Finance Theory posits that there is the dire need to construct rules on all financial matters and incentives in corporate organisations so as to effectively and efficiently align the behaviour of managers (as agents) with the desires of principals (Turnbull, 1997, Hawley & Williams 1996). For being accountable to the owners, the managers, as agents are entitled to agency fees, which constitute what theorist called agency costs to the organisations. Agency costs are the sum of the cost of monitoring management (the agent); bonding the agent to the principal (stockholder/'residual claimant') and residual losses. This Theory emphasizes need for rules and professional ethics to guide operations of organization from recklessness. The views above clearly provide functions for owners and agents. It is therefore in consonance with the principles of accountability and corporate governance and professional ethics expected of accountants.

Empirical Review of Related Literature

Fich and Shivdasani (2005), examine reputational effects of financial fraud for outside directors of firms accused of fraud using a sample of firms facing class action lawsuits alleging violation of SEC rule. They find that fraud is followed by a large and significant decline in the number of other board appointments held by outside directors. This decline is consistent with both a reputational penalty being borne by outside directors as well as an endogenous adjustment of monitoring expertise, where the expertise is reallocated to firms that are revealed to be more fraud-prone than previously expected. Their study also shows that a contagion effect exists for financial fraud through the board of directors.

Mung-Ling, Sze-Ling and Chin-Hong (2008), investigate the determinants of corporate crime activities in organizations, in order to minimize the occurrence of fraud. A survey involving existing and potential investors was undertaken. The findings indicate that the corporate crime determinants ranked by most of the respondents are insufficient controls, followed by personal financial pressure and expensive lifestyle. To minimize the occurrence of corporate crime activities in the organizations, the management team should impose tighter control over internal operations. Obuah (2010), review the political economy of corruption and the efforts by the Nigerian government to combat it by examining the types and forms of corruption and the various perspectives for understanding the causes of corruption. He recognizing the importance of the various perspectives, notes that both the institutional and rent-seeking theories offer deeper insights into the systemic corruption activities. And finally, examines the activities of the EFCC and notes that it faces serious challenges, as the configurations of the Nigerian political landscape are uncertain.

Methodology

For the purpose of this study, the survey research design was adopted. The population of this study is the entire management and non-management staff of selected banks, operating in Asaba, Delta State. The sample size for this study is a purposive two hundred respondents randomly selected management and non-management staff of quoted banks, operating in Asaba, Delta State, from which empirical findings and conclusion were drawn. The choice of Asaba is that it is the capital of Delta state and has large concentration of banks Cost considerations informed the choice of only one state in this study.

Primary data gathered by the researcher through use of questionnaire. The questionnaire was administered to respondents drawn from staff of selected banks, operating in Asaba, Delta State. The questionnaire contains close ended questions to cover areas involved in the research. The questionnaire is divided into two sections; Section A – Personal Data, Section B – main research questions patterned on the 5-point likert scale.

The data generated through questionnaire administration was analyzed through the use of descriptive statistics (mean, standard deviation, etc), statistical tables and percentage analysis, while the formulated hypotheses were tested using One Sample T-test statistics. A one sample t-test compares the mean with a hypothetical value; it is often performed for testing the mean value of large samples of distribution or for comparing a sample mean when the population mean is known. The Statistical Product and Service Solutions Package (SPSS) version 20 was employed in performing the statistical test - analysis of data and test of hypotheses.

Results and Discussion

Analytical instruments which were applied include percentages and averages, being operational tools used in analyzing questionnaire obtained from the field.

To achieve the objectives of this study, a total of two hundred (200) questionnaires were distributed to respondents, out of which one hundred and ninety-eight (198) were properly filled and returned and were used for the analysis of this study as presented below.

Testing of Hypotheses

Hypothesis I

There are no factors responsible for corporate financial crimes in Nigeria.

No. of Responses

Q	**Strongly Agree**	**Agree**	**Undecided**	**Strongly Disagree**	**Disagree**	**Total**
5	130	57	7	0	4	198
6	129	35	11	8	15	198
7	116	46	16	6	14	198
8	132	20	18	11	14	198
Q	**Strongly Agree**	**Agree**	**Undecided**	**Strongly Disagree**	**Disagree**	**Total**
9	121	51	18	3	5	198
10	150	46	2	2	1	198
Total	**778**	**255**	**72**	**30**	**53**	**1188**

Source: Field Study, 2021

df = (R – 1) (C – 1)

= (6 – 1) (5 – 1)

= 5 x 4 = 20

Margin for error = 5% or 0.05

Table value of χ^2 @ 0.05 level of significance at degree of freedom of 20 = 31.41

Row/column	**F_0**	**F_e**	**F_0-F_e**	**$(F_0-F_e)^2$**	**$\frac{(F_0-F_e)^2}{F_e}$**
R_1C_1	130	112	18	1386	12.375
R_1C_2	57	53	4	108	2.037735849
R_1C_3	7	15	-8	-8	-0.533333333
R_1C4	0	6	-6	-12	-2
R_1C5	4	13	-9	-18	-1.384615385
R_2C_1	129	112	17	1309	11.6875
R_2C_2	35	53	-18	-486	-9.169811321
R_2C_3	11	15	-4	-4	-0.266666667
R_3C_4	8	6	2	4	0.666666667
R_3C5	15	13	2	4	0.307692308
R_2C_1	116	112	4	308	2.75
R_2C_2	46	53	-7	-189	-3.566037736
R_2C_3	16	15	1	1	0.066666667
R_3C_4	6	6	0	0	0
R_3C5	14	13	1	2	0.153846154
R_1C_1	132	112	20	1540	13.75
R_1C_2	20	53	-33	-891	-16.81132075
R_1C_3	21	15	6	6	0.4
R_1C4	11	6	5	10	1.666666667
R_1C5	14	13	1	2	0.153846154

Row/column	F_0	F_e	F_0-F_e	$(F_0-F_e)^2$	$\frac{(F_0-F_e)^2}{F_e}$
R_2C_1	121	112	9	693	6.1875
R_2C_2	51	53	-2	-54	-1.018867925
R_2C_3	18	15	3	3	0.2
R_3C_4	3	6	-3	-6	-1
R_3C5	5	13	-8	-16	-1.230769231
R_2C_1	150	112	38	2926	26.125
R_2C_2	46	53	-7	-189	-3.566037736
R_2C_3	2	15	-13	-13	-0.866666667
R_3C_4	2	6	-4	-8	-1.333333333
R_3C5	1	13	-12	-24	-1.846153846
Total					χ^2 **= 33.93450653**

Source: *Field Study, 2021*

Decision

Since the table value χ^2 (33.93450653) is greater than the computed χ^2 value (31.410), it means we reject the null hypotheses and accept alternative hypotheses which says there are factors responsible for corporate financial crimes in Nigeria.

Hypothesis II

There is no economic implication of corporate financial crimes on Nigeria economy.

Table 4.2.2: No. of Responses

Q	Strongly Agree	Agree	Undecided	Strongly Disagree	Disagree	Total
11	153	35	8	0	8	198
12	150	42	5	0	1	198
13	155	40	2	2	1	198
Total	**458**	**117**	**15**	**2**	**10**	**594**

Source: Field Study, 2021

df = (R – 1) (C – 1)
= (3 – 1) (5 – 1)
= 2 x 4 = 8

Margin for error = 5% or 0.05

Table value of χ^2 @ 0.05 level of significance at degree of freedom of 8 = 15.5.

Row/column	F_0	F_e	F_0-F_e	$(F_0-F_e)^2$	$\frac{(F_0-F_e)^2}{F_e}$
R_1C_1	153	127	26	2002	15.76377953
R_1C_2	35	51	-16	-432	-8.470588235
R_1C_3	8	12	-4	-4	-0.333333333
R_1C4	2	3	-1	-2	-0.666666667
R_1C5	0	5	-5	-10	-2

Row/column	F_0	F_e	F_0-F_e	$(F_0\text{-}F_e)^2$	$\frac{(F_0\text{-}F_e)^2}{F_e}$
					13.94488189
R_2C_2	42	51	-9	-243	-4.764705882
R_2C_3	5	12	-7	-7	-0.583333333
R_3C_4	0	3	-3	-6	-2
R_3C5	1	5	-4	-8	-1.6
R_2C_1	155	127	28	2156	16.97637795
R_2C_2	40	51	-11	-297	-5.823529412
R_2C_3	2	12	-10	-10	-0.833333333
R_3C_4	1	3	-2	-4	-1.333333333
R_3C5	0	5	-5	-10	-2
Total					χ^2 **= 16.27621584**

Source: *Field Study, 2021*

Decision

Since the table value χ^2 (16.27621584) is greater than the computed χ^2 value (15.5), it means we reject the null hypotheses and accept alternative hypotheses which says there are factors responsible for corporate financial crimes in Nigeria.

Hypothesis III

The EFCC have not being effective in prosecuting corporate financial crimes in Nigeria.

Table 4.2.3: No. of Responses

Q	Strongly Agree	Agree	Undecided	Strongly Disagree	Disagree	Total
14	112	74	8	2	2	198
15	118	55	13	2	10	198
16	148	30	10	0	10	198
17	105	43	28	5	17	198
18	159	15	9	7	8	198
Total	**642**	**217**	**68**	**16**	**47**	**990**

Source: Field Study, 2021

df = (R – 1) (C – 1)
= (5 – 1) (5 – 1)
= 4 x 4 = 16

Margin for error = 5% or 0.05

Table value of χ^2 @ 0.05 level of significance at degree of freedom of 16 = 26.296

Row/column	F_0	F_e	F_0-F_e	$(F_0-F_e)^2$	$\frac{(F_0-F_e)^2}{F_e}$
R_1C_1	112	116.4	-4.4	-338.8	-2.910652921
R_1C_2	74	55.4	18.6	502.2	9.064981949
R_1C_3	8	14	-6	-6	-0.428571429
R_1C4	2	3.2	-1.2	-2.4	-0.75
R_1C5	2	9.4	-7.4	-14.8	-1.574468085
R_2C_1	118	116.4	1.6	123.2	1.058419244
R_2C_2	55	55.4	-0.4	-10.8	-0.194945848
R_2C_3	13	14	-1	-1	-0.071428571
R_3C_4	2	3.2	-1.2	-2.4	-0.75
R_3C5	10	9.4	0.6	1.2	0.127659574
R_2C_1	148	116.4	31.6	2433.2	20.90378007
R_2C_2	30	55.4	-25.4	-685.8	-12.37906137
R_2C_3	10	14	-4	-4	-0.285714286
R_3C_4	0	3.2	-3.2	-6.4	-2
R_3C5	10	9.4	0.6	1.2	0.127659574
R_1C_1	105	116.4	-11.4	-877.8	-7.541237113
R_1C_2	43	55.4	-12.4	-334.8	-6.0433213
R_1C_3	28	14	14	14	1
R_1C4	5	3.2	1.8	3.6	1.125
R_1C5	17	9.4	7.6	15.2	1.617021277
R_2C_1	159	116.4	42.6	3280.2	28.18041237
R_2C_2	15	55.4	-40.4	-1090.8	-19.68953069
R_2C_3	9	14	-5	-5	-0.357142857
R_3C_4	7	3.2	3.8	7.6	2.375
R_3C5	8	9.4	-1.4	-2.8	-0.29787234
Total					χ^2 **= 10.30598725**

Source: Field Study, 2021

Decision

Since the table value χ^2 (10.30598725) is less than the computed χ^2 value (26.296), it means we therefore accept the null hypotheses and reject the alternative hypotheses which says the EFCC have not being effective in prosecuting corporate financial crimes in Nigeria.

Discussion of Findings

The major findings of this study are:

1. That lack of control over management by directors of corporate organizations, corporate culture, collusion between employees and third party, management override of internal controls, weakness in traditional auditing style has contributed

to corporate financial crimes among others are factors responsible for corporate financial crimes in Nigeria.

2. That there are economic implication of corporate financial crimes on Nigeria economy, such as having negative effect on economy image, discourage foreign capital inflow, as well as reducing economic performance.
3. That the EFCC have not being effective in prosecuting corporate financial crimes in Nigeria due to over protection of top corporate officials involving in financial crime, fear of the unknown, sincerity on the part of the presiding judge, etc.

Conclusion

The prosecution of those involved in financial crime 2007 till date by the Economic and Financial Crimes Commission were inconclusive as shown by the various presentations and narratives. With the exception of the case of the former Edo State Governor, Lucky Igbinedion, who was released by the court after fulfilling all the terms of the plea bargain, no any other high profile corruption case has been successfully concluded by the EFCC. The EFCC contributes to its inability to be effective in the discharge of its mandate. However, the activities of the lawyers, judges and the government as represented by the Attorney-General of the Federation, contributed more to the weak performance of the EFCC as clearly enumerated.

Furthermore, some members of the Judiciary and senior lawyers have been accused of colluding with the accused in frustrating the trial of high profile corrupt persons. It was observed that the case with which persons accused of crimes like possession of fake currency are prosecuted and convicted within few weeks, while endless delays are granted to the accused in high profile corruption cases at the behest of the lawyers (Oluokun, 2012). In addition, it was further observed that senior lawyers were too attracted to money to be made from defending highly corrupt persons to the extent that some of them were totally without inhibition. For example, there was an incidence in which six Senior Advocates of Nigeria (SANs) at an Abuja High Court were scrambling to appear for six suspects arraigned before an Abuja High Court on a 16 counts charge of stealing N32.8 billion. In addition, the activities of the EFCC in the prosecution of cases in court have also been called to question. As it has been proven that the EFCC is fond of filing for amendments of the charges against accused persons after their arraignment on the basis to which lawyers to the accused persons always use the opportunity to ask for adjournments to enable them study and respond to the new charges (Oluokun, 2012).

Recommendations

Based on the findings made and conclusions drawn from the study, the following recommendations were made:

The activities of the anti-corruption agencies in Nigeria such as the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices and Related Offences Commission (ICPC) should be strengthened. The rule of law must be upheld to instill sanity in the administration of justice. Equal treatment of corrupt officials is a necessity. There should be no exceptions to the rules as the law is no respecter of persons. Nigeria's legal and judicial system should be reviewed and restructured to handle swiftly the cases of people that are engaged in corrupt practices. There is a need for the introduction of measures that will make both the means and rewards of corruption unprofitable for the perpetrators by applying strict sanctions.

The Government should set up a Special Court that will try all those accused of economic and financial crimes and other corruption related offences. Also, in order to reduce the amount of injunctions and adjournments which usually keep financial crimes cases on perpetually, the provision of section 40 of the EFCC (Establishment) Act, which clearly stated that subject to the provisions of the Constitution of the Federal Republic of Nigeria 1999, an application for stay of proceedings in respect of any criminal matter brought by the Commission before the High Court shall not be entertained until judgment is delivered by the High Court; Section 19 (2) of the Act stated that "The court shall have power, notwithstanding anything to the contrary in any other enactment; (b) to ensure that all matters brought before the court by the commission shall be conducted with dispatch and given accelerated hearing; (c) the court shall adopt all legal measures necessary to avoid unnecessary delays and abuse in the conduct of matters brought by the commission (EFCC), before it or against any person, body or authority; should be respected, upheld and invoked by the EFCC and the Courts.

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DIRECTORS' REPUTATION CAPITAL AND AUDITOR SELECTION CHOICE OF QUOTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

This study investigated the effect of directors' reputation capital on auditor selection choice of quoted manufacturing firms in Nigeria. Reputation is one of the top 10 business risks and a potential threat to a company's wellbeing or even its existence; the study specifically evaluated the effect of directorship industry reputation and directorship experience reputation on the choice of selecting an audit firm. The study is anchored on two theories: 'agency theory' and 'resource dependency theory'. The study adopted the ex-post facto research design. The population of the study included all manufacturing firms quoted on the Nigerian Stock Exchange (NSE) as of 31st December 2019. The study relied on secondary sources of data which was obtained from the Nigerian Stock Exchange (NSE) as of 31st December 2019. The study employs binary logistic regression to test the hypotheses. The study revealed a non-significant negative effect of directorship industry reputation on the choice of selecting a Big-4 or non-Big-4 audit firm. The study also found a significant positive effect of directorship experience reputation on the choice of selecting a Big-4 or non-Big-4 audit firm. Consequent to the findings, the study, therefore, recommends amongst others that the possible loopholes that may elude particular audit firms based on experience are put into consideration in the decision to choose a Big-4 or non-Big-4 audit firm.

Keyword: Reputation Capital, Auditor Choice, Directorship Industry Reputation, Directorship Experience Reputation

Introduction

The Board of Directors is the most prominent group of actors in corporate governance (Association of Chartered Certified Accountants [ACCA], 2012). The board is a key important element central to the internal corporate governance mechanism of a firm (Mousa, Desoky, & Sanusi, 2012). Boards are responsible for the governance of their companies. The board is the "apex decision-making body" (Kassinis & Vafeas, 2002), responsible for corporate strategy (Mallin & Michelon, 2011), regardless of whether it is "proactively pursued or passively rubber-stamped" (Kassinis & Vafeas, 2002). The board is responsible for the identification, assessment and management of all types of risk, including business risk, operating risk, market risk and liquidity risk (Financial Reporting Council [FRC], 2010b). The board is crucial in mitigating the agency problem which arises from the separation of ownership and control (Shleifer & Vishny, 1997; Fama 1980).

