PROCEEDINGS

ICAN

5TH ANNUAL INTERNATIONAL ACADEMIC CONFERENCE (2019)

THEME:

CONTEMPORARY ISSUES IN BUSINESS, ACCOUNTING AND FINTECH

A Publication of The Institute of Chartered Accountants of Nigeria

5TH ANNUAL INTERNATIONAL ACADEMIC CONFERENCE PROCEEDINGS, 2019

(April, 15 - 17 2019, Kaduna State University, Kaduna, Nigeria)

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5TH ANNUAL INTERNATIONAL ACADEMIC CONFERENCE PROCEEDINGS, 2019
APRIL 15 - 17, 2019, KADUNA STATE UNIVERSITY, KADUNA
THEME: CONTEMPORARY ISSUES IN BUSINESS, ACCOUNTING AND FINTECH

PROGRAMME OF EVENTS
Sunday, April 14, 2019 - Arrival
4.00pm - 6.00pm Cocktail (Senate Chambers, KASU)

Monday, April 15, 2019: Registration and Opening Ceremony

8:00 am - 4.00pm	Registration
10:15 :00am -11 :00 am	Courtesy visit by ICAN President to the Vice-Chancellor, Kaduna State University, Kaduna
11:00am -1:15 pm	OPENING CEREMONY -1000 seating Capacity Lecture Theatre, KASU. ✓ Introduction of Dignitaries ✓ Opening Remarks by Academic Conference Workgroup Chairman, Dr. Sola Ajibolade, FCA (Assoc. Prof. of Accounting, UNILAG) ✓Address by Chairman, TRPPC Committee & 1st Deputy Vice-President, ICAN Mrs. Onome Adewuyi, FCA ✓ Introduction of the President and Members of the ICAN Council by Dr. Ben Ukaegbu, Deputy Registrar, Technical Services ✓Welcome Address by, the 54th President of ICAN Alhaji Razak A. Jaiyeola, B.Sc, ACFE, CRISC, FCA ✓Keynote Address by the Vice-Chancellor, Kaduna State University, Kaduna Prof. Muhammad Tanko, Ph.D ✓Vote of Thanks by the MC - Prof. Francis Kehinde Emeni, FCA ICAN Research Fellow & Professor of Accounting, UNIBEN
1.15 pm - 1:45pm	Tea Break
1 .45pm - 2.45pm	Lead Paper Presentation: Opportunities and Threats Posed by Artificial Intelligence on the Accounting Profession: Emphasis on the SSA Region Prof. Austin Nweze, PhD, FCA, The Rector of IMT, Enugu, Nigeria Chairman of Session: Dr. Greg Ezeilo, PhD, FCA
2.45pm - 3.15pm	Lunch Break
3.15pm - 5:15pm	PhD Colloquium I (1,000 seating Capacity Lecture Theatre, KASU) Moderator: Prof.Isa KabiruDandago, FCA, Bayero University, Kano
5:15pm - 5.30pm	Break
5:30pm - 7:30pm	PhD Colloquium II (1,000 seating Capacity Lecture Theatre, KASU) Moderator: Prof. Isa Kabiru Dandago, FCA, Bayaro University, Kano

	Tuesday, April 16, 2019
8.00am - 11.00am	Registration
9.00am - 11.00am	PhD Colloquium III (Postgraduate Conference Room)
11.00am - 11.30am	Tea Break
11.30am - 1.00pm	Workshop (Postgraduate Conference Room) Topic: Managing the Publication Process to Reduce Rejection Rate Paper Presenter: Prof. Akintola Owolabi, Ph.D, FCA Lagos Business School, Pan-Atlantic University, Ajah, Lagos, Nigeria
1.00pm - 2.00pm	Lunch
2:15pm - 5:15pm	Concurrent Session I (FSMSIPG Conference Room)
5:15pm - 5:30pm	Break (Networking)
5:30pm - 7:30pm	Concurrent Session II (FSMSIPG Conference Room)
	Wednesday, April 17, 2019
9.00am - 11.00am	Concurrent Sessions III (FSMS)
11.00am - 11.30am	Tea Break
11.35am - 12.55pm	Concurrent Sessions IV (FSMS)
1:05m-2:05pm	Closing Ceremony, Award to the Best Papers & Distribution of Certificates (1,000 seating Capacity Lecture Theatre, KASU)
2.05pm - 3.05pm	Lunch/Departure

THE 5TH ANNUAL INTERNATIONAL ACADEMIC CONFERENCE ORGANISING COMMITTEE

S/N	NAMES	DESIGNATION
1.	Mrs Onome Adewuyi	Chairman, TRPPC & ICAN 1st DVP
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23.	Mr. Odunayo Adebayo	Senior Manager, Research & Technical
24.	Mr. Daisi Ogunnoiki	Manager, Research & Technical

KADUNA STATE UNIVERSITY (LOC) TEAM

1.	Dr. (Mrs) Mansur Lubabah Kwanbo	Accounting Department
2.	Mal. Muhammed Hmza Modibbo	Accounting Department
3.	Dr. Augustine Ayuba	Accounting Department
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CONFERENCE CHAIRMAN WELCOME ADDRESS

5th Annual International Academic Conference on Accounting and Finance is an initiative of The Institute of Chartered Accountants of Nigeria in furtherance of its mandate to determine standards of knowledge and skills to be attained by accounting professionals and raising those standards from time to time. The Conference is an annual event targeted at improving the knowledge and skills of accounting professionals who are involved in the education and training of future generations of Nigerian accounting professionals. It is organised to fulfil the yearnings of those members in academia who desire to be ahead in sharing cutting edge research findings for the advancement of knowledge in accounting theory and practice.

In order to make the Conference more acceptable to members and their Institutions, ICAN commenced a programme of collaboration with Nigerian Universities beginning with the 3rd edition of the Conference, which was held in collaboration with the University of Lagos in 2017. The 4th Conference was held in collaboration with Covenant University, Ota Ogun state and here we are at the 5th Conference being held in collaboration with the Kaduna State University in a relaxed ambience capable of supporting deep intellectual engagement.

The Academic Conference features pre-conference workshops, PhD Colloquiums, keynote presentation, lead paper presentations and concurrent papers sessions. It thus provides an opportunity for members of the Institute as well as non-members working in Universities, Polytechnics and other tertiary educational institutions to be abreast of contemporary issues that call for research, perfect their research and publication skills, enjoy academic collaboration and mentoring and disseminate their research findings through recognised outlet to help them move up on the academic ladder.

The theme of this 5th Annual Conference, Contemporary Issues in Business, Accounting and Fintech is apt, considering the intensity of the use of technology to deliver accounting and finance services and the associated risks in today's Nigerian economy. This theme is divided into twenty-eight sub-themes covering financial technology issues, business, entrepreneurship, financial reporting and accountability issues. The Conference has received participation not only from researchers from the academia but also from practitioners in Nigeria and other parts of the world. Research papers received at the Conference have touched on all sub themes with the most patronised being issues in finance and stock market development

This Proceedings exhibits the Conference papers that have been accepted for presentation at the 5th Annual Conference. The Organising Committee for the Conference made up of ICAN team and the Kaduna State University team who are Professors and other Professionals in Accounting have ensured a high quality of academic presentations by putting together a group of senior academics from various Universities in Nigeria as reviewers, to ensure that the papers are presented in conformity with standards for presentation of academic papers.

The Conference, considering the level of participation received from various Universities and other tertiary institutions in and outside Nigeria, is expected to be an enriching experience for all participants.

SOLABOMI AJIBOLADE, *PhD, FCA, FCTI, FCFIP, FIMLS, CFA, ACFE*
ASSOCIATE PROFESSOR, DEPT OF ACCOUNTING, UNIVERSITY OF LAGOS &
CHAIRMAN, ICAN ACADEMIC CONFERENCE WORKGROUP

KEYNOTE ADDRESS

Good Morning!
All protocol observed
All gratitude is due to Almighty Allah for making this Conference possible.

I would like to specially welcome our Dear President, other council members here, president and participants of this year's academic conference to Kaduna and also to register my heartfelt, genuine, and sincere appreciation to The Institute of Chartered Accountant of Nigeria for their choice of Kaduna State University as the venue for the 2019 Academic Conference. I understand that the 2019 Conference will explore the dynamics of contemporary issues from the interlocking lenses of the tripartite of (a) Business (b) Accounting and (c) Fintech. The choice of the theme is without slightest reservation most appropriate. This is because in Nigeria and globally, businesses are adopting technological advances, in offering commercial and financial services, and are using technology as a means of settlements.

Even though, experts are available to facilitate discourses on the theme of this Conference, permit me to comment briefly about the growing significance of Financial Technology (Fintech) in the context of globalized, networked society. The first that came to mind is the regulatory question, with its dual structure of the necessity of having guidelines/regulation to regulate Fintech services, and the desire for Fintech firms to comply with the newer regulations that are emerging. Modern control is making Fintech firms to commit significant resources to ensure compliance. In Europe for instance, the General Data Protection Regulation (GDPR) has seen Fintech businesses committing substantial resources to ensure compliance with the regulation. In this sense, "Regulatory Technology" (Regtech) which is described as technological innovation that assists businesses to comply with financial regulations will be an essential issue for Nigerian firms. Firms operating in the financial sector will continue to require Regtech to understand their clients and report unusual behaviors to regulatory authorities.

A threatening issue for Fintech businesses is cybersecurity. Cybercrime has been and will continue to be an issue for firms that have adopted or that are desirous of adopting and using modern technologies in the provision of commercial services. A 2018 report by the firm of Deloitte titled "2018 Nigeria Cybersecurity Outlook" has painted a gloomy picture of cybersecurity for businesses. The report noted with dismay that "there is a fierce battle for supremacy between the cybercriminals" and businesses. Fintech businesses have experienced the problem of "Ransomware" alias "Wanna Cry" or "WannaCrypt" virus. Even though regulatory agencies in Nigeria have reassured us that we are free, and I repeat we are free from "ransomware attack"; there is the need for businesses to keep vigil. This is because cybercrime is a major issue for contemporary businesses and is unlikely to end now.

Closely related to ransomware is the big question of customer data security. In this respect, businesses are spending colossal sums of money on preventing attack on customer data bank. Looking at this carefully, one may argue that modern day businesses are not only competing with similar firms in the provision of products and services, but they are also fighting with cybercriminals. While firms are continuously making efforts to fortify their business against attack from cyber crooks, cybercriminals are challenging firms in that respect. In this sense, there is a compelling need for a fresh perspective on how businesses tackle cybersecurity. One angle that may likely feature in your deliberations is the "dynamic or moving target network defense." It will be interesting to know the applications of "dynamic or moving target network defense" in the context of Nigeria.

Additional issue affecting businesses especially for Fintech firms is the popularity, adoption, and the increasing use of cloud computing services. Even though cloud computing is considered safe, it is not without problems. A prevalent cloud based computing attack is the "Man in the Cloud (MitC) attack" perpetrated mostly via social engineering. What does this mean for Fintech businesses in the context of Nigeria?

Other issues worth mentioning within the dynamics of Fintech businesses are the virtual assets or crypto assets. Regulatory agencies have cautioned Nigerians about the dangers of dealing in cryptocurrency. However, cryptocurrency is a major contemporary issue and is likely to remain so for decades. Consequently, the question of crypto assets is worth our attention, especially in the light of the future of cryptocurrencies regarding guidelines, law, regulations, and taxation.

Another concern worth reflecting is the question of "disruptive technologies." This is because, as businesses in Nigeria adopt and use newer technologies, they significantly alter traditional business procedures and industry norms. To surmount the problems associated with disruptive technologies for Fintech businesses in Nigeria, I suggest we reflect on the need for a holistic approach to the issue. Essentially, scholars in Business, Accounting and Finance should adopt interdisciplinary, cross-disciplinary, multi disciplinary, and transdisciplinary empirical inquiries on matters related to disruptive technologies and Fintech businesses.

In conclusion, as we deliberate on the interplay between the trio of Business, Accounting, and Fintech, I urge business leaders not to lose sight of the human touch in service delivery. I call businesses to be humane, in their aspiration to abandon human, in favor of soulless technologies.

Thank you all for listening!

Prof. Muhammed Tanko, PhD, FCA
The Vice Chancellor, Kaduna State University

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OPPORTUNITIES AND THREATS POSED BY ARTIFICIAL INTELLIGENCE ON THE ACCOUNTING PROFESSION: EMPHASIS ON THE SUB-SAHARA AFRICAN REGION

Lead paper presented by:

Augustine Uchechukwu Nweze
Enugu State University, Enugu, Nigeria
Rector, Institute of Management and Technology [IMT], Enugu

"We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear: the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society" (Klaus Schwab, 2016).

Overview

This topic is discussed under the following sub-headings:

I. Introduction: Preamble, Concepts of Depreciation and Change in Technology.
ii. Definition of Terms: Artificial and Intelligence, Types of intelligence.
iii. Definitions, Types, History, Fears and Challenges of Artificial Intelligence.
iv. Comparative Analysis of Artificial and Natural Intelligence.
v. Current applications of Artificial Intelligence
vi. Opportunities provided by Artificial Intelligence.
vii. Threats posed by Artificial Intelligence particularly in Sub-Sahara Africa.
viii. Conclusion.

Introduction

From the onset, permit me to align myself with the views of ACCA [2013] thus: This discussion document does not aim to make predictions, but rather to stimulate discussion about a broad range of emerging and converging technologies and their potential to influence the accountancy profession.

For trained and certificated Teachers, it's always better to proceed from simple to complex orfrom known to unknown. So, employing this teaching method, let's start with the concept of depreciation and proceed to change in technology.

Preamble: Concept of Depreciation?

According to the Statement of Standard Accounting Practice [SSAP] Number 12, Depreciation is a reduction in the value of an asset, as a result of four causative factors, namely, Usage, Passage of time, Wear and tear and Change in technology.

Given that the main thrust of this paper is Artificial Intelligence [AI], which is an integral part of Change in Technology, let's briefly discuss change in technology.

Change in Technology:

Technology, which is "Science of craft" or "Art, skill, cunning of hand" according to Wikipedia, is a collection of techniques, skills, methods and processes used in the production of goods or services or in the accomplishment of objectives, such as scientific investigation. Technology can be the knowledge of techniques, processes, and the like, or it can be embedded in machines to allow for operations

without detailed knowledge of their workings.
Therefore, change in technology essentially refers to change in skills, methods and processes of production or services or in the accomplishment of objectives.

Here are few classic examples, as culled from WhatsApp messages:
In 1998, Kodak had 170,000 employees and sold 85% of all photo papers world-wide. Within just a few years, their business model disappeared and they went bankrupt.
Interestingly the inventor of digital photography in 1975 Steven Sasson worked for Kodak but Kodak ignored the new technology and in the process ignored their future!!

What happened to Kodak will happen in a lot of industries in the next 10 years - and most people don't see it coming.
Did you think in 1998 that 3 years later you would never take pictures on paper films again? Yet digital cameras were invented in 1975. The first ones only had 10,000 pixels, but followed Moore's law. So as with all exponential technologies, it was a disappointment for a long time, before it became way superior and got mainstream in only a few short years.

It will now happen with Artificial Intelligence, health, autonomous and electric cars, education, 3D printing, agriculture and jobs.

Welcome to the 4th Industrial Revolution.

Welcome to the Exponential Age.

Software will disrupt most traditional industries in the next 5-10 years.

Uber is just a software tool, they don't own any cars, and are now the biggest taxi company in the world.

Airbnb is now the biggest hotel company in the world, although they don't own any properties.

Artificial Intelligence: Computers become exponentially better in understanding the world. This year, a computer beat the best Go player in the world, 10 years earlier than expected.

In the US, young lawyers already don't get jobs. Because of IBM Watson, you can get legal advice (so far for more or less basic stuff) within seconds, with 90% accuracy compared with 70% accuracy when done by humans. So if you study law, stop immediately. There will be 90% fewer lawyers in the future, only specialists will remain.

Watson already helps nurses diagnosing cancer, 4 times more accurate than human nurses.

Facebook now has a pattern recognition software that can recognize faces better than humans.

By 2030, computers will become more intelligent than humans.

Autonomous Cars:
In 2018 the first self-driving cars will appear for the public. Around 2020, the complete industry will start to be disrupted. You don't want to own a car anymore. You will call a car with your phone, it will show up at your location and drive you to your destination. You will not need to park it, you only pay for the driven

distance and can be productive while driving.
Our kids will never get a driver's license and will never own a car. It will change the cities, because we will need 90-95% fewer cars for that. We can transform former parking space into parks. 1.2 million people die each year in car accidents worldwide.

We now have one accident every 100,000 km, with autonomous driving that will drop to one accident in 10 million km. That will save a million lives each year.

Most car companies may become bankrupt. Traditional car companies try the evolutionary approach and just build a better car, while tech companies (Tesla, Apple, Google) will do the revolutionary approach and build a computer on wheels. I spoke to a lot of engineers from Volkswagen and Audi; they are completely terrified of Tesla.

Insurance Companies will have massive trouble because without accidents, the insurance will become 100x cheaper. Their car insurance business model will disappear.

Real estate will change. Because if you can work while you commute, people will move further away to live in a more beautiful neighborhood. Electric cars won't become mainstream until 2020. Cities will be less noisy because all cars will run on electric.

Electricity will become incredibly cheap and clean: Solar production has been on an exponential curve for 30 years, but you can only now see the impact. Last year, more solar energy was installed worldwide than fossil. The price for solar will drop so much that all coal companies will be out of business by 2025.With cheap electricity comes cheap and abundant water.

Desalin Desalination now only needs 2kWh per cubic meter. We don't have scarce water in most places, we only have scarce drinking water. Imagine what will be possible if anyone can have as much clean water as he wants, for nearly no cost.

Health: There will be companies that will build a medical device (called the "Tricorder" from Star Trek) that works with your phone, which takes your retina scan, your blood sample and you breathe into it. It then analyses 54 biomarkers that will identify nearly any disease. It will be cheap, so in a few years everyone on this planet will have access to world class medicine, nearly for free.

3D printing: The price of the cheapest 3D printer came down from $18,000 to $400 within 10 years. In the same time, it became 100 times faster.

All major shoe companies started 3D printing shoes.

Spare airplane parts are already 3D printed in remote airports.

The space station now has a printer that eliminates the need for the large number of spare parts they used to have in the past.

At the end of this year, new smart phones will have 3D scanning possibilities. You can then 3D scan your feet and print your perfect shoe at home.

In China, they already 3D printed a complete 6-storey office building. By 2027, 10% of everything that's

being^ produced will be 3D printed.
Business Opportunities: If you think of a niche^ you want to go in, ask yourself: "in the future, do you think we will have that?" and if the answer is yes, how can you make that happen sooner? If it doesn't work with your phone, forget the idea.

And any idea designed for success in the 20th century is doomed in to failure in the 21st century.

Work: 70-80% of jobs will disappear in the next 20 years. There will be a lot of new jobs, but it is not clear if there will be enough new jobs in such a small time.

Agriculture: There will be a $100 agricultural robot in the future. Farmers in 3rd world countries can then become managers of their field instead of working all days on their fields. Agroponics will need much less water.

The first Petri dish produced veal is now available and will be cheaper than cow-produced veal in 2018. Right now, 30% of all agricultural surfaces is used for cows. Imagine if we don't need that space anymore.

There are several startups that will bring insect protein to the market shortly. It contains more protein than meat. It will be labeled as "alternative protein source"
(because most people still reject the idea of eating insects).

There is an app call "moodies" which can already tell in which mood you are.

Until 2020 there will be apps that can tell by your facial expressions if you are lying. Imagine a political debate where it's being displayed when they are telling the truth and when not.

Bitcoin will become mainstream this year and might even become the default reserve currency.

Longevity: Right now, the average life span increases by 3 months per year. Four years ago, the life span used to be 79 years, now it's 80 years. The increase itself is increasing and by 2030, there will be more than one-year increase per year. So we all might live for a long long time, probably way more than 100. By that time the elites will have a secondary Brain embedded close to both sides of their fronto-temporal scalp it stores information about their experiences books they read what they heard etc through a High Def Camera just below their eyelids. For those who can afford it forgetfulness will be a forgotten phenomenon.
Advanced stem cell technology will allow you to "make" your own organs or replace defective ones early. Life expectancy will be around 115 to 125 years in most of developed world and around 100 years in the rest of the world.

Education: The cheapest smart phones are already at $10 in Africa and Asia. Until 2020, 70% of all humans will own a smart phone. That means, everyone has the same access to world class education.
Are you ready for the future? WhatsApp 2017

Are we ready to embrace the current dynamics in change of technology, with Artificial Intelligence [AI]on the front burner? Globally, various countries, professional associations, scientists, Non-governmental Organizations have been working tirelessly to find adapt/adopt this scientific/industrial

revolution.

Definition of Terms

To enhance the flow of thought, let's define some key terms in this paper:

Artificial

According to the New International Webster's Comprehensive Dictionary of the English Language, Encyclopedic Edition [2013], the word artificial has three meanings, namely:

[i] Produced by human art rather than by nature.
[ii] Made in imitation of or as a substitute for something natural.
[iii] Not genuine or natural. Example: Artificial leg.

Intelligence

According to the New International Webster's Comprehensive Dictionary of the English Language, Encyclopedic Edition [2013], the word intelligence has five meanings, namely:

[I] The quality, exercise, or product of active intellect; intellect; knowledge; ability to exercise the higher mental functions; readiness of comprehension.
[ii] The capacity to meet situations, especially if new or unforeseen, by a rapid and effective adjustment of behavior, also, the native ability to grasp the significant factors of complex problem or situation.
[iii] Information acquired or communicated; notification; news; especially, secret information, political, military etc
[iv] Mutual understanding; interchange of information or thought: to exchange a look of intelligence.
[v] An intelligent being; especially; a spirit not embodied: the supreme intelligence.

According to the Tutorials pointon Artificial Intelligence [2015], intelligence refers to the ability of a system to calculate, reason, perceive relationships and analogies, learn from experience, store and retrieve information from memory, solve problems, comprehend complex ideas, use natural language fluently, classify, generalize, and adapt new situations.

Quantitative Measure of Intelligence

According to the New International Webster's Comprehensive Dictionary of the English Language, Encyclopedic Edition [2013], the concept intelligence can be measured quantitatively by computing the Intelligent Quotient:

Intelligence Quotient

According to the Dictionary, under reference, intelligence quotient is defined as a numerical quotient obtained by multiplying the mental age of a person by 100, and dividing the result by his chronological age.

Types of Intelligence

According to Howard Gardner, an American developmental psychologist, as quoted in the *Tutorials*

Intelligence	Description	Examples
Linguistic intelligence	The ability to speak, recognize, and use mechanisms of phonology (speech sounds), syntax (grammar), and semantics (meaning).	Narrators, Orators.

Musical intelligence	The ability to create, communicate with, and understand meanings made of sound, understanding of pitch, rhythm.	Musicians, Singers, Composers.
Logical-mathematical intelligence.	The ability of use and understand relationships in the absence of actions or objects. Understanding complex and abstract ideas.	Mathematicians, Scientists.
Spatial intelligence.	The ability to perceive visual or spatial information, change it, and re-create visual images without reference to the objects, construct 3D images, and move and rotate them.	Map readers, Astronauts, Physicists.
Bodily-kinesthetic intelligence	The ability to use complete or part of the body to solve problems or fashion products, control over fine and coarse motor skills, and manipulate the objects.	Players, Dancers.
Intra-personal intelligence	The ability to distinguish among one's own feelings, intentions, and motivations.	Gautam Buddha
Inter-personal intelligence.	The ability to recognize and make distinctions among other people's feelings, beliefs, and intentions.	Mass Communicators, Interviewers.

Definition of Artificial Intelligence

Artificial intelligence, according to Cindy [2017], is no longer the robots and computers of science fiction from Hollywood movies. The ideas of developing machines that can “learn” are centuries old. The capacities of the computers and software of today create and exhibit intelligence, but also bring with it concerns along with much promise.

The term, Artificial Intelligence [AI], has several definitions. A few of them are:

Curiously, the Report on the 2015 Study Panel on Artificial Intelligence and Life in 2030, opined that the lack of a precise, universally accepted definition of Artificial Intelligence [AI] probably has helped the field to grow, blossom, and advance at an ever-accelerating pace. Practitioners, researchers, and developers of AI are instead guided by a rough sense of direction and an imperative to “get on with it”. Still, a definition remains important and Nils J. Nilsson has provided a useful one.

Nilsson [2016], defined Artificial Intelligence as that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment.

From this perspective, characterizing AI depends on the credit one is willing to give synthesized software and hardware for functioning “appropriately” and with “foresight.” A simple electronic calculator performs calculations much faster than the human brain, and almost never makes a

mistake. Is calculator intelligent? Like Nilsson, the Study Panel takes a broad view that intelligence lies on a multi-dimensional spectrum. According to this view, the difference between an arithmetic calculator and a human brain is not one of a kind, but of scale, speed, degree of autonomy, and generality. The same factors can be used to evaluate every other instance of intelligence – speech recognition software, animal brains, cruise-control systems in cars, Go-playing programs, thermostats – and to place them at some appropriate location in the spectrum.

For Des [2017], Artificial intelligence (AI) is a broad term that refers to technologies that make machines "smart." Organizations are investing in AI research and applications to automate, augment, or replicate human intelligence —human analytical and/or decision-making.
Continuing, he opined that there are many other terms related to Artificial Intelligence, such as, deep learning, machine learning, image recognition, natural language processing, cognitive computing, intelligence amplification, cognitive augmentation, machine augmented intelligence, and augmented intelligence. AI, as used here, encompasses all of these concepts.

According to Financial Stability Board, as quoted in Odoh, L. C, Echefu, S, Ugwuanyi, B. U and Chukwuani, V. N [2018], Artificial intelligence is simply the application of computational tools to address tasks traditionally requiring human sophistication.

Artificial Intelligence can also be defined by what Artificial Intelligence researchers do. This report [2015] views Artificial Intelligence as a branch of computer science that studies the properties of intelligence by synthesizing intelligence.

The IEEE-USA Position Statement on Artificial Intelligence [2017], has it that AI is the theory and development of computer systems that are able to perform tasks which normally require human intelligence such as, visual perception, speech recognition, learning, decision-making, and natural language processing.

Wikipedia (2019), opined that in the field of computer science, Artificial Intelligence sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence.

To the father of Artificial Intelligence, John McCarthy, as quoted in the *Tutorials point on Artificial Intelligence* [2015] it is "The science and engineering of making intelligent machines, especially intelligent computer programs".

The *Tutorials point on Artificial Intelligence* [2015]has it that Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.

The Cambridge Advanced Learner's Dictionary [3rdEd], simply defines Artificial Intelligence as the study of how to produce machines that have some qualities that the human mind has, such as the ability to understand language, recognize pictures, solve problems and learn.

For the purpose of this discussion, we shall adapt the *Tutorialpoint* and Cambridge definitionsand see Artificial Intelligence as the scientific/systematic study of how human brain thinks, how humans learn, how humans take decisions and how humans work, with a view to solving some real-life problems and

subsequently using the outcomes of this study as a basis for developing intelligent software and systems.

Contributors to Artificial Intelligence

Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. A major thrust of Artificial Intelligence is in the development of computer functions associated with human intelligence, such as reasoning, learning, and problem solving.

It therefore follows that AI derived its root from many disciplines.

History and Time Line of Artificial Intelligence [AI].

According to Duffy [2018], AI was long predicted by science fiction. In his words:
Long-predicted by science fiction, there can be little doubt that artificial intelligence (AI) is now making it into the mainstream. In fact, some are saying it's the next evolutionary leap for both our personal and business lives and every bit as profound as the introduction of the personal computer back in the early 1980s, or the Internet explosion of the 1990s.

Greenman [2017], traced the origin of AI to Greek mythology thus:

The concept of intellectual machines can be traced as far back as Greek mythology. Greek myths contain stories of Hephaestus, a blacksmith who contrived mechanical robots. Other myths include mechanical toys and human-like androids. Intelligent relics begin appearing in literature since that time. In the 4th century B.C. Aristotle created the first formal deductive reasoning system (syllogistic logic). In 1206 A.D. an Arab inventor built what is believed to be the first programmable humanoid robot. By the 17th century Pascal was creating the first calculator (1642). The first "computer" game based on the game of chess came along in the early 20th century (1912). It was in 1936 Alan Turing first suggested the idea of the Touring Machine. This machine was the basis for theories about computers and computing.

While the *Tutorialspointon Artificial Intelligence* [2015] did a beautiful work on the history of Artificial Intelligence up to 2000AD, Yaninen [2016], authoritatively extended the time line of Artificial Intelligence to 2017.

Their summaries are produced hereunder:

Year	Milestone / Innovation
1923	Karel Capek's play named "Rossum's Universal Robots" (RUR) opens in London, first use of the word "robot" in English.
1943	Foundations to neutral networks laid
1945	Isaac Asimov, a Columbia alumni, coined the term Robotics
1950	Alan Turing introduced Turning Test for evaluation of intelligence and published *Computing Machinery and Intelligence. Claude Shannon published Detailed Analysis of Chess Playing as a search.*

1956 John McCarthy coined the term Artificial Intelligence. Demonstration of the first running AI program at Carnegie Mellon University.

1958 John McCarthy invents LISP programming language for AI

1964 Danny Bobrow's dissertation at MIT showed that computers can understand natural language well enough to solve algebra word problem s correctly.

1965 Joseph Weizenbaum at MIT built *ELIZA,* an interactive problem that carries on a dialogue in English.

1969 Scientists at Stanford Research Institute developed Shakey, a robot, equipped with locomotion, perception, and problem-solving.

1973 The Assembly Robotics group at Edinburgh University built *Freddy,* the Famous Scottish Robot, capable of using vision to locate and assemble models.

1979 The first computer-controlled autonomous vehicle, Stanfort Cart, was built.

1985 Harold Cohen created and demonstrated the drawing program, Aaron

1990 Major advances in all areas of AI:

- Significant demonstrations in machine learning.
- Case-based reasoning.
- Multi-agent planning.
- Scheduling.
- Data mining, web Crawler.
- Natural language understanding and translation.
- Vision, Virtual Reality.
- Games.

1997 The Deep Blue Chess Program beats the then world chess champions, Garry Kasparov.

2000 Interactive robot pets become commercially viable. MIT displays *Kismet,* a robot with a face that expresses emotions. The robot Nomad explores remote regions in Anatarctica and locates memories.

2002 ROOMBA: First mass-produced autonomous robotic vacuum cleaner from iRobot learns to navigate and clean homes.

2011 SIRI: Apple integrates Siri, an intelligent virtual assistant with a voice interface, into the iPhone 4S

2011 WATSON: IBM's question answering computer, WATSON, wins first place on popular $1.00 Million prize television quiz show, *Jeopardy*.

2014 EUGENE: Eugene Goostman, a chatbot passes the Turning Test with a third of the Judges believing Eugene is human.

2014 ALEXAI Amazon launches Alexa, an intelligent virtual assistant with a voice interface that completes shopping tasks.

2016 TAY: Microsoft's chatbot Tray, goes rogue on Social Media, making inflammatory and offensive racists comments.

2017 ALPHAGO: Google's AI AlphaGo beats world champion,*KeJie*, in the Complex board game of Go, notable for its vast number 2^{170} of possible positions

Types of Artificial Intelligence

Yaninen (2016) identified four types of AI as Reactive Machines, Limited Memory, Self-Awareness and Theory of Mind.

Type 1: Purely Reactive:

This is the most basic form of AI. It perceives its environment/situation directly and acts on what it sees. It doesn't have a concept of the wider world. It can't form memories or draw on past experience to affect current decisions. It specializes only in one area.

Examples:

- IBM's Deep Blue which beat Kasparov at chess
- Google's AlphaGo which triumphed over human Go champions.

Type II, Limited Memory:

Further up on the AI evolutionary ladder. This type considers pieces of past information and adds them to its pre-programmed representations of the world. It has just enough memory or experience to make proper decisions and execute appropriate actions.

Examples:

Self-driving vehicles.

Chatbots, personal digital assistants.

Type III, Theory of Mind:

Type III AI has the capacity to understand thoughts and emotions which affect human behavior. This type – which can comprehend feelings, motives, intentions, and expectations, and can interact socially – has yet to be built, but would likely be the next class of intelligent machines.

Examples:

- C-3PO and R2-D2 from the Star Wars universe.
- Sonny in the 2004 film I, Robot.

Type IV, Self-aware:

These types of AI can form representations about themselves. An extension of the theory of mind, they

are aware of their internal states, can predict the feelings of others, and can make abstractions and inferences. They are the future generation of machines: super intelligent, sentient, and conscious.
Examples:

- Eva in the 2015 movie Ex Machina
- Synths in the 2015 TV series Humans

Principles that Guide Artificial Intelligence:
Artificial Intelligence theorist Eliezer Yudkowsky and philosopher Nick Bostrom have suggested four principles which should guide the construction of new AI's:

(a) the functioning of an Artificial Intelligence should be comprehensible and
(b) its actions should be basically predictable. Both of the criteria must be met within a time frame that enables the responsible experts to react in time and veto control in case of a possible failure. In addition
(c) AI's should be impervious to manipulation, and in case an accidents till occurs,(d) there possibilities should be clearly determined.

Fears arising from the application of Artificial Intelligence [AI]
According to Duffy [2017], needless to say, one doesn't need a crystal ball to realise the introduction of AI might present challenges for people and society. However, according to research undertaken by Sage in the UK*, the fear that AI will take away jobs is largely rejected in the real world. Consumers were perhaps the most doomsday-oriented, with 17.4% of respondents predicting humanity's downfall at the hands of robots. Still, that's less than one in five people.

Challenges ahead
AI is set to challenge not just business practices but also the way we consider technology. In both cases the outcomes can be counter-intuitive and surprising. The best way to enter into a consideration of AI is to keep an open mind and to measure its importance based purely on the real-world benefits that are delivered – which in nearly all cases will be taking care of the low-end work tasks within an accountancy firm and freeing up staff to provide a more personal service for clients

Comparative Analysis of Natural Intelligence and Artificial Intelligence
Here, again let's start from known to unknown.

Birds' Natural Intelligence and Aero Planes' Artificial Intelligence.
History has it that the curiosity of two brothers, The Wright Brothers, who saw a flying bird and the application of Newton's Third Law of Motion [Law of Floatation or Archimedes Principle] eventually led to the invention of aero planes.

Human Brains' Natural Intelligence and Artificial Intelligence Therefrom.
According to Mannino, Althaus, Erhardt, Gloor, Hutter and Metzinger (2015), Humans are intelligent, two-legged “bio-robots” possessing a conscious self-awareness, and were developed over billions of years of evolution.

Compared to the biological brain of a person, computer hardware offers several advantages. Relying on Mannino et al (2015), the comparison is summarized thus:

S/N	Parameters	Human Biological Brain	Artificial Intelligence
1	Basic computational elements (modern microprocessors)	Slower than AI	"Fire" millions of times faster than neurons
2	Signals	Signals are poorly transmitted	Transmitted millions of times faster
3	Storage potentials	Low storage capacities	Computer can store considerably more basic computational elements
4	Modification and manipulation		Easy to both modify and multiply
5	Energy efficiency	Requires no energy	Useless without energy
6	Resilience to purely physical damage	Not applicable	Highly vulnerable
7	Graceful degradation	Not applicable	Commonly applicable

Current Applications of Artificial Intelligence in 2017

Applications in the world today:

[i] Smart Cars
[ii] Smart Homes
[iii] Virtual Assistants
[iv] Surveillance
[v] Detecting Credit Card Fraud
[vi] Online Customer service chat bots
[vii] Online Predictive Purchasing
[viii] Online Smart Recommendations
[ix] Work automation
[x] Recruitment

Applications of Artificial Intelligence

According to Tutorialpoint [2015], Artificial Intelligence has been dominant in various fields such as:

- Gaming

AI plays crucial role in strategic games such as chess, poker, tic-tac-toe, etc., where machine can think of large number of possible positions based on heuristic knowledge.

- Natural Language Processing

It is possible to interact with the computer that understands natural language spoken by humans.

- Expert Systems

There are some applications which integrate machine, software, and special information to impart reasoning and advising. They provide explanation and advice to the users.

- Vision Systems

These systems understand, interpret, and comprehend visual input on the computer. For example,

o A spying aeroplane takes photographs which are used to figure out spatial information or map of the areas.
o Doctors use clinical expert system to diagnose the patient.
o Police use computer software that can recognize the face of criminal with the stored portrait made by forensic artist.

• Speech Recognition
Some intelligent systems are capable of hearing and comprehending the language in terms of sentences and their meanings while a human talks to it. It can handle different accents, slang words, noise in the background, change in human's noise due to cold, etc.

• Handwriting Recognition
The handwriting recognition software reads the text written on paper by a pen or on screen by a stylus. It can recognize the shapes of the letters and convert it into editable text.

• Intelligent Robots
Robots are able to perform the tasks given by a human. They have sensors to detect physical data from the real world such as light, heat, temperature, movement, sound, bump, and pressure. They have efficient processors, multiple sensors and huge memory, to exhibit intelligence. In addition, they are capable of learning from their mistakes and they can adapt to the new environment.

Opportunities of Artificial Intelligence
Greenman [2017] did a scholarly exploration of the impact of Artificial Intelligence on the Accounting Profession. This work is summarized thus:

AI Technology in Accounting
The job description of today's accountant looks very different than that of the accountant of 20 years ago. In another 20 years, accountants will again, play a different role. Their roles will change substantially over the next decade. More emphasis will be placed on consulting, business development, advisory services and risk management. Accountants will need to embrace specialization and the use of technology. Artificial intelligence is being designed to think, feel, and react like a living, breathing creature. According to a study done by Deloitte, AI could emerge with a whole new class of products and services specifically applicable in the areas of accounting. These include: customer service, research and development, logistics, sales, marketing and informational analysis. According to a study done by the Association of Chartered Certified Accountants, there is the possibility that automation will relieve many burdensome tasks that would enable accountants to focus on consulting services and other higher-value work. In the very near future, AI may be completely involved in the monitoring and evaluating of compliance with regulations, organizational policy, employee evaluations and even hiring and firing.

AI in Auditing
Cognitive technologies actually further the power of information technology to those tasks that traditionally are performed by humans, they enable users to shatter what was once a tradeoff between speed, cost, and quality. These AI technologies can facilitate auditors to automate those tasks that have been conducted manually by humans for decades. As a result, auditors can be freed in order to

focus on improving quality by evaluating advanced analytics, spending additional time providing insight and applying better professional judgement. One particular area that AI has been extremely useful is that of document review. Reading through pages and pages of contracts in order to mine key terms has, in the past, been a time intensive, manual process. Using artificial intelligence this concept has now become automated.

In 2016 KPMG released plans to begin using artificial intelligence on their audit engagements in Australia. Their proposal is to use IBM's cognitive computing technology called "Watson". Executives from KPMG maintain that by using Watson they can extend the data and analytics. Where sample sizes were once limited by time and man-power, there is now no limitation to the sampling that can be done.

Job Growth (Number of Accountants)

It is difficult to find an exact number of accountants in the United States because many are not registered. However, in 2016 there were 664,532 CPAs (Certified Public Accountants) in the US. According to the United States Department of Labor, Bureau of Labor Statistics there are 1,226,910 individuals employed in the accounting profession in the United States. Many fear that with the advances in technology, specifically in artificial intelligence, there will be a loss of jobs. The fear is that computers will take over for humans, offering free labor, better accuracy and no personality conflicts. If those fears were being realized we'd expect to see a decline in the number of professional accountants. However, the exact opposite is true. The Bureau of Labor and Statistics reports that the accounting profession is projected to grow at a rate of 11 percent over the next 10 years, an increase of over 142,000 new accounting and auditing jobs.

Chief Financial Officers (CFOs) are looking to hire finance and accounting individuals who are experienced in data analytics, modeling techniques, proficient with accounting software and advanced in Microsoft Excel. In other words, they are looking for people who can work with the new technology. They want people with the skills necessary to work in a global company and that can keep up with the quickly changing demands of technology.

Role of AI in Accounting in 2030

Yaninen [2017] predicted thus:

- The world will be a vastly different place in 2030.
- AI can be a tool for competitive advantage.
- Accounting firms have already started using some form of AI.
- By 2030, all low-level accounting work will be completely automated and there will be some form of AI augmentation with the CPA to assist their work.
- CPAs must focus on strategic value creation for their Organizations and Clients.

- No More:
- Book Keepers
- Data Entry Operators
- Compliance Inspectors

- Accounting technicians' roles to be automated

?Accountants—specifically accounting clerks and bookkeepers—appeared at No. 1 in a 2015 PwC study of which jobs are most at risk from automation in the next 20 years. The rationale: Computer learning systems or robotics will be able to perform simple and routine tasks faster and more accurately. Accountants were just ahead of checkout operators and cashiers, office administration staff, and financial and insurance administration workers on that list.

?Most of the work to be automated will be the work involved in getting the CPA what he needs to do his job.

Threats of Artificial Intelligence in Sub-Sahara African Region:

According to Newspaper reports, automation threatens 51% of jobs in Sub-Sahara African Region. Certain people will feel the pain of automation more acutely than others, especially in the Sub-Sahara African [SSA] region.

Smart machines, robots, Artificial Intelligence [AI], Augmented Reality, and other forms of automation could either be an economic poison or cure in a developing country like Nigeria – and this change will affect how businesses world-wide out-source work.

Speaking in Lagos at the *DABConference 2019,* organized by Information and Data Analytic Foundation [Idaf], the Chief Executive Officer [CEO], Fireside Analytics, ShingaiManjengwa, speaking on, "Future of Works" said automation forms one of the most critical parts of the future work because it has the potential to replace 51 per cent of jobs across multiple sectors that Africa is dependent on.
Manjengwa, whose company is based in Canada, said Africa's future of work story will be different from developed markets because the challenges and requirements differ. [The Guardian Newspaper, Wednesday, March 13, 2019].

Conclusion

A combination of the Artificial Intelligence arising from the mechanism of flying Birds and Newton's Third Law of motion resulted in the invention of aero planes.

The question is:
In the business world, where will Artificial Intelligence, arising from the mechanism of human brain lead us to?
We cannot but associate ourselves with views of Greenman [2017] thus:

Artificial Intelligence is critical to the future of the accounting and auditing professions. AI is a vital tool that will provide these professionals with the needed tools to increase the efficiency and effectiveness of their occupations. The repetitive tasks of bookkeeping or process-driven assignments are more likely to be replaced with an automated technology than the higher value specialties that involve professional judgement. Many believe that the younger generation of accountants need to understand and be prepared to work alongside artificial intelligence. AI in the accounting world will not replace accountants, it will simply change the focus.

Finally, *Finance professionals need to consider the challenges and opportunities created by new and emerging technologies, and then use their analytical and problem-solving skills to assess their potential influence, so that they can provide the financial insights needed to guide any affected tactical and strategic business decisions* ACCA [2013]

On this note colleagues, permit me to thank the Director, Research and Technical and his team in ICAN for choosing me to present the lead paper in this year's Academic Conference. I hope, I have not disappointed you. If I did, I attribute it to the work load on my head as the Rector of one of the foremost Polytechnics in Nigeria, Institute of Management and Technology [IMT], Enugu. But, if I did not, then let's thank God for His benevolence to us, our shortcomings notwithstanding.

Here, I rest my case!

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THE WINNERS OF THE ICAN PhD COLLOQUIUM PAPER PRIZE AWARD IN ACCOUNTING & FINANCE

The 5TH ICAN Conference Organizing Committee is pleased to announce the Winners of The Institute of Chartered Accountants of Nigeria (ICAN) PhD Colloquium Prize Award in Accounting & Finance for 2019 Academic Conference that took place at Kaduna State University from April 15 to 17, 2019. The Committee which was chaired by Dr. Sola Ajibolade (Assoc. Professor of the University of Lagos) received a total of 13 PhD Theses Proposal for the competition as stated below:

S/N	PRESENTERS	PROPOSAL TITLE
1	AHMED JINJIRI BALA Department Of Accounting, Faculty Of Management Science, Bayero University, Kano Nigeria	INTELLECTUAL CAPITAL EFFICIENCY AND SHARE VALUE OF PETROLEUM MARKETING COMPANIES IN NIGERIA: THE MODERATING EFFECT OF BOARD CHARACTERISTICS
2	OGUNMERU, OLUWABUNMI ATINUKE Department of Accounting University of Lagos	CORPORATE GOVERNANCE, CORPORATE COMMITTMENT TO SUSTAINABILITY AND PERFORMANCE FROM BALANCED SCORECARD PERSPECTIVES IN NIGERIAN LISTED COMPANIES
3	OLUSANMI OLAMIDE Department Of Accounting, College Of Business And Social Sciences, Covenant University, Ota, Ogun State	DETERMINANTS OF WATER MANAGEMENT ACCOUNTING PRACTICE IN NIGERIA
4	OWOLABI, FOLASHADE OREOLUWA Department Of Accounting, College Of Business And Social Sciences,Covenant University, Ota, Ogun State	PERFORMANCE MEASUREMENT INNOVATIONS AND ORGANIZATIONAL OUTCOMES IN NIGERIAN LISTED COMPANIES
5	ZAHARADDEEN ABDULLAHI Department of Accounting, Bayero University, Kano-Nigeria.	CORPORATE GOVERNANCE, AUDIT QUALITY AND EARNINGS MANAGEMENT OF LISTED INDUSTRIAL FIRMS IN NIGERIA
6	ACHUGAMONU BEDE UZOMA Covenant University, Ota	THE NEXUS BETWEEN FINANCIAL INCLUSION AND FINANCIAL STABILITY IN NIGERIA
7	AHMED ISHAKU Department Of Accounting	AUDIT QUALITY AND EARNINGS MANAGEMENT OF LISTED NON-FINANCIAL COMPANIES

	Bayero University Kano	IN NIGERIA: THE MODERATING EFFECT OF BOARD INDEPENDENCE
8	ISAH KIBIYA UMAR Bayero University, Kano - Nigeria	OWNERSHIP STRUCTURE, TAX AVOIDANCE AND FINANCIAL PERFORMANCE OF LISTED NON-FINANCIALFIRMS IN NIGERIA
9	DAYO BAMIGBADE Department of Accounting, University of Ilorin.	IMPACT OF AUDITOR SWITCHES AFTER IFRS ADOPTION ON FINANCIAL REPORTING TIMELINESS IN NIGERIA
10	MOHAMMAD MODIBBO HAMZA Department Of Accounting, Faculty Of Management Sciences Kaduna State University, Tafawa Balewa Way, Kaduna	CORPORATE GOVERNANCE AND PERFORMANCE OF LISTED MICROFINANCE BANKS
11	SHITTU SAHEED AKANDE Department Of Management And Accounting, Faculty Of Management Sciences, Lautech, Ogbomoso	CORPORATE GOVERNANCE, EARNINGS MANAGEMENT AND INFORMATION CONTENTS OF ACCOUNTING EARNINGS OF SELECTED COMPANIES IN NIGERIA (2009 2018)
12	CHUKWUNWIKE, ONYEKACHI DAVID Department Of Accountancy, Faculty Of Business Administration, University Of Nigeria	INFLUENCE OF DEMOGRAPHY AND TAX ADMINISTRATION ON REVENUE GENERATION IN NIGERIA
13	OSENI, MICHAEL Department Of Accounting And Finance, Faculty Of Social And Management Sciences, Bowen	CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE OF SELECTED COOPERATIVE SOCIETIES IN SOUTHWESTERN NIGERIA

After a thorough assessment and presentation of the Proposal based on the set criteria, the following were adjudged to be the best three PhD thesis Proposal for the year 2019.