Regardless of the status of a director, they play two critical functions, first, monitoring (control role); and, secondly, provision of resources (service role) (Hillman & Dalziel, 2003). Following several corporate scandals that rocked the business world from the early 2000s, concern for corporate reputation has greatly increased (Fich & Shivdasani, 2007). An organization's reputation is a reflection of how it is regarded by its multiple stakeholders (Feldman, Bahamonde, & Velasquez Bellido, 2014). The reputational stance of an organization can enable it to obtain trust and credibility in the society, which invariably leads to the achievement of its objectives and goals (Baur & Schmitz, 2011). At the heart of corporate reputation is the reputation of the board; which is responsible for steering the affairs of the company. The ultimate responsibility for achieving and maintaining a good reputation lies with the board and/or the CEO (Dowling, 2004; Kitchen and Laurence, 2003). Reputation plays a crucial role in tackling the agency problem which arises from incomplete and asymmetric information between the principal and the agent (Janssen, 2009).

The directors in a bid to safeguard their reputation decide on investing in "audit-related services of their company" (Fredriksson, Kiran, & Niemi, 2018, p. 4). Aguolu (2008, p.1) defined auditing as "the independent examination of the financial statements of an organization to express an opinion on whether these statements present a true and fair view and comply with relevant statutes and the International Financial Reporting Standards".

Prior studies have shown that reputation concern affects the strategic choices of directors and their ability to generate future rents (Francis, Huang, Rajhopal, & Zang, 2008; Fich & Shivdasani, 2007; Jackson, 2005). The external audit selection choice is a strategic choice that is bent on providing a reasonable assurance of financial reporting quality (Choi & Wong, 2007). The literature on auditor selection choice is vast and several studies have examined factors affecting a client's decision to choose a particular audit firm (Gigler & Penno, 1995; DeFond, 1992; Dye, 1991; Johnson & Lys, 1990). The factors are subdivided into two: (a) client-related; and, (b) auditor-related factors. Management change, financial distress and client sizes may be considered client-related factors; while, audit opinion qualification, audit quality, and change in auditor fees constitute auditor-related factors (Ismail, Aliahmed, Nassir, & Hamid, 2008).

Generally, firms make a trade-off decision on auditor choice, i.e., hiring high-quality auditors to signal effective monitoring and good corporate governance, or choose lower quality auditors to reap the benefits derived from weak corporate governance or less-transparent disclosure (Lin & Liu, 2009a). Presently, about 2,000 audit firms supply audit services to domestic listed and unlisted companies in Nigeria (World Bank, 2011). However, the market is dominated by the "Big Four" firms (KPMG Professional Services; Ernst & Young; Deloitte Touche Tohmatsu; and Price water house Coopers) which audit about 90 per cent of listed firms in Nigeria, while the remaining national firms audit the remaining 10 per cent (World Bank, 2004). While studies have disparately examined issues related to board characteristics and auditor selection decisions in Nigeria, the literature is scanty on the relationship between directors' reputation capital and auditor selection choice. Prior studies have shown a positive link between reputation and superior financial performance (Brammer & Millington, 2005; Berens, 2004; Roberts & Dowling, 2002; Baden-Fuller & Hwee, 2001; Chernatony, 1999), the link between reputation capital and corporate social performance (Mallin & Michelon, 2011) or factors which determine the selection process (Kusters, 2016). Prior studies, such as Akpan and Amran (2014); Ujunwa (2012) in Nigeria have also established a causal relationship between directorship human capital reputation and company's financial performance; others, such as Cheng, Chan, and Leung (2010) in China, show that university degrees held by the board chairman were positively associated with seven measures of performance (EPS, ROA, cumulative returns, cumulative abnormal returns, change in EPS, change in ROA, and market-to-book ratio).

Thus, the literature is scanty on the link between reputation capital and auditor selection choice. Against this backdrop, the present study seeks to evaluate the influence directors' reputation capital has on auditor selection choice of quoted manufacturing firms in Nigeria.

Objectives of the Study

The main objective of the study is to ascertain the effect of directors' reputation capital on auditor selection choice of quoted manufacturing firms in Nigeria. The specific objectives of the study are to:

1. Determine the effect of directorship industry reputation on auditor choice of quoted manufacturing firms in Nigeria.
2. Examine the effect of directorship experience reputation on auditor choice of quoted manufacturing firms in Nigeria.

Literature Review

Conceptual Framework

Directors' Reputation Capital

Reputation is the beliefs or opinions that are held about an individual (CIPR, 2011). These "beliefs or opinions are formed through expectations (what and how it will deliver and how it will behave), experiences (what it has delivered and how it has behaved, which builds trust), the messages people are exposed to and the conversations they participate in or observe" (CIPR, 2011). Fombrun (1996) defined reputation as "a perceptual representation of a company's past actions and prospects that describe the firm's overall appeal to all its key constituents when compared to other leading rivals". To safeguard corporate reputation, shareholders usually select the board of directors to monitor the managers (Berk & DeMarzo, 2007). From a directorship perspective, reputation may be defined as the totality of the intangible perception of an individual director. Fombrun and Van Riel (1997) observed that reputation may be regarded as an intangible asset because it is “rare, difficult to imitate or replicate, complex and multidimensional, which needs a lot of time to accumulate, specific, difficult to manipulate by the firm, with no limits in its use and does not depreciate with use”.

Directorship industry reputation

Directorship industrial reputation in the corporate governance literature represent boards with directors serving on boards of other companies too (Fredriksson, Kiran, & Niemi, 2018). Directors who possess multiple directorships are viewed as experienced monitors (Shivdasani, 1993), competent and of high quality (Fredriksson, Kiran, & Niemi, 2018). They hold multiple board seats as they fulfil their responsibilities more effectively and as a result incur lower agency costs to their respective firms (Jiraporn, Kim, & Davidson, 2008). Directors who have more connections tend to have better access to information that can be useful in decision making (Coles, Lemmon, & Meschke, 2012). The literature documents that a director’s reputation capital increases with the number of directorships held and/or with compensation incentives (Bugeja, Rosa, & Lee, 2009; Kaplan & Reishus, 1990).

However, there are opposing views on the benefits of multiple directorships. Studies argue that being involved with many companies makes a director too ‘busy’, thus, reducing the quality of work (Tanyi & Smith, 2015; Ferris, Jagannathan, & Pritchard, 2003). Such directors may fail to concentrate their monitoring and supervisory roles, as they become too busy. Sila, Gonzalez, and Hagendorff (2017) find that there is a positive link between directors’ reputation incentives and firm transparency. According to Reeb and Roth (2014) reputation reduces the confidence interval around hard (quantifiable) information estimates, thereby increasing creditor reliance on publicly available accounting statements. Reputation builds competitive advantage (Hall, 1993; Fombrun & Shanley, 1990) and improves financial performance (Fernández & Luna, 2007; Roberts & Dowling, 2002).

Directorship experience reputation

From a resource-based perspective, directors from different backgrounds bring different experiences and values to the board. The background of a director has a significant influence on the role of the director (Markarian & Parbonetti, 2007). Hillman, Cannella, and Paetzold (2000) observe that specialists provide advice and specialized expertise to the management team in issues related to law, finance, insurance, or capital markets. Zaman, Hudaib, & Haniffa (2011, p. 176) measured expertise in terms of “accounting, finance or professional accounting qualifications”. According to Dass, Kini, Nanda, Onal, and Wang (2014), the expertise of directors from related industries can strengthen the quality of information available to the board and improve their monitoring function, thereby enhancing board effectiveness. According to Faleye, Hoitash, and Hoitash (2014) industry expertise is one of the most important qualifications directors can bring to the boardroom because it offers an understanding of strategic opportunities and competitive threats.

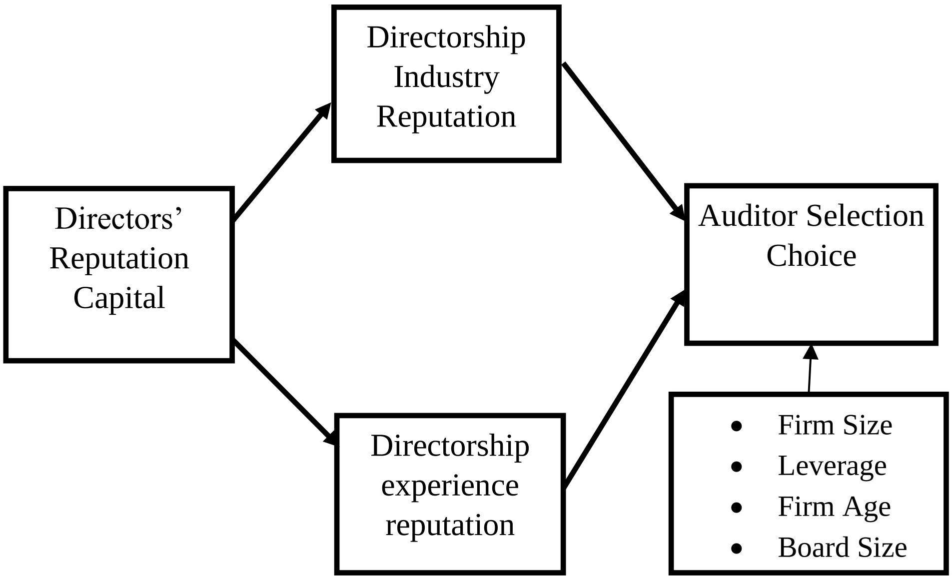
Studies have shown that audit quality is positively related to specialization and industry expertise. García-Meca and Palacio (2018) using a sample of 43 firms included in the MERCO (Spanish Monitor of Corporate Reputation) from 2004 to 2015 showed that the proportion of business experts, support specialists, and other community influential had a positive statistically significant effect on corporate reputation. Francis, Hasan, and Wu (2015) found that the presence of academic directors is associated with higher acquisition performance, higher stock price informativeness and lower discretionary accruals. Courtney and Jubb (2005), found that Interlocking directors are in "one of the best positions to judge the relative quality of audits due to their experience with various service providers". According to Redor (2016), it is reasonable to believe that such directors are more experienced, provides better advice, and/or offer better monitoring. Lanfranconi and Robertson (2002) note that the breakdown of the Enron and WorldCom scandals was partly attributed to the lack of experience of their board members.

Auditor Selection Choice

The external audit plays an important role in the corporate governance process (Abidin, 2006). They play a role in monitoring a firm's financial reporting process (Fan & Wong, 2005; Ashbaugh & Warfield, 2003). In Nigeria, the requirement for auditing public limited liability companies is enshrined in the Companies and Allied Matters Act. Specifically, According to the Cadbury Report (1992, p. 36), the annual audit is "one of the cornerstones of corporate governance…The audit provides an external and objective check on how the financial statements have been prepared and presented."

The auditor selection choice is a decision where company managers need to assess the marginal benefits and marginal costs in hiring a specific auditor (Okere, Ogundipe, Oyedeji, Eluyela, & Ogundipe, 2018). Shareholders are interested in auditor selection because it affects shareholders wealth (Jubb, 2000). In theory, auditor switch may take different forms, i.e., switching to a smaller auditor or a larger auditor (Lin & Liu, 2009b). Prior studies have shown that switching to smaller auditors results in a negative response from investors and other market participants. This is opposed to the latter, which results in improved audit quality and decreasing likelihood of earnings management or "tunnelling" behaviours (Lin & Liu, 2009b). Using a sample of 183 firms listed on the Karachi Stock Exchange Abid, Shaique, and ul Haq (2018) found no statistically significant difference between earnings management activities of firms audited by Big 4 and non-Big 4 auditors. The factors which affect auditor selection choice may be broadly classified into behavioural, economic or a mix of both. They include such as disagreement about the content of financial reports (Addams & Davis, 1994); disagreement about auditor opinion (Haskins & Williams, 1990); change of management (Beattie & Fearnley, 1998); auditor fees (Ismail, Aliahmed, Nassir, & Hamid, 2008; Addams & Davis, 1994); audit firm size and reputation, among others, (Knechel, Niemi, & Sundgren, 2008; Knechel, 2002).

Figure 1: Schematic representation of conceptual framework.



Source: Researchers Conceptualization (2019)

Theoretical Framework

The study is anchored on two theories: '*agency theory*' and '*resource dependency theory*'. The justification for both theories is premised on the fact that the board has two functions: the monitoring and service function. The monitoring function is mainly analysed from the agency perspective (Fama & Jensen, 1983; Jensen & Meckling, 1976), given the potential for conflict of interest arising from the separation of ownership and control (Berle & Means, 1932). On the other hand, the focus on the service role of boards is the perspective adopted in the resource dependence (Hillman, Cannella, & Paetzold, 2000; Pfeffer & Salancik, 1978; Pfeffer, 1972).

Agency Theory

The origin of '*Agency theory*' can be traced to the early work of Berle and Means (1932); who observed that separation of ownership and control in modern corporations result in potential conflicts between shareholders and management. It was originally associated with agency costs by Jensen and Meckling (1976). According to Jensen and Meckling (1976), an "agency relationship refers to a "contract under which one or more persons (the principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". Eisenhardt outlined two streams of the theory which developed over time:

"the *principal-agent* where both act in concert and the *positivist* perspective where they are likely to have conflicting goals" (Eisenhardt, 1989).

Resource Dependence Theory (RDT)

RDT was first used in the finance literature by Pfeffer (1973). RDT posits that corporations depend on the environment and other organizations for required resources (Pfeffer & Salanick, 1978). According to RDT, a firm is an open social system that depends on the external environment; and, thus organisations' attempt to exert control over their environment by co-opting the resources needed to survive (Pfeffer & Salancik, 1978). It provides a theoretical foundation for the role of the board of directors (Johnson, Daily, & Ellstrand, 1996), and how they might facilitate access to valuable resources for the firm (Diepen, 2015). RDT view directors as a critical link between the firm and the external environment. The board plays a crucial role in linking firm and social resources such as human, information or capital resources (Boyd, 1990; Pfeffer, 1973).

Empirical Review

Fredriksson, Kiran, and Niemi (2018) examined the relationship between the reputation capital of the board of directors and the demand for audit quality in Finland. The study was based on a sample of 940 firm-year observations from listed companies on the Nasdaq OMX Helsinki, over the period 2007-2016. They proxied audit quality in two ways: (1) fees paid to the auditor; and, (2) abnormal working capital accruals. The results showed that both measures of reputation capital (number of directorships directors possess and total compensation that directors earn from their directorships) were positively associated with audit fees, and negatively associated with abnormal working capital accruals.

Huang and Kang (2018) investigated the effect of corporate reputation on auditor selection choice using a sample of Fortune 1000 companies. Corporate reputation was measured using the reputation scores from Fortune's "America's Most Admired Companies" list. The data were analysed using multiple regression, Heckman procedures and instrumental-variable two-stage least square regressions. The results demonstrate that corporate reputation is positively related to auditor selection choice, i.e., firms with higher reputations were more likely to hire industry-specialist auditors than their counterparts.

In Turkey, Mustafa, Che Ahmad, and Chandren (2017) examined the relationship between board diversity and audit quality. Board diversity comprised demographic diversity (gender and age) and cognitive diversity (interlocking directorship and levels of education). The sample comprised 83 firms which gave rise to 415 firm-year observations for the period 2011 to 2015. They used a random effect estimation model. The results showed that interlocking directorship and boards with Master degree holders had a significant positive impact on clients' demand for high audit quality.

Ghafran and O'Sullivan (2017) investigated the impact of audit committee expertise on audit quality in the U.K. The sample comprised FTSE350 companies and a total of 991 firm-year observations. The sample comprised secondary data between 2007 and 2010. The OLS results showed that audit committees with accounting expertise were non-significant and negative; audit committees with non-accounting expertise was significant and positive. Also, audit committee interlocking, represented by additional audit committee seats held in other listed firms had a negative non-significant effect.

Salawu, Okpanachi, Yahaya, and Dikki (2017) investigated the effect of audit committee expertise on audit quality in Nigeria. The study used a longitudinal panel research design. The sample comprised 15 manufacturing firms. The study relied on secondary data covering a period of 11 years, from 2006 to 2016. The hypotheses were tested using the multiple regression technique. The results showed that audit committee expertise has a positive non-significant effect on audit quality.

Kusters (2016) investigated the impact of professional networks of directors on auditor choice in the Netherlands. The sample comprised 119 Dutch listed firms over 10 years from 2006 to 2015, i.e., corresponding to 7,472-year observations. Board interlocks were used to proxy professional networks. The data were analysed using logistic regression. The results showed that board interlock has a positive significant effect on the choice of an auditing firm; and, the effect was stronger when an auditing firm has more interlocks with a firm compared to other auditing firms.

Asiriuwa, Aronmwan, Uwuigbe, and Uwuigbe (2015) in Nigeria, examined the relationship between audit committee attributes and audit quality. The study adopted the ex-post facto research design. The sample comprised 50 firms quoted on the Nigerian Stock Exchange. The study relied on secondary data from annual reports of the companies. The data was analysed using the Binary probit regression model. The results revealed that the number of expertise and overall effectiveness of the audit committee have a positive relationship with audit quality. However, only overall effectiveness was significant.

Bravo, Abad, and Briones (2015) investigated the association between the board of directors and corporate reputation in Spain. The sample comprised listed companies in Madrid Stock Exchange (Índice General de la Bolsa de Madrid) during the period 2004 to 2010. They employed logistic and multivariate regressions to analyse the data. The Results of the empirical analysis show that companies that appear high up in terms of ranking in the reputation index provided by MERCO tend to have a higher percentage of independent directors as well as more female directors on their board.

Cheng and Leung (2012) investigated the effects of management demography on auditor choice and earnings quality in China. They used a sample of 3,881 firm-year observations between 2001 and 2005. The data were analysed using multiple regression. The results showed that firms that had chairpersons with better reputations (i.e., holding titles) prefers well-known auditors on a national basis, regional basis and in the industry group. Also chairpersons with titles and longer tenure report higher quality earnings.

Singh and Sultana (2012) examined the effect of the board of directors' independence, financial expertise, gender, corporate governance experience and diligence on audit report lag in Australia. They used a pooled sample of 500 firm-year observations for the period 2004 to 2008. They used Ordinary Least Squares (OLS) regression to analyse the relationship between board characteristics and audit report lag. The results showed evidence that independence, financial expertise and interlocking directorships had a negative significant effect on audit report lag. However, board diligence was positive and non-significant.

Gap in Literature

Despite being one of the top 10 business risks and a potential threat to a company's wellbeing or even its existence, directors' reputations have received little attention from scholars as the literature is scanty on the link between reputation capital and auditor selection choice (Ernst & Young & Tapestry Networks, 2015). The study by Lu and Cao (2018) in China; showed evidence that individual characteristics of board members such as education, experience, certification, integrity and training were related to internal control deficiencies thus, boards play a crucial role in the auditor selection process. The following gaps were identified in the study. *Firstly,* the influence of directorship industrial reputation has not been sufficiently investigated in the corporate governance literature in Nigeria. The majority of studies focused on holistic board information, such as board sizes, etc., without having a disaggregated view of board members peculiarities. The literature has shown evidence that directorship industrial reputation increases the experience and quality of the directors. *Secondly,* the bulk of studies have focused mainly on audit committee membership, a subcommittee of the overall board of directors. Studies did not consider *the* auditor selection choice and the resource-based proponents which posit that directors from different backgrounds bring different experiences and expertise to the board. Salawu, Okpanachi, Yahaya, and Dikki (2017), Omoye and Aronmwan (2013). Hence, the study is therefore set out to breach the gaps identified.

Methodology

Research Design

The study adopted the *ex-post facto* research design. The design is suitable because the researcher is interested in establishing the causal relationship among the dependent and independent variables. The population comprised of quoted manufacturing firms on the Nigerian Stock Exchange (NSE) as of December 2019. The final sample was delimited to sixteen (16) consumer goods companies using the purposive sampling technique. Only companies with consistent activities and published financial statement over the 8 years were selected for the study. The selected companies are shown in the table below:

Table 1: List of firms included in the sample

SN	Companies	Sector	YOI	Country
1	Cadbury Nig	Consumer Goods	1975	Nigeria
2	Champion Breweries	Consumer Goods	1982	Nigeria
3	Dangote Sugar	Consumer Goods	2006	Nigeria
4	Flour Mills Of Nigeria	Consumer Goods	1978	Nigeria
5	Guinness Nig	Consumer Goods	1964	Nigeria
6	Honywell Flour Mill	Consumer Goods	2008	Nigeria
7	International Breweries	Consumer Goods	1994	Nigeria
8	Mcnichols Consolidated	Consumer Goods	2008	Nigeria
9	Nascon Allied	Consumer Goods	1991	Nigeria
10	Nestle Nig	Consumer Goods	1978	Nigeria
11	Nigeria Breweries	Consumer Goods	1972	Nigeria
12	Nigerian Enamelware	Consumer Goods	1978	Nigeria
13	Nigerian Northen Flour Mill	Consumer Goods	1977	Nigeria
14	Pz Cussons	Consumer Goods	1973	Nigeria
15	Unilever Nig	Consumer Goods	1972	Nigeria
16	Vitafoam Nig	Consumer Goods	1977	Nigeria

Source: Nigerian Stock Exchange Website (2019)

Source of Data

The data for the study is secondary. Secondary data are information or data that has previously been collected and recorded for other purposes (Blumberg, Cooper, & Schindler, 2008). The data were extracted from the financial statements of the selected companies. The reliability of the data was ensured because annual reports are standardized and produced regularly (Buhr, 1998).

Methods of Data Analysis

The study employs descriptive statistics such as the mean, median, standard deviation, minimum, maximum values, and Skewness-Kurtosis statistics, etc. and multiple regression was used to validate the hypotheses. According to Hair, Black, Babin, Anderson, and Tatham (2006) multiple regression is a 'statistical technique which analyses the relationship between a dependent variable and multiple independent variables by estimating coefficients for the equation on a straight line'. The study specifically employs logistic regression. Logistic regression is used for the prediction of the probability of occurrence of an event by fitting data to a logistic curve. It is used mostly when the dependent variable has two possible outcomes: Big 4 or non-Big 4.

According to Hair, Black, Babin, Anderson, and Tatham (2006), *logistic regression* does not require the assumption of multivariate normality.

Model Specification

The empirical models specified below were tested to test the hypotheses. They can be written econometrically as:

$Audic_{it} = \eta_0 + \eta_1 DIR_{it} + \eta_2 Size_{it} + \eta_3 Leverage_{it} + \eta_4 Firm\text{-}Age_{it} + \eta_5 BoardSize_{it} + \sum_t$ ....(1)

$Audic_{it} = \eta_0 + \eta_1 DER_{it} + \eta_2 Size_{it} + \eta_3 Leverage_{it} + \eta_4 Firm\text{-}Age_{it} + \eta_5 BoardSize_{it} + \sum_t$ ....(2)

Where:

Audic	=	Auditor Selection Choice of Big-4 or Non Big-4 Audit firms.
DIR	=	Directorship industry reputation
DER	=	Directorship experience reputation
$\sum$	=	Stochastic or disturbance term.
t	=	Time dimension of the Variables
η_0	=	Constant or Intercept.
$\eta_{1\text{-}5}$	=	Coefficients to be estimated or the Coefficients of slope parameters.

Description of variables

Table 2. Variable description and measurement

Variable	Proxy	Description
Directorship industry reputation	DIR	Natural logarithm of the total number of outside board seats held by the board of directors
Directorship experience reputation	DER	Blau's index is used to calculate the distribution of directors according to their specialisation. It is defined as the difference between 1 and the sum of the squares of the proportion of unit members (directors) *d* in each category *k* that composes the group, i.e., three categories (business experts, support specialists, and community influential) (García-Meca & Palacio, 2018). $\text{Diversity} = 1 - \sum (d_k)^2$
		Dependent Variable
Auditor Selection Choice	Audic	Auditor choice is a dummy variable that takes the value of 1 when the firm is audited by Big 4 (The "BIG 4" are: PriceWaterhouseCoopers, Deloitte &Touche, KPMG, and Ernst & Young). This proxy is consistent with prior researchers to represent audit quality, as the size of audit firm (DeFond& Lennox, 2011; Guy, Ahmed, & Randal, 2010; Sundgren and Svanström, 2013; Kim et al., 2013)
		Control Variables
Firm Size	Size	Log of total assets
Firm Leverage	Leverage	Total long-term liabilities divided by total asset
Firm Age	FA	The number of years since initial listing.
Board Size	BS	The number of Directors sitting in the Board for a particular period.

Source: Researchers Compilation, (2019)

Data Analysis and Discussion

The descriptive statistics and the correlation matrix are shown in the Appendix.

Test of Hypotheses

Hypothesis One

H_1: There is a significant positive effect of directorship industry reputation on the choice of selecting a Big-4 or non-Big-4 audit firm.

Binary logistic regression output for hypothesis one
Dependent Variable: AUDIT_CHOICE
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-29.69976	6.450020	-4.604600	0.0000
DIR	-1.265021	0.710554	-1.780329	0.0750
FirmSize	1.317505	0.328825	4.006708	0.0001
Leverage	-0.203212	0.352597	-0.576330	0.5644
Board Size	0.360729	0.276110	1.306467	0.1914
Firm Age	0.033066	0.026763	1.235496	0.2166

McFadden R-squared	0.669371	Mean dependent var	0.857143
S.D. dependent var	0.350973	S.E. of regression	0.217257
Akaike info criterion	0.342621	Sum squared resid	7.646505
Schwarz criterion	0.454191	Log likelihood	-22.78016
Hannan-Quinn criter.	0.387902	Deviance	45.56031
Restr. Deviance	137.7991	Restr. log likelihood	-68.89954
LR statistic	92.23877	Avg. log likelihood	-0.135596
Prob(LR statistic)	0.000000		
Obs with Dep=0	14	Total obs	128
Obs with Dep=1	114		

Source: E-Views 9

Decision:
The coefficient of DIR is negatively related to the choice of selecting a Big-4 or non-Big-4 audit firm, however, it is found to be insignificant. Thus, the null hypothesis is accepted and the alternate rejected. Therefore, there is 'no significant positive effect of directorship industry reputation on the choice of selecting a Big-4 or non-Big-4 audit firm'.

Control Variables
With regards to the control variables, the proxy for firm size is positively related to the choice of selecting a Big-4 or non-Big-4 audit firm. This association is also statistically significant @ .01. Other variables of Board Size and Firm Age were also positively related to the choice of selecting a Big-4 or non-Big-4 audit firm; however, they were not statistically significant. The variable of Leverage was negative and also not statistically significant.

Hypothesis Two
H_1: There is a significant positive effect of directorship experience reputation on the choice of selecting a Big-4 or non-Big-4 audit firm

Table 4: Binary logistic regression output for hypothesis two
Dependent Variable: AUDIT_CHOICE
Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-54.39309	15.26638	-3.562933	0.0004
DER	25.31757	10.48836	2.413872	0.0158
FirmSize	1.679497	0.446243	3.763638	0.0002
Leverage	0.393891	0.329477	1.195504	0.2319
Board Size	0.326282	0.513879	0.634940	0.5255
Firm Age	0.074663	0.027751	2.690428	0.0071

McFadden R-squared	0.702904	Mean dependent var	0.857143
S.D. dependent var	0.350973	S.E. of regression	0.203336
Akaike info criterion	0.315116	Sum squared resid	6.697949
Schwarz criterion	0.426686	Log likelihood	-20.46977
Hannan-Quinn criter.	0.360397	Deviance	40.93953
Restr. Deviance	137.7991	Restr. log likelihood	-68.89954
LR statistic	96.85955	Avg. log likelihood	-0.121844
Prob(LR statistic)	0.000000		
Obs with Dep=0	14	Total obs	128
Obs with Dep=1	114		

Source: E-Views 9

Decision

The coefficient of DER is positively related to the choice of selecting a Big-4 or non-Big-4 audit firm, and, is also found to be significant. Thus, the null hypothesis is rejected and the alternate accepted. Therefore, there is 'a significant positive effect of directorship experience reputation on the choice of selecting a Big-4 or non-Big-4 audit firm'.

Control Variables

With regards to the control variables, the proxy for firm size and Firm Age were positively related to the choice of selecting a Big-4 or non-Big-4 audit firm. Both control variables were statistically significant @ .01. The other control variables Leverage and Board Size were positive but not statistically significant.

Discussion of findings

The hypotheses testing revealed that there is a non-significant negative effect of directorship industry reputation on the choice of selecting a Big-4 or non-Big-4 audit firm. There is a slight deviation of this finding from the prior expectations of the study which shows a non-significant negative effect of directorship industry reputation on the choice of selecting a Big-4 or non-Big-4 audit firm. However, this finding is in line with Ghafran and O'Sullivan (2017) in the U.K, and Singh and Sultana (2012) in Australia that found that independence, financial expertise and interlocking directorships had a negative significant effect on audit report lag. However, Huang and Kang (2018) revealed a contrary finding when they investigated the effect of corporate reputation on auditor selection choice using a sample of Fortune 1000 companies and found that corporate reputation is positively related to auditor selection choice.

The study also reveals a significant positive effect of directorship experience reputation on the choice of selecting a Big-4 or non-Big-4 audit firm. This conforms wholly to the study prior expectation and is also consistent with Salawu, Okpanachi, Yahaya, and Dikki (2017) who investigated the effect of audit committee expertise on audit quality in Nigeria. The study used a longitudinal panel research design and found that audit committee expertise has a positive non-significant effect on audit quality.

Conclusion and Recommendations

The study investigated the effect of directorship reputation capital on the choice of selecting a Big-4 or non-Big-4 audit firm. Audit firms are broadly categorised as a Big-4 or non-Big-4 firms. Audit firms compete for clients in the audit market; and, the choice of a particular audit firm is predominantly based on the recommendation of the Board of Directors subject to ratification by the Shareholders. The study utilises two proxies of directorship reputation capital identified from prior literature; i.e., directorship industry reputation and experience reputation to examine the influence of these factors on the choice of a Big-4 or non-Big-4 audit firm. The results showed a non-significant negative effect of directorship industry reputation; but, a significant positive effect of directorship experience reputation on the decision to choose a Big-4 or non-Big-4 audit firm. The study makes the following recommendations based on the empirical results revealed above:

1. The experience of a director is crucial in selecting or appointing individuals to the corporate board: The wider the experience of a director the more likely the director is to offer suggestions based on cumulative knowledge acquired over time; and, therefore the possibility that possible loopholes that may elude particular audit firms based on experience are put into consideration in the decision to choose a Big-4 or non-Big-4 audit firm.
2. The irrelevance of industrial experience in the auditor selection choice decisions: The industrial experience of a director is a sub-component of the overall experience of the director; therefore, directors with experience cutting across industries based on years of service may not contribute much and therefore the appointment of such individuals should be made after due consideration of other desirable qualities.

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ROLE OF AN ACCOUNTANT IN DECENTRALIZED TRANSFER PRICING AND PERFORMANCE MANAGEMENT

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Abstract
Decentralization is a systematic effort to delegate to the lowest levels of all authority except that which can only be exercised at central point and transfer pricing while performance management has been one of the most important and positive developments in the sphere of human resource management in recent years. The accountant segregates the revenue and costs into areas of personal responsibility to assess the performance attained by persons to whom authority has been assigned in the organization. It is used to measures evaluate and monitor decentralization process. In this paper, we examined the role of an accountant in decentralized transfer pricing and performance management. We demonstrated that seemingly unprofitable strategy of decentralizing price-setting decisions actually makes sense when considered in a strategic context, incorporating its impact on industry profitability. Again, transfer prices as the internal price of products created within the company have two main functions profit allocation and coordination. In addition, the various types of transfer pricing that exist are examined in view of these functions such as market-based, cost-based and negotiation transfer pricing. Overall, we found that transfer pricing is generally considered as the major international taxation issue faced by multinational corporations and is an enormously important issue for many countries, though responses to it will in some respects vary.

Keywords: Transfer pricing; Performance management; Cost; Market price; Decentralization

Introduction

As organizations grow and undertake more diverse and complex activities, they face decisions about how much decision-making authority to delegate to lower levels of the organization. An organization's structure evolves as its goals, technology, and employees' change, and the progression is typically from highly centralized to highly decentralized. When top management retains the major portion of authority, centralization exists. Decentralization refers to top management's descending delegation of decision-making authority to subunit managers. Abbott Laboratories recognizes the need for decentralization in its corporate structure because the company's global operations demand that the managers on location in any particular region be able to most effectively use corporate resources (Dean, 2019).

When all the segments of a decentralized organization are independent of one another, segment managers can focus only on their own segments because what is best for their segment is generally best for the organization as a whole. In contrast, when segments interact, such as buying or selling in the same markets, there is a possibility that what helps one segment damages another segment badly enough to have a negative net effect on the entire organization. The more customers (and supplier) two segments have in common, the more a company should consider combining the two segments into one to minimize dysfunctional incentives for one segment to gain at the expense of the other. Other potential interactions between segment and organizational interests occur when one segment sells products or services to another segment of the same organization for a price called the transfer price. For example, when one segment produces a component and sells it to another segment that then incorporate the component in a final product, a transfer price is required.

Transfer pricing policies are especially important in decentralized companies where top management believes that segment autonomy has important benefits. In such companies, segment managers decide how many products or services will be transferred from one segment to another. Delegating these decisions to segment managers creates benefits when the segment managers, being "closer to the action, "have better information than top management about the items being transferred. According to Aryva, and Mittendorf, (2017). The challenge to such companies is to design a transfer pricing policy that motivates segment managers to transfer the quantity of products and services that both maximizes the segment's profitability metric and is also in the best interests of the company as a whole.