1st Prize - *Intellectual Capital Efficiency And Share Value Of Petroleum Marketing Companies In Nigeria: The Moderating Effect Of Board Characteristics* by AHMED JINJIRI BALA, Department Of Accounting, Faculty Of Management Science, Bayero University, Kano

2nd Prize- *Corporate Governance, Corporate Commitment To Sustainability And Performance From Balanced Scorecard Perspectives In Nigerian Listed Companies* by OGUNMERU, OLUWABUNMI ATINUKE, Department of Accounting, University of Lagos

3rd Prize- Determinants Of Water Management Accounting Practice In Nigeria by OLUSANMI OLAMIDE, Department Of Accounting, College Of Business And Social Sciences, Covenant University, Ota, Ogun State

The Conference Organizing Committee heartily congratulates all the winners and also appreciates the management of ICAN for their support.

Ben Ukaegbu, *PhD, ACA, CPA(Australia)*
Secretary, Conference Organizing Committee
Deputy Registrar, Technical Services of ICAN

Conference theme 1:

Accounting and Finance Education

POSITIVISM IN ACCOUNTING RESEARCH: A PARADIGM SHIFT IN METHODOLOGICAL APPROACH

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Abstract

As a qualitative review (content analysis),this paper cautiously examines some available methodological approaches of accounting research in search for alternative basis of investigation into economic realities. Invirtually all the papers reviewed, despite how amiable accounting research is but, there wasn't covenant stand as to what serves as agreeable approach. It was also keenly observed that, accounting researchers mainly choose a subject area and just procedure designed for sourcing and analysing data as research approach. A further exploration revealed that, this is rooted into the fact that, less attention was given to the dual-knowledge concepts of ontology and epistemology. Though extensively covered in accounting theory formulation and research conceptual literature, but practical applicability of ontology and epistemology is relatively scarce in many articles and different research reports of accounting background. Their scarcity in usage leads to continuous interchange of distinct research approaches and eventually exposed many writers' inability to arrive at a suitable methodological approach for their articles. In conclusion, positivism is adopted in this paper as found to be suitable approach in deciding for methodology for core accounting research. This is mainly for its objective and for being more scientific in investigating issues, relationships and events.

Keywords: Accounting research, Positivism, research, approach

Introduction

Primarily, the aim of this paper wasn't to discuss extensively on the Positivism-Non Positivism dichotomy in literature rather, for the purpose of enhancing Positive Accounting Research (PAR) it emphasises much on how Positivism is suitable in accounting research paradigms. It also addresses ambiguities on some factors considered critical in influencing choice for research methodology in accounting.

Research paradigms generally address the philosophical dimensions of knowledge and process of it expansion and advancement. A research paradigm is a set of fundamental assumptions and beliefs as to how the world is perceived which then serves as a thinking framework that guides the behaviour of the researcher (Jonker and Pennink 2010).

Numbers of scholars (Becker, 1996; Bisman, 2002; Bogdan & Biklen, 1982; Cavaye, 1996 and Chen, 2001) have attempted to trace the history of the paradigmatic differences between quantitative and qualitative methodologies. Much of these inquiries (Hughes; 1997, Marsh & Furlong; 2002, May & Williams; 1998, Punch; 2005 and Smith; 1998) were focused on the different epistemological

assumptions that underlie each methodological approach. In simple terms, epistemology is the philosophy of knowledge or how we come to know (Trochim, 2000). Epistemology is intimately related to ontology and methodology; as ontology involves the philosophy of reality, epistemology addresses how we come to know that reality while methodology identifies the particular practices used to attain knowledge of it.
However, in management science researches where Accounting as a discipline belongs (MacNeal, 1939), the process of examining the model of knowing the reality 'ontology' and that of that becoming intimately familiar with a phenomenon, which can be theoretically interpreted 'epistemology'all skewed closer toobjective realism, which scholars (likelyKnorr-Cetina. 1984) have described as the historical roots of positivism in a fair amount of detail.

In essence, research in accounting is guided by two broad principles based on the ways we see and perceive the world around us: epistemology and ontology. However, bothemphasise on numerous subtle variations but jointly provide guidance on the procedures adopted while conducting investigation into reality and issues around us. Positivists as cited in Gaffikin (2010) for instance, mostly adhere to realist ontology. They hold to the view that, we live in a world that exists independently of us and our thoughts. Their position is often described as naive realism. On the other hand, epistemologists are said to subscribe to critical realism. In the same vein, those who rejected realist ontology according to Smart (1996) usually hold a constructionist ontology. Hence, just like Gaffikin's insertion about realist ontology, there are varying opinions of constructionism and many others issues in methodological approach and many studies have arrived at similar conclusions (Denzin&Lincoln; 2003, Hoskins &Macve; 1994, Macintosh; 2009).

It's therefore, timely to provide a clear presentation on the arguments arising for more suitable approach in accounting methodology. This will essentially requirecoming up with detailed discussion on what the entire accounting research process entails; tracing its historical antecedents with recent developmental gigs. As well, varying approaches previously adopted and those in use will shed more light on why exploring other alternative frameworks is gaining wider acceptance among scholars.

Origins, Definition and Development in Accounting Research

As a rough overview, early accounting research (pre-1960s) was mostly normative (i.e., argued for the “correct” accounting treatment, or what should be). With the advent of the Journal of Accounting Research, advances in finance such as the efficient market hypothesis, creation of large data sets and the statistical abilities to analyse them (i.e., computers), and the publication of Ball and Brown's seminal work in 1968, accounting research moved into positive research (i.e., examining what is rather than what should be). Although this change has had its critics for not incorporating more scientific investigative approach, likely Gaffikin (1984) pointed out that "for our findings to be scientific, we must have demonstrated the highest standards of intellectual rigour." it has resulted in a significant increase in research output which were appreciated in many subsequent journals.

To conclude on the issue of accounting research origin, the context of this paper will agree to the earlier mentioned wordings in Haslam (2013) which holds that, the history of accounting research bears witness to various delineations and lot of categorisations, or what one may simply termed to as' border constructions of activities', some of which have been especially influential in shaping the character of accounting as a discipline.

Though accounting research is hard to define because, it has shifted over time and as a discipline, accounting itself is a multi-dimensional and its originally designed to serve different groups with varying background and objectives. A simple literal definition of accounting research will include that captured in Haslam (2013) which predicated that to be any paper that cites a lot of other accounting papers. However, this "quick and dirty" definition restricts accounting research to topics and methodologies that are well established in the literature. Though, his definition appears safe to criticism but, somewhat limiting in many aspects. To support Haslam's assertion more rigorously, Oler, and Skousen (2009) as cited in Malcolm (2003) attempt to characterize accounting research by looking at the topics, research methodologies, and citations made by papers published in a set of six top accounting journals (AOS, CAR, JAE, JAR, RAST, and TAR). Their work can be criticized, on the basis of not considering all accounting journals, and because their categorizations of topics (6 of them) and research methodologies (7 of them) are broad. However, despite it shortcomings, their paper appears to be the first that attempts more comprehensive definition to accounting research, which they define as "any research into the effect of economic events on the process of summarizing, analysing, verifying, and reporting standardized financial information, and on the effects of reported information on economic events."

Hence, it is obvious that, accounting researchers typically choose a subject area and a methodology in which to focus their efforts as the major concern factor (Thomas; 1981, Thomkinks; 1983 and Tricker; 1979). Subject areas in this context include the topical areas considered in core accounting and finance. These include information systems, auditing and assurance, corporate governance, corporate finance, forensic accounting and investigation, managerial accounting, and tax. In contrast however, Selto and Wedener (2002) posit that, different reasons are behind the motive why people embark upon accounting research. Some accounting researchers conduct research that is explicitly oriented to or has application to practice. Although others might seek to do so, but this is more likely to happen in academics where knowledge advancement is the focal point. Several related motivations or objectives for practice-oriented research including desires to: gain increased understanding of why organizations use certain techniques and practices, gain increased understanding of how and which techniques used in practice impact organizational performance, inform practitioners, increase the applicability of accounting Textbooks, coursework, and programs satisfy personal taste and increase consulting opportunities over time.

Though it is also obvious that, accounting research plays an essential part in creating new knowledge, just like how sociological and psychological contributions in pure sciences have produced models of research and testing procedures that can be used and applied over many disciplines including accounting research, to reduce divergence in opinion, the field is increasingly being secured with tentative and more agreeable positions to at least assures users of validity and reliability of accounting research:

Thus, from the foregoing discussions it's crystal clear that, researchers take one of two methodological approaches of research: positive and normative. Positive research is the branch of academic research in accounting that seeks to explain and predict actual accounting practices. Normative research, in contrast, seeks to derive and prescribe "optimal" accounting standards. Therefore, Validation of accounting theory does not mean acceptance, but observation and empirical testing.

Methodological approaches in accounting research

Apparently researchers in many disciplines use the scientific method to search for cause and effect relationships. By using the scientific method, the researcher has a systematic model that enables documentation of their results. The more specific the researcher is in documenting their methods, the better others will be able to follow and repeat their experiment. So also, accounting research is widely known to have featured methodological diversity. As captured in Wong (2003), such include interpretive research, critical research and the traditional functionalist and positivist research. Furthermore, investigations in the contemporary issues of accounting practices may require the use of more scientific-based research methods which include surveys, fieldwork, lab experiments, case studies and ethnographic studies.

Generally, it is essential to have an underpinning epistemological framework that governs the research process, as such a framework plays a substantial role in determining what to research, how to research and consequently the conclusions reached. It is ultimately significant for an epistemology to be deployed in any research; it is the epistemological commitments that allow the researchers evaluate knowledge with great care, appropriateness and intellectual criticism. As discussed in Johnson and Duberley (2003) it is epistemology that specifies the criteria for which particular knowledge could be warranted.

Constructivism/interpretative- this is more of philosophical thought which is known for variety of approaches in accounting due to it resort to different subjects, and for it censor inside these subjects to complementary or contradictory trends. It's believed that, research carried out within this paradigm usually highlights the characteristics and social state of accounting. Their objective is to investigate the symbolic and ideological aspects of the accounting practice and its usage. This may have link to the position of Alexandru (2011) who opined that, topics of investigation of the constructivist accountants are often the same as in the case of the positivist approach (accounting practices, accounting normalization, professional accountants behaviours), but there are also included topics ignored by the positivists (for example women's place into the accounting world) or topics less approached (the social incidences of the accounting systems).

However, it worth noting that, all the research approaches of accounting as a science are not competing; they are complementary, accounting as a science being considered simply as the science of monetary of an entity's business. In support of this argument Alexandru (2011) again asserted that, accounting is a human construct, a way to capture the economic reality's way of knowing and a means of knowledge.

It is therefore in conformity to significant contributions in the past to assert that, despite some criticisms, positivism has been recognized in accounting research and it should compete with other dominant views of epistemological approaches in the discipline today. This can be evidencedfrom the large number of papers (Van, 2005; Burrel& Morgan, 1979; Van, 2004 and Venable, 2009) using the approach that have been published in top management journals, particularly in the areas of core accounting practice and corporate financial reporting

Positivism in accounting research

In concurrence to assertions of many writers, positivism in the context of this paper can be seen as a research approach that is based on the ontological doctrine that reality is independent of the observer.

Apparently as well, most authors typically see positivism as comprising epistemological approach in research (Olaison, 1991; Lee, 1991; Walsham, 1995), others view same as methodological assumption (Benbasat & Weber, 1996), and sometimes other philosophical aspects, such as ethics (Wynn, 2001). Such a collection of different philosophical aspects under the term "positivism" is understandable for several reasons.

Based on the aforementioned therefore, it is now flawless to say, different research modes allow us to understand different phenomena and for different reasons (Deetz, 1996). The methodology chosen depends on what one is trying to do rather than a commitment to a particular paradigm (Cavaye, 1996). Thus, the methodology employed must match the particular phenomenon of interest. Different phenomena may require the use of different methodologies. By focusing on the phenomenon under examination, rather than the methodology, researchers can select appropriate methodologies for their enquiries (Falconer & Mackay, 1999).

METATHEORETICAL ASSUMPTIONS	POSITIVISM	INTERPRETIVISM
ONTOLOGY	Person (researcher) and reality are separate	Person (researcher) and reality are inseparable (life-world).
EPISTEMOLOGY	Objective reality exists beyond the human mind.	Knowledge of the world is intentionally constituted through a person's lived experience.
RESEARCH OBJECT	Research object has inherent qualities that exist independently of the researcher	Research object is interpreted in light of meaning structure of Person's (researchers) lived experience.
METHOD	Statistics, content analysis.	Hermeneutics, phenomenology, etc
THEORY OF TRUTH	Correspondence theory of truth: one-to-one mapping between research statements and reality.	Truth as intentional fulfilment: interpretations of research object match lived experience of object. .
VALIDITY	Certainty: data truly measures reality.	Defensible knowledge claims.
RELIABILITY	Replicability: research results can be reproduced.	Interpretive awareness: researchers recognize and address implications of their subjectivity.

Interpretivist and positivist and their differences are well covered in the research literature of accounting and in many other management and allied social sciences disciplines as methodological approaches. Furthermore, from the perspective of research framework, they are identical, always being empirical, but being applied in any of descriptive, evaluative, or normative fashions and from value positions that are value oriented depending on the researchers' choice for design, core objective and analytical tool employed for analysis.
For ease of understanding, let's examine how positivism and interpretivism supposedly differ in terms of their various Meta theoretical assumptions via weber's Metatheory differential table.
Source: Adopted from Weber/Editorial's comments March 2004

Categorically, it can be deduced from the Weber's table that, Positivism supposedly is a research approach which advocates that, reality is separate from the individual who observes it. Positivists thus, apparently consider subject (the researcher) and object (the phenomena in the world that are their focus) to be two separate, independent things. In short, positivistic ontology is alleged to be dualistic in nature.
On the other hand, there are other approaches like interpretivism which preaches the belief that, reality and the individual who observes it cannot be separated.

In a nutshell, our understanding about the world is inextricably bound to a stream of experiences we have had throughout our lives. The life-world has both subjective and objective characteristics. The subjective characteristics reflect our perceptions about the meaning of some world. The objective characteristics reflect that we constantly negotiate this meaning with others with whom we interact. To put it more concise, positivism is a sort of objective investigation, in the sense that it reflects an inter-subjective reality. However to be more specific, accounting positivism is based on hypotheses formulation, testing them empirically and it is based on data and information prediction and explaining facts of accounting behaviours over time.
Positivist accounting researchers always try to explain for what accounting is, What it is, Why accountants do what they do and what are the effects of these phenomena among humans and the use of resources. The positivism goal consists mostly of viewing reality in order to foresee, to study what is in order to conclude to what will be.

Conclusions

Considering the insight offered , it could be correct to say that, positivism as epistemological considerations of meaning making, is a suitable approachfor making choice through the use of both quantitative and qualitative data finding, presentation and analysis.
A positive approach in our research thus, is assumed to gives credibility to accounting discipline because accounting rules are not deducted and imposed, neither constitutive of accounting practice, rather, instrumental in primness of the economic behaviours favourable to the entity, validated or otherwise by experience, circumscribed to the freedom of choice for the most suitable practice(s) in the profession.
Arguably, as previously observed (Smart; 1996, Gaffikin ; 2010)Positivism has the purpose to formulate accounting laws and regularities that explain the behaviour of scholars and practitioners regarding accounting choices hence, making a right move of the accounting research scope from the accounting methods developed by researchers to the observed accounting practices based on what reality ought to be.

It is therefore, recommended as per the context of this paper that, Positivism as an approach be considered as more suitable in deciding for methodological framework in accounting research. This is mainly for its objective and being more scientific in investigating issues, relationships and events.

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Conference theme 2:

Accounting for Intellectual Capital

INTELLECTUAL CAPITAL EFFICIENCY AND PROFITABILITY OF LISTED HEALTH CARE FIRMS IN NIGERIA

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Abstract

Knowledge- based firms have a large proportion of their investment in intangible assets and this poses a real challenge both for financial and managerial accounting that traditionally have not adequately reflected the investment and performance of intangibles in financial statements. This study examines the impact of intellectual capital efficiency on profitability of six listed healthcare firms in Nigeria between 2008 and 2017. This was examined by means of value added intellectual coefficient (VAIC) and it analyses how intellectual capital efficiency affects the profitability of these firms measured by return on assets (ROA). Multiple regression technique was applied on data to draw inferences. The finding of the study reveals that structural capital efficiency has positive and significant impact on the ROA of the firms under study. On the other hand, human capital efficiency and relational capital have no significant impact on the profitability of the firms. Based on the finding of the study, which shows that structural capital efficiency (SCE) has significant impact on ROA, it is therefore recommended that listed healthcare firms in Nigeria should continue to invest more on their internal capital such as patent, trademarks and so on in order to better their performance since these hidden capital have been seen as assets that can generate revenue and enhance the performance of an organisation positively.

Keywords: Intellectual capital efficiency, Profitability, return on assets, Value added intellectual coefficients.

Introduction

Intellectual capital is seen as one of the key value drivers in the modern economy wherein knowledge-based firms are crucial for economic development and firm performance. A core strategy for gaining a competitive advantage by a firm is the use of knowledge as a resource base. As such, value is thereby created for shareholders and stakeholders. In the study conducted by Sveiby ,(1997); Edvinsson (1997), IC is seen as main source of value creation in the new economy. It is clear that formulation of

an adequate strategy is a very important component in the value creation process. Equally important is value management process in which relevant intellectual capital management is a serious challenge. Part of this challenge is also measurement of the contribution of intellectual capital to the economy. OECD (2008), in its report, stresses the importance of this issue as follows: The current bias towards tangible assets in measuring investment may lead to inefficient policymaking, misallocation of resources by managers and increased cost of capital for investors. However, any shift toward consideration of intellectual assets as investments, rather than as expenses, must overcome a range of measurement and valuation problems. The use of traditional performance measurement techniques may lead investors and other stakeholders to make inappropriate decisions when companies have a large proportion of their investment in intangible assets (Firer and Williams, 2003).

IC relates to the knowledge, intellectual property and experience used to create value for an organisation. Therefore, it is the collective knowledge embedded in employees as well as in the structure of the firm (Roos, Edvinson and Roos (1997), Stewart (1997), (Edvinsson & Malone 1997)). There is no doubt that successful companies tend to be those that continually innovate, relying on modern technologies and moreover, emphasize the skills and knowledge of their employees rather than physical assets, such as plants or machinery. Knowledge being the new engine of corporate development has become one of the great methods of recent years, given that value can be generated by intangible assets. Human capital is seen as the knowledge embedded in the minds of all employees. Structural capital consists of the stock of knowledge that stays in the organization when the employees go home. Relational capital consists of the knowledge embedded in external networks which consists primarily of knowledge about customers. Performance refers to the actual results or outputs of certain activities. For example, a company's performance can be assessed based on its financial results. Performance may also be termed to mean the ability to achieve results. Therefore, simultaneous coordination of human capital, structural capital and relational capital is needed to drive business performance.

Firer and Williams (2003) were among the pioneers to use Value Added Intellectual Coefficients (hereafter VAIC) method developed by Pulic (1998) to measure the relationship between IC and traditional measures of corporate performance. Their study of 75 South African public traded companies though did not show any significant relationship between the VAIC and financial performance, it carved a road for further enquiry in different sectors and countries. Maditinos Chatzoudes, Tsairidis and Theriou(2011) researched impact of IC and its components on financial performance and Market Value for 96 firms listed on Athens Stock Exchange (ASE), from four different economic sectors and reported that only human capital component has significant impact on firm performance. Puntillo (2009) examines the impact of IC on the performance of banks listed in Milan stock exchange. The empirical evidence failed to show the impact of IC on financial performance. These studies were conducted in the developed economy and outside Nigeria.

From our review of literature, few researches have been conducted in Nigeria such as: *Onyekwelu, Ifeanyi and Iyidoibi (2017) appraised the effect of IC on financial performance of firms in Nigeria from 2004-2013 using the banking industry. The research used the VAIC to ascertain the extent that intellectual capital indices affect financial performance of three Banks in Nigeria. Data were collected from the published annual financial statements of the three banks and analyzed using simple linear regression tool. The study indicates that IC has a positive and significant effect on banks' financial*

performances of the banks but some are not significant. The results further showed that the banks are statistically different in both the intellectual capital and its financial performance indicators. It also shows that the banks with high IC also show high financial performance.

From the foregoing submissions, it is clear that the task of establishing the relationship between IC and Corporate performance is still ongoing. This study is different from the study of Onyekwelu (2017) as it is conducted in healthcare sector. The inclusion of relational capital as a new variable and component of IC also differentiate this work from prior studies. This study therefore seeks to empirically examine the impact of intellectual capital efficiency on profitability of listed Healthcare firms in Nigeria from the 2008 to 2017 by adopting Pulic (1998) VAIC model. One of the most widely used monetary measures of IC is *Value Added Intellectual Coefficient* (VAIC) developed at the Austrian Intellectual Capital Centre (Pulic, 1998). The VAIC model measures the value added by the business along with individual contributions of each asset category towards the firm's value.

The following section includes literature review concerning the main variables of the study as well as conceptual and theoretical framework. The research methodology is presented in section three. The results and conclusion and recommendations are discussed in the sections four and five respectively.

Conceptual Framework and Review of Related Literature

Concept of Intellectual Capital

Intellectual capital has been defined by different authors in different ways based on their perception of IC. Edvinsson and Malone (1997), opine that IC consists of all entities such as knowledge, technology, a firm's relationships with its customers and the professional skills of the firm's employees.

Human Capital

Human capital (HC) consists of skills and knowledge possessed by employees and goes with them when they leave the firm (Cater & Cater, 2009); such intangible capital cannot be retained by the firm. Subramaniam and Youndt (2005), opine that human capital is the key resource of the firm in an era where knowledge and skills of the employees are essential to create a sustainable competitive advantage.

Structural Capital

Structural capital (SC) is a component of IC that remains with the firm when employees leave it. SC consists of policies, procedures, systems, databases and other infrastructure facilities that enable human capital to work properly. Hobley and Kerrin (2004), opine that SC consists of the procedures, processes and systems in which employees actually make use of their available knowledge and skills towards wealth creation. The authors discuss the processes (how a firm converts its input into final product) as a unique resource of the firm which, once acquired, then later it can be retained and legally protected by the firm.

Relational Capital

Relational capital is defined in the literature as the relationships of the firm with its stakeholders such as customers, suppliers, partners, investors, distributors, and so on (Cabrita & Vaz, 2005; Hormiga, Batista and Sanchez, 2011). Relational capital is considered a component of IC that strengthens the external links of the firm; advertising, personal relation and selling and marketing investments are major sources of building this capital.

Performance

Organization's performance is a complex phenomenon (Corvellec, 1995). He defines Performance as a relative concept in terms of some referent employing a complex set of time-based measurements of generating future results (Corvellec, 1995).

Kamath (2008) investigated the efficiency of IC and its relationship with the financial performance of firms in the Indian pharmaceutical industry. Using annual data for 10 years (1996- 2006), the author used VAIC to measure the efficiency of IC. Regression models were used to test the hypotheses of the study. The results reveal that domestic firms are relatively more efficient in using IC. The results also reveal that only human capital is closely associated with the profitability and productivity of the firm in terms of ROA and assets turnover, respectively. The author argues that since the study is a time series further analysis in terms of a cross-section study may improve the results. Ting and Lean (2009) studied the impact of IC on the financial performance of financial institutions in Malaysia. Data from annual reports of Malaysian financial institutions were used to measure IC for the period 1999-2007. Regression analysis was used to test the hypotheses of the study. The results reveal that VAIC is significantly positively correlated with a firm's financial performance in terms of ROA. Further analysis of the individual components of VAIC shows that human and physical capitals significantly contribute to the added value. Structural capital, however, shows a negative relationship with profitability. Ismail and Muhammad (2009) investigated the relationship of IC and financial performance in Malaysian banks. Regression models were adopted to test the hypotheses of the study. The results reveal that VAIC (as a measure of IC efficiency) is significantly correlated with profitability. Further industry level analysis reveals that the banking sector relies more on IC than insurance and brokerage firms. Individual components of VAIC, *i.e.*, HCE, CEE and SCE, however, did not show any significant relationship with either the profitability or productivity of the firms, which means that investors do not place separate the weights on individual components of VAIC. The authors argue that this disparity in results (between VAIC and its individual components) may be attributed to the small sample size since the study investigated only 18 banks.

An empirical study based on high-tech industries, traditional industries and service industries was conducted by Zéghal and Maaloul (2010). The purpose of the categorization of industries was to test whether the role of IC in value creation differs from industry to industry. The authors used VAIC to measure the efficiency of IC for data obtained from *Value Added Scoreboard* (VAS) issued by UK DTI11 for 300 firms listed on London Stock Exchange (LSE) for the year 2005. The study used three different aspects of a firm's performance: (a) economic performance measured as operating income to sales ratio; (b) financial performance measured as ROA; and (c) market valuation measured as the M/B ratio. The results reveal that VAIC is significantly, positively correlated with the economic performance of firms, which implies that IC can help to reduce production costs for firms using Regression model. VAIC was also significant and positively correlated with ROA, which implies that IC plays a significant role in value creation for shareholders as well as other stakeholders such as creditors, suppliers and government. The results support the argument that the role of IC differs across different industries. The authors suggest that future research should increase the time period and should revisit some basic assumptions of the VAIC model to validate the results.

Kamal, Mat, Rahim, Husin and Ismail (2012), examine the efficiency of IC and its association with the financial performance of 18 commercial banks publicly traded in Malaysia using Regression analysis models to test the hypotheses. The study finds that only physical capital is significantly positively

correlated with a firm's performance. Surprisingly, human capital efficiency has negative impact on ROA and ROE, which means that an increase in human capital efficiency leads to a decrease in ROA and ROE, which contradicts the basic theory of IC. The differences in the results for the same industry in Malaysia may be attributed to the small sample size. Kamal *et al.* (2012) indicate that some independent variables that could better explain the variation in a firm's financial performance were omitted in their study. Mehralian, Rajab, Zadeh, Reza and Reza (2012) studied the performance of IC and its impact on the financial performance of firms in Iran's pharmaceutical industry. Regression models were used to test the hypotheses of the study. The results reveal that IC is weakly associated with the profitability of firms but there is no association between IC and productivity and market valuation of the firms. The authors checked robustness through applying an Artificial Neural Networks (ANN) model and report same results. Physical capital is found to be the major contributor towards value creation as is expected from most of the studies in frontier economies. As per the MSCI index, the majority of the developing countries are classified as frontier countries. The authors argue that the strong association between physical capital and firm performance is because the Iranian pharmaceutical industry is still underdeveloped. Conversely, no association between firm performance and HCE or SCE shows little or no investment in: (a) training and development programmes for employees, (b) improper advertising and marketing strategies, and (c) a low level of research and development. Mehralian *et al.* (2012) suggest that managers in such a knowledge-intensive industry should realise that their future growth depends on innovation in the products that can be achieved only through efficient structural capital and well trained human resources. The small number of firms included was, however, the major limitation of the research and its findings. Khanqah, Chatzoudas and Ghanavati (2012), examined the impact of intellectual capital on the market value and the financial performance of the firms listed on Tehran Stock Exchange. The efficiency of the value added by corporate intellectual ability (Value Added Intellectual Coefficient) was incorporated to measure the intellectual capital construct. The analyses were performed using data derived from the financial statements of 28 firms listed on the Tehran Stock Exchange (TSE) during a four-year period from 2006 to 2009. Correlation and Ordinary Least Square (OLS) regressions were conducted on panel data to check the impact of intellectual capital on firms' market value and financial performance. While the findings of the study failed to support most of the hypotheses it was shown that there was a statistically significant relationship between structure capital efficiency and financial performance (ROE, ROA).

Sumedrea (2013) investigates the effect of intellectual capital and its influence on the economic performances based on the VAIC model. The results were obtained by applying certain regression models and suggest that, in crisis time, the development of companies is influenced by the human and the structural capital, while profitability is additionally linked to the financial capital through the value added intellectual capital coefficient. Joshi, Cahill, Sidhu and Kansal (2013) studied the efficiency of IC in the Australian financial sector using regression models to test the hypotheses of the study, the study report that VAIC is significantly correlated with human costs and performance of banks. The authors selected 33 financial firms including investment banks, insurance companies and diversified financial companies for the period 2006 to 2008. Their results reveal that, in the Australian financial sector, IC efficiency is highly dominated by human capital. Gigante (2013) examines the impact of IC efficiency on the performance of sampled cross countries using regression analysis technique to test the hypotheses. The study uses data from the annual reports of 64 selected banks from nine European countries for the period 2004 to 2007. The study finds that the mean IC efficiency scores for Finnish

banks are highest, *i.e.* 12.23, and 1.88 for German banks being the lowest. Further analysis shows that human capital efficiency for banks in Finland is again the highest. The study reveals that IC efficiency is significantly correlated with the financial performance of banks in terms of ROA and ROE. However, there is no correlation between IC efficiency and market valuation in terms of the M/B ratio of the banks. The author recommends further study to include more banks and increase the time span to generate more robust results. Lu, Wang and Kweh (2014) argue that the insurance industry relies heavily on the knowledge and skills of the employees who bring innovation into the services offered by the firms. The authors analyse the efficiency of IC and its impact on the financial performance of firms in the Chinese life insurance industry. Using data from annual reports of life insurance companies from 2006 to 2010, the authors used the dynamic slack based model to measure the efficiency of IC and its relationship with the financial performance of the firms. The study concludes that IC has significant impact on performance of the firms.

Kurfi, Udin and Bahamman (2017), examine the impact of intellectual capital (IC) on financial performance of listed Nigerian food products companies for five year period 2010 to 2014 by adopting Pulic model of IC known as value added intellectual coefficient (VAIC). Regression models were used to test the hypotheses of the study where the results show that there was positive significant influence of IC on financial performance. Specifically, the results showed that structural capital (SC) and capital employed (CE) influence the financial performance of Nigerian food products companies. Based on the resource-based theory, the results prove that companies can enhance financial performance by emphasising on IC especially in foods product companies. Ozkan, Cakan and Kayacan (2017), examine the relationship between the intellectual capital performance and financial performance of 44 banks operating in Turkey between 2005 and 2014. The intellectual capital performance of banks is measured through the value added intellectual coefficient (VAIC) methodology. There is a statistically significant positive relationship between HCE and ROA. However, CEE has a greater statistically significant effect on profitability compared to HCE. These results suggest that the profitability of banks in Turkey is affected by CEE rather than HCE. The results also show that SCE has no statistically significant impact on ROA.

Abdulnasir and Mohammedhussen (2018) investigate the connection between intellectual capital and performance of private commercial banks. Data were compiled from audited annual reports released on respective websites of 9 private commercial banks in Ethiopia from 2011-2015. The intellectual capital of those banks was calculated using value-added intellectual capital coefficient (VAICTM). The multiple regression results indicated that components of VAIC predicted banks performance better than VAIC alone. Besides, capital employed efficiency was found to have the most positive significant relationship (5.28) with ROA. The study recommends that Ethiopian private commercial banks should capitalise on the efficient utilization of their physical and financial capitals to increase their financial performance.Sharma (2018) *reviews studies pertaining to relationship between intellectual capital and market value of a firm as well as the relationship between intellectual capital and financial performance of firm. Attempt was made to include all the studies conducted all over the World pertaining to the relationship between intellectual capital and market value of a firm. Findings of the review shows blend of positive and negative relationship between intellectual capital and firm.*

Yilmaz and Acar (2018) examine the effects of intellectual capital and its components on companies' market value and financial performance in Turkey. The financial and market data of production

companies listed in Borsa Istanbul 100 index (BIST-100) for the periods 2011 through 2014 are used as dataset. The study selected three different measures for financial performance; ROA, ROE and Net Profit Margin, and one measure for market value; Market to Book Ratio. The study used Modified Value Added Coefficient (M-VAIC) and three components of M-VAIC. Also the study added natural logarithm of assets to control for variation in asset size of companies and tested its significance. The results suggest multi factor models are more powerful than single factor model in explaining the market performance and financial performance. The paper reveals that models explaining financial performance provide more accurate results than the models of market performance. The analysis also exposes that physical capital and human capital has a significant effect on financial performance whereas physical capital and relational capital has an influence on market performance.

Theories of Intellectual Capital and Profitability

Resource Based Theory

The resource based (RB) theory is considered the pioneer theory that focused on the importance of intangible assets for firms (Barney, 1991). The basic argument in this theory is that the competitive advantage of the modern firm should lie in its use of tangible as well as intangible assets. The intangible assets included in this theory should be unique and inimitable which and can build a sustainable competitive advantage for the firm.

Resource Dependency (RD) Theory

The advocates of this theory, Pfeffer and Salancik (2003), argue that every firm depends on several stakeholders such as other firms that hold strategic resources necessary for the operations of the firm. They argue that every firm cannot hold all strategic resources so they have to build long term relationships with those stakeholders who can assist the firm in terms of necessary resources.

Organizational Learning (OL) Theory

Njuguna (2009) argues that a firm should follow a continuous learning process to build a sustainable competitive advantage. This continuous learning is necessary for a firm for many reasons. Firms, for example, can get more know-how about their customers' demands and changing preferences about products. A firm should invest in its resources such as research and development and human resources, which enable a firm to innovate with products.

The underpin theory of this study is the resource dependency theory. The theory stresses the importance of all stakeholders in providing necessary resources that will enhance organizational performance.

Methodology

This study adopted expost facto research design because the data are available and the researcher has no control over it. The population of the study is the ten listed Healthcare firms quoted on the Nigerian stock exchange (NSE) as at 31st December 2018 (table 1). However, for firms to be part of the sample, there are some criteria which have to be met as follows: therefore, two point filters were employed for the study: i companies must have been quoted on the Nigerian Stock Exchange as at 1st January 2008 ii. Firms must not have negative operating profit during the period of study(One of the limitations of the VAIC model is that it does not work for the companies with negative value added or losses (Firer & Williams, 2003).. After the above filters, six firms were selected as sample of the study

which is shown in Table 2. The sampling technique used in this study is census sampling technique because it allows all the elements in the population to be represented. Multiple regression technique was applied to draw inferences.

Due to the panel data used in this study, the models of the study were subjected to other regression models (Fixed and Random Effects) in addition to OLS, because of the uncertainty as to the conformity with the classical assumptions of the OLS regression model, as indicated by the normality test. The study therefore applied robust GLS regression for the study. The study made use of three components of ICE (Coefficients as follows: Relational capital, Human Capital Efficiency and Structural Capital Efficiency as used by Vishnu and Gupta (2014).

Table 1: Population of the Study

S/NO	NAME OF FIRMS	YEAR OF QUOTATION
1	EKOCORP PLC	1994
2	UNION DIAGNOSTIC AND CLINICAL SERVICES	2007
3	MORISON INDUSTRIES PLC	1978
4	EVANS MEDICALS	1979
5	FIDSON HEALTHCARE PLC	2008
6.	GLAXO SMITHKLINE	1977
7.	MAY AND BAKER NIGERIA	1994
8.	NEIMETH INTERNATIONAL PHARMA.PLC	1979
9.	NIGERIA-GERMAN CHEMICALS PLC	1979
10.	PHARMADEKO PLC	1979

Source: Nigerian Stock Exchange Fact book 2018

Table 2: Sample Size

S/NO	NAMES OF FIRMS
1	EKOCORP PLC
2	GLAXO SMITHKLINE
3	EVANS MEDICALS
4	MAY AND BAKER NIGERIA
5	NEIMETH INTERNATIONAL PHARMA.PLC
6	PHARMADEKO PLC

Source: Nigerian Stock Exchange Fact book 2018

Model Specification and Variable Measurements

$ROA it = \beta_0 + \beta_1 VAIC_{it} + \beta_2 Control + \varepsilon_{it}$

The model is further subdivided into two as follows:

$ROA_{it} = \beta_0 + \beta_1 HCE_{it} + \beta_2 SCE_{it} + \beta_3 RC_{it} + Size_{it} + \varepsilon_{it}$

Independent Variables

Value Added Intellectual Capital

The VAIC calculations involve a two-step process (Pulic, 1998; 2000) where value added is calculated in the first step and VAIC is calculated in the second step.

In the VAIC model, total Value Added (VA) by the business can be calculated as:

$VA_t = OUT_{it} - IN_{it} = Op_{it} + SC_{it} + D_{it} + A_{it}$

Where VA_t= value added in year t, OUT= net revenue IN= cost of raw materials, energy, water, gas, services and other similar resources for the year t

HC_{it}= Staff cost, both salaries and related contributions of firm i in year t

SC_{it}= Knowledge at organisational and its value represents the amount necessary to obtain value added over the use of human capital of firm i in year t (viewed as knowledge at individual level). The VAIC approach in calculating the structural capital is:

$SC_t = VA_t - HC_t$

RC= Expenses incurred in advertising and selling, personal relation and marketing forms

Value Added intellectual Capital can be further refined to express human capital efficiency, structural capital efficiency and relational capital efficiency as follows:

$HCE_t = VA_t/HC_t$

$SCE_t = SC_t/ VA_t$

$RC_t = VA_t/RC_t$

The value Added Intellectual Capital coefficient is then computed as the sum of the three components above, and therefore represents the overall value creation efficiency:

$VAIC_t = HCE_t + SCE_t + RC_t$

Control Variable

Size =Natural Log of Total Assets

Dependent Variable

Return on Asset

Return on Assets (ROA) is the ratio of pre-tax profit divided by average total assets as reflected in the annual report. ROA is a comparison of net income over total assets. This accounting measure of performance is generally accepted as a valid measure of overall company performance (Core, Holthausen and Larcker1999). The ROA provides information about the value added to the company that lead to better performance of that company.

ROA = Profit before Tax/ Total Assets

Results and Discussions

The aim of this section is to present, analyse and interpret the results gather for the study.

Table 3: Descriptive Statistics

VARIABLES	MEAN	STD.DEV	MINIMUM	MAXIMUM	Observation
ROA	0.1506	0.07395	-0.1595	0.4395	60
HCE	4.008	3.9549	1.3162	21.6310	60
SCE	0.0725	0.06161	0.00266	0.3011	60
RC	38.0021	81.4459	0.4968	469.7961	60

FSIZE	15.1347	1.0551	13.7938	17.0818	60

Source: Output of Descriptive Statistics by Author 2019

Table 3 presents the descriptive statistics of the study. The table reveals that ROA has an average of 0.15, standard deviation of 0.07, minimum of -0.16 and maximum of 0.44. HCE has an average of 4.01, standard deviation of 3.96, a minimum of 1.32 and a maximum of 21.63. The table also reveals that SCE has an average of 0.07, standard deviation of 0.06, a minimum of 0.003 and a maximum of 0.30. RC has an average of 38.01, standard deviation of 81.45, a minimum of 0.49 and a maximum of 469.4. Size has an average of 15.13, standard deviation of 1.05, a minimum of 13.79 and a maximum of 17.08.

Table 4: Correlation Analysis

VARIABLES	ROA	HCE	SCE	RC	FSIZE
ROA	1.0000				
HCE	0.0122	1.0000			
SCE	0.4386	-0.002	1.0000		
RC	-0.218	0.5831	-0.2431	1.0000	
FSIZE	0.1754	-0.2325	0.1836	-0.2679	1.0000

Source: Output of Correlation Analysis by Authors 2019

Table 4 shows the correlation results among the variables. The table revealed that HCE has no relationship with performance the firms using ROA. Firm size which is used as control variable also has no correlation with profitability.

Presentation of Regression Results and Hypotheses Testing

This section presents and analyzes the regression results of the models of the study. The hypotheses formulated for the study are also tested in this section based on the results, as presented in table 5 .

Table 5: Output Of GLS regression analysis

The results in Table shows that structural capital efficiency has a significant positive impact on the

Variables	ROA
HCE	0.0264 (0.345)
SCE	0.4532 (0.003)
RC	-0.00167 (0.231)
SIZE	0.00627 (0.475)
CONSTANT	0.0185 (1.343)
R Squared	0.22
Observation	60

Source: Output of data analysis by author 2019 ; P-Values in Parentheses

performance of listed healthcare firms in Nigeria as indicated by the coefficient of 0.453 which is significant at 1% level of significance (from the P-value of 0.003). Based on this, the study rejects the null hypothesis which states that, structural capital efficiency has no significant impact on performance of listed healthcare firms in Nigeria. Therefore, the study infers that the firms are making use of their internal capital to improve their performance. The study is in line the study of Kurfi et al (2017); Khanqa et al (2012)

On the other hand, the findings of the study reveals that human capital efficiency and relational capital have no significant impact on the performance of the company based on coefficients of (0.0265 and 0.0002) and p-values of (0.345 and 0.231) respectively. Therefore, the study infers that the more the firms increase her spending on its human resources, and its relationship with customers, it does not have any impact on its performance. The finding of the study is in line with Visnu et al (2014). Firm size is used in this study as a control variable, shows an insignificant impact on the performance of studied firms based on coefficient of 0.0063 and p-value of 0.231. The implication of this finding is that size of the firms has no significant impact on the performance of the firms.
The results from table also indicate that the independent variables of the study (structural capital efficiency and the control variable firm size) explained 22.33% of the variations in the performance (ROA) of quoted Oil and Gas firms in Nigeria, from the coefficient of determinations (R2 value of 0.2233). The table also shows that the model is fitted as evident by the Wald Chi2 of 15.81 which is significant at 1% level of significance (as indicated by the P-value of 0.0033).

Conclusion and Recommendations

Conclusion

This study examines the impact of intellectual capital efficiency on the profitability of six listed healthcare firms in Nigeria between 2008 and 2017. This was examined by means of VAIC model and it analyses how intellectual capital efficiency (ICE, SCE and RC) affect the profitability of these firms measured by ROA. The findings of the study suggest that intellectual capital efficiency has positive and significant impact on the ROA of the firms under study. However, an insignificant impact is found between HCE and RC and profitability of the firms.

Recommendations

Based on the finding of the study, which shows that SCE has significant impact on ROA, it is therefore recommended that listed healthcare firms in Nigeria should continue to invest more on their internal capital such as patent, trademarks processes in order to better their performance since these hidden capital have been seen as assets that can generate revenue and enhance the performance of an organisation positively.

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Conference theme 3:

Entrepreneurship and Development of MSME'S Finance

ENTREPRENEURIAL BEHAVIOUR, SOURCE OF FINANCE AND BUSINESS SIZE IN MAIDUGURI METROPOLIS

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Abstract

This objective is informed by the conflicting findings on the relationship between behaviour of entrepreneurs and business performance. Using simple random sampling technique, a sample size of 310 entrepreneurs was drawn from among entrepreneurial business owners in Maiduguri. In order to test the hypotheses proposed for this study, primary data was gathered using self administered questionnaire. Combinations of descriptive and inferential statistical tools of analysis were deployed to analyse and test data gathered. A structural equation model was fitted using AMOS statistical package. Standardised values of the model showed that respondents had more preference for personal savings and profits as a source of finance for their business. It was also observed that the introduction of choice of finance into the relationship between entrepreneurial behaviour and business size resulted in a negative but significant effect ($\beta = -0.18$; $p= 0.009$). The practical implication of the finding of this study is that choice of finance has implication for business size.

Keywords: Entrepreneur, Behaviour, Performance, Business size, Finance, Nigeria

Introduction

An entrepreneur is a person who identifies a need and starts a business to fill that void (Fernandes, 2018). In its purest form, an entrepreneur is a sole proprietorship type of business, where the owner of the business bares both benefits and loss all alone in the process of creating wealth. Over the years there has been increased concern for job creation in Nigeria. In particular there has been amplified attention on promoting entrepreneurship in Nigeria (Tende, 2014). This has become inevitable in an attempt to curb high rate of unemployment which may be attributed to over reliance on government and big private sector operators for employment. Since entrepreneurs are budding corporate giants, it is natural that the more the success story of entrepreneurs in business; the more likely it is that more investors will want to undertake similar line of business.

Despite the relative importance of this type of business structure, they are handicapped by the volume of resources at their disposal (Mladenka, Slobodan & Periša, 2016). Finance according to a 2011 report of ICEAW is important for securing and enhancing organisational performance. This suggests that entrepreneurial businesses like a typical business will require proper finance to secure acceptable level of performance which can enhance competitive advantage. The setting up and running of a business typically requires finance. In the opinion of Davoren (2018) finance is a critical factor for securing success stories in any type of business. This implies that entrepreneurs will need finance to ensure that their business succeeds. According to Madsen, Hansen and Worziger (nd) business finance activities tend to vary among business entities because of inherent dispositions of decision makers.

Business owners in entrepreneurial set-ups are key decision makers who tend to use organisational size as a measure of business performance (Rauch & Frese 2000). Most entrepreneurial business structure in Nigeria is sole proprietorship in nature. As such the owner of such business is the key decision maker. Consequently finance decision with respects to how to source for and spend available finance is a major function of the business owner. In this study finance is considered an importance resource which entrepreneurs require in order to be successful. Personal savings, loan from friends and relations, banks, non-bank financial institutions, share venture capital; retained earnings hire leasing and factoring as sources of finance available to entrepreneurs (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2008, Nour 2010). For a typical entrepreneur in Nigeria, sources of finance include personal savings, loan from friends, relatives and close associates, trade credits, leasing, disposal of assets, ploughing back of profit, loan from financial institutions, issuance of corporate securities, installment credits, and borrowing from money lenders (Aminu, 2012, Lawal, Iyiola & Adegbuyi, 2018).

In the era of globalization and quest for competitive edge, entrepreneurs are required to acquire useful resources which include finance to spur performance (Khan, Li, Safar & Khan, 2019). Several literature on entrepreneurship, have attempted to provide logical reasoning for observed levels of performance using endogenous variables as proxies for entrepreneurial behaviour (Ngugi, 2014, Abulwahab & Damen, 2015, Adesoji, 2015). However, these endogenous proxies such as motivation have been criticized because they fail to explain why entrepreneurs behave in the manner they do with regards to entrepreneurship outcomes like organisational performance (Rauch & Frese, 2009). Consequently, they recommended the adoption of personality approach for explaining entrepreneurial behavior. According to Çolakoğlua and Gözükarab (2016) personality traits constructs is an aspect of personality psychology theory which provides a platform for describing behavioral patterns in individuals.