Performance management is about managing an organization which one of the duty of the accountant. It is a natural process of the accountant, not a system or a technique (Fowler, 2020). It is also about managing within the context of the business, namely its internal and external environment. This will affect how it is developed, what it sets out to do and how it operates. The context is very important to the organization, and Jones (2015) goes as far as to say manage context, not performance. Performance management concerns the accountant role in the business not just managers. It rejects the cultural assumption that only managers are accountable for the performance of their teams and replaces in the organization, it with the belief that responsibility is *shared* between managers, team members and the accountant. In a sense, the accountant should regard the people who report to them as customers for the managerial contribution and services they can provide. The accountant and its teams are jointly accountable for results and are jointly involved in agreeing what they need to do and how they need to do it in the organization, in monitoring performance and in taking action. Performance management processes are part of a holistic approach to managing for performance, which is the concern of the accountant in the organization.

Performance management is a means of getting better results from a whole organization, or teams and individuals within it which the accountant have a vital role to play in order to achieve this, by understanding and managing performance within an agreed framework of planned goals, standards and competence requirements.

Recent studies of transfer pricing in the accounting and management literature emphasizes that the problem arises due to decentralization of firm activities and products (Lantz, 2019). Decentralization brings several benefits such as overcoming the limited information processing capabilities of the headquarters, reducing the cost of control, providing better incentives for subsidiaries, and so on. However, decentralization also brings costs along benefits, namely, subsidiaries maximize their own branch profits, even if such actions may reduce total firm profitability. Due to these benefits and costs of decentralization, the central management desires decentralized-centralization. That is in order to reap the benefits and alleviate the costly behavior, it uses transfer pricing to manage different subsidiaries, and to maximize the total firm profits. Empirical studies by Wu and Sharp (2019) support this view. They found that profit maximization of the whole firm and performance evaluation of the subsidiaries were the dominant objectives for transfer pricing.

In view of the above, it becomes necessary to transfer some management functions to subordinate managers leading to some form of decentralization, that is delegating authority for decision making to other levels of management. This is other wise known as divisionalisation. It is the division of a business into autonomous regions or product business. Each division has its own revenue which might be a subsidiary company under the head office or profit centre/ investment centre within a single company. In practice, it's impossible to have either a completely centralized organization or a completely decentralized organization. The basic purpose of transfer pricing is to induce optimal decision making in a decentralized organization (i.e., in most cases, to maximize the profit of the organization as a whole). In this study, we investigate the role of the accountant in the decentralization of the transfer prices and performance management.

Literature Review and Theoretical Framework

Decentralization

Decentralization refers to tire systematic effort to delegate to the lowest levels all authority except that which can only be exercised at central point. According to Louis A. Allen, Decentralization also means the division of a group of functions and activities into relatively autonomous units with over authority and responsibility for their operation delegate to time of cacti unit. Decentralization is simply a matter of dividing up the managerial work and assigning specific duties to the various executive skills. Thus, decentralization is concerned with the decentralization of decision-making authority to the lower levels in managerial hierarchy (Cook, 2018).

Firms with multiple responsibility centers usually choose one of two approaches to manage their diverse and complex activities: centralized decision making or decentralized decision making. In centralized decision making, decisions are made at the very top level, and lower-level managers are charged with implementing these decisions. On the other hand, decentralized decision making allows managers at lower levels to make and implement key decisions pertaining to their areas of responsibility. Decentralization is the practice of delegating or decentralizing decision-making authority to the lower levels. Organizations range from highly centralized to strongly decentralized. Although some firms lie at either end of the continuum, most fall somewhere between the two extremes, with the majority of these tending toward a decentralized approach. A special case of the decentralized firm is the multinational corporation (MNC). The MNC is a corporation that "does business in more than one country in such a volume that its well-being and growth rest in more than one country."

Performance reports are the typical instruments used in evaluating efficiency and effectiveness. Profit centers are evaluated by assessing the unit's profit contribution, measured on income statements. Since performance reports and contribution income statements have been discussed previously, this chapter will focus on the evaluation of managers of investment centers.

Reasons for Decentralization

Seven reasons why firms may prefer the decentralized approach to management include better access to local information, cognitive limitations, more timely response, focusing of central management, training and evaluation of segment managers, motivation of segment managers, and enhanced competition. These reasons for delegating decision-making authority to lower levels of management.

Advantages and Disadvantages of Decentralization

Advantages

- Decisions are better and more timely because of the manager's proximity to local conditions.
- Top managers are not distracted by routine, local decision problems.
- Managers' motivation increases because they have more control over results,
- Increased decision making provides better training for managers for higher level positions in the future.

Disadvantages

- Lack of goal congruence among managers in different parts of the organization.
- Insufficient information available to top management; increased costs of obtaining detailed information.
- Lack of coordination among managers in different parts of the organization.

2.4 Benefits of Decentralization on Planning and Control

In analyzing the effect of decentralization, we tend to look at the changes that decentralization has brought in relation to planning and control in an organizational setup which includes:

1. Senior management is relieved from trivial matters leaving them with more time for overall review
2. Speed in operational decisions as the manager at the division swiftly reacts to changing local circumstances.
3. Provision of better training ground to junior staff who aspire to be at the topmost level of the organization.
4. Encourage initiatives and motivates managers
5. Increases flexibility and reduces communication gap.
6. Encourages sub-optimal decision making.
7. Appointment of overhead cost into individual profit centers
8. Introduction of appropriate recording and measuring procedures.

However, in the decentralization of planning and control top management often retain some control and decision while others are delegated. Some of the decisions, planning and controls retained by top management are:

- Appointment of senior staff
- Determination of corporate objectives of the organization
- Approval for all major capital expenditure proposals
- Product line closure and departmental closure decisions.
- Monitoring of over all results and settling inter-departmental deputes.
- Centralized services such as legal services
- Decision relating to sourcing of funds and investment of surplus funds.

Transfer Pricing

The term transfer pricing has been defined variously by different authors, Okoye (2007), in his own view, defines transfer pricing as "a price used to measure the value of goods and services furnished by one division to another division within an organization". It can also be defined as "the monetary value attached to goods manufactured by a particular decision-making unit and then transferred to another division for the purpose of being utilized for the divisional final product". While Dean. Feuch and Smith (2008), are of the view that it is "pricing of goods and services that are transferred between members of corporate family including parent to subsidiary, subsidiary to parent and between subsidiaries".

Transfer pricing as defined by (CIMA) is a price related to goods or other services transferred from one process or department to another or from one member of a group to another. Transfer pricing is necessary in order to appraise the separate performance of the divisions or department. It is used to evaluate the revenue accruing to the selling division and the cost or expenses incurred by the buying division. The general concern of transfer pricing is all about the (1) impact on divisional performance, (ii) impact on firm-wide profits and (iii) impact on divisional autonomy.

Transfer prices are internal charges established for the exchange of goods or services between responsibility centers of the same company. Although a variety of transfer prices may be used for internal reporting purposes, intracompany inventory transfers should be presented on an external balance sheet at the producing segment's actual cost. Internal transfers would be eliminated for external income statement purposes altogether. Thus, if transfers are "sold" at an amount other than cost, any intersegment profit in inventory, expenses, and/or revenue account must be eliminated.

Basically, transfer price can be defined as the price that one segment of an organization sets to sell products or services to another segment of the same organization (Horngren et al., 2014). McAulay & Tomkins (2012) summarized four sets of arguments to prove purposes of transfer pricing. The first argument is functional necessity. Transfer pricing was ascertained to be really important to firms simulating a divisionalized profit center structure as well as to multinational companies. Secondly, according to economic arguments, resources must be allocated to divisions efficiently thanks to transfer pricing. Thirdly, the organizational argument suggested benefits of transfer pricing in boosting integration and differentiation in divisionalized corporations. Lastly, strategic arguments supported the mutual interaction between strategies and transfer pricing policies that might represent as the relationship between strategic formulation and strategic implementation.

Transfer pricing plays an important role in a decentralized organization where autonomy is granted to each segment manager because in this organization, there may be dealings in products or services among segments. For example, in a firm operating in the oil industry, there may be dealings between the petroleum refining division, where produces gasoline, and the retail sales division, where buys gasoline. In each transaction, the transfer price is recorded as sales revenue to the selling segment but a cost to the buying segment; and the profit of each segment will be affected by a change in the transfer price while the whole profit of the firm can be unchanged. A general rule for transfer pricing Although there is no an optimal transfer price that satisfies all suggested objectives, Horngren et al. (2014) proposed a general rule for transfer pricing as a good benchmark for guidance.

Specifically, Transfer price = Outlay cost + Opportunity cost
In this formula, outlay cost is the amount of money the producing segment has to pay to produce the product or service, and "opportunity cost is the contribution to profit that the producing segment forgoes by transferring the item internally" (Horngren 2014).

Purposes of Transfer Pricing
There are two main reasons for instituting a transfer pricing scheme:

- Generate separate profit figures for each division and thereby evaluate the performance of each division separately.
- Help coordinate production, sales and pricing decisions of the different divisions (via an appropriate choice of transfer prices). Transfer prices make managers aware of the value that goods and services have for other segments of the firm.
- Transfer pricing allows the company to generate profit (or cost) figures for each division separately.
- The transfer price will affect not only the reported profit of each center, but will also affect the allocation of an organization's resources.

Mechanics of Transfer Pricing and Functions in Decentralization

- No money need change hands between the two divisions. The transfer price might only be used for internal record keeping.
- (Transfer Price × quantity of goods exchanged) is an expense for the purchasing center and a revenue for the selling center. The most essential functions of transfer prices are two namely; Profit Allocation and Coordination Function.

Profit Allocation
In decentralized companies, transfer prices are necessary for the determination of the divisions' profits, when there are linked performances between the divisions. On one hand, the transfer price is the (internal) revenue of the supplying division; on the other hand, it indicates the (internal) purchase cost of the buying division. Divisional profit is the basis for decisions of both divisional management and the company's upper management, which uses it for strategic activities or budget allocations. It also serves for the assessment of divisional management's performance. The profit contribution of every division thereby becomes visible, the responsibilities are clearly presented, and cost transparency and cost awareness are promoted.

The determination of divisional success requires an accurate demarcation of the success components, which can be assigned to the different divisions. When performance is to be measured divisional profits have to be allocated, thus profit allocation is an important function of transfer prices (Schuster, & Clarke, 2010).

Coordination Function

Divisional managers should work hard and make their best efforts in their division. Incentives as given to maximize their divisional profit. This can guide them to make decision that are favourable and profitable from the perspective of their own division, but unfavourable from the view of the company as a whole. The effects of a division's decision on other divisions are externalities that are not considered by their divisional manager.

The transfer prices can now be used to influence decentralized decisions. Assume that the divisional manager is responsible for short-term decisions. The head office announces a transfer price (or a transfer price scheme) to the manager for inter-company transfer of intermediate products. The decision behavior of the manager can be steered by influencing the divisional profit through the transfer price. A higher transfer price in tendency reduces the amount bought in by the purchasing division, to choose another production procedure, or to accept a one-off special order less easily. A higher transfer price can change the producing division's production programme or the production amounts. A similar concept is sometimes described as "goal congruence" and suboptimal decision as "incongruent decisions"' we prefer the abstract term of "coordination (function)" as the goal of different divisions usually will not be 100% identical and the perspective on goals only seems too limited.

Types of transfer pricing

There are three common types of transfer prices, namely market-based transfer prices, cost-based transfer prices (including variable cost–based transfer prices and full cost–based ones), and negotiated transfer prices.

1. **Market-based transfer prices**

When there is an intermediate market for the transferred product or service, market price should be used to determine the transfer price. Garrison et al. (2003) defined intermediate market as "a market in which the product or service is sold in its present form to outside customers". More specifically, Horngren et al. (2014) suggested two situations for calculating the transfer price based on the market price. The first situation is that the producing division can sell its products to external customers without incurring any marketing or delivery costs.

In this case, the transfer price should be equal to the market price because this allows managers from both producing and buying divisions to maximize the profitability of each division. Thanks to that, goal congruence in the organization can be achieved. If the transfer price is less than the market price, the profit of producing division will reduce, or if the transfer price is greater than the market price, the buying division will purchase products from external suppliers with the lower price (at market price). The second situation is that the producing division has to incur some marketing or delivery costswhen selling externally. At this time, the transfer price should be equal to the market price after deducting the marketing and shipping costs when selling to outside customers. This price was called as market-price-minus transfer price (Horngren et al., 2014). The market-price-minus transfer price is expected to drive best decisions from each division towards the best interests of the company as a whole.

2. **Cost-based transfer prices**

Cost-based transfer prices are generally applied when market prices do not exist. Some firms transfer products or services internally at variable costs whereas others transfer at full cost or full cost plus profit (Horngren et al., 2014). The approach of cost-based transfer prices is easy to understand and convenient to use. However, it still suffers some disadvantages as it easily results in dysfunctional decisions that conflict with organizational goals (Horngren et al., 2014). For instance, in the first case, if the producing segment has positive opportunity costs because of limited capacity, it will not agree to transfer internally so that it can pursue alternative opportunities that might decline the profit of the entire company, or it will be forced to conduct internal trade transactions by top management, but this fact violates segment autonomy.

3. **Negotiated transfer prices**

Garrison et al. (2003) identified a negotiated transfer price as a transfer price with the agreement between the selling and purchasing divisions. They explored that this approach can help to preserve the division autonomy that might lead to benefits of decentralization. Furthermore, because segment managers have more information about potential costs and gains from transferring internally, open negotiation will permit them to make optimal decisions for their own divisions as well as to respond to changeable market conditions flexibly (Horngren et al., 2014). Garrison et al. (2003) and Horngren et al. (2014) utilized specific data to illustrate how to determine the range of acceptable transfer prices that makes an increase in the profits of both participating divisions. Basically, transfer prices through negotiation will be in the range between the minimum transfer price the selling division is willing to accept and the maximum transfer price the purchasing division is willing to pay (Kachelmeier, & Towry, 2012).

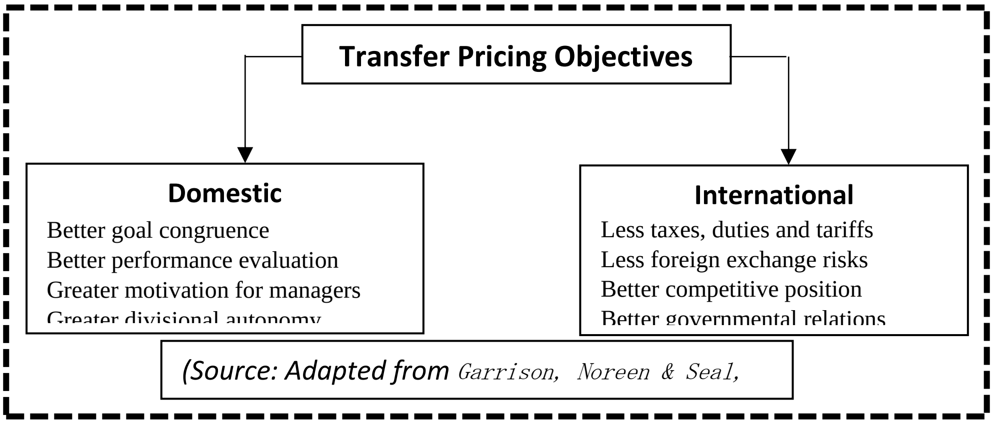
Other Types of Transfer Pricing

Arbitrary Transfer Pricing Method. Under this method, the transfer price is centrally based on what top management conceived to be most beneficial to the company as a whole. And **Dual Transfer Pricing Method.** It is instructive to noted that no single transfer pricing method is capable to satisfying the three broad objectives of transfer pricing. In fact, it is just not possible to have a single transfer price. The buying division and the selling division have different interests in the transfer price.

International aspects of transfer pricing

International transfer pricing was identified as "the pricing of goods and services transferred between a company's domestic divisions and foreign subsidiaries or among those foreign subsidiaries themselves" (Tang & Chan, 1979). Main objectives of transfer pricing between in a national company and in a multinational corporation are totally dissimilar. While domestic transfer pricing emphasizes on goal congruence, performance evaluation, motivation for managers, and divisional autonomy, international transfer pricing finds out how to minimize worldwide income taxes, import duties, tariffs, and foreign exchange risks, or how to improve competitive positions as well as relationships among governments (Figure 1). For example, in order to minimize income taxes, a high international transfer price should be set when a division in a low-income-tax-rate country transfers produced items to another division in a high-income-tax-rate country.

Figure 1: Differences in objectives between domestic transfer pricing and international transfer pricing.



Accounting for Transfer Pricing

If intra-company transactions are accounted for at prices in excess of cost, appropriate elimination entries should be made for external reporting purposes. Examples of items to be eliminated for consolidated financial statements include:

• Intracompany receivables and payables.
• Intracompany sales and costs of goods sold.
• Intracompany profits in inventories.

Theoretical Framework

The Role of the Accountant in Decentralization Organization

The accountant segregates the revenue and costs into areas of personal responsibility in order to assess the performance attained by persons to whom authority has been assigned. It is used to measures evaluate and monitor decentralization process. The accountant aims to provide accounting reports to the head office, this enables every accountant to be aware of all the items, which are within his area of authority. Hence, as a system of accounting it distinguished between controllable and uncontrollable cost.

With the accounting process, it is possible to identify or recognize decision centre within an organization for the purpose of tracing costs to the individual managers who are charged with the responsibility of making decision about costs and revenue in the organization. units, this are Cost Center, Profit Center, Revenue Center and Investment Center.

For the accountant to be effective in his or her duties (role) he/she must have the knowledge of operationalization of the transaction, planning and analysis, executive decision support so that he/she can arrive at the mainframe of his/her work. As illustration in figure 2 below, shows the function of the accountant in the organization.

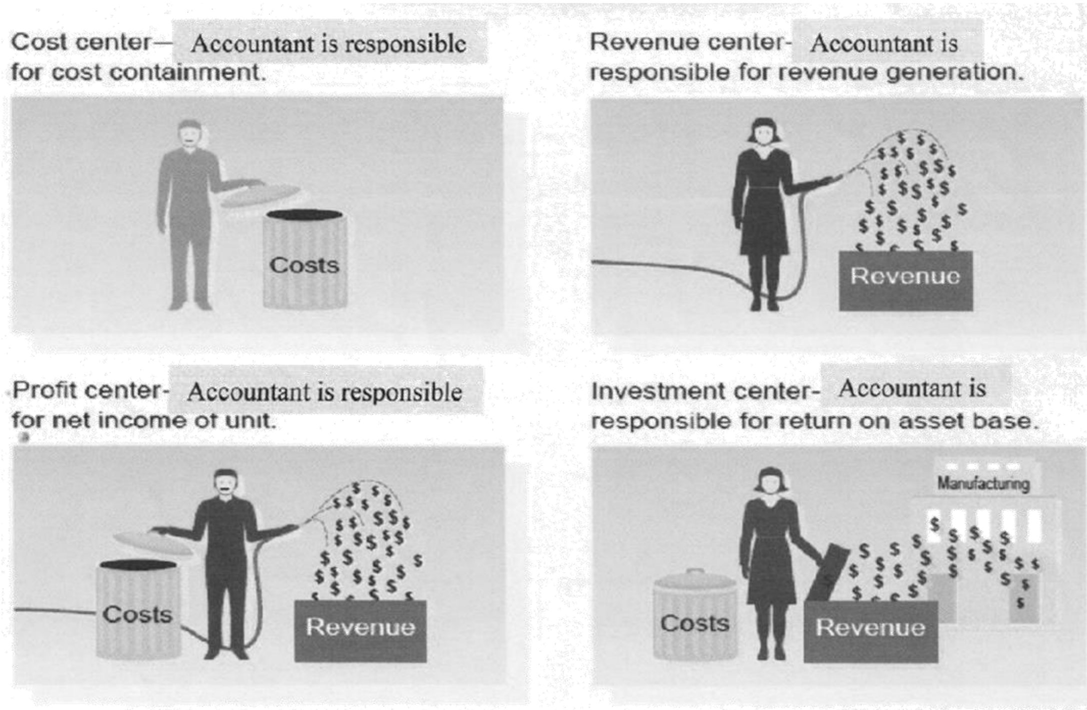


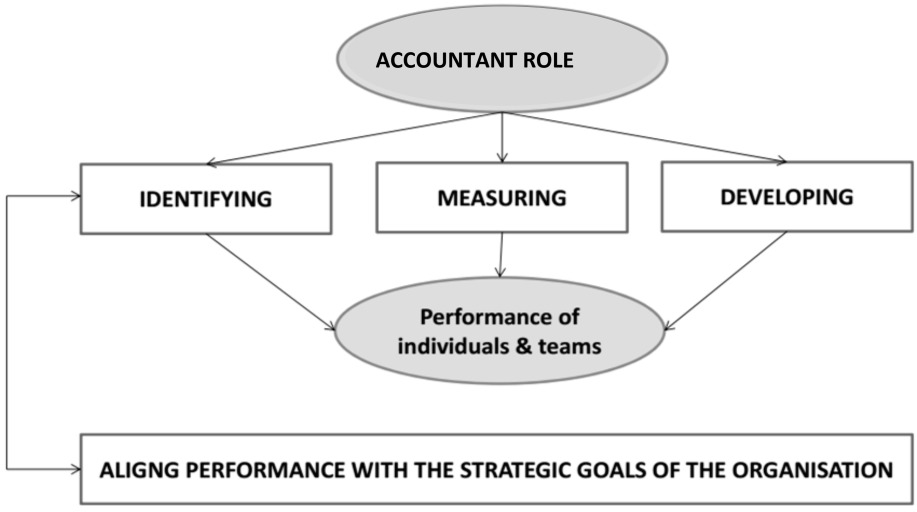
***Figure 2:* Shows the Role and Responsibility of the Accountant in the Organization**

Performance Management

The concept of performance management has been one of the most important and positive developments in the sphere of human resource management in recent years. The phrase was first coined by Beer and Ruh (2016). But it did not become recognized as a distinctive approach until the mid-1980s, growing out of the realization that a more continuous and integrated approach was needed to manage and reward performance. For crudely developed and hastily implemented performance-related pay and appraisal systems were all too often failing to deliver the results that, somewhat naively, people were expecting from them. Performance management rose like a phoenix from the old-established but somewhat discredited systems of merit rating and management by objectives.

Performance management is a strategic and integrated process that delivers sustained success to organizations by improving the performance of the people who work in them and by developing the capabilities of individual contributors and teams. Performance management is strategic in the sense that it is concerned with the broader issues facing a business if that business is to function effectively in its environment, and with the general direction in which the business intends to go to achieve its longer-term goals. Performance management is integrated in two senses: (1) *vertical integration*, linking or aligning business, team and individual objectives with core competences; and (2) *horizontal integration*, linking different aspects of human resource management, especially organizational development, human resource development, and reward, so as to achieve a coherent approach to the management and development of people. Figure 3 below show the role of the accountant and performance management

***Figure 3:* ACOUNTANT ROLE ON PERFORMANCE MANAGEMENT**



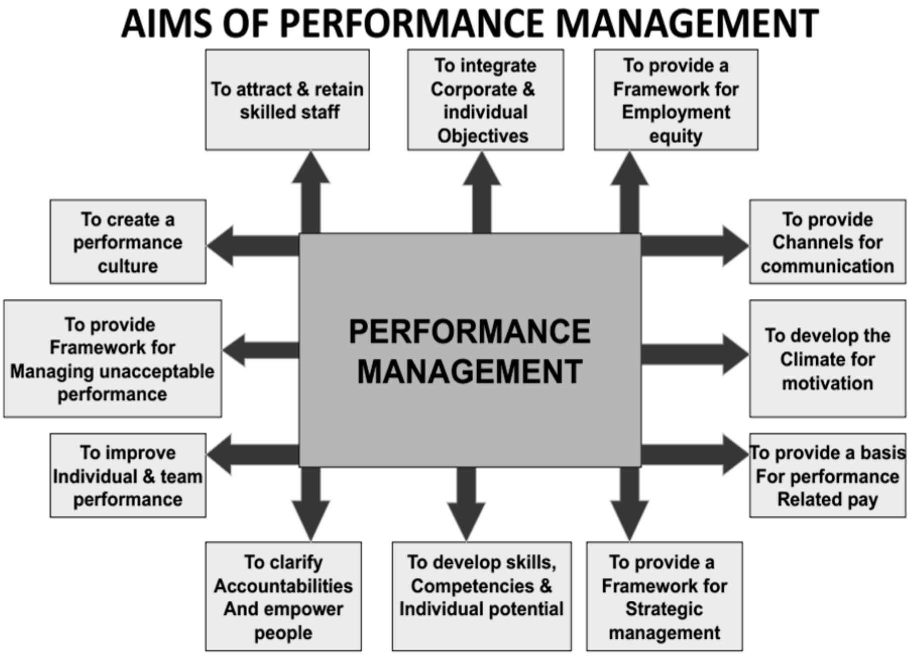
Performance management is, of course, about performance. But what is meant by that word? It is important to clarify what it means, because if performance cannot be defined. It can't be measured or managed. Bates and Holton (2015) have pointed out that performance is a multi-dimensional construct, the measurement of which varies depending on a variety of factors. They also state that it is important to determine whether the measurement objective is to assess performance outcomes or behaviour. There are different views on what performance is. It can be regarded as simply the record of outcomes achieved. On an individual basis, it is a record of a person s accomplishment. Kane (2016) argues that performance is something that the person leaves behind and that exists apart from the purpose. Bernadin, Kane, Ross, Spina, and Johnson (2015) are concerned that performance should be defined as the outcomes of work because they provide the strongest linkage to the strategic goals of the organization, customer satisfaction, and economic contributions.

Performance management should be integrated into the way the performance of the business is managed and it should link with other key processes such as business strategy, employee development, and total quality management. It focuses on future performance planning and improvement rather than on retrospective performance appraisal. It provides the basis for regular and frequent dialogues between managers and individuals about performance and development needs. Performance management is mainly concerned with individual performance and development, but it can also be applied to teams. Figure 4 below show the performance management cycle.

Figure 4 **THE PERFORMNACE MANAGEMENT CYCLE**

Performance management reviews provide the inputs required to create personal or team development plans and, to many people, performance management is essentially a developmental process. In organizations with performance-related pay, performance ratings are produced to inform pay decisions. There are, however, strong arguments against linking performance management with performance related pay. Figure 5 below show the aims of performance management.

FIGURE 5:



The Overall Aim and Key Benefits of Performance Management:

- Is to establish a culture in which individuals and groups take responsibility for the continuous improvement of business processes and of their own skill and contributions.
- Performance management will aim to instill a customer-service, performance-oriented, transparency and accountability culture within an organisation and align service processes, rules, regulations, and practices with the new culture.
- The key benefits of performance management among others include:
  - Performance management focuses on results, rather than behaviours and activities

- Aligns organizational activities and processes to the goals of the organization
- Cultivates a system-wide, long-term view of the organization.
- Produce meaningful measurements
- Create high performance culture – high performance organization
- Improve organisational efficiency and effectiveness
- Ensure quality services for greater customer satisfaction
- Create costumer service oriented culture
- PMS aligned with vision and mission will provide a clear direction for organization
- Link individual activities to organisational objectives

Conclusion

There have been numerous studies on the transfer pricing problem, especially in the accounting and management literature. In this study, we examine the role of accountant in decentralize transfer pricing and performance management. In a competitive industry, the resulting final price leads to suboptimal overall profit of an individual firm as each markup is successively promulgated down the supply chain. However, all firms in an industry would benefit if they collude on inflating final prices to near-monopoly levels by artificially raising transfer prices.

We demonstrated that the seemingly unprofitable strategy of decentralizing price-setting decisions actually makes sense when considered in a strategic context, incorporating its impact on industry profitability. Transfer prices as the internal price of products created within the company have two main functions profit allocation (in order to assess divisional profits and for performance measurement) and coordination (to come to decisions that are in the best interest of the company as a whole). Various types of transfer pricing exist and are examined in view of these functions in the body of this work; such as market-based, cost-based and negotiation transfer pricing.

Transfer pricing is generally considered the major international taxation issue faced by MNCs today. It is an enormously important issue for many countries, developing and developed, though responses to it will in some respects vary. Transfer pricing is a complex and constantly evolving area and no government of MNC can afford to ignore it.

For both governments and taxpayers, transfer pricing is difficult to grapple with, it tends to involve significant resources often including some of the most skilled human resources and costs of compliance. It is often especially difficult to find comparable, even those where were some adjustment is needed for applying the transfer pricing methods.

For governments, transfer pricing administration is resource intensive and developing countries often do not have easy access to resources to effective administer their transfer pricing regulations. Furthermore, from the government's perspective, transfer pricing manipulation reduces revenue available for country development, and with increasing globalization, the potential loss of revenue may run into billions of dollars. So the accountant must give accurate and proper records/documentations of all activities that took place in his/her center (decentralized).

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FINANCIAL LEVERAGE AND FINANCIAL PERFORMANCE OF LISTED AGRICULTURAL FIRMS ON THE NIGERIA STOCK EXCHANGE

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Abstract
For some years now, the issues of financial capital structure of agricultural firms have become important to the sector since people are now shifting from the traditional farming methods to more modern farming methods which are aided by new technology and mechanization. It is of concern to note that agricultural sector is not competing well with other sectors despite their importance to Nigerians. However, most previous empirical study on financial leverage and financial performance are not focus on listed agricultural sector. Hence this study tends to ascertain the effect of debt level, long term debt and debt – equity level on financial performance of list agricultural firms on the Nigeria stock exchange. This study adopted ex-post facto research design. The study is made up of five (5) agricultural firms listed on Nigeria stock exchange as at 31st December, 2020. All the five firms were adopted as our sample size. We applied the linear regression analysis and findings indicated that debt level significantly affects financial performance of listed agricultural firms while long term debt and debt to equity level does not affect their financial performance. The study recommends among others that agricultural firms should improve on their debt level to sustain their financial performance.
Keywords: Financial Leverage; Financial Performance; Debt; Equity; Agricultural Firm

Introduction

The capital structure of a firm consists of equity, debt or combination of equity and debt. The proportion of debt in a capital structure is known as financial leverage. According to Ahmed, Ningi and Dalhat, (2018), is adding borrowed funds with equity to maximize the return on investment. Tanni (2013) said financial leverage has been an issue in corporate finance literature since Modigliani and Miller presented a seminar paper on the issue in 1958. When there is high proportion of debt in capital structure, it will expose the firm to financial distress risk and bankruptcy which may occur due to inability of the firm to service the debt at the appropriate time. High debt profile in the capital structure of a company suggests that the company must be committed to both principal and fixed interest payments on debt. However, interest on debt is nontaxable, implying that firms can employ debt in the capital structure in order to take advantage of the tax shields benefit provided by debt. Abubakar (2017) observed that an intelligent manager can trade off the financial distress costs of debt against the tax shield benefits in order to improve financial performance.

Tanni (2013) opines that for company to perform very well financially, he must be able to manage her capital structure efficiently and effectively. This implies that financial leverage have link with firm financial performance. In the words of Thaddeus and Chigbu (2012), financial performance shows the yard stick for the firm stakeholders to know net worth of the firm and to know if the firm is performing well financially or not. Investors will prefer to invest their money where it will yield more interest for them. Therefore, investors in Nigeria are more focused on Oil and Gas companies until recently that petroleum oil price crashed in the world marked. It is observed that investors are not focusing on agricultural sector despite the fact that Nigeria is an agrarian economy.

According to IFC (2013), third world countries, including Nigeria, where agriculture is the main occupation of most families living in the rural area, availability of capital funding through investments in the agricultural sector is lacking and wanting. For some years now, the issues of financial capital structure of agricultural firms have become important to the sector since people are now shifting from the traditional farming methods to more modern farming methods which are aided by new technology and mechanization.

NSE (2019) said in their report that shares of listed agricultural firms on the Nigeria stock exchange are lagging behind other stocks being traded on the Nigeria stock exchange. It is of concern to note that agricultural sector is not competing well with other sectors despite their importance to Nigerians. Most of previous studies (Abubakar, 2017; Thaddeus & Chigbu, 2012) on financial leverage and financial performance of listed deposit money banks, Abubakar (2016) investigated the link between financial leverage and financial performance using companies from the Health Care Sector of the NSE; Akingunola, Olawale, and Olaniyan, (2017) utilized firms from the food and beverages industry of Nigeria to study the association between financial leverage and financial performance; Chechet, Garba and Odudu (2013) utilized companies from Nigerian chemical and paints sub-sector of the NSE; David and Olorunfemi (2010) focused on companies from the petroleum industry; Innocent, Ikechukwu and Nnagbogu (2014) sampled Pharmaceutical companies; while Ogbonnaya and Chimara (2016) relied on companies from the Nigerian Brewery Industry.

We are not aware of any previous empirical study on financial leverage and financial performance that focus on listed agricultural sector. Hence, this study tends to fill the gap. The main objective of this study is to ascertain the effect of financial leverage on financial performance of list agricultural firms on the Nigeria stock exchange. The specific objectives are:

1. To ascertain the effect of debt level on financial performance.

2. To determine the effect of long term debt on financial performance
3. To ascertain the effect of debt – equity level on financial performance.

The study will be guided by the following null hypotheses:
$H_0$1: There is no significant relationship between debt level and financial performance.
$H_0$2: Long term debt does not have any significant effect on financial performance
$H_0$3 There is no significant relationship between debt – equity level and financial performance.

This study covers financial leverage and financial performance of listed agricultural firms on the Nigeria stock exchange. We choose to focus on agricultural sector because Nigeria is an agrarian economy but Nigerian government focused on Oil and gas. Now that there is down turn on petroleum price in world market, Nigeria government is trying to diversified the economy and focus on agricultural sector. The study will cover the period of 2016 to 2020 because since late 2018, Federal government of Nigeria has professed to be supporting agricultural sector through COVID-19 special fund.