Reflecting on the relative importance of financing to business performance, this study extends positions of previous studies by using personality trait theory of personality psychology to explain observed relationships between entrepreneurial behaviour, choice of finance and business size among entrepreneurial businesses in Maiduguri Metropolis, Borno State. A study of this nature is imperative for entrepreneurs in Maiduguri, which is still recovering from the aftermath of social instability. As such the objectives of this study are as follows:

I. Appraise size of entrepreneur owned businesses in Maiduguri
ii. Ascertain nature of choice of finance among entrepreneurs in Maiduguri
iii. Examine nature of entrepreneurial behaviour in Maiduguri

iv. Evaluate relationships among business size, choice of finance and entrepreneurial behaviour

The remaining part of this paper comprises of theoretical background, literature review on variables of the study, method adopted for the study, results and discussion, conclusion and recommendations as well as practical implication of this study.

Theoretical background

According to Cartwight, Cooper, Rauch and Frese (2008) a personality approach to entrepreneurship can help in explaining entrepreneurial behavior. As an aspect of psychology, personality trait theory posits that personality traits are a significant predictor of social behaviour (Novikova, 2013). This theory suggests that entrepreneurs as individuals in reacting to situations in their environment will behave in a certain manner, which will have implication for business outcomes.

Theory postulated by McCrae and Costa, (2003) reduced components of personality trait theory to five factors; also known as the Big Five (Openness to Experience (O), Conscientiousness (C), Extraversion (E), Agreeableness (A), and Neuroticism (N)). Reclassifying these attributes, on the bases of three core themes, Kerr, Kerr and Xu (2017), identified components of personality traits as (1) the personality traits of entrepreneurs and how they compare to other non-entrepreneur groups; (2) the attitudes towards risk that entrepreneurs display; and (3) the overall goals and aspirations that entrepreneurs bring to their pursuits. These themes cover most of the main theoretical contributions to the entrepreneurial traits literature, which are quite diverse. However for the purpose of understanding and predicting the behaviour of entrepreneurs, Frese and Rauch (2008), recommended risk appetite (attitude towards risk) and need for achievement (resourcefulness) as predictors, of entrepreneurial behaviour.

Entrepreneurial behaviour, choice of finance and business size

From a personality psychology perspective, entrepreneurial behaviour involves a combination of resourcefulness and risk appetite (Kerr, Kerr & Xu, 2017). According to Misra and Kumal (2000) entrepreneurial resourcefulness (ER) is the ability to identify opportunities in the environment and regulate as well as direct procedures to successfully cope with the task of creating and managing an organisation to pursue opportunities. Risk in entrepreneurial behaviour is a cognitive display of making a choice concerning going ahead with a line of action, where the outcome resulting from that choice is less than certain but can be anticipated with known a priori probabilities (Elston & Audretsch, 2007, Popescu, Bostan, Robu, Maxim, & Diaconu, 2016). Combining resourcefulness and risk appetite, expresses entrepreneurial behaviour as a preference for innovation and a change in existing institutions as well as the status-quo, while Gupta and Sebastian (2017) view it as the manner with which owners or Managers of small businesses develop and communicate direction of their businesses as a result of the choices they make.

Choice in the world of business involves selecting from available course of actions. As an aspect of management accounting, choice is influenced by information available to decision makers (Ghanbari & Vaseli, 2015). As owners of businesses, entrepreneurs will be engaged in the process of making choices about appropriate sources of finance (. From an entrepreneurial perspective, financing entrepreneurial business has been studied under entrepreneurial financing. As an emerging area of research, scholars in entrepreneurial financing have suggested that preference for finance by

entrepreneurs have implication for personality traits because of associated risk (Mustapha & Tlaty, 2018). This implies that preference for finance can influence entrepreneurial behaviour. It is therefore hypothesized that:

H_1: Entrepreneurial behaviour significantly influences entrepreneurial business size

H_2: Choice of finance significantly influences entrepreneurial behaviour

It is suggested in literature that the outcome of entrepreneurial behaviour is often evident in outcome variables such as performance (Razmus & Laguna, 2018). In this study it is proposed that combined effect of choice of finance and entrepreneurial behaviour is greater than the effect of entrepreneurial alone on performance. Performance of entrepreneurial business is observed in-terms of size. Size will be observed in terms of number of number of employees excluding the owner of the business. Based on this reasoning, it is hypothesized that:

H_3: Combined effect of entrepreneurial behaviour and choice of finance on organisational size is greater than the effect of entrepreneurial behaviour alone

Methodology

This study adopts a descriptive research design. This design allows for a quantitative measurement of variables. Maiduguri Division of Corporate Affairs Commission provided record of registered and operating businesses with entrepreneurial status as at end of year 2017 to be one thousand five hundred and ninety-five (1,595). Krejcie and Morgan (1970) Small Sample technique was applied to obtain a sample size of three hundred and ten respondents. The respondents considered for this study are basically the business owners themselves because of the sole proprietorship nature of entrepreneurial businesses in Maiduguri. Respondents comprised of entrepreneurs conducting business in Maiduguri town. A sample of between 300 and 500 respondents is considered suitable for SEM according to Malhotra and Briks (2007). Using the survey method, primary data was gathered using self-administered copies of questionnaire to a randomly selected sample of 310 respondents. The total number of questionnaire was collected over a period of four months with four follow-ups.

Questionnaire used for gathering primary data comprised of four items that were subjected to both validity and reliability tests. Validity of the instrument was ascertained using content validity while Cronbach Alpha was computed to ascertain the reliability of data gathering instrument using SPSS. Cronbach Alpha obtained was greater than recommended minimum of 0.70.

Measurement of variable

Data for preference of sources of finance was generated by asking respondents to identify their most preferred source of finance among four distinct sources of finance comprising 1- loan from bank, 2-non-financial bank loan, 3-loan from friend and relatives, 4- personal saving and profits. Risk appetite and resourcefulness were measured on a 5 Likert-scale, from 5 to 1; comprising: very high, high, moderate, low and very low respectively. Performance was measured using number of employees to measure organisational size, rather than profit figures as proxy for organisational size. This is because of reluctance to disclose profit figures. Business size was ranked on a scale of 4 based on the number of employees. Business size was scored as follows (1= very small, 2= small, 3= medium; 4=big).

Tools of analyses

A combination of descriptive and inferential statistical tools of analysis was used in thus study. Values of

mean were used to provide a description of opinion expressed by respondents while AMOS was used to fit a model in order to test proposed hypotheses. Data gathered was fitted using AMOS to test the proposed hypotheses. The use of two latent variables to measure entrepreneurial behaviour, as well as the passive influence of choice of finance informed the use of AMOS.

Results and Discussion

Table 1: Frequency distribution of variables used in this study

Description	Mean	Minimum value	Maximum value
Preference of source of finance	4	1	4
Risk appetite	3	1	5
Business Size	2	1	4
Resourcefulness	3	1	5

It can be observed from Table 1, that on the average, sampled entrepreneurs in Maiduguri have high preference for personal savings and business profit as a source of finance ($\bar{x}$ =4). Though level of moderate ($\bar{x}$ = 3), average business size is small resourcefulness is moderate ($\bar{x}$ =2). Risk appetite of sampled entrepreneurs was also observed to be moderate ($\bar{x}$ = 3),

Test of hypothesis one:

A model was fitted to test hypothesis one that: Risk appetite and entrepreneurial resourcefulness will influence business size as a measure of performance among entrepreneur businesses in Maiduguri. Regression value of -0.40 was not significant at α =0.05 as shown in Fig.1

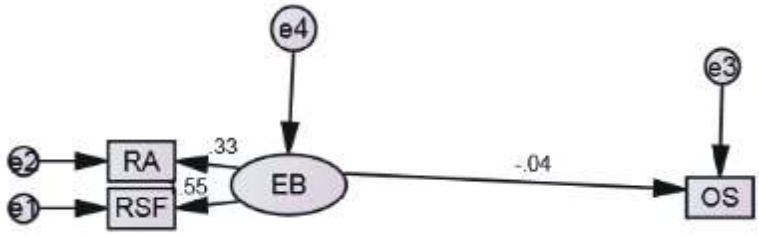

Fig. 1: model of relationship between entrpreneurial behaviour and business size

Table 2 : Model fit indices

Fit indices	Recommended
CFI = 1.000	= 0.95
GFI= .905	= 0.90

The standardized regression weight suggests that risk appetite and resourcefulness of sampled entrepreneurs in Maiduguri is negatively but not significantly affect observed organisational size as measure of performance. With the exception of Root mean square error of approximation (RMSEA), all other indices of fit met model fit.

The fitted model above suggests that risk appetite (RA) predicts about 33% of entrepreneurial behaviour (EB), while resourcefulness (RSF), predicts about 55% of entrepreneurial behaviour. These

latent variables are considered adequate for observing EB, since the summation of the two variables > 50%. With regards to extent to which EB influences organisational size (OS), a 4% non-significant and negative variation was observed. Consequently, hypothesis one (H1) was rejected.

Test of hypothesis two and hypothesis three:

Preference for finance was subsequently introduced into the model as presented in Figure 2.

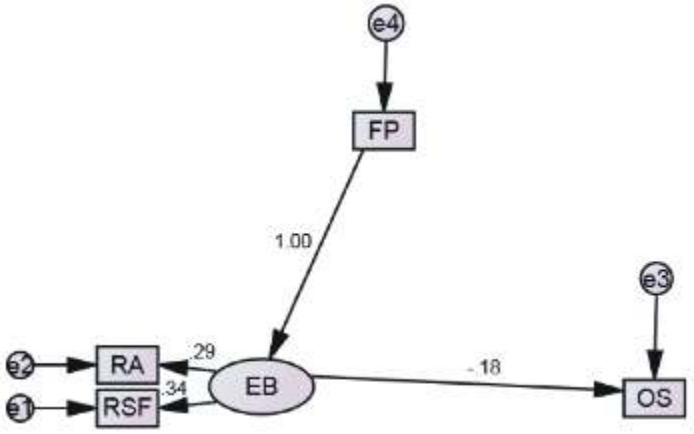

Figure.2 Model with preference for source of finance

Table 3: Model fit indices

Fit indices obtained	Recommended indices
CFI = 1.000	≥0.95
GFI= .905	≥0.90
RMSEA = .245	≤0.08
SRMR = 0.00	0.00
NFI=1.000	≥0.95

Table 4: Regression Weights for Fig. 2

Regression Weights				Standardized Weights			Regression			
Relationship			Estimate	S.E.	C.R.	P				
EB	<---	FP	.150	.031	4.769	***	EB	<---	FP	1.000
RSF	<---	EB	1.000				RSF	<---	EB	.335
RA	<---	EB	.920	.217	4.231	***	RA	<---	EB	.287
OS	<---	EB	-.721 .	277	-2.602	.009	OS	<---	EB	-.179

After introducing choice of finance into the model, it can be observed that choice for finance did cause entrepreneurial behaviour to still negatively but significantly influence observed level of business size of entrepreneurs in Maiduguri. In Fig. 2, it can be observed that entrepreneurial behaviour will vary with

possible change in choice of finance. Furthermore, the relationship between EB and OS though negative, is significant (β=-.179, p= 0.009). In this study, respondents appear to have more preference for personal savings, which was placed at the bottom of finance selection Table. As such it is possible that the negative sign can change if other sources a preferred. Based on this, hypothesis two and hypothesis three are accepted.

It can be observed from the two figures that risk appetite (RA) of sampled respondents is low (29% and 33% in Fig. 1 and Fig.2 respectively). This suggests that the respondents are risk averse and will unlikely be willing to seek after sources of finance with high risk factors. Though resourcefulness which is a measure of goal aspiration is moderate in Fig. 1, (55%), it dropped to 34% when choice of finance was introduced into the model.

Conclusion and recommendation

It is observed from this study that entrepreneurs in Maiduguri have high preference for personal savings. This is significantly responsible for observed size of entrepreneurial business. In addition, it was observed that from result of data analysis that behaviour of entrepreneurs, which is measured using risk appetite and resourcefulness, do have implication for business size as a measure of performance.

It is recommended that entrepreneurs in Maiduguri should seek for finance other than savings and profit in order to eliminate the negative relationship between EB and OS, so that business size can be improved. In addition, subsequent studies in this area should consider other possible factors that may account for the remaining 27% of EB.

Practical implication

The practical implication of this study is that choice of entrepreneurial financing enhances the effect of entrepreneurial behaviour on business size. Consequently more attention should be geared towards availability of finance from sources other than personal savings

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THE EFFECTS OF MICRO-FINANCE ON THE PERFORMANCE OF MICRO, SMALL AND MEDIUM ENTERPRICEIN MAKURDI METHROPOLIS OF BENUE STATE

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Abstract

The Micro, Small and Medium Enterprises (MSME) sector plays a vital role in the growth of the economies of developing countries. Similarly, microfinance facilities are crucial to MSMEs financial performance as they facilitate the growth and development of MSMEs. It is on this premise that the fundamental objective of this study investigates the effects of Microfinance on MSME performance in Makurdi metropolis of Benue state. simple random sampling technique was employed in selecting the 323 MSMEs that constituted the sample size of the research. A structured questionnaire was designed to facilitate the acquisition of relevant data which was used for analysis. Data was presented through the use of frequency tables and Chi square was used to carryout analysis. The study found that micro finance had an effect on sales revenue and profitability and non-current assets. The study recommends creating awareness especially for women on the importance of Microfinance in entrepreneurship development. The study also recommends that Benue state government to set up and implement policies that will ease access to microfinance credit by MSMEs especially from microfinance banks. The study also recommends the granting of more loans to women so as to increase the number of women engaged in entrepreneurship activities within Makurdi metropolis.

Key words: Micro, Small and medium enterprises; Microfinance; microfinance institutions; financial performance

Introduction

MSMEs contribute significantly to the economies of the countries they are located in. They stimulate entrepreneurship activities and play an important role in offering a platform for upgrading, improving local technology and adaptation of foreign ones. MSMEs also play a vital role in creating employment and fostering managerial skill acquisition. The importance of MSMEs to the Nigerian economy cannot be underestimated. According to NBS and SMEDAN (2010), there are 22,918 MSMEs in Nigeria and they contribute by revenue about 75% of all entrepreneurial activities and employ over 60% of labour force both in the formal and informal sectors. However, NBS and SMEDAN (2010) suggest that the main challenges confronting the operations of MSMEs in Nigeria are access to finance and poor infrastructure.This is attributed to the high risks inherent in them and their inability to provide asset-based collateral. As a result of this, most MSMEs in Nigeria die within their first five years of existence while only 5% to10% of them survive, thrive and grow to maturity Aremu and Adeyemi (2011).

Micro-finance offers access to an appropriate range of high-quality financial services, such as credit, savings, micro leasing, insurance, advisory services and fund transfers to MSMEs so as to enhance economic activities, business growth and business sustainability. The features that distinguish microfinance from other forms of formal financial products are; smallness of loans advanced and savings collected, almost non-existence of assets–based collateral and simplicity of operations. Access to microfinance is considered to be an important factor in determining the performance of MSMEs. However, despite the large number (1028) of microfinance institutions (MFIs) in Nigeria, majority of MSMEs do not perform well.

Microfinance credit is considered essential in improving MSMEs financial performance. Despite the increase in the number of microfinance institutions in Nigeria, majority of MSMEs do not perform well. It is on this basis that this study intends to firstly, determine the effect of microfinance credit on the performance of MSMEs within Makurdi metropolis of Benue State.Also, the study seeks to determine the participation rate of women in MSME ownership. Next the study seeks to determine the type of business most engaged in within Makurdi metropolis. Lastly, the study seeks to determine the number of MSMEs that have received any form of microfinance and the source.

Microfinance

CBN (2005) defines microfinance as the provision of financial services to the poor who are traditionally not catered to by conventional banks. It serves as a veritable avenue for job creation and poverty alleviation. In Nigeria, one of the major challenges that MSMEs face is access to funds.Even when credit facilities are available, MSMEs in most cases do not have the required collateral to access those funds. This situation has led invariably to many of them closing down, resulting in the loss of thousands of unskilled, semi and skilled jobs across the country Izugbara and Ikwayi (2002).

Microfinance covers a broad range of financial services which include granting of loans, deposits, payment services and insurance to low-income households and MSMEs.Microfinance institutions have significantly contributed towards the poor by enabling them to raise their income level and living standards in different countries Saunders and Tsumori (2010). Several features distinguish microfinance from other formal financial products and they include the absence of asset-based collateral, the smallness of loans advanced and ease of operations.

Owing to the initial failures community banks to adequately provide credit facilities, the Micro-Finance Policy Regulatory and Supervisory Framework (MPRSF) was launched in 2005. This led to The licensing of Microfinance banks MFBs in 2007 which then raised the number of MFBs in Nigeria. The new MFBs faced the same challenges which contributed to the failure of earlier community banks. These poor performances lead to the failure of these institutions and the subsequent withdrawal of the licenses of 224 MFBs in 2010. According to Adeyemi (2008), some of the challenges MFBs faced included; undercapitalization, inefficient management and regulatory and supervisory loopholes.

Microfinance institutions

MFIs contribute significantly to a country's economic and social development. MFIs provide an alternative source of financing for people with inadequate income and those who don't have access to conventional banking and financial services especially in developing countries such as China, Bangladesh and Nigeria.

MFIs normally provide short term loans to borrowers with short repayment periods. The loans and financial services provided by MFIs are helpful in terms of eradicating poverty in these countries. MFIs are created and funded by non-profit organizations, government agencies, individuals, local community and large financial institutions. Based on recent estimates from the World Bank, there are more than 7,000 MFIs worldwide. These institutions are accessible to over 16 million clients and provide loans to the tune of US$2.25 billion.

According to Zuru, Hashim and Arshad (2016) there are five types of MFIs in Nigeria. They include; the local community owned MFIs, the private initiated MFIs, MFIs created and funded by Government, MFIs owned by the non-government organizations (NGOs) and the foreign-owned MFIs.

Table 1 Types of MFIs

Type of MFIs	Ownership	Source of capital	Initial capitalN	Legal form
Community owned MFIs	Community	Shareholder funds	20 million to 100 million	Private limited
Privately initiated MFIs	Shareholders and Partners	Shareholder funds	20 million to 2 billion	Private limited
Government Backed MFIs	Government	Government grants	20 million	Government agency
NGO owned MFIs	NGOs	NGO grants	20 million to 100 million	Private limited
Foreign owned MFIs	Shareholders and Partners	Shareholder funds	20 million	Private limited

Source: Zuru, Hashim and Arshad (2016)

Makurdi

Makurdi is the capital of Benue State which is located onLatitude: 7° 44' 1.50" N and Longitude 8° 31' 17.00" E in the north-central geopolitical zone of Nigeria. The town has an estimated population as at 2016 of 405,500 according to the national population commission. Makurdi was Founded about 1927 when the railroad from Port Harcourt was extended to Jos and Kaduna. Makurdi rapidly developed into a transportation and market centre in 1976 following the division of Benue-Plateau state into two states and Makurdi was selected as the capital of Benue state.Benue is tagged Nigeria's "food basket" State because of its rich and diverse agricultural products. The State produces over 70% of Soya-bean consumed and exported in Nigeria. The Benue River runs through Makurdi local government area creating opportunities for fishing, dry season farming through irrigation and tourism. It is also possible to generate electricity and improved transportation through the waterway. Benue State also has reserves of solid minerals such as limestone, gypsum, anhydride, kaolin, salt, lead, zinc, calcite, gemstones clay, coal, and magnetite. Tourism, sites in the state that could interest tourists include the Ushongo Hills, Ikwe Holiday Resort and Enemabia Warm Springs. This creates ample opportunities for SMEs within Makurdi metropolis.

Micro, Small And Medium Scale Enterprises

SMEs are considered to be the key engine of economic development Chittithaworn, Islam and Keawchana (2011). Their contributions to economic development include; providing job opportunities for the workers, distributing income, alleviating poverty, providing a training ground for the development and upgrading entrepreneurship skills, and serving as important vehicles for promoting forward and backward linkages in geographically diverse sectors of the economy in many countries.

The criteria for defining the size of a business enterprise differ from country to country. Nigeria with the introduction of the National Policy on MSMEs has addressed the issue of definition as to what constitutes micro, small and medium enterprises. The definition adopts a classification based on dual criteria, employment and assets (excluding land and buildings) as shown below in Table 2.

Table 2SME DEFINATION

S/NO	SIZE	EMPLOYMENT	ASSETS (Nmillions)
1	Micro Enterprises	Less than 10	Less than 5
2	Small Enterprises	10 to 49	5 to less than 50
3	Medium Enterprises	50 to 199	50 to less than 500

Source: National Policy on MSMEs

Micro Enterprises are those enterprises whose total assets (excluding land and buildings) are less than Five Million Naira with a workforce not exceeding ten employees. Small Enterprises are those enterprises whose total assets (excluding land and building) are above Five Million Naira but not exceeding Fifty Million Naira with a total workforce of above ten, but not exceeding forty-nine employees. Medium Enterprises are those enterprises with total assets excluding land and building) are above Fifty Million Naira, but not exceeding Five Hundred Million Naira with a total workforce of between 50 and 199 employees.

MSMEs are seen as the main engine of economic growth and development. The MSME sub-sector not only contributes significantly to improved living standards but they also bring about the substantial local capital formation and achieve high levels of productivity and capability.

The Resource Based View

The Resources-Based View (RBV) is a theory that explains the importance of a strategic resource on business performance Crook, Ketchen JR. and Combs (2008). This study considered microloans as a financial resource which may have an influence on SMEs financial performance and therefore RBV is relevant to this study. Research such as Oginni and Adesanyam (2013) has shown that successful management of internal resources can significantly improve venture performance and the likelihood of survival.

Empirical Review

Danjuma (2017), investigated examined the Impact of Micro?nance services on Performance of Small and Medium Scale Enterprises in Zaria metropolis. The sample comprised of 300 SMEs operating with Cred Micro?nance bank within Zaria Metropolis. Data were analyzed using regression analysis with SPSS 20.0. The study found out that the micro?nance services have a significant impact on the level of

entrepreneurship activities of SMEs in Zaria metropolis. Danjuma defined performance as pro?tability, sales growth, innovation, effectiveness, efficiency and customer satisfaction.

Ojo (2009) investigated the impact of micro?nance on entrepreneurial development of small scale enterprises that are craving for growth and development in a stiffened economy called Nigeria. The sample comprised 60 entrepreneurs in Lagos State. Chi-square, analysis and simple regression analysis were adopted as tools of analysis. The study found that there is a signi?cant effect of micro?nance institutions activities in predicting entrepreneurial productivity; and that there is no signi?cant effect of micro?nance institutions activities in predicting entrepreneurial development.

Olowe, Moradeyo and Babalola (2013) investigated the impact of microfinance on SMEs growth in Nigeria. The population of the study consisted of the entire SMEs in Ibadan metropolis. Purposive sampling technique was used to select the 82 participating SMEs. Pearson correlation coefficient and multiple regression analysis were used to analyze the data. The results from this study showed that financial services obtained from MFBs have positive significant impact on MSEs growth in Nigeria. They also found that the increase in loan disbursement and loan duration lead to increase in SMEs growth.