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Financial Leverage

Financial leverage refers to the degree to which an agricultural firm uses debt and equity to finance its operations. It shows the extent of equity and debt used to finance the firm's assets. The financing decision is an important one for the management because it affects the shareholders' value of the company. Burton (2007) defines leverage as the degree to which a business is employing debt to fund its activities. He adds that leverage can also be viewed as the ratio of debt to equity. Kuhlemeyer (2004) affirms that leverage is all about the use of debt for investment. A high debt to equity proportion depicts the reliance of the agricultural firm on debt financing is high. Leverage allows the potential for higher returns due to increased investment but the risk of failure is also high. Excessive use of debt in the capital structure exposes the firm to the risk of financial distress and bankruptcy, which may occur due to inability of the firm to service the debt at the appropriate time. High debt profile in the capital structure of a company suggests that the company must be committed to both principal and fixed interest payments on debt. However, interest on debt is nontaxable, implying that firms can employ debt in the capital structure in order to take advantage of the tax shields benefit provided by debt. The use of debt in the capital structure can be used to discipline managers because of the agency problem created by the separation of ownership from control. A good financial manager should trade-off the financial distress costs of debt against the tax shield benefits in order to improve financial performance (Abubakar, 2017b).

Financial Performance

A firm's financial performance is an estimation of what has been achieved by the firm over a given period of time in monetary terms. The importance of measuring a company's performance is to obtain vital information for the various investors and stakeholders on its liquidity, solvency, profitability and efficiency. According to Almajali et al, (2012), the main factors that influence financial performance of an entity include liquidity, leverage, size of the firm and management's ability i.e. highly competent managerial staff. Financial performance is the measure of how well a firm can use its assets from its primary business to generate revenues. Erasmus (2008) noted that financial performance measures like profitability and liquidity among others provide a valuable tool to stakeholders which aids in evaluating the past financial performance and current position of a firm. Financial performance evaluation are designed to provide answers to a broad range of important questions, some of which include whether the company has enough cash to meet all its obligations, is it generating sufficient volume of sales to justify recent investment. Capital structure is closely linked with financial performance (Tian & Zeitun, 2007). Financial performance can be measured by variables which involve productivity, profitability, growth or, even, customer satisfaction. These measures are related among each other. Financial measurement is one of the tools which indicate the financial strengths, weaknesses, opportunities and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, return on assets (ROA), growth in sales, return on equity (ROE),e.t.c (Stanford, 2009). There are various stakeholders who are interested in a company's performance due to leverage. These include the equity holders, who are owners of the firm and they carry the highest risk in the business since they are the last to be paid upon winding up of the firm after all the debt holders claims are settled. They gain through the value of their shares appreciating and through pay out of dividends. The debt holders are also interested since they gain through repayment of their principal amount with some interest. Their debt is secured by the company's assets and are first to be paid in the event that the company winds up or is unable to pay its debtors (Harris & Raviv, 1991).

Theoretical Framework

This study adopts the Trade-Off Theory as its theoretical framework. Myers (1984) argued that firms that follow the trade-off theory set a target financial leverage ratio and then gradually move towards it. He argued further that managers may be reluctant to issue equity if they feel that it is undervalued in the market. An optimal capital structure is achieved when the marginal present value of tax shield on additional debt is equal to the marginal present value of the costs of financial distress on additional debt. Financial leverage impacts positively on firm's performance by limiting conflicts between shareholders and managers resulting from having excess cash. However, higher financial leverage implies higher costs of financial distress and higher commitment to fulfill future obligations in terms of principal and fixed interest payments (Myers, 1984). Miller (1977) argued that the cost of higher financial leverage is lower than its benefits, implying that the choice of leverage over equity is worthwhile. The trade-off theory suggests that those firms with higher level of retained earnings, i.e. profitable firms tend to have higher debt levels because they can effectively take advantage of tax shields on interest (Abubakar, 2017). In addition, since these companies have higher operating profits, the probability and costs of financial distress are also lower. Consequently, the trade-off theory predicts positive relationship between firms' leverage ratios and their performance (Abubakar, 2017).

Empirical Studies

Abubakar, Maishanu, Abubakar, and Aliero, (2018) studied the effect of financial leverage on the financial performance of quoted conglomerate firms in Nigeria during the period of 2005- 2016, using Fixed Effect Model (FEM). The study measured financial performance by the return on asset (ROA). The findings revealed that short-term debt ratio (STDR) has positive effect on the financial performance, while long-term debt ratio (LTDR) and total-debt equity ratio (TDER) have significant negative effect on the financial performance.

Abubakar (2017) examined the effect of financial on financial performance of 66 non-financial quoted companies in Nigeria during the period 2005- 2014. Descriptive statistics in the form of mean, median, maximum and minimum values; and panel data technique in the form of Random Effects Model (REM) had been applied to analyze the data. Results from the REM reveal that TDER has a positive and significant effect on the financial performance surrogated by Return on Equity (ROE), while STDR, LTDR and TDR have no significant effect on the financial performance, during the period of study.

Ashraf, Ahmad and Mehmood (2017) examined the impact of financial leverage on performance of ten (10) listed companies from the fuel and energy sector of Pakistan and found among others that debt equity ratio has a significant negative impact on ROA, ROE and return on capital employed (ROCE) using multiple regression technique. In another study of Pakistani firms, Nazir (2017) measured the impact of financial leverage on financial performance of twenty-one (21) listed companies in the textile, automobile, sugar, petroleum and energy sectors of Pakistan using ordinary least squares and correlation techniques during the period 2012- 2015. The study unraveled that financial leverage measured by debt to asset ratio has significant negative effect on financial performance proxy by ROA.

Akingunola, Olawale and Olaniyan (2017) evaluated the effect of capital structure decisions on the performance of 22 listed non-financial firms in Nigeria spanning

2011 to 2015. The results revealed that short term debt to total asset (STDTA) and total debt to total equity (TD/TE) have significant negative effect on performance indicated by ROA, while STDTA and long-term debt to total asset (LTDTA) have significant positive effect on the ROE. The authors also found total debt to total asset (TD/TA) to be significantly positively associated with ROE.

Enakirerhi and Chijuka (2016) explored the determinants of capital structure of United Kingdom (UK) Financial Times Security Exchange (FTSE) 100 firms using Fixed Effects Model, and discovered significant relationship between long term debt, short term debt, total debt and return on asset. Hossain and Nguyen (2016) examined the relationship between financial leverage and performance of ten (10) US companies for a ten-year period from 2004 to 2013, and reported strong negative association between financial leverage and performance using regression analysis

Abubakar (2016) investigated the effect of financial leverage on the financial performance, using five companies from the Health Care Sector of the NSE over the period 2005- 2014. The study adopted the panel data framework in the form of the Fixed Effects Model (FEM). Short-term debt ratio (STDR), long-term debt ratio (LTDR), total-debt ratio (TDR) and total-debt equity ratio (TDER) were used to proxy financial leverage, while Return on Equity (ROE) was used to measure financial performance. Results from the FEM indicate that STDR and LTDR have significant positive effect on the financial performance, while TDR and TDER have significant but negative effect on the financial performance.

Ubesie (2016) found that long term debt has insignificant negative effect on financial performance. This was the result of the consideration of capital structure on the financial performance of conglomerates quoted on the floor of the Nigerian stock exchange for the five-year period 2011-2015.

Kuria and Omboi (2015) examined the relationship between capital structure and financial performance of investment and banking firms listed on the Nairobi securities exchange in Kenya over the period 2009- 2013. The study adopted both descriptive and regression analysis techniques to examine the effect of the selected variables. Results revealed that debt to equity and debt to capital ratios have a negative significant relationship with ROA, while long term debt has no significant relationship with ROA. In another model, the results also revealed that debt to equity ratio has a significant positive relationship with ROE, while debt to capital ratio has a significant negative relationship with ROE. However, just like with the ROA model, long term debt has no significant association with ROE.

Innocent, Ikechukwu and Nnagbogu (2014) studied the effect of financial leverage on the financial performance of three (3) quoted pharmaceutical firms in Nigeria over the period of 2001- 2012, utilizing descriptive statistics, Pearson correlation and multiple regression techniques. The study reported that debt ratio and debt-equity ratio have negative relationship with ROA, while interest coverage ratio is positively associated with ROA. Uwalomwa and Uadiale (2012) which was based on the data of a sample of thirty-one firms listed on Nigerian stock exchange for the period 2005-2009. The method of analysis was Ordinary Least Squares (OLS) technique. It was reported that financial performance was affected positively by short-term debt in the period of study.

David and Olorunfemi (2010) assessed the impact of capital structure on corporate performance using evidence from the petroleum sector of Nigeria for the period of 1999- 2005. The authors documented significant positive link between debt equity ratio and financial performance surrogated by earnings per share (EPS) and dividend per share (DPS) using fixed effects estimation, random effects estimation and maximum likelihood estimation. Applying correlation and multiple regression analysis,

Research Method

This study adopted *ex-post facto* research design. The choice of Ex-post factor design was justified because the study relied on historical data that researchers cannot manipulate (Okoye & Adeniyi, 2018).The study is made up of five (5) agricultural firms listed on Nigeria stock exchange as at 31st December, 2020. All the five firms are adopted as our sample size.Secondary data was used for the study. The sources of secondary data used for the study include annual reports and accounts of companies, corporate website of companies and the Nigerian Sock Exchange Fact books. We applied linear regression analysis with the aid of SPSS 20.0 software for the panel data in order to determine the relationship between the variables.

Model specification

FIPE = f (FLEV) ……………………...(i)

Below is the linear regression model guiding the research which is adopted from Uwalomwa and Uadiale (2012); Kuria and Omboi (2015); Abubakar (2016) is modified by inserting the variables of this study. Explicitly, the regression model is:

$ROA_{it} = \beta0it + \beta1DLit + eij$ (ii)
$ROA_{it} = \beta0it + \beta2LTDLit + eij$(iii)
$ROA_{it} = \beta0it + \beta3DELit + eij$.(iv)

General linear regression model which is adopted from Creel (2010); Nurkhin (2009) is modified by inserting the variables to test hypotheses.

$ROA_{it} = \alpha_0 + \beta_1 DL_{it} + \beta_2 LTDL_{it} + \beta_3 DEL_{it} + eij$………………………….. (v)

Where: ROA = return on assets; α_0 = the intercept; β_1 β_2 = the parameters to be estimated in the equation; DL = debt level; LD = long term debt; DEL = debt-equity level; it= time period of study; $\beta > 0$; $r2 > 0$; $\beta 0$ = intercept; eij = error term; $\beta 1$ measure the effect of financial leverage on financial performance

Table 3,1 Variables and measurement

Concept	**Variables**	**Indicator**	**Measurements**
Leverage	Debt Level	Ratio of total liabilities to total assets.	Total debt divided by Total Assets
	Long Term Debt Level	Ratio of long-term debt to total assets	Long term debt divided by Total Assets
	Debt-Equity Level	Ratio of total liabilities to its stockholders' equity	Total Liabilities divided by Shareholder's Funds or Total equity
Financial Performance	Return on Assets	Ratio of profit generated from the total assets of the firm.	Profit after Tax divided by Total Assets

Source: Researcher, 2021

Results And Discussions

Hypothesis One

H_1: There is significant relationship between debt level and financial performance.
Ho: There is no significant relationship between debt level and financial performance.

Table 1:ANOVA[a] Result : Debt level on financial performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.388	1	.388	9.352	.006[b]
	Residual	.954	23	.041		
	Total	1.343	24			

a. Dependent Variable: Return on asset
b. Predictors: (Constant), Debt Level
Source: Extract from SPSS output

Table 2: Regression coefficient for debt level on financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.254	.087		2.919	.008
	Debt Level	-.423	.138	-.538	-3.058	.006

Source: Extract from SPSS output

Table 3: Model Summary for debt level on financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.538[a]	.289	.258	.20371	.934

Note: r^2 = .28, f(1, 23) = 9.352, p = 0.00
Source: Extract from SPSS output

From Table 3: *model summary* shows that R square and the adjusted R square are .538 and .289. This implies that 28.9% variation experienced in financial performance among the sampled population was explained by companies' debt level. More so, It was observed from Table 1 (ANOVA Table) that firms debt level is statistically significant to predict the firm financial performance since the probability value obtained (p-value), that is 0.00, is less than 0.05 ($P< 0.05$). This was further confirmed in Table 2 where the coefficient of firms debt level indicated a negative (T,-3.058) influence of debt level on financial performance.

Decision: Based on the analysis above, the alternative hypothesis (Hi) is accepted while null hypothesis (Ho) is rejected; which state that there is significant relationship between debt level and financial performance of listed agricultural firms on the Nigerian Stock Exchange.

Hypothesis Two

Ho: Long term debt has significant effect on financial performance
Ho: Long term debt does not have any significant effect on financial performance

Table 4:ANOVA[a] Result : Long term debt on financial performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.193	1	.193	3.862	.062[b]
	Residual	1.149	23	.050		
	Total	1.343	24			

a. Dependent Variable: Return on asset
b. Predictors: (Constant), Long term Debt Level
Source: Extract from SPSS output

Table 5: Regression coefficient for long term debt on financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.116	.067		1.742	.095
	Long term Debt Level	-.305	.155	-.379	-1.965	.062

Source: Extract from SPSS output

Table 6: Model Summary forlong term debt on financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.379[a]	.144	.107	.22356	.744

Note: $r^2 = .14$, f(1, 23) = 3.862, p = 0.09
Source: Extract from SPSS output

A look at Table 6: *model summary* shows that R square and the adjusted R square are .379 and .144. This implies that 37.9% variation experienced in financial performance among the sampled population was explained by long term debt. More so, It was observed from Table 4 (ANOVA Table) that long term debt is not statistically significant to predict the financial performance since the probability value obtained (p-value), that is 0.09, is greater than 0.05 (P> 0.05). This was further confirmed in Table 5, where the coefficient of long term debt indicated a negative (T,-1.965) influence of long term debt on financial performance.

Decision: Based on the analysis above, the alternative hypothesis (Hi) is rejected while null hypothesis (Ho) is accepted; which state that long term debt does not have any significant effect on financial performance of listed agricultural firms on the Nigerian Stock Exchange.

Hypothesis Three

H_1: There is significant relationship between debt – equity level and financial performance.
Ho There is no significant relationship between debt – equity level and financial performance.

Table 7:ANOVA[a] Result : Debt – equity level on financial performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.018	1	.018	.316	.579[b]
	Residual	1.324	23	.058		
	Total	1.343	24			

a. Dependent Variable: Return on asset
b. Predictors: (Constant), Debt-Equity Level
Source: Extract from SPSS output

Table 8: Regression coefficient for debt – equity level on financial performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.025	.049		.508	.616
	Debt-Equity Level	-.001	.002	-.116	-.562	.579

Source: Extract from SPSS output

Table 9: Model Summary fordebt – equity level on financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.116[a]	.014	-.029	.23996	.692

Note: r^2 = .014, f(1, 23) = 0.316, p = 0.61
Source: Extract from SPSS output

From Table 9: *model summary* shows that R square and the adjusted R square are .116 and .014. This implies that 01.4% variation experienced in financial performance among the sampled population was explained by their debt to .equity level. More so, It was observed from Table 7 (ANOVA Table) that debt to .equity level is not statistically significant to predict the financial performance of agricultural firms since the probability value obtained (p-value), that is 0.61, is greater than 0.05 (P> 0.05). This was further confirmed in Table 3 where the coefficient of household level of education indicated a negative (T, -0.562) influence of debt to .equity level on financial performance of agricultural firms.

Decision: Based on the analysis above, the alternative hypothesis (Hi) is rejected while null hypothesis (Ho) is accepted; which state that debt to equity level does not have any significant effect on financial performance of listed agricultural firms on the Nigerian Stock Exchange.

Hypothesis one shows that there is significant relationship between debt level and financial performance of listed agricultural firms on the Nigerian Stock Exchange. The analysis reveals that firm debt level have positive significant effect on financial performance. This finding is consistent with observations made by Uwalomwa and Uadiale (2012); Abubakar (2016); Akingunola, Olawale and Olaniyan (2017) who in their studies discovered positive significant relationship between debt level and financial performance.

Hypothesis two shows that long term debt does not have any significant effect on financial performance of listed agricultural firms on the Nigerian Stock Exchange.The analysis reveals that firm long term debt have no significant effect on financial performance. This finding is consistent with observations made by Innocent, Ikechukwu and Nnagbogu (2014); Kuria and Omboi (2015); Ubesie (2016); Hossain and Nguyen (2016) who in their studies discovered that there is no significant relationship between long term debt and financial performance.

Hypothesis three shows that debt to .equity level does not have any significant effect on financial performance of listed agricultural firms on the Nigerian Stock Exchange. .The analysis reveals that firm debt to .equity level have no significant effect on financial performance. This finding is consistent with observations made byInnocent, Ikechukwu and Nnagbogu (2014); Abubakar (2016); Enakirerhi and Chijuka (2016)who in their studies discovered that there is no significant relationship between debt to .equity level and financial performance.