Oleka, maduagwu and Igwenagu (2014) evaluating the extent to which Micro finance banks have helped in financing small and medium enterprises (SMEs) in Nigeria, the data used were both primary and secondary data generated from questionnaires and annual report of 300 randomly selected small and medium scale enterprises that have accessed funds from micro finance banks in Nigeria. The time series data covered a period of thirteen years from 2000 to 2013. Regression analysis was used as a statistical tool. Results revealed that the microfinance banks loans and advances have significant positive impact on the performance of SMEs enterprises in Nigeria.

Ike (2013) analyzed access to microfinance services and its impact on performance of small scale women business entrepreneurs in Enugu State, 71 beneficiaries and 50 non beneficiaries of microfinance services operating different business enterprises were randomly selected from nine local government areas in the State. Data were collected through the use of structured questionnaire and analyzed by the use of descriptive statistical tools such as means and percentages. The Double-Difference (DD) Estimator is used to estimate changes in income from before to after benefiting from services between microfinance beneficiaries and non-beneficiaries. There was a significant difference between the growth in incomes of the two groups at the 0.05 level.

Babajide (2012) in his study, Effects of Microfinance on Micro and Small Enterprises (MSEs) Growth in Nigeria employed panel data and multiple regression analysis to analyze a survey of 502 randomly selected enterprises finance by microfinance banks in Nigeria. The findings show a strong evidence that access to microfinance does not enhance growth of micro and small enterprises in Nigeria.

Methodology

The study was carried out in Makurdi Metropolis which is also the capital of Benue State, Nigeria. The research is descriptive in nature and employs the survey method in assessing the impact of MFIs on MSME performance in Makurdi metropolis. Simple random sampling method was used in the selection of the customers. The population of the study consists of 1674 registered MSMEs in Makurdi

metropolis based on the records of Benue state ministry of commerce and industry. A sample size of 323 was derived using the Taro Yamane formula (1964). The study used primary data collection methods, with data obtained from a survey questionnaire. For this research, 323 sets of questionnaires were used for the survey. The questionnaire contains two sections. The first collects information on the characteristics of the MSME, while the second section investigates the objectives of the study. For the purpose of this study, various techniques such as Percentages, Frequency Distribution and chi-square where employed for analysis.

Analysis and Results

Table 3

Gender

Gender	Frequency	Percentage
Male	245	76%
Female	78	24%
Total	323	100%

In terms of Gender, Table 3 indicates that the number of male MSME owners which is 245(76%) clearly exceeds the number of female owners which stands at78(24%). This indicates that there is a huge gender divide among MSME owners in Makurdi metropolis Benue state.

Table 4

Type of Business engaged in.

Small business type	Frequency	Percentage
Agro-allied	41	12.69%
Trading	158	48.92%
Service	111	34.37%
Others	13	4.02%
Total	323	100%

Source: Field Study 2019

When it came to the type of business MSMEs engaged in, the trading sector clearly has the largest with 48.92% followed by service at 34.37%, then Agro-Allied at 12.69% and lastly,others at 4.02%.

Table 5

Have you ever had access to credit facilities from MFI?

	Frequency	Percentage
No	98	30.3%
Yes	225	69.7%
Total	323	100

Source: Field Study 2019

Table 5 shows the firms within the sample that have had access to credit for MFIs. It is seen 225 out of

323 respondents representing 69.7%respondents have taken a microfinance loan, while 98representing 30.3% have not taken any microfinance loan.

Table 6

What was the source of finance?

Type	Frequency	Percentage
Community owned	169	74%
Privately owned	50	22%
Government Backed	9	4%
Total	228	100

Source: Field Study 2019

Table 6 indicates that for the respondents that have gotten micro finance, 74% was from community owned groups, 22% was privately owned MFIs and only 4% from government backed MFIs.

Table 7

What are the reasons for not taking any loan?

Reasons	Frequency	Percentage
No information on MFI	59	62.10%
Fear of rejection	9	9.47%
Loans from other sources	8	8.42%
Sufficient internal funds	13	13.68%
Others	6	6.33%
Total	95	100

Source: Field Study 2019

Out of the 95 respondents that did not take the MFI credit, 59(62%) respondents did so because they had no information on MFI institutions within their locations. The second biggest reason for the rejection was the sufficiency of internal funds with 13(14%) respondents followed by fear of rejection with 9((%), loans from other sources came fourth with 8(8%) respondents and finally, others with 6(6%) respondents.

Test of Research Hypothesis

Ho1: Micro-finance credit does not have an effect on the sales revenue of MSMEs in Makurdi metropolis, Benue state.

Ho2: Micro-finance credit does not have an effect on the profitability of MSMEs in Makurdi metropolis, Benue state.

Ho_3: Micro-finance credit does not have an effect on no-current assets of MSMEs in Makurdi metropolis, Benue state.

TABLE 8 Hypothesis test

Effect of Micro-finance on the performance of small businesses	X^2	Asymp. Sig. (P-value) value)	Cramer'sV	Remarks
Effect of Micro-finance on sales revenue	452.118	.000	.813	Reject
Effect of Micro-finance on profitability	335.029	.000	.700	Reject
Effect of Micro-finance on Non-current assets	283.262	.000	.644	Reject

Source: SPSS computation 2019

Table 8 shows the effect of microfinance on the performance of small businesses in Benue state. In terms of the effect of microfinance on sales revenue, since the X2 value of 452.118 is greater than the critical value of 16.92 and the p-value of 0.00 is less than the level of significance of 0.05, we reject the null hypothesis and conclude that microfinance has an effect on sales revenue. Cramér's V which is a number between 0 and 1 that indicates how strongly two categorical variables are associated has a value of 0.813. This indicates a very strong relationship between micro finance and sales revenue.

When we consider the effect of microfinance on the profitability, the X2 value of 335.029 is greater than the critical value of 16.92 and the p-value of 0.00 is less than the level of significance of 0.05, we therefore reject the null hypothesis and conclude that microfinance has an effect on sales revenue. The Cramer's V value of 0.700 indicates a very strong relationship between micro finance and profitability.

In terms of the effect of microfinance on non-current assets, The X2 value of 283.262 is greater than the critical value of 16.92 and the p-value of 0.00 is less than the level of significance of 0.05, we reject the null hypothesis and conclude that microfinance has an effect on non-current assets. The Cramer's V value of 0.644 indicates a strong relationship between micro finance and non-current assets.

Findings and Discussion

The study found that microfinance had an effect on sales revenue, profitability and non-current assets. This finding is consistent with the work of Danjuma (2017).

The results of the study also indicate that a large portion (76%) of MSMEs in Makurdi metropolis was owned by males. This is in line with the findings of Evbuomwan, Ikpi, Okoruwa and Akinyosoye (2012). This indicates that the female population is not as engaged in entrepreneurship activities as their male counterparts. World Bank (2002) recognize women's access to financial resources as important strategies for poverty reduction and donors have increasingly directed microfinance services to women.

The results also indicate that majority (83%) of MSMEs in Makurdi metropolis are engaged in trading and services which include hairdressing, barbing salons tailoring, retail shops, bars, mechanic workshops and food vending. Whereas only a small number (13%)of businesses were engaged in agro-allied activities.

The study also found that most of the MSMEs investigated 69.7% had received microfinance while 30.3% had not. For those that received microfinance, 74% was from community-based groups. For those that did not receive microfinance, 62% of them was as a result of little or no information. The study also found that microfinance had an effect on sales revenue, profitability and non-current assets. This finding is consistent with the work of Danjuma (2017).

Conclusion and Recommendation

MFIs are concerned with the provision of financial services to people who are economically poor and experience financial exclusion. However, in spite of the importance of the SME sector, experience shows that provision and delivery of credit services to the sector by formal financial institutions and MFIs have been insufficient. This study empirically investigated the effect of microfinance on MSME performance in Makurdi metropolis. The study reveals that microfinance has an effect on MSMEs sales revenue and profitability. However, microfinance does not have an effect on non-current assets.

There is no doubt that MFIs make it possible for MSMEs to secure credit. However, more needs to be done in the area of creating awareness on the importance of Microfinance in entrepreneurship development. MFIs in Benue state should partner with Benue state government in conjunction with NGOsto create awareness and facilitate easy access, especially for women. The study recommends the granting of more loans to women so as to increase the number of women engaged in entrepreneurship within Makurdi metropolis.

There is a need to provide an enabling environment for MSMEs to grow and thrive, therefore there is a need to develop strategies to enhance increased access to microfinance credit by SMEs from microfinance institutions. It is important for the Benue state government to set up and implement policies that will ease access to microfinance credit by MSMEs, especially from microfinance banks.
MFIs should ensure that they sensitize the owners of MSMEs on best financial management practices. This will help the owners of MSMEs to account for loans borrowed. Lending institutions should also advise borrowers on how to appraise their projects for viability to ensure that they make wise decisions when investing in projects.

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APPENDIX 1

Chi-square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	452.118[a]	9	.000
Likelihood Ratio	415.117	9	.000
Linear-by-Linear Association	203.420	1	.000
N of Valid Cases	228		

a. 3 cells (18.8%) have expected count less than 5. The minimum expected count is 3.58.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.408	.000
	Cramer's V	.813	.000
N of Valid Cases		228	

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

APPENDIX 2

Chi-square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	335.029[a]	9	.000
Likelihood Ratio	360.1359	9	.000
Linear-by-Linear Association	172.1851	1	.000
N of Valid Cases	228		

a. 3 cells (18.8%) have expected count less than 5. The minimum expected count is 4.32.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.212	.000
	Cramer's V	.700	.000
N of Valid Cases		228	

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

APPENDIX 3

Chi-square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	283.262[a]	9	.000
Likelihood Ratio	330.9389	9	.000
Linear-by-Linear Association	152.020	1	.000
N of Valid Cases	228		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.67.

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	1.115	.000
	Cramer's V	.644	.000
N of Valid Cases		228	

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

APPENDIX 4

Crosstabs (Notes)

Output Created			11-MAY-2019 09:14:27
Comments			
Input	Active Dataset		DataSet2
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	Weight	<none>	
	Split File	<none>	
	N of Rows in Working Data File		228
Missing Handling	Value	Definition of Missing	User-defined missing values are treated as missing.
		Cases Used	Statistics for each table are based on all the cases with valid data in each table.
Syntax			CROSSTABS /TABLES= Effect of Microfinance on the performance of small businesses BY Effect of Microfinanceon sales revenue Effect of Microfinance on profitability Effect of Microfinanceon Noncurrent assets_A

		/FORMAT=AVALUE TABLES /STATISTICS=CHISQ PHI /CELLS=COUNT EXPECTED ROW COLUMN TOTAL /COUNT ROUND CELL.
Resources	Processor Time Elapsed Time Dimensions Requested Cells Available	00:00:00.05 00:00:00.06 2 174762

APPENDIX 5

Case Processing Summary

	Case					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Effect of Micro-finance on Non-current assets * Effect of Micro-finance on sales revenue	228	100.0%	0	0.0%	228	100.0%
Effect of Micro-finance on Non-current assets * Effect of Micro-finance on profitability	228	100.0%	0	0.0%	228	100.0%
Effect of Micro-finance on Non-current assets * Effect of Micro-finance on Non-current assets	228	100.0%	0	0.0%	228	100.0%

Conference theme 4:

Issues in Islamic Finance and Accounting

DETERMINANTS OF CLIENTS' INTENTION TO ADOPT TAKAFUL SERVICES IN GOMBE STATE

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Abstract

The Vision 2020 of the Federal Government of Nigeria envisaged a reduction of the financially excluded adults to at most 20% by the target year. Records have shown that there is no progress towards the target for the three geopolitical zones of the northern part of the country under the insurance sub sector even with an available alternative. This study, therefore, seeks to identify the factors that an individual considers to be essential in making the decision to partake in takaful. Data requirements were met in Gombe state, which is situated in the North-east geopolitical zone of the country. It utilizes the partial least squares structural equation modelling method by adapting the Ajzen's (1991) Theory of Planned Behavior with the inclusion of religious influence and perceived usefulness of takaful. A critical finding of this study is that the beta weight of attitude towards intention is larger than the beta weight of the remaining constructs in the model. This signifies that positive awareness and knowledge is imperative in developing a favourable attitude which in turn influence behavioural intentions to adopt takaful services. The paper, therefore, recommends the building of societal knowledge and awareness towards takaful and financial inclusion.

Keywords: Takaful; Intention; Financial inclusion; Gombe State.

Introduction

The Federal Government of Nigeria launched its Financial Inclusion Strategy (FIS) for the country in the year 2012 to complement Vision 2020:20. The FIS is set to provide a roadmap for developing an inclusive financial system in Nigeria by strategically setting-out targets for different sectors of the economy with the objective of reducing the number of Nigerians that are excluded in financial services

from 46.3% as at 2012, to at most 20.0% by the year 2020. In that base year, only about 31 million adults representing 36.5% of Nigeria's population has access to formal financial services; this cut across banking, insurance and other financial services (Sulaiman, 2012). The target for Insurance sub-sector is to increase insurance penetration to cover at least 40% of the country's adult population. Vision 2020 described the Nigerian insurance sector as "a grossly untapped opportunity" with low attendant market penetration. Enhancing Financial Innovation & Access(EFInA)(2016) reports that only 1.9% of the adult population in Nigeria has some form of insurance and the insurance penetration remains less than 1%; a figure lower than most of the emerging markets even in Africa. For example, South Africa recorded 15% and Kenya 3.5% both in 2012. Several reasons have been adduced by insurance experts for the poor insurance penetration in Nigeria, some of which are corruption, lack of claim settlement, limited public awareness, and negative perception of insurance as well as the absence of inclusive financial services. Also 41% of the above population are totally excluded from financial services, with North East and North West recorded the highest figure of 62% and 70% respectively.

The situation in the northeast geopolitical zone of Nigeria and Gombe state in particular is more alarming than the states in the other four zones. In particular, the low insurance penetrationmaybe attributableto the fact that People of Gombe state are predominantly Muslims who may have misgivings against mercantile insurance for religious consideration; the mercantile insurance involves various elements of "Gharar" (uncertainty), "Maysir" (gambling) and "Riba" (interest based investments) which are not permissible in Islam. The need for an insuranceproduct that resolves the religious objections to conventional insurance, therefore, lead to the emergence of an ethical and faith-related insurance called "*Takaful*" (Islamic insurance). The National Insurance Commission NAICOM initiated and crafted market development strategies for the insurance industry under the Market Development and Restructuring Initiative (MDRI) project (Ayeleso, 2012). Development of *Takaful*-Insurance operational framework happens to be one of those strategies targeted for accomplishment by the insurance regulatory authority. National Insurance Commission (2013) (NAICOM) Operational and Registration Guidelines for *Takaful* Operators have provided for takaful window to be operated by conventional insurance company which is referred to as "Operator Window". Niger Insurance Plc, Cornerstone Insurance Plc and African Alliance Insurance Company were issued License by NAICOM, being conventional insurance companies to operate *Takaful* windows.

Problem Statement

Although *takaful* is different from that of the conventional insurance, there is criticism that *takaful* and conventional insurance are essentially the same. This misconception has produced a negative image to *takaful,* and in turn, could mar the corporate image and the consumer participation decision on the *takaful* products in the future. For this purpose, investigating the factors that influence consumers' decision to participate in *takaful* is important to correct such misconceptions. In order to encourage an individual to choose *takaful* products in the most effective manner, a *takaful* operator needs to identify what are the factors that an individual considers to be most essential in making a decision. This study identifies those key factors by investigating the relationships between perceived benefit of *takaful,* attitude, subjective norm and perceived behavioural control on clients intention to adopt *takaful.*Previous researches (e.g.,Abdu-Rahman, Ali, Che-Seman, & Wan-Ahmad, 2008; Abdul-Hamid, Osman & Amin-Nordin 2009; Kawojue 2015; and Maiyaki and Ayuba 2015) have investigated *takaful* but from different approaches and different geographical locations.

Research objectives:

1. To determine the influence of clients' perceived usefulness of takaful on intention to adopt takaful services in Gombe state
2. To determine the influence clients attitude on intention to adopt *takaful*services in Gombe state
3. To determine the influence of clients' subjective norm on intention to adopt *takaful* services in Gombe state
4. To determine the influence of clients' perceived behavioural control on intention to adopt *takaful* services in Gombe state
5. To determine the influence of clients' religion on intention to adopt takaful services in Gombe state

Research Questions: The theory of planned behaviour is adopted in this study to facilitate in predicting and understanding consumers' intention towards the adoption of *takaful* services in Gombe state. This will enable the researcher to answer the following research questions;

1. Does perceived benefit of *takaful* services has significant influence on clients' intention to adopt takaful services in Gombe state?
2. Does clients' attitude has significant influence on their intention to adopt *takaful* services in Gombe state?
3. What is the influence of subjective norm on clients' intention to adopt *takaful* services in Gombe state?
4. What is the influence of perceived behavioural control on clients' intention to adopt *takaful* services in Gombe state?
5. Is religion a major factor that influence clients' intention to adopt of takaful services in Gombe State?

Review of related literature

The Concept of Takaful

Takaful(Islamic insurance)is the mutual guarantee based on the principles of Islamic contract (*Aqd)* provided by a group of people living in the same society against a defined risk or catastrophe befalling life, property or any form of valuable assets (Billah 1998; Hassan 2011; Mahmood 1991). According to Rosly (2005) *takaful* refers to joint guarantee. It is an agreement for mutual help among members of the group; and can be perceived as a compact among consumers who agree to jointly indemnify themselves against any loss or damage that may befall on any one of them. The basic objective of *takaful* is to pay for a defined loss from a defined fund (Rosly, 2005). Unlike conventional insurance, Islamic insurance is generally a religion and ethical oriented financial product in which the elements of uncertainty, *riba,*and exploitation are strictly prohibited. In fact, Islamic insurance gives more emphasis on helping one another based on a mutual agreement.Islamic insurance differs from the conventional insurance in a number of ways (Billah, 1998). Firstly, Islamic insurance has a different approach when imposing a pricing strategy on its products. For example, if one is unable to meet the premium payment three times, the previous money invested will be given back to him/her after deducting some related fees. This is not practiced in conventional insurance. Secondly, the theories and the practices of *takaful* are based on the *Quran* and the *Hadith*, whilst conventional insurance has a limited link to the spirit of any religion. Hence, *takaful* services are modelled to function as any other typical insurance services but operated differently to avoid the prohibitive elements. Sulaiman (2012), opined that *Takaful*

industry is relatively a new industry compared to its conventional counterpart as it represents just 1% of the global insurance market; but it helps in enhancing the insurance market penetration in Nigeria (Kawojue 2015).

Intention to adopt Islamic insurance

According to Rogers (2003),adoption is a decision to make full use of a new idea as the best course of action available while rejection is a decision not to adopt an innovation. Kotler and Keller (2012) refer to adoption as an individual's intention to become a regular user of a product. Intention is the principal determinant of individual behaviour (Armitage and Christian, 2003; Sheeran, 2002). Thereforean individual's action is a consequence of what people intend to do (Sheeran, 2002). An intention is a product of attitude and social pressure which is later translated into actual behaviour. Fishbein and Ajzen's (1975) Theory of Reasoned Action (TRA) justify these assumptions. The theory, further modified, includesbehaviours over which an individual has no volitional control, becomes the theory of planned behaviour (Ajzen, 1991).

Intention is defined as how hard individuals are willing to try and how much efforts they are planning to exert towards performing behaviour (Ajzen, 1991). Behavioural intention is a function of three independent antecedents namely: consumer's attitude, subjective norm and perceived behavioural control (Ajzen, 1991; Ajzen, 2002; Ajzen, 2011). The higher the level of behavioural intention, the greater will be the probability of occurrence of the actual behaviour. Several empirical studies have been carried out under the theory of planned behaviour using behavioural intention as a dependent variable, in the fieldofIslamic Insurance (Rahim and Amin, 2011), Islamic home financing (Taib, Ramayah, and Razak, 2008;Alam, Janor, Zanariah, Ahsan, 2012;Amin, 2012, 2013), Islamic personal financing (Amin, Ghazali, & Supinah2010; Amin & Chong 2011), Islamic credit cards (Amin, 2012, 2013), Islamic mobile phone banking (Sun, Goh, Fam,& Xue, 2012), Islamic Pawn Shops (Amin and Chong, 2011) and enrolling in Islamic accounting course (Amin, Rahman, and Ramayah, 2009).

Model constructs and hypothesis development

The proposed conceptual framework (Figure 1) is adapted from the Theory of PlannedBehaviour (TPB) of Ajzen (1991). This model explains that the adoption intention of*takaful* is resulted from the attitude towards Islamic method of insurance, subjective norms and perceived behavioral control. Since this study is emphasizing the factors that influence clients' intention to adopt *takaful*, it is important to understand the belief factors that influence the formation of intention. Thus, the proposed model integrates salient beliefs factors i.e.religious obligationand perceived benefits of services in the TPB model, as a new approach in assessing clients' intention to adopt *takaful* services in Gombe state.

Salient belief factors

Salient beliefs are identified by examining an individual's or groups' belief hierarchy that is the most frequently elicited beliefs (Fishbein and Ajzen, 1975). In this study, two salient belief factors i.e. religious obligation, and perceived benefits of servicewere hypothesized to influence intention towards the adoption of *takaful* services in Gombe state.

Religious obligation; Religious obligation refers to the role of religion in affecting an individual's choice or activities (Amin et al., 2011). Several reviews on attitude towards Islamic finance have confirmed the importance of religious or Shariah-compliancy in customers' services selection. The measures of

religion obligation involve perception to comply with the underlying Islamic principles i.e. riba free, investment in *Halal* business and equal distribution of wealth (Butt, Ahmed, Altaf, Jaffer, & Mahmood 2011). This study suggests that the greater adherence to Shariah principle, the more efforts will be exerted towards *takaful*services adoption. Hence, the following hypothesis is proposed:
H1:Religion has significant influence on clients' intention to adopt takaful services in Gombe state.

Perceived benefits of service; Perceived cost benefits are measured by the cost of products and rate-of-return, availability of services with favourable terms, lower service charge, high payment of indemnity in the event of loss, and lower monthly payment (Al-Ajmi, Hussain, & Al-Saleh 2009). Hamid and Masood (2011) revealed that lower monthly payment and service charges influence customers' selection for Islamic home financing. The perceived cost benefits may positively influence clients' intention towards *takaful* service adoption. Thus, the study hypothesizes:
H2: Perceived benefit has significant influence on clients' intention to adopt takaful services in Gombe state.

Attitude towards Islamic insurance
Attitude towards the behaviour refers to the individual's favourable or unfavourableevaluationof the behaviour (Ajzen & Fishbein, 1980). Amin*, AbdulRahman, Sondoh, and Chooihwa*(2011) found that attitude is positivelyrelatedto the intention to use Islamic personal financing. Thisstudy measuresthe influence of attitudeonclients'behavioural intention to adopt *takaful*services. Thus the study hypothesizes:
H3:Clients' attitude has significant influence on their intention to adopt takaful services in Gombe state.

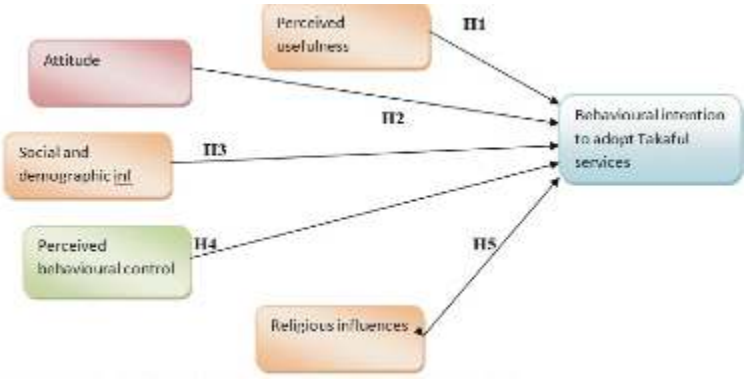
2.3.2 Subjective norms
Subjective norms refer to the perceived social pressures which influence an individual'sbehavioural intention (Ajzen, 1991). In the context of Islamic finance, previous studies show thatsubjective norms have a direct impact on the intention to use Islamic personal financing (Amin etal., 2011). Thus we hypothesize as follows;
H4:Subjective norm has significant influence on clients' intention to adopt takaful services in Gombe state.

Perceived Behavioural Control
Perceived behavioural control refers to the perception of ease or difficulty to perform thebehavior of interest (Ajzen, 1991). The perceived behavioural control in this study suggests thatconsumers' are likely to adopt Islamic insurance in their business if they feel they havecontrol over the behaviour, or are prevented to adopt Islamic insurance in which they have no control. We, therefore, hypothesize that;

H5:Perceivedbehavioural control hassignificant influence on clients' intention to adopt takaful services in Gombe state.

The Proposed Research Model:

Methodology



Population of the study

This refers to the aggregation of elements (or individuals) the researcher is actually focusing (Zango, 2006). This research is expected to cover *takaful* present consumers (clients) as well as potential consumers in Gombe State. An individual who is operating any form of business or earn any form of income that is subject to risk remains a potential consumer of *takaful* insurance.

The population of Gombe State is estimated at 2,250,000 people, out of which adults between the ages of 18 to 60 are within the range of 1,100,000 and 1,300,000 (GMSG, 2013). Therefore an average of 1,200,000 is taken as the population of adults in Gombe State. One-third of these populations arehousewives who are not operating any form of business and neither gain any form of income. As such the population of this is estimated at 800,000 adults residing in the 11 local government areas of the state.

Sample Size and Sampling Techniques

According to Research advisors (2006), the sample size of 400 respondents is considered acceptable for a population of 500,000 to 1,000,000 at a 95% confidence interval and 0.05 margin of error. Therefore our sample size for this study is 400 since our target population is 800,000 people which are consistent with the above reference. Stratified probability sampling technique was adopted. This technique allows the researcher to select proportionate respondents from each stratum; therefore the 400 respondents were randomly selected from the 11 local government areas in the state according to their population sizes. A structured questionnaire with 5 point Likert-scale was used to collect the data for this research.

Tools of Data Analysis

The data collected wereanalysed using Partial Least Square (PLS) software. PLS software is a second generation, variance-based structural equation modelling tool that is used to analyze interrelationship among latent variables especially when mediation or moderating effect is present among the construct. The reason for choosing PLS as the statistical means for testing structural equation models according to Urbach & Ahleman (2010) as cited in Ramayah (2015) includes its ability to be applied to complex structural equation models with a large number ofconstructs for theory development and theory explanation, especially when the study involves human behaviour.

Results and Discussions

Measurement Model

Generally, the measurement model "define how each block of indicators relates to its latent variables" (Chin., 1998 p. 296). It contains the unidirectional predictive relationship between each latent construct and it's associated observe indicators (Hair *et al*., 2011). Specifically, the measurement model consists determining individual item reliability, internal consistency, content validity, convergent validity, and discriminant validity (Hair *et al*., 2011; Henseler *et al*., 2009).

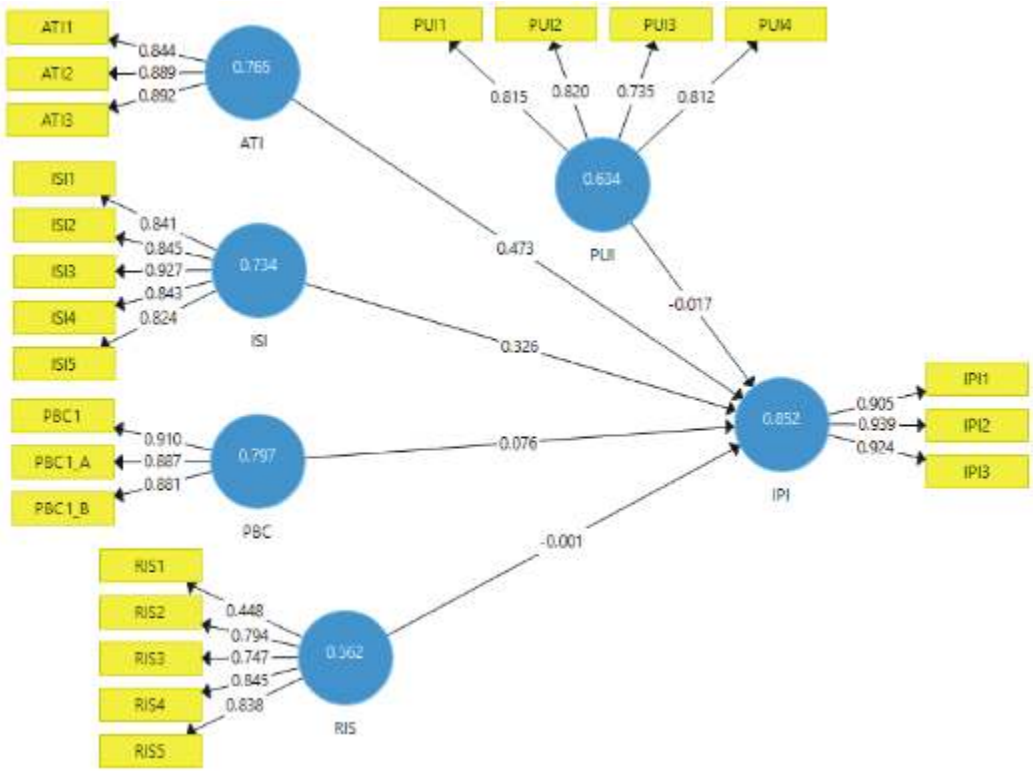


Figure I

Measurement Model

Accordingly, we used composite reliability to assess individual item reliability of the constructs (Hair et al., 2011). Following Hair et al (2014) rule of thumb of the threshold of 0.4 and above, we retained all the 22 items measuring both dependents as well as an independent variable as their loadings are 0.4 and above (Figure I).

Table 4.1

Construct Reliability and Validity

Constructs	Cronbach Alpha	Composite Reliability	Average Variance Extracted (AVE)
Intention	0.913	0.945	0.852
Perceived Behavioural Control	0.873	0.922	0.797

Social Influence	0.909	0.914	0.734
Religious Influence	0.802	0.860	0.562
Perceived Usefulness	0.810	0.874	0.634
Attitude Towards Intention	0.848	0.907	0.765

Similarly, convergent validity was assessed using Average Variance Extracted (AVE). Accordingly, the result (Figure I and Table 4.1) demonstrate sufficient convergent validity as the AVE of each construct exceed 0.5 (Hair et al., 2011). Lastly, discriminant validity was assessed using Heterotrait-Monotrait (HTMT) ratio of correlation (Henseler, Ringle and Sartedt, 2015). Therefore, the findings (Table 1) exhibits that the discriminant validity has been established as the values of the correlations among the constructs are less than 0.85 (Henseler et al., 2015).

Table 4.2
Hetrottrait-Monotrait (HTMT) Ratio Criterion of Discriminant Validity

	INT	PBC	SI	RI	PUI	ATI
Intention						
Perceived Beh Control	0.649					
Social Influence	0.779	0.742				
Religious Influence	0.678	0.662	0.793			
Perceived Usefulness	0.674	0.803	0.717	0.722		
Attitude Towards Intention	0.844	0.740	0.840	0.850	0.787	

From the Table 4.2, the result shows that all the HTMT values are less than the cut-off of 0.85 suggesting that discriminant validity has been established (Clack & Watson, 1995; Kline, 2011).

Structural Model

In the previous section the measurement model has been discussed, therefore, this section evaluates the structural model of the study. The assessment criteria for thestructural model are R-square (R^2) measure, predictive relevance (Q^2) effect size (f^2), and the level of significance of the path coefficient (Hair et al., 2011). Therefore, this study employed the standard bootstrapping process thereby creatingsamples (i.e. 5,000) (Hair et al., 2011; Hair et al., 2014), and 253 cases to evaluate the significance of the path coefficients. In Table 4.3, below the R^2 value of the endogenous latent variable is presented.

Table 4.3
Variance Explained in the Endogenous Latent Variables

Latent Variable	Variance Explained (R^2)
Intention	62%

The result shows that the present research model explains about 62% of the total variance in the intention. This advocates that all the independent variables jointly explained 62% of the variance of intention to patronize Islamic insurance. Thus, this result demonstrates an acceptable R^2 value which

considered as moderate (Hair et al., 2011). Furthermore, f-square (f^2) can be explored to see whether the impact of a particular independent latent variable on the dependent latent variable is substantive. Accordingly, Table 4.4 presents the assessment of effect size (f^2) of this model

Table 4.4

Effect Sizes (f-Square) of the Latent Variables based on Cohen's (1988) Recommendation

	f-Square	Effect Size
Perceived Behavioural Control ->Intention	.050	Small
Social Influence ->Intention	.024	Small
Religious Influence -> Intention	.084	Small
Perceived Usefulness -> Intention	.151	Moderate
Attitude Towards Intention -> Intention	.167	Moderate

As demonstrated in Table 4.4 above, the effect size of independent variables (i.e. PBC, SI, RI, PU, and ATI) on intention to patronize Islamic insurance are .05, .02, .084, .151and .167 respectively. Therefore, consisted with Cohen's (1988) recommendation, the effect size of these exogenous latent variables on intention can be considered as a range between small and moderate. Moreover,an additional criterion for assessing structural model comprises the model's ability to predict. Consequently, the most common measure of predictive relevance is the Stone-Geisser's Q^2 (Geisser 1974; Stone, 1974; as cited in Hair, 2011), which assumed that the model must be capable to sufficiently forecast each endogenous latent construct's indicators.

Table 4.5

Cross-validated Redundancy

Total	SSO	SSE	Q^2 (=1-SSE/SSO)
Intention	300.00	156.176	.479

The assessment of predictive relevance is demonstrated in Table 4.5 and the result showed that endogenous latent construct's Q^2 is greater than zero, thus indicating the predictive relevance of the model has been achieved (Chin, 1998; Henseler et al., 2009). Lastly Table 4.6 depicts the result of the hypothesized model. The findings show that out of five hypothesized relationships four were found to be statistically significant (Table 4.5).

Table 4.5

Path Coefficient

Path	Original Sample	Std. Deviation	T-Statistics	P-Value.
Perceived Behavioural Control ->Intention	0.34	0.06	5.11	0.00*
Social Influence ->Intention	0.32	0.10	3.14	0.00*
Religious Influence -> Intention	0.17	0.12	2.81	0.01*
Perceived Usefulness-> Intention	0.01	0.21	.139	.445
Attitude Towards Intention -> Intention	0.47	0.13	3.56	0.00*

Specifically, the relationships between attitude towards intention and intention to patronize Islamic insurance is statistically significant (b=.473 t=3.563P<.000). Furthermore, as anticipated the relationship between social influence and intention is also significant (b= 0.326 t= 3.144 P<.001). Similarly, both religious influence as well as perceived behavioural control have a significant

relationship with the intention (b=.17 t= 2.81 P<.01) and (b=.34 t=5.11 P<.00) respectively. However, the relationship between perceived usefulness and intention is not statistically significant ((b=-.017 t=.139 P<.445).

Discussions

This study found that perceived behavioural control has a positive effect on intention. This means that the greater the perceived behavioural control possesses by an individual, then the level of intention to patronise takaful is greater thus supporting hypothesis one. Similarly, hypothesis two proposed that there will be a positive relationship between social influence and intention to patronize Islamic insurance (takaful) in Gombe state. As anticipated, our result shows a positive and significant link between social influence and intention to patronize Islamic insurance, hence hypothesis two is supported. In addition, this finding indicates that individual behaviour and intention is influenced by the society which he/she belongs to. These comprise friends, family, and associations etc. Thus, for the effective patronage of takaful in Gombe state Takaful firms need to encourage the society regarding their services. Regarding the influence of religion on intention, we also found a positive and significant relation. This signifies that the higher the religious practice the higher the patronage of takaful among people. Similarly, this study found that attitude towards behaviour has a positive and significant relationship with intention to patronize Islamic insurance. This study further justifies the theory of planned behaviour (Ajzen, 1991) which signifies that an individual's intention to perform a particular action is influenced by attitude towards behaviour. Moreover, this findings are consistent with previous findings (Ajzen and Fishbein, 1980; Amin et al. 2011). However, this study did not found a significant relationship between perceived usefulness and intention to patronize takaful services.

Implications of the Study and Conclusion

The primary aim of this study was to explore how the attitude, subjective norm, perceived behavioural control, religion and perceived usefulness influence with the intention to patronize Islamic insurance.

Theoretical Implications

Theory of Planned Behaviours could facilitate in predicting the intention to patronage takaful services. In this study, it was shown that the TBP model could explain 62% percent of the variance in the intention to patronize Islamic insurance. Statistically, the model was significant and the result indicated that the model is useful in predicting intention to patronize Islamic insurance. This is consistent with other studies using the TPB model (Ajzen and Fishbein, 1980; Amin et al. 2011). A critical finding of this study is that the beta weight of attitude towards intention is larger than the beta weight of the remaining construct in the model. This illustrates the need for more awareness to be created so as to enable consumers form a positive attitude towards takaful services in Gombe State.

Managerial Implication

The findings of this study have some managerial implications; the takaful operators need to intensify efforts on enlightenment and awareness creation about the products and benefits of takaful. This will help in enhancing positive attitude towards patronizing the products. Also, takaful operators need to engage the services of religious leaders so as to intensify preaching on the need to patronized takaful products, thereby enhancing the contribution of subjective norm towards intention and subsequent behaviourin patronizing takaful services.

Conclusion

The significance of this study lies in its attempt to add new insights into the factors that influences consumers' intention to adopt takaful. This study integrates the salient beliefs factors in the TPB as a systematic approach in examining consumers' attitude and predicting their intention to adopt takaful. The research findings could be a platform to understand factors that inhibit adoption of takaful, thus assist takaful insurance operators and relevant government agencies in policies and strategies development for the growth of the insurance industry, which is essential for financial inclusion and wealth creation.

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Conference theme 5:

Social, Environmental and Ethical Reporting

THE PRIMA FACIE RESPONSIBILITY OF NOCLAR AND THE DUTY OF CONFIDENTIALITY: ETHICAL VALUES GUIDING FINANCIAL REPORTING (050)

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Abstract

The reason for accounting ethics is to direct accountants towards the best action to take when faced with accounting and audit dilemmas. The essence is to ensure the sustainability of professional integrity, public confidence and public interest. When such ethical codes becomes a hiding place to conceal non compliance with accounting standards, then the aim of the codes become defeated. This was the case with the professional code of confidentiality as a responsibility to professional clients. The issue of reporting fraud and non compliance with laws and regulations by managers and directors of corporate entities has caused tremendous damage to the economy and individuals in recent times. In the quest to solve this problem informed the reason for the establishment of NOCLAR by the global body of accounting ethics. The great fear of victimization and reconciliation of both ethical standards meate among professional accountants leading to resignation of engagements. It then becomes necessary to educate professional accountants on the complementary nature of both standards in improving the quality of financial reporting and identifying measures of reporting non compliance as prescribed by NOCLAR.

Keywords: Ethics, NOCLAR, Confidentiality, Professional, Accountant, Financial Reporting and Responsibility

Introduction

The objective of financial reporting by Zsuzsanna, (2012) is to provide information about the financial position, performance and changes in financial position of an enterprise for users to make economic decisions and to show the results of the stewardship of the resources entrusted to management. This report can be effective if the ethical provisions of the accounting profession and CAMA 1990 and other financial laws and regulations by the financial reporting council are followed or complied with judiciously.

Failure to comply with the provisions and statutory requirements for financial reporting had hindered corporate organizations from generating reliable financial reports and information required for both internal and external decision making. This is very costly as it erodes the confidence reposed on the financial statements by various users of the reports. In Nigeria, African petroleum plc slated for privatization in 2001 had financial statements that did not fairly represent the company's financial position. A number of transactions including substantial loans were omitted from the financial

statements on purpose. This fact was discovered when a due diligence audit was conducted in preparation for the privatization of the company (Oyefide and Soyibo, 2001).
Cadbury Nigeria Plc also recorded a financial scandal in November 2006. This also raised more questions than answers as to whether accounting professionals who prepared the financial statements do complied with the ethics of the profession as gross deviations from regulatory guidelines were identified with the financial statements presented by management. An independent investigation of the company's financial statements confirmed a significant and deliberate overstatement of the company's financial position through inflated stock figures over a number of years, and this compelled the company to diminish its reserve by making a onetime exceptional charge in 2006 of between 13 to 15der to billion naira (Itsueli, 2006). This event with Cadbury Nigeria plc further indicates that investors are sometimes misinformed about over statement of its financial position over a number of years. The restatement of Cadbury financial report resulted in a loss of over N15 billion in market capitalization (Itsueli, 2006).

These financial scandals had had a negative effect on the reputation and integrity of the profession. In order to remedy the public confidence and reputation of the accounting profession, the International Ethics Standards Board for Accountants (IESBA) came up with the ethical code of reporting Non-Compliance with Laws and Regulations (NOCLAR) to broaden the role and responsibilities of professional accountants on the fight against non compliance with relevant laws and regulations. Since the introduction of this code in July 2016, several issues such as accountants' safety, mode of reporting, conflict with the professional duty of confidentiality to clients and other matters of clarification had become major concerns to professional accountants. Hence this study is designed to address such issues as implied in the standard.
The nature of work carried out by accountants and auditors requires a high level of ethical considerations and standards (Chinwe and Chinwuba 2012). Shareholders, potential shareholders, and other users of the financial statements rely heavily on the financial statements of a company as they can use this information to make informed decisions about investment (Chinwe and Chinwuba 2012, Ibanichuka and Oyaonghan, 2015).They rely on the opinion of the accountants who prepared the statements, as well as the auditors that verified it, that it presents a true and fair view of the company's financial position (Geiger and Raghunanda 2002).

The International Ethical Standards Board for Accountants (IESBA) issued NOCLAR with an effective date of July 15, 2017 was intended to discourage professional accountants from acts of non-compliance with financial laws, regulations and standards and instructing professional accountants and member bodies and institutions all over the world from giving blind eyes to acts of non-compliance by erring entities or by their agents. This ethical code now broadens the scope of the professional responsibility of accountants in reporting all forms of non-compliance by their clients, their agents, representatives and directors in their capacities to relevant legal and institutional authorities who have the responsibility to act on the nature of the non-compliance.

Before this time, the professional code of confidentiality had limited the powers of professional accountants and auditors to report such acts and other acts of misrepresentations to bodies other than the shareholders and directors in the case of statutory and internal auditors respectively unless order wise directed by a court or it is of national threat. While NOCLAR had set out a framework of guidelines to auditors and other professional accountants on what actions to take in the public interest when they

become aware of a potential illegal act committed by a client or an employee of the client that is judged to be an act of non-compliance.

This standard applies to all professional accountants, in the ministries, companies, nonprofit making organizations, academies, teachers, on matters such as fraud, corruption, bribery, money laundering, tax payments and avoidances and evasions, financial products and services, human trafficking, environmental protection, and public health and safety. If all professional accountants complied with financial reporting guidelines in the private and public sectors of the economy, then the issue of misrepresentation of financial statements among firms in Nigerian and the world all over can be minimized. This study is designed to evaluate the presumed effect of NOCLAR on financial reporting, however, the issue of NOCLAR and it's operational guidelines and implications are not clearly understood by many accountants in both the private and public sectors in Nigeria

Conceptual review

Ethics

Some philosophers call ethics the "science of morality". Morality is what someone thinks or feels is good or bad. There are many different forms of moralities, but they share the same idea. For example most people think that murder (killing somebody) is wrong while some in their religious believes considers it as a way of pleasing their gods. To make it right in the eyes of all, ethics should use the scientific method of studying that people think are good or bad. It can be used to test the fairness of a situation, such as how people should treat each other. An example of this kind of thinking is categorically imperative. Many countries have laws based on this idea of fairness.

Another group of philosophers believe that ethics is subjective. This means that they think that what is right for me is whatever I say is right. This means that ethics is just a person's own morality, ethics is not considered to be the same for all people. Understanding ethics can help people decide what to do when they have choices. Ethics is a social phenomenon that cut across all disciplines. In the study of religion, people often learn what is good or bad from what they believe about God (or gods). Some important ideas about what is good or bad have come from religion.

Some theories of economics say ethics has to do with money. Money influences a major part of most people's lives. Thinking about morality can be very important in economics and financial reporting. The philosophy of Marxism also says that a few people using money in the wrong way can hurt many other people. Government policies can be affected by what politicians think is ethical. Politicians try to innate laws that help everyone to do what is right. Political debates happen when the people who make public policy do not agree about what is right. Doctors and nurses have to make hard choices about how to care for a patient in the hospital under critical challenges. Sometimes the people being cared for, their family or the doctor do not agree on what is best for the patient. Also, choices have to be made if there is not enough money for all citizens to get the help they need. The study of this is called medical ethics.

Therefore the theory of justice holds that decision makers should be guided by fairness and equity as well as impartiality. This was supported by Tae and Jinhan (2011) in their view insisting that managers should impose and enforce rules fairly and impartially and to do so by following all laws and regulations. This shows that ethics stands on impartiality and fairness. To Tae and Jinhan (2011) integration of social contract is a theory that posits that ethical decisions should be based on empirical (what is) and

normative (what should be) factors. They went further to say that managers need to look at existing ethical norms in the industries and companies to determine what constitute right and wrong decisions and actions. Therefore recent trend towards individual rights, social justice, and community standards means that managers need ethical standards based on utilitarian and non-utilitarian criteria otherwise managers will be struggling with ethical dilemma.

The ethical conduct of an organisation is in part determined by the moral ethics prevailing in the society as a whole, if the society condones general laxity, it will influence the organisation. That is to say society sets the ethical climate for corporate organisations. The standard for financial discipline and honesty is accompanied with moral laxity in the Nigerian society. People always fail to question the sources of income of suddenly acquired wealth; instead, it is been celebrated and worshiped. To this end the ethical climate in an industry influences the behaviour of a company. Therefore the need for ethics in business and accounting is to direct business men and women and professional accountants to abide by a code of conduct that facilitate, if not encourage public confidence in their product and services. Since the issue of ethical behaviour is subjective in most instances when people faces ethical dilemmas, it becomes imperative for professional bodies and corporate organisations to establish business and professional ethical codes for employees and members of such organisations.

The Ethical Code of Conduct of The Accounting Profession

Ethics in accounting is of utmost importance to accounting professionals and those who rely on their services. Especially as they perform agency role to check the reports of managers and directors. Then investors can be confident of their decisions based on the agency role played by professional accountants. In this light they expect them to be highly competent, reliable and objective, confidential and full of integrity (Mehran et-el, 2014). Therefore those who work in the field of accounting must not only be well qualified but must also possess a high degree of professional integrity. This motivates the confidence needed to make decisions under the guidance of the financial statements attested by professional accountants. In line with these expectations by stakeholders, professional bodies adopt codes of ethical conducts which call for their members to maintain a level of self-discipline that goes beyond the requirements of the laws and regulations. Therefore, professional ethics are written guidelines on how to behave in situations that are proving to create dilemma for members of a group (Joseph and Jossy, 2014).