Conclusion and Recommendations

Based on the findings made in this study, it was concluded that apart from debt level that significantly affects financial performance of listed agricultural firms on the Nigeria stock exchange, long term debt and debt to equity level does not affect their financial performance. In view of these findings, the study recommends that agricultural firms should improve on their debt level to sustain their financial performance.

The study observed that long term debt and debt to equity does not affect financial performance of agricultural firms, the study recommends that the firm should give little attentions to those obligations that she does not have to pay for within her accounting year because it will not have any effect on his financial performance for that period.

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ACCRUALS QUALITY AND TAX AVOIDANCE: EVIDENCE FROM MULTINATIONAL FIRMS IN NIGERIA

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Abstract
The broad objective of the study is to examine the effect of discretionary accruals on corporate tax avoidance of Multinational Corporations (MNCs) in Nigeria. The study specifically examines the effect of discretionary accruals on book-tax differences and the effective tax rate of multinational firms. The study adopted the ex post facto research design. The final sample comprised of fifty MNCs based on data availability during the study period. The secondary data were analysed using multiple linear regression techniques to analyse the data. The results showed a negative non-significant effect of discretionary accruals on book-tax differences, and the second hypothesis showed a positive non-significant effect of discretionary accruals on the effective tax rate. The study concludes that the accruals quality is related to tax avoidance via transfer price manipulation of MNCs in Nigeria. Based on this, it is recommended that the FIRS should equip its personnel through effective training to effectively deal with intra-firm trade by MNCs. A comprehensive assessment would involve details of the parties involved, the tax rate applicable for each jurisdiction, the methodology employed and a justification for such method, and a comparative analysis with an alternative market price.
Keywords: Accruals, Tax, Avoidance, Multinationals, Nigeria

1.1 Introduction

Multinational Corporations (MNCs) are large businesses that conduct a large volume of transactions across borders and territorial jurisdictions (Klassen *et al.*, 2017; Taylor *et al.*, 2015). The rise of MNCs was facilitated by the tremendous increase in the rate of globalisation. MNCs control and manage income-generating assets in more than one country, via partly or wholly-owned subsidiaries, affiliates or joint ventures (Malik, 2006). MNCs conduct intra-group transactions which enable them to manipulate prices, either over-pricing or under-pricing, in a bid to avoid tax (Malik, 2006). Transfer pricing enables MNCs to “shift profits around the globe” (Baker, 2005, p. 30). This is achieved by shifting profits from high tax to low tax jurisdictions. This is facilitated because of disparate tax rates in different jurisdictions and tax havens in some countries (Clausing, 2003; Cristea & Nguyen, 2016; Dyreng & Lindsey, 2009; Slemrod & Wilson, 2009). MNCs exploit loopholes in the host country’s tax laws (Cazacu, 2017), thereby facilitating capital flight in such countries (Acquah, 2017; Sikka & Willmott, 2010).

Tax is a compulsory charge by the government, whether state, local or federal on a taxable individual or corporate entity (Edame & Okoi, 2014). Tax revenue is utilised by the Government to perform its traditional functions, such as to maintain law and order, defence, import and export regulation, etc. (Edame & Okoi, 2014; Takumah, 2014). Tax avoidance is a deliberate attempt by managers to reduce the amount of tax payable. Such attempts can be sub-divided into acceptable (legal) tax avoidance and unacceptable (illegal) tax avoidance (Fadhilah, 2014). Tax avoidance is linked to earnings management (Marwat *et al*., 2021). Corporate tax avoidance involves a range of managerial decisions which affects capital structure (Faulkender & Smith, 2015; Huizinga *et al.*, 2008), cost of capital (Goh *et al.*, 2016; Cook *et al.*, 2015; Hasan *et al.*, 2014; Shevlin *et al.*, 2013; Hutchens & Rego, 2013), cash retention, (Faulkender & Petersen, 2012; Foley *et al.*, 2007), and payout policy (Dharmapala *et al.*, 2011). The shareholders may prefer tax avoidance for it increases residual income and lowers the cost of debt (Lim, 2011). In contrast, the government kick against it because it lowers the amount of revenue accruing to them (Schön, 2008).

Corporate tax avoidance can also lead to negative consequences, such as reputational damage (Hanlon & Slemrod, 2009), high political costs and marginal costs (Mills *et al.*, 2013), and cause a decrease in shareholder returns (Hanlon & Heitzman, 2010). The marginal costs are potential costs, such as penalties and fines imposed by the tax authorities (Chen *et al.*, 2010). Tax account provides an opportunity to influence temporary or permanent differences (Marwat *et al.*, 2021). Tax avoidance is a crucial aspect of managerial strategic decisions (Franca *et al.*, 2015). However, this has not been sufficiently investigated in emerging or developing economies (Marwat *et al.*, 2021). Prior studies link MNCs utilisation of transfer pricing to incur huge tax savings (Cristea & Nguyen, 2016; Flaaen, 2016; Vicard, 2015; Bernard *et al.*, 2006; Clausing, 2003). However, many Sub-Saharan Africa and many developing countries lose tremendous revenues from tax avoidance practices by MNCs (United Nations Committee of Experts on International

Cooperation in Tax Matters, 2014, p.20). It is estimated that profit shifting and base erosion by MNCs is approximately $100-$240 billion annually, which is equivalent to 4-10% of the global corporate income tax revenue (OECD, 2013). This is facilitated by the "multinationality" status of MNCs (Muller & Kolk, 2015).

Despite the extant literature on corporate tax avoidance in Nigeria; yet few to non-existent studies have specifically addressed accruals quality and tax avoidance nexus from the angle of MNCs. Linck *et al.* (2013), found that managers use discretionary accruals to signal positive investments options, enabling them to raise external funds. High-quality financial reporting reduces the information asymmetry thereby managers to make rational investment decisions by lowering adverse selection (Derouiche *et al.*, 2018; Linck *et al.*, 2013). The paucity of studies, specifically in Nigeria prompted this study as evidence has shown that MNCs in developing countries conceal rent extractions from tax avoidance (Acquah, 2017; Christian-Aid, 2008; Desai & Dharmapala, 2006; Sikka & Willmott, 2010). The study by Acquah (2017), employed discretionary accruals as an interaction term in transfer pricing and corporate tax avoidance nexus in Ghana.

1.2 Objective of the Study

The broad objective of the study is to examine the effect of discretionary accruals on corporate tax avoidance of Multinational Corporations (MNCs) in Nigeria. The specific objectives of the study are to:

1. Ascertain the effect of discretionary accruals on book-tax differences of multinational firms.
2. Examine the effect of discretionary accruals on the effective tax rate of multinational firms.

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Corporate Tax Avoidance

According to the National Tax Policy (2017) "tax" is any compulsory payment to the government imposed by law without direct benefit or return of value or service whether it is called a tax or not. There is no universally accepted definition of corporate tax avoidance in the literature (Annuar *et al.*, 2014; Hanlon & Heitzman, 2010). Terms such as "Tax Planning", "Aggressive Tax Planning" and "Abusive Tax Planning" are common in the literature. According to Martinez (2017, p. 106) corporate tax avoidance involves "taking advantage of legitimate concessions and exemptions foreseen in the tax law; and, involves the process of organizing business operations so that tax obligations are optimized at their minimum amount". Tax avoidance is the culmination of varying activities undertaken by management to reduce tax payable (Mgbame *et al.*, 2017). Tax avoidance refers to the reduction in explicit corporate tax liabilities (Annuar *et al.*, 2014).

Corporate tax avoidance refers to "anything that reduces the firm's taxes relative to its pretax accounting income" (Dyreng *et al.*, 2010, p. 1164). Tax planning refers to a situation in which there is a disconnection between the location of profits and the real activity generating them (Johansson *et al.*, 2016). Hanlon and Heitzman (2010, p.137) described tax avoidance using a continuum of tax planning strategies which range from perfectly legal real transactions at one end (e.g., investments in tax-favoured assets, such as municipal bonds) to aggressive tax avoidance practices (e.g., tax shelters) on the other end.

The measures of tax avoidance can be subdivided into three groups used in prior literature (Annuar *et al.*, 2014). The first group includes measures that consider the multitude of the gap between book and taxable income. These comprise the total book-tax gap; residual book-tax gap and tax-effect book-tax gap. The second group includes ratios that measure the amount of taxes to business income. These comprise effective tax rates (with variants such as; Effective Tax Rate (ETR); current ETR; cash ETR; long-run cash ETR; ETR differential; the ratio of income tax expense to operating cash flow; and the ratio of cash taxes paid to operating cash flow). The third group includes measures such as discretionary permanent differences (PERMIDIFF)/DTAX; unrecognized tax benefits (UTB); and tax shelter estimates. Heckemeyer and Overesch (2013) provide a quantitative review of 25 empirical studies on the profit-shifting behaviour of MNCs. The majority of MNCs more especially in developing countries conceal rent extractions via corporate tax avoidance (Desai & Dharmapala, 2006).

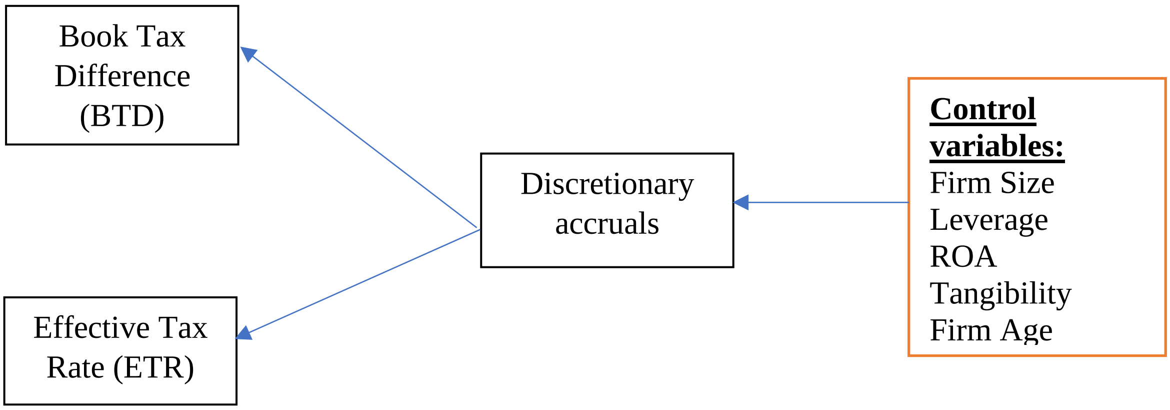
2.1.2 **Accruals Quality and** Tax Avoidance

The study is focused on earnings manipulation via discretionary accruals and tax avoidance nexus. This is because there is substantial evidence to support the fact that firms manage earnings to alter taxes paid. Desai and Dharmapala (2009) observed that tax avoidance mechanisms give room for opportunistic managers to pursue self-seeking objectives and manage earnings. Acquah (2017, p.7) argues that managers 'managing earnings are more likely to insulate themselves by avoiding more taxes as avoidance provides them shield from shareholder scrutiny'.

Johansson *et al.* (2016) using a sample MNEs from OECD countries found evidence that large MNEs also exploit mismatches between tax systems (e.g. differences in the tax treatment of certain entities, instruments or transactions) and preferential tax treatment for certain activities or incomes to reduce their tax burden. They further stated that tax planning involves the artificial reduction of the effective tax rate (ETR) of MNCs – compared to that of similar domestic firms – due to the exploitation of tax planning schemes involving loopholes in tax systems and preferential tax treatment (Johansson et al., 2016). Amidu *et al.* (2019) in Ghana using a panel data set from 2008 to 2015 established a form of interaction between transfer pricing, earnings management and tax avoidance.

The diagram below illustrates the interrelatedness of the dependent and independent variables in this study

Figure 1: Schematic representation of the relationship between the variables



Source: Author's Conceptualisation (2021)

2.2. Theoretical Framework

The study is anchored on the agency theory, *firstly*, 'agency theory', which explains the information asymmetry between principals and agents, thereby causing agents to act in their self-interest in the absence of an adequate monitoring mechanism. The Agency theory paradigm was first formulated by Ross in the '70s (Ross, 1973); and, associated with agency costs by Jensen and Meckling (1976). Jensen and Meckling (1976) define agency relationship in terms of a "contract under which one or more persons (the principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". The theory posits that an agency relationship exists when shareholders (principals) hire managers (agents) as decision-makers in corporations (Ruangviset *et al.*, 2014). The theory tries to resolve two problems that usually occur when shareholders (principals) hire managers (agents). The first is the conflict of goals between the principal and agent and the costs associated with the minimisation of such discrepancy; and, secondly, is the problem of sharing risk when the risk preference of the principal and agent differs (Eisenhardt, 1989). According to Eisenhardt (1989) agency problem arises when "(a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify what the agent is doing".

2.3 Empirical Review

Marwat *et al.* (2021) conducted a study titled 'Tax avoidance as earning game player in emerging economies: Evidence from Pakistan'. The authors used unbalanced panel data from 198 non-financial firms listed on the Pakistan Stock Exchange and secondary data which spanned covered the period 2000 to 2018. The data were analysed using multiple regression technique and showed a positive effect of tax avoidance on stock returns.

Mansali *et al.* (2019) undertook a study titled 'Accruals quality, financial constraints, and corporate cash holdings'. The sample comprised of 741 firms listed on Euronext Paris, and secondary data from 2000 to 2015. They employed multiple regression technique to analyse the data. The results showed a positive link between accruals quality and cash holdings, which becomes higher under financial constraints.

Amidu *et al.* (2019) undertook a study titled 'Transfer pricing, earnings management and tax avoidance of firms in Ghana'. The sample comprised 320 firm-year observations for a period of 8 years from 2008 to 2015. The study relied on secondary data; obtained from annual reports and accounts. The data were analysed using panel regression procedures. The results showed that the sensitivity of tax avoidance to transfer pricing decreases as a firm increases its earnings management.

Salawu and Ololade (2018) undertook a study titled 'Corporate tax avoidance of listed firms in Nigeria'. The sample comprised of nineteen (19) firms from the Nigerian Stock Exchange 30 index selected using the purposive sampling technique. The study relied on secondary data; obtained from annual financial statements. The data were analysed using descriptive statistics. The results revealed that firms in the agricultural and construction &

real estate sectors recorded the lowest average long-run cash effective tax rate of 10% and 4.5% respectively. Financial institutions had an industry average of 17%; while, the healthcare and consumer goods sectors had the highest of 32% and 24% respectively.
Acquah (2017) conducted a study 'Transfer pricing, earnings management, and tax avoidance'. The study utilised a quantitative research design. The sample comprised forty MNCs in Ghana. He used secondary data from annual reports of the sampled firms. The data was analysed using panel regression techniques, specifically the Generalized Least Squares approach. The results showed that transfer pricing is positively related to tax avoidance for both financial and non-financial MNCs. The results also show that earnings management is positively related to tax avoidance for both financial and non-financial firms; however, it was only significant for financial firms. Lastly, the interaction of transfer pricing and earnings management was negative for both financial and non-financial firm categories.

2.4 Gap in the Literature

There is a paucity of studies in developing countries; and, specifically in Nigeria despite the high vulnerability of MNCs in using transfer pricing for tax avoidance (Acquah, 2017; Sikka & Willmott, 2010; Christian-Aid, 2008). As the majority of MNCs in developing countries conceal rent extractions via transfer pricing and corporate tax avoidance (Desai & Dharmapala, 2006). This is premised on lack of empiricism on the subject, while prior studies have focused on corporate tax avoidance determinants, e.g., Salawu and Adedeji (2017), Salawu *et al.* (2017), and Sani and Madaki (2016) on non-financial and oil & gas firms in Nigeria.

The second gap tackled in the Nigerian context, studies by Salawu and Adedeji (2017), Salawu *et al.* (2017), and Sani and Madaki (2016) among several others, that explored tax planning among quoted non-financial and oil and gas firms have mainly utilised the effective tax rate as a singular proxy of corporate tax avoidance. The use of alternative proxies yields interesting findings. For instance, the study by Olibe and Rezaee (2008) in the U.S., showed that U.S. effective tax rate increased; while, the global effective tax rate decreased with the level of cross-border intrafirm transfers. Thus, the need for the inclusion of additional alternative corporate tax avoidance measures in subsequent studies. The total book-tax difference represents the most comprehensive measure and captures both temporary and permanent BTD (Manzon & Plesko, 2002; Wilson, 2009).

3.0 Methodology

3.1 Research Design

The research utilised the *ex post facto* research design, which is a systematic empirical inquiry, in which the observer has no direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulated. The population is comprised of MNCs in operation in Nigeria at end of the 2019 financial year and includes firms from the following sectors Banking, Beverages, Brewery, Conglomerate, Construction, Consumer Goods & Household Products, ICT, Industrial Goods, Oil & Gas, and Healthcare. The study employed a variant of non-probability sampling, i.e., purposive sampling. This technique required a criterion for selecting firms to be included in the sample. The main limiting factor is the availability of annual financial statements of the MNCs for the duration of the study. The final sample comprised of fifty MNCs (see Appendix) based on the availability of financial data for the relevant study period.

3.2 Source of Data

The study relied upon secondary sources of data. The data were retrieved from the annual financial statements of the sampled companies. The secondary data source is deemed appropriate for this study because it is devoid of subjectivity associated with an alternative mode of data collection such as interviews and questionnaires with regards to the issue in contention.

3.3 Methods of Data Analysis

The data for the study were analysed using *descriptive and inferential statistics*. The descriptive statistics comprises measures such as the mean, median, standard deviation, Skewness, Kurtosis, and the Jarque-Bera (J-B) statistic. The skewness of a symmetric distribution, such as the normal distribution, is zero. Positive skewness means that the distribution has a long right tail and negative skewness implies that the distribution has a long left tail. **Kurtosis** measures the peakedness or flatness of the distribution of the series. The kurtosis of the normal distribution is 3. If the kurtosis exceeds 3, the distribution is peaked (leptokurtic) relative to the normal; if the kurtosis is less than 3, the distribution is flat (platykurtic) relative to the normal. The J-B test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution. The formulated hypotheses were analysed using the multiple linear regression techniques.

3.3.1 Model Specification:

$$BTD_{(i,\,t)} = \alpha_0 + DA_{(i,\,t)} + Size_{(i,\,t)} + Leverage_{(i,\,t)} + PROF_{(i,\,t)} + Tang_{(i,\,t)} + Age_{(i,\,t)} + \mu \ldots\ldots\ldots\ldots\ldots (1)$$

$$ETR_{(i,\,t)} = \alpha_0 + DA_{(i,\,t)} + Size_{(i,\,t)} + Leverage_{(i,\,t)} + PROF_{(i,\,t)} + Tang_{(i,\,t)} + Age_{(i,\,t)} + \mu \ldots\ldots\ldots\ldots\ldots (2)$$

3.3.2 Description of variables

The table below presents the description of variables included in the model

Table 1: Description of variables

Dependent Variable(s)		
BTD $_{it}$		Pretax book income – ([current tax expense/statutory tax rate] – [NOL_t –NOL_{t-1}]) The Statutory Tax Rate is the official corporate tax rate; which presently in Nigeria is 30% of the assessable profit. NOL-Net Operating Losses
ETR $_{it}$		This is a measure of the proportion of profit before tax is paid as tax. It is computed as tax paid divided by profit before tax.
Independent Variable		
Discretionary accrual		This is measured as the difference between TAC $_{it}$ and NDA $_{it}$ This was estimated using the Jones-modified model (1995): TAi,t / Ai,t -1= a0(1/ Ai,t -1)+a1[(ΔCAi,t -ΔCCRi,t) / Ai,t -1]+a2(PPEi,t / Ai,t -1)+εi,t **Where**: TAi,t: Total accrual in year t; Ai,t -1: Total assets in year t-1; ΔCAi,t: Change in sales; ΔCCRi,t: change in receivables; PPEi,t: Gross property plant and equipment; εi,t: Residuals that represent the estimation of discretionary accruals.
Control Variables		
SIZE	Firm Size	This is measured as the natural logarithm of total assets.
LEVERAGE	Debt Ratio	Long-term debts/ total assets.
PROF	Profitability-ROA	Earnings before interest and taxes/total assets.
TANG	Tangibility	This is measured as the total value of property plant and equipment over the total assets.
AGE	Firm Age	This is measured as the difference between the year the firm commenced operation (was incorporated) and the current financial statement year considered

4.0 Data Analysis

4.1 Correlation Analysis

The tables below (Table 1a and 1b) show the Pearson's correlation results of the dependent, independent and control variables. It is used to check for *collinearity*; and, a threshold of 0.8 for each coefficient is considered high.

Table 1a: Correlation Matrix (BTD)

	BTD	DA	SIZE	LEV	ROA	TANG	AGE
BTD	1.000000	0.004494	0.213268	0.003774	0.117389	-0.165111	-0.002992
DA	0.004494	1.000000	0.017538	0.041459	0.003310	-0.037610	0.049324
SIZE	0.213268	0.017538	1.000000	0.027084	-0.054398	-0.038820	-0.028612
LEV	0.003774	0.041459	0.027084	1.000000	0.009591	0.069369	0.105145
ROA	0.117389	0.003310	-0.054398	0.009591	1.000000	-0.251383	-0.045766
TANG	-0.165111	-0.037610	-0.038820	0.069369	-0.251383	1.000000	0.042115
AGE	-0.002992	0.049324	-0.028612	0.105145	-0.045766	0.042115	1.000000

Source: E-Views 9

Table 1b: Correlation Matrix (ETR)

	ETR	DA	SIZE	LEV	ROA	TANG	AGE
ETR	1.000000	0.036140	-0.077916	-0.053758	0.004629	-0.202632	-0.049286
DA	0.036140	1.000000	0.017538	0.041459	0.003310	-0.037610	0.049324
SIZE	-0.077916	0.017538	1.000000	0.027084	-0.054398	-0.038820	-0.028612
LEV	-0.053758	0.041459	0.027084	1.000000	0.009591	0.069369	0.105145
ROA	0.004629	0.003310	-0.054398	0.009591	1.000000	-0.251383	-0.045766
TANG	-0.202632	-0.037610	-0.038820	0.069369	-0.251383	1.000000	0.042115
AGE	-0.049286	0.049324	-0.028612	0.105145	-0.045766	0.042115	1.000000

Source: E-Views 9

Notes: BTD is Book Tax Difference; ETR is Effective Tax Rate; DA is Discretionary Accruals (a proxy for Earnings Management); Size is Firm Size; LEV is Leverage; ROA is Return on Assets; TANG is Asset Tangibility; AGE is Firm Age

The magnitude of the relationship is determined by the absolute value while the sign indicates the direction of the relationship (Acquah, 2017). The correlation results from Table 4.2a show that TPI is negatively correlated with tax avoidance (BTD); while DA is positively correlated with tax avoidance (BTD). The control variables, SIZE, LEV and ROA are positively correlated with tax avoidance; while, TANG and AGE were negatively correlated with tax avoidance. DA is positively correlated with SIZE, LEV, ROA and AGE; and, negatively correlated with TANG. SIZE is positively correlated with LEV; and, negatively correlated ROA, TANG and AGE. LEV is positively correlated with ROA, TANG and AGE. ROA is negatively correlated with TANG and AGE. TANG is positively correlated with AGE.

The correlation results from Table 1b show that DA is positively correlated with tax avoidance (ETR). The control variables, SIZE, LEV, TANG and AGE are negatively correlated with tax avoidance; while, ROA is positively correlated with tax avoidance. DA is positively correlated with SIZE, LEV, ROA and AGE; and, negatively correlated with TANG. SIZE is positively correlated with LEV; and, negatively correlated with ROA, TANG and AGE. LEV is positively correlated with ROA, TANG and AGE. ROA is negatively correlated with TANG and AGE. TANG is positively correlated with AGE. In summary, the results from the tables showed no evidence of *multicollinearity* among the variables.

4.2 Test of Hypotheses

The study used the Panel EGLS (Estimated Generalised Least Squares), which is a variant of GLS. The GLS technique is a generalization of OLS but relaxes the assumption that the errors are homoskedastic and uncorrelated (Kaufman, 2013). Asymptotically, EGLS has the same statistical properties as GLS under a broad range of conditions (Greene, 2008). The EGLS procedure used the period random effects specification and white cross-section as the coefficient covariance method. This approach has also been used in prior studies;

such as Amidu *et al.* (2019) and Acquah (2017) in Ghana. All statistical analysis was conducted using the E-Views 9 software.

4.2.1 Hypothesis One

Ho_1: There is no significant effect of discretionary accruals on book-tax differences of multinational firms.

Table 2: Discretionary accruals on BTD
Dependent Variable: BTD

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.04E+09	3.98E+09	1.518675	0.1298
DA(-1)	-58614843	42364515	-1.383583	0.1674
SIZE	0.007231	0.001372	5.271598	0.0000
LEV	-34278613	1.43E+08	-0.239371	0.8110
ROA	4.29E+09	1.64E+09	2.615357	0.0093
TANG	-3.22E+09	9.36E+08	-3.440498	0.0007
AGE	26479784	53981155	0.490538	0.6241
		Effects Specification		
			S.D.	Rho
Period random			0.000000	0.0000
Idiosyncratic random			5.27E+10	1.0000
		Weighted Statistics		
R-squared	0.090217	Mean dependent var		1.16E+10
Adjusted R-squared	0.074019	S.D. dependent var		5.46E+10
S.E. of regression	5.25E+10	Sum squared resid		9.29E+23
F-statistic	5.569643	Durbin-Watson stat		0.780856
Prob(F-statistic)	0.000016			
		Unweighted Statistics		
R-squared	0.090217	Mean dependent var		1.16E+10
Sum squared resid	9.29E+23	Durbin-Watson stat		0.780856

Source: E-Views 9

Interpretation:

The model showed R squared values of .090 (*weighted statistics*) and .090 (*unweighted statistics*); these values describe the proportion of variance in the dependent variable which is explained by the independent and control variables. In other words, the model explains approximately 9% variation of the dependent variable. The F statistic (ratio of the mean regression sum of squares divided by the mean error sum of squares) used to check the statistical significance of the model had a value of 5.569 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. The *coefficient* and *t-statistic* of our variable of interest (DA) are negative and statistically insignificant [*t-statistic* (-1.383583), *p* (0.1674, >.05)]; thus, the alternate hypothesis is rejected and null accepted. There is no significant effect of discretionary accruals on book-tax differences of multinational firms. The control variables of SIZE and ROA showed a significant positive effect for the entire sample; while, TANG recorded a significant negative effect. LEV was negative but not significant; while, AGE was positive and non-significant.

Robustness Check:

The above-specified model was re-estimated for the hypothesis, using the *Fixed Effect* (FE) panel data technique. The results are not shown for brevity. The coefficient of DA in the model was non-significant and negative.

4.2.2 Hypothesis Two

Ho_2: There is no significant effect of discretionary accruals on the effective tax rate of multinational firms.

Table 3: Discretionary accruals on ETR

Dependent Variable: ETR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.624979	0.104933	5.955966	0.0000
DA(-1)	0.000982	0.000695	1.412732	0.1587
SIZE	-4.99E-14	8.87E-15	-5.622082	0.0000
LEV	-0.000597	0.004887	-0.122235	0.9028
ROA	-0.045731	0.003882	-11.78147	0.0000
TANG	-0.098597	0.027012	-3.650086	0.0003
AGE	-0.000975	0.001646	-0.592621	0.5538

Effects Specification

	S.D.	Rho
Period random	0.000000	0.0000
Idiosyncratic random	0.958016	1.0000

Weighted Statistics

R-squared	0.064418	Mean dependent var	0.487793
Adjusted R-squared	0.047761	S.D. dependent var	0.984124
S.E. of regression	0.960335	Sum squared resid	310.7962
F-statistic	3.867287	Durbin-Watson stat	1.337752
Prob(F-statistic)	0.000953		

Unweighted Statistics

R-squared	0.064418	Mean dependent var	0.487793
Sum squared resid	310.7962	Durbin-Watson stat	1.337752

Source: E-Views 9

Interpretation:

The model showed R squared values of .064 (*weighted statistics*) and .064 (*unweighted statistics*); these values describe the proportion of variance in the dependent variable which is explained by the independent and control variables. In other words, the model explains approximately 6% variation of the dependent variable. The F statistic (ratio of the mean regression sum of squares divided by the mean error sum of squares) used to check the statistical significance of the model had a value of 3.867 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. The *coefficient* and *t-statistic* of our variable of interest (DA) are positive and statistically insignificant [*t-statistic* (1.412732), *p* (0.1587, >.05)]; thus, the alternate hypothesis is rejected and null accepted. There is no significant effect of discretionary accruals on the effective tax rate of multinational firms. The control variables of SIZE, ROA and TANG were negative and significant; while, LEV and AGE were non-significant and negative.

Robustness Check:

The above-specified model was re-estimated for hypothesis five, using the *Fixed Effect* (FE) panel data regression technique. The results are not shown for brevity. The coefficient of DA in the model was non-significant and positive.

4.3 Discussion of Findings

The findings of the study corroborate empirical evidence in prior literature. This includes studies by Amidu *et al.* (2019) and Acquah (2017) using a sample of MNCs in Ghana; Cristea and Nguyen (2016) on a sample of MNCs in Denmark; Johansson, Skeie, Sorbe and Menon (2016) on a sample of OECD and G20 countries, Colombia, Latvia, Malaysia and Singapore; Taylor *et al.* (2015) in the United States; and, Klassen *et al.* (1993) in Europe. The evidence portrays income shifting by MNCs to avoid tax payments. The two hypotheses tested the direct effect of earnings management proxied via discretionary accruals on corporate tax avoidance. The first hypothesis showed no significant effect of discretionary accruals on book-tax differences of multinational firms. From a CSR perspective, the study by Muller and Kolk (2015) showed evidence that firms were less likely to pay taxes as they avoid CSR engagements while firms with deferred tax liabilities were related to higher ETRs. The second hypothesis showed no significant effect of discretionary accruals on the effective tax rate of multinational firms. Specifically, the fifth hypothesis showed a non-significant positive effect. This was also supported in the study by Acquah (2017) on a sample of MNCs in Ghana revealed that earnings management was positively related to tax avoidance for both financial and non-financial MNCs; however, it was significant for the financial sample.

5.0 Conclusion and Recommendations

The study concludes that accruals quality plays a role in tax avoidance of Multinational Corporations (MNCs) in Nigeria. The empirical results revealed that the earnings management proxy, i.e., discretionary accruals showed mixed effects on corporate tax avoidance. The results showed a non-significant negative effect on book-tax differences; and, a non-significant positive effect on the effective tax rate. These findings support prior studies in the literature using different proxies. The empirical results contribute to knowledge on the determinants of tax avoidance of MNCs. Based on this, the study recommends a comprehensive review of transfer price regulations to restrict opportunities for MNCs to exploit the loopholes for their benefits. Therefore, the FIRS should equip its personnel through effective training to effectively deal with intra-firm trade by MNCs. A comprehensive assessment would involve details of the parties involved, the tax rate applicable for each jurisdiction, the methodology employed and a justification for such method, and a comparative analysis with an alternative market price. Acquah (2017) further recommends that such an assessment should not be made on a yearly or quarterly or monthly basis but rather for each intra-firm transaction. This will help ensure currency of assessment procedures with prevailing market circumstances.

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Appendix I

Fixed Effects Output for Hypothesis One:

Dependent Variable: BTD
Method: Panel Least Squares
Date: 03/03/21 Time: 19:59
Sample (adjusted): 2012 2018
Periods included: 7
Cross-sections included: 50
Total panel (unbalanced) observations: 344

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.17E+09	5.93E+09	1.039599	0.2993
DA(-1)	-50351151	99443084	-0.506331	0.6130
SIZE	0.007216	0.001661	4.344624	0.0000
LEV	-71192631	5.38E+08	-0.132236	0.8949
ROA	4.10E+09	2.35E+09	1.743615	0.0822
TANG	-3.25E+09	1.22E+09	-2.665494	0.0081
AGE	27015626	1.05E+08	0.256479	0.7977

Effects Specification

Period fixed (dummy variables)

R-squared	0.098494	Mean dependent var	1.16E+10
Adjusted R-squared	0.065811	S.D. dependent var	5.46E+10
S.E. of regression	5.27E+10	Akaike info criterion	52.25223
Sum squared resid	9.21E+23	Schwarz criterion	52.39737
Log likelihood	-8974.383	Hannan-Quinn criter.	52.31003
F-statistic	3.013614	Durbin-Watson stat	0.764115
Prob(F-statistic)	0.000498		

Source: E-Views 9

Fixed Effects Output for Hypothesis Two:

Dependent Variable: EFFECTIVE_TAX_RATE
Method: Panel Least Squares
Date: 03/03/21 Time: 20:10
Sample (adjusted): 2012 2018
Periods included: 7
Cross-sections included: 50
Total panel (unbalanced) observations: 344

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.611893	0.107787	5.676877	0.0000
DA(-1)	0.000712	0.001806	0.394337	0.6936
SIZE	-4.75E-14	3.02E-14	-1.573225	0.1166
LEV	-8.60E-05	0.009779	-0.008791	0.9930
ROA	-0.050747	0.042669	-1.189313	0.2352
TANG	-0.099436	0.022129	-4.493509	0.0000
AGE	-0.000719	0.001913	-0.375651	0.7074

Effects Specification

Period fixed (dummy variables)

R-squared	0.085509	Mean dependent var	0.487793
Adjusted R-squared	0.052356	S.D. dependent var	0.984124
S.E. of regression	0.958016	Akaike info criterion	2.789153
Sum squared resid	303.7898	Schwarz criterion	2.934293
Log likelihood	-466.7343	Hannan-Quinn criter.	2.846961
F-statistic	2.579180	Durbin-Watson stat	1.320515
Prob(F-statistic)	0.002764		

Source: E-Views 9