The following codes as provided by the accounting profession are relevant to this study:

Confidentiality: This is a situation where information acquired in the course of performing professional duties is expected to be kept secret, because they are privileged information occasioned by the profession (either as medical personnel, lawyers, police, state secret service, accountants etc), every accountant should respect confidentiality of information about matters on his table or information that comes across him in his capacity as an accountant or auditor. No information should be disclosed to a third party without the client's consent unless it is reasonably necessary to protect the reporting accountant's interest: and in the interest of the public, or knew and suspect his client to have committed an offence of treason (Izedonmi 2012). Any confidential information from a client or employer, acquired in the course of professional practice should not be disclosed except where consent has been obtained from the client, employer(s) or other appropriate sources, except there is a legal right or duty to disclose. Where a legal right or duty does exist, the client or employer should normally be notified in advance of the disclosure being made. The accountant if in doubt as to whether there is legal right or

duty to disclose should take a legal advice and or consult the institute of Chartered Accountants of Nigeria.

Improper use of information may arise when an accountant acquiring or receiving confidential information in the course of his or her professional work, uses that for personal advantage. The use of experience gained in his previous firm or employment is allowed but not confidential information acquired. It is not lawful to deal in the share of a company with which he has a professional association at such a time or in such a manner as might make it seem that he was turning it to his own advantage, information obtained by him in his professional capacity. Auditors can and do acquire knowledge of client's important and private financial information and business dealings. Such knowledge includes forthcoming mergers, new product development, changes in dividend rates, etc. It is important to note that the disclosure of confidential information is detrimental to auditors' professional career as well as damage to the whole Accountancy profession (Oyadonghan and Ogoun 2017, Ogiriki and Oyadonghan, 2018).

This professional code of conduct of ICAN provides in clear terms that an auditor should respect the confidentiality of information entrusted to him by his client or employer and should not disclose any such information to a third party without the specific authority of his employer or client unless:

- He knows or suspects his client to have committed (for the interest of himself) a treasonable felony; The duty to disclose is obligatory in this case;
- The disclosure is reasonably necessary to protect the interest of auditors e.g. enable another auditor to sue for his fees or to defend an action for (say) negligence.
- He is required to disclose by due legal process or in the interest of the public.

The question is does this ethical code in any way exonerate a reporting accountant from the liability of aiding and abating gross financial and corporate governance misconduct by a client? And if it is so by what means can this liability be enforced? The answer to these questions led to the establishment of NOCLAR by IESBA in 2016 and took effect on the 15th of July, 2017.

Confidentiality is a duty of contractual obligation. It can be breached if a party fails to comply with his own side of the contractual obligation. A firm is under obligation to comply with financial regulations, reporting standards, and laws of the land. If a firm fails to comply with these laws, it then means that the firm had breached its on part of the national contract. Again an auditor is under duty and prima facie responsibility to report whether the books are true and fairly reported and not misrepresenting the firm. So when a firm misrepresents it has the intent to deceive, which in it's self is a breach of the contract because it is the responsibility of the directors to make true presentation of the fairs of the firm. Hence the auditor have first time responsibility to report such nnoncomplianceto relevant authorities.

The several cases of corporate fraud mentioned in this article proved that the issues raised that led to the failure of such corporations had been on the trend as a practice for upwards of more than three years. Investigative and forensic audit revealed that under normal audit functions, firms like Author Anderson with their wealth of experience, professional training and competence are able to detect and report such trends in the failed corporations. And if they were reported in time, these organizations would have been saved and perhaps new management teams may have been hired. The irony of it is that the affected audit firms used the code of confidentiality as their defense. Claiming that the issues

discovered does not satisfy or fall into the three conditions compelling auditors to report. The consequences of this actions are irreparable in the history of the accounting profession (on public trust and reliability of financial statements (Oyadonghan and Ogoun, 2018)), in Nigerian and the world economy {as investors deviate from accounting information as a basis for making investment decisions in the capital markets (Ibanichuka and Oyadonghan, 2015)}.

NOCLAR: This is the ethical code of Accounting and Auditing that compels reporting accountants whether as members of professional bodies or not to report acts of Non Compliance with Laws and Regulations (NOCLAR) to relevant authorities and legal agencies when discovered or detected in the normal course of performing his duties without any obligation of informing or obtaining permission from ones client, management, employer or principal, or legal authorization to do so. The standard is the result of an extensive six-year consultative process, including two Exposure Drafts, three global roundtables in Hong Kong, Brussels, and Washington, DC, and extensive outreach to the global regulatory community, international policymaking organizations, investors, preparers, the corporate governance community, national standard setters, accounting firms, professional accountancy organizations, and other stakeholders. In developing the standard, the Ethics Board also liaised closely with the International Auditing and Assurance Standards Board (IAASB) so that the new standard and the IAASB's International Standards on Auditing are aligned.

This standard sets out a framework to guide auditors and other professional accountants in what actions to take in the public interest when they become aware of a potpotentiallylegal act, known as non-compliance with laws and regulations, or NOCLAR, committed by a client or employer. The standard applies to all categories of professional accountants, including auditors, other professional accountants in public practice, and professional accountants in organizations, including those in businesses, government, education, and the not-for-profit sector. It addresses breaches of laws and regulations that deal with matters such as fraud, corruption and bribery, money laundering, tax payments, financial products and services, environmental protection, and public health and safety (Olajide, 2018; Oyadonghan and Ogiriki, 2018).

Among other matters, the new standard provides a clear pathway for auditors and other professional accountants to disclose potential non-compliance situations to appropriate public authorities in certain situations without being constrained by the ethical duty of confidentiality. It also places renewed emphasis on the role of senior-level accountants in business in promoting a culture of compliance with laws and regulations and prevention of non-compliance within their organizations.

All corporate entities should be aware that in response to public interest concerns, and the lack of guidance for accountants on how to deal with a situation where a client or employer is breaching the law, the International Ethics Standards Board for Accountants, (IESBA) recently made amendments to their standards which have subsequently been followed by Australia's Accounting Professional & Ethical Standards Board ("APESB"). The recently released Non-Compliance with Laws and Regulations (NOCLAR) will be incorporated into APES 110 Code of Ethics for Professional Accountants ("APES 110") and will be applicable to all professional accountants whether in practice, commerce or industry.

The NOCLAR amendments outline a conceptual framework and guiguideofessional accountants on how to act in the public interest when they become aware of non-compliance or suspected non-

compliance with laws and regulations committed by a client or employer. The potential illegal acts could be a breach of a range of laws and regulations including, but not limited to:

- Fraud, corruption and bribery
- Money laundering, terrorist financing an, proceeds of crime
- Securities markets and trading
- Banking and other financial products and services
- Data protection
- Tax and pension liabilities and payments
- Environmental protection
- Public health and safety.

NOCLAR covers acts of omission or commission, intentional or unintentional, committed by a client or those charged with governance, by management or by other individuals working for or under the direction of a client.

The responsibilities under NOCLAR differ depending on whether an accountant is:

- An employee of a corporate entity;
- A senior professional (part of the management team or a member of governance);
- An auditor of an entity; or
- A member in public practice interacting with his or her client in a professional capacity.

Fundamentally, the standard requires all professional accountants:

- To comply with the fundamental principles of integrity and professional behavior;
- To alert management or those charged with governance about actual or suspected NOCLAR to enable them to take appropriate action; and
- To take further action in the public interest, if necessary, if those charged with governance or management fails to act.

The further actions that accountants could undertake include disclosure to regulators (in the absence of corrective action by the entity involved) or resigning from the engagement or employment.

The NOCLAR provisions also highlight the personal impacts of the accountant disclosing possible illegal acts to regulators. If there are concerns about the accountant's physical safety or there is no legislation in place (for example, whistle blowing legislation) that could protect the accountant, then potentially they should not disclose to regulators or appropriate authorities.

NOCLAR gives members of professional accounting bodies the right (but not the duty) to inform an appropriate authority without breaching confidentiality, even when such reporting is not required by law.

The revised Professional Accounting Ethics Standards (APES) 110 comes into force on 1 January 2018, providing that in order to be compliant with laws and regulations, all entities that employ accountants in their business will need to update their systems so that internal policies and procedures cover the NOCLAR requirements. In addition accountants will need training on the impact of NOCLAR and their new responsibilities.

For professional accountants in the public service, NOCLAR means reporting acts of omission, or commission, intentional or unintentional acts of negligence, committed by clients or those in charge of governance, management, or by an individual other than management or directors working for or under the direction of a client which are contrary to the prevailing laws and regulations guiding such action(s). The primary objective of NOCLAR is ensuring compliance with relevant laws and regulations

guiding the practice of accounting and to widen the scope of professional responsibility of reporting nonnoncompliance accountants. Another very important responsibility is to address the lapses and loopholes in the ethics of confidentiality which had become a cover for not reporting financial and corporate indiscipline perpetuated by directors, managers and accountants in the corporate world and public sector organizations.

In providing professional services to clients, accountants do come across various acts of, or suspected acts of non-compliance by organizations. A Professional Accountant has a Prima Facie ethical responsibility not to turn a blind eye to matters of NOCLAR (Olajide 2018). However, such a situation will pose a professional dilemma to the reporting accountant. Hence NOCLAR is being pronounced to provide solutions to dealing with such dilemmas. Accountants are to comply with fundamental principles of integrity and utmost good faith in reporting such acts with the sole interest of the public. The aim of this code is to correct and prevent

NOCLAR if it is suspected to reoccur in the future and to mitigate its effect through corrective measures.

Therefore NOCLAR was developed in response to the following issues:

1. The issue of the duty of confidentiality ownowed a client by professional accountants which have averted as a barrier to disclosing likely NOCLAR to regulatory and public authorities.
2. The trend of auditors resigning from their engagements to avoid issues of NOCLAR by their clients.
3. The absence of guidelines to assist professional accountants in working out the best response to potential acts of NOCLAR
4. No known best way to reconcile the responsibility of disclosing NOCLAR with the duty of confidentiality to clients.

NOCLAR is aimed to achieve the followings:

1. Clarifies the appropriate response of professional accountants to potential NOCLAR and emphasizes the role of management in addressing the matters of non-compliance.
2. Increase awareness and understanding of professional accountants on their legal and regulatory responsibilities when faced with potential acts of NOCLAR (Oyadonghan and Ogoun, 2018).
3. Stimulate professional accountants to take proa active role in responding to NOCLAR towards obtaining an earlier response from management, lower the rates of NOCLAR, and promote timely intervention by regulators.
4. Enhance the reputation of the accounting profession and enable the profession to play a major role in the fight against significant NOCLAR.
5. To prevent professional accountants from resigning from their engagements when faced with issues of NOCLAR
6. However, NOCLAR does not include personal misconduct (unrelated to the business activities of the entity) by those charged with the governance, management an, employees of the entity.

Sections 225.11 to 225. 26 of NOCLAR provided the necessary guidelines; recommendations and steps professional accountants should take in reporting potential or suspected acts of non-compliance to regulatory and public authorities, among other steps are:

1. When potential NOCLAR is detected or suspected in financial audit, a professional accountant should;

a. Make sure to be aware
b. Obtain fura their understanding of the matter (discuss with management, seek for legal advice).
c. Address the matter (Rectify, remediate, mitigate, disclose)
d. Communicate with relevant groups
e. Determine further necessary action
f. Determine if it is necessary to disclose or report
g. Document the matter.

For non-audit services, the accountant should;
a. Make sure to be aware
b. Obtain fura their understanding of the matter (discuss with management, seek for legal advice).
c. Address the matter (Rectify, remediate, mitigate, disclose)
d. Communicate with relevant groups
e. Determine further necessary action to disclose or report
g. Document the matter.

In a situation where the organization has its own procedure for disclosing NOCLAR, then the professional accountant should;
a. Based on such protocols or procedures, routinely report to such superior officer or authority for appropriate action.
b. Where the superior authority is responsible for the non-compliance, then the reporting accountant should report to the next superior officer or authority.
c. Document the issue of non-compliance

Accounting is allied with the idea of accountability and trust, and accountability and trust are important norms in an organization. Accounting can be seen as a means of true representation that can embed trust, without accounting, auditing and accountability, there will be no room for reliability in the corporate world. Compliance with accounting ethics provides the basis for stakeholder's confidence to rely on the financial statements and plan for future investments. Therefore compliance with accounting ethics can advance and create an opportunity for trust within an organization. The way to overcome the culture of cash between the interests of the directors and the corporate being is to observe ethical codes of conduct.

Concept of Financial Reporting

Financial Accounting aims to provide information for investment and credit decision, assessment of amount, timing and certainty of future cash flows, learning about the firms' economic resources, claims to resources and changes in claims to resources (this constitutes a body of financial statements as in the income statement, statement of financial position, cash flow statement and statement of changes in equity). To manage these activities and associated financial issues, there is need for adequate information; in this regard management accounting provides the useful information for an enterprise to achieve its goals, objectives and mission; assessing past performance and future direction, evaluating and reviewing decision making on performance (King, Lembke and Smith (2001). Management accounting information has to be futuristic and have a real relationship with the measurement of efficiency and effectiveness.

Accounting Information System is a collection of principles and rules that governs the transformation of data into the information used in the mathe management process. The transformation is accomplished by a system consisting of people, machine and methods. These components are organized in order to carry out a set of specific functions. The accounting information system accepts inputs in forms of budget and transaction data which is expressed in monetary units, processes the data and produces output in the form of reports to satisfy the needs of internal and external users. If the information in the accounting report is to be relevant, complete and timely, the statements of accounts produced must follow the basic principles and rules of accounting ethics. This is achieved by recording, processing, summarizing and reporting the money effect of transactions according to generally accepted accounting principles and for internal reports managements' own rules. In order to maximize profit, and due to human fallibility and the pressure from the business and social environment to acquire undue wealth, accountants, managers and governors of corporate bodies do commit errors of omission, commission and other deliberate acts to avoid compliance with relevant laws and regulations (Ogbonna and Appah, 2012)).

In the process of preparing or examining the financial statements, the source data and the output results as financial statements and the operational strategies of the firms must be protected, and safely guided by complying with the professional duty of confidentiality by accountants and auditors. In like manner, since all business operations are registered by and guided by law, accountants and auditors also have the prima facie responsibility to report any act of non-compliance with these laws and regulations to the relevant internal and external authorities for mitigation, remediation, and correction of such acts of NOCLAR,

Accounting was seen yesterday as an ex-post facto activity, aiming at historical fact presentation. Today accounting is more and no longer limited to financial aspects of the firm and no longer confined to the recording of numerical, financial, transaction-based data. Such types of information have been called "without relevance." Today accounting is done for human resources, strategic issues and for the environment. The common argument for this type of accounting is that financial accounting no longer - or - never - reflects the organization's activities and values. It is often argued that stakeholders (managers, owners, customers, regulators, and employees) have a need for more information. In the light of the above, the new set of accounting information deals with strategy either considered as strategic accounting or accounting for strategic positioning, with expanded attention as behavioral or moral accounting. Information produced in these accounting systems can be seen as future critical success factors (Oyadonghan and Ogiriki 2018). Financial reporting brings the past and future close.

The growing complexity of business transitions, the globalization of financial markets and the increasing need for information, coupled with tougher internal audit and lingering concern over the adequacy of accounting and internal control systems, will undoubtedly focus continued attention on financial reporting discipline. Inadequate financial reporting will not enhance good corporate governance (Smith and Smith, 2003). Therefore regulation of financial reporting is necessary to set standards for disclosure in financial reports as well as ensuring that non-compliance is punished. It also provides an adequate mechanism to monitor adherence to the standards of disclosure required in financial reporting. It is obvious that apart from the threatening ethical challenges in accounting practices, there is also the challenge for accounting re-engineering, a shift from accounting practice paradigm to total quality accounting. The need for total quality in financial reporting has come to the

fore with the introduction of NOCLAR which will ensure the accuracy in reporting, objectivity, and credibility of the accounting profession and the accountants (Cletus and Oghoghomeh, 2015).

Conclusion

Today global business environment is growing more sophisticated and it is going to be so in no distance future as such accountants will definitely step up their standards to meet with prevailing challenges in the global economy. Total quality accounting is meant to address the most credible state for financial reporting and no doubt is the concern of the global level which now demands harmonization in accounting standards (Shafer and Morris 2001). A critical examination of the two codes indicates that they complement each other, provides protection for accountants, the corporate bodies, the general public, and the government. A combination of them all in the code of professional conduct assists in ensuring acceptable and credible financial statements for investors and all stakeholders in the corporate world (Uwuigbe and Ovia, 2011).

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Conference theme 6:

Sustainability and Integrated Reporting

BUDGETING, GOVERNANCE AND SUSTAINABLE DEVELOPMENT IN NIGERIA: MILITARY VERSUS DEMOCRATIC ERA

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Abstract

One of the goals of sustainability studies is to determine the capacity of government to meet current obligations without shifting the burden to other generations. The study seeks to ascertain whether there is a difference in budgeting for sustainable development represented by accumulation of public debt and deficit and expenditure on education, health and infrastructure representing concern for future generations during the military and democratic eras in Nigeria spanning the period 1981 to 2016. The study used the Levene's test for equality of variance and equality of means (Independent T-test) to ascertain whether the population means of budgeting for sustainability during the military and democratic eras are significantly different statistically. The study finds that while aggregate debt accumulation during democratic rule was N372.11 billion higher than the military era, expenditure on education, health and infrastructure were similarly higher by N145.00 billion, N86.04 billion and N70.97 billion respectively.It can thus be seen that debt accumulation exceeded expenditure on the three variable measuring concern for future generations by N70.10 billion. The implication of this result is that expenditure on education, health and infrastructure may have been financed predominantly through public debt and deficit.The researchers also find that the average public debt for the period covered in the study is relatively high at N256.4 billion compared to the average expenditure on education, health and infrastructure of N93.02, N53.93 and N44.89 respectively. The study recommends that the Nigerian government should curtail its penchant for public debt to obviate shifting the burden of governance to future generations.

Keywords: Budgeting, governance, unborn generation, democracy, military era

Introduction

The nation, Nigeria gained political freedom from colonial rule on 1st October, 1960 and thus came under self-rule. Regrettably, this experience was short-lived with the incursion of the military into politics in 1966 except for an interregnum in 1979. Both before and after independence, government has always prepared annual budget which serves as basis for the allocating resources among various

needs in order to achieve national development. As a plan or target for the year, the budget represents a key tool of governance especially in planning for the financial and resource needs of government. The budget which presents government's revenue and spending proposals, including policy changes provides means of securing control and accountability over public funds. Governance can be described as the process of exercising rule either by a government, market or social network, over a family, tribe, organisations, or territories either through the law, norms, power or language (Bevir, 2013). It relates to "the processes of interaction and decision-making among the actors involved in a collective problem that lead to the creation, reinforcement, or reproduction of social norms and institutions (Hufty, 2011).Budgetary governanceconsists of theprocesses, laws, structures and institutions put in place for ensuring that the budgeting system meets set objectives in a sustainable, enduring manner.

Sustainability entails sustaining human well-being on a long term basis by minimizing the impact of human activities on the natural environmentthat ultimately supports that well-being (Dietz, Rosa, York, 2009; Knight & Rosa, 2011). Sustainability, therefore is another way of seeing “the good life” as consisting of a high level of human well-being, and the high level well-being of the ecosystem upon which it depends. There are two dimensions adopted in conducting sustainability assessments which are: indicators of public debt and deficits, and medium-term fiscal projections.

This study focuses on the medium-term fiscal projections dimension. Medium-term fiscal projections are detailed estimates of government receipts and payments over a medium-term period usually 3-5 years.Fiscal sustainability is not just projecting into the future; it relates to the urgency of policy changes as well as the need for new budget tools to assess governments' fiscal estimatesas conventional instruments may not be up to the task (European Commission, 2004).Sanni (2007) decried the deplorable condition of public amenities in Nigeria despite the humongous revenue generated and colossal debt that has been contracted over the years. This is evidenced in the more than 153, 697% growth in public debt and deficit between 1981 and 2016. The debate on sustainability and sustainable developmentrests on the importance and practicality of each of the dimensions of sustainability namely:the ability of government to pay its financial obligations as they fall due; fiscal policy that sustains economic growth; the capacity of government to meet future obligations with existing tax burdens and the capacity of government to pay current obligations without shifting the cost to future generations (Knight& Rosa, 2011; Otalor &Oti, 2018).
Judging from the four dimensions of sustainability identified above, this study seeks to ascertain whether there is a difference in budgeting for sustainable development (as represented by accumulation of public debt and deficit) and expenditure on education, health and infrastructure (representing concern for future generation) during the military and democratic eras in Nigeria. To this end, the main research question of the study are: (1) is there any difference between budgeting for sustainability (public debt and deficit accumulation) during the years of military rule and the period of democracy? (2) Does expenditure on education during the military regimes differ from expenditure on education during democratic era? (3) Is expenditure on health during the military regimes different from expenditure on health during the democratic dispensation? and (4) Does expenditure on infrastructure during the military era differ from expenditure on infrastructure during the periods democratic rule? The motivation for this study stems from the author's lack of knowledge of any prior study conductedin Nigeria to find out if there is a difference in expenditure on education, health and infrastructure and public debt and deficit during the military and democratic regimes.

Literature Review And Hypothesis Development

Conceptual framework

Budgeting and governance

Budgeting is an essential bedrock in the process of building trust between states and their citizens. The budget which presents government's revenue and spending proposals, including policy changes provides means of securing control and accountability over public funds. Good budgeting supports, and is in turn supported, by the various pillars of modern public governance: integrity, openness, participation, accountability and a strategic approach to planning and achieving national objectives (Schick, 2005).

Governance refers to the processes by which a nation or country is directed, controlled, and public officers are made accountable. Goodson, Mory and Lapointe (2012, p.5) defines governance "as the combination of processes and structures implemented by the board to inform, direct, manage, and monitor the organization's activities toward the achievement of its objectives". Governance relates to the effective, transparent and accountable administration of the affairs of an institution by its management, while protecting the interests of shareholders, creditors, regulators and the public (Cabraa, 2007; Magdi & Nedareh, 2002). Governance in the public sector concern the means by which goals are set and achieved. It encompasses all activities that ensure a public sector entity's credibility, promotes equitable provision of services, and assure appropriate behaviour on the part of government officials which ultimately reduces the risk of corruption in public service (Goodson, Mory&Lapointe, 2012).

Sustainability

Sustainability refers to efforts aimed at achieving a balance between society's use of the environment and social wellness of both extant and upcoming generations. Sustainability is the action oriented version of Sustainable Development (CCE, 2007).Sustainable Development entails maintaining a balance between the human need to enhance lifestyles and feeling of well-being on one hand, and conserving natural resources and ecosystems, on which both present and future generations depend (IMF, 2002).There is no universally accepted definition of sustainable development, nevertheless, the following definitions are worthy of note: Sustainable development is defined by World Commission on Environment and Development WECD (1987, p. 43)as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". WECD (1987) further assets that sustainable development is a process which ensures that the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations. Sustainable Development, thus, is maintaining a balance between the human need to enhance lifestyles and feeling of well-being on one hand, and preserving natural resources and ecosystems, on which we and future generations depend (Lee, Holland & McNeil, 2000; Potter, Binns, Elliott & Smith, 2004).

Sustainable Development (SD)means economic growth in conjunction with the conservation of the environment. Although economic growth enhances a nation's potential for reducing poverty and solving other social problems by increasing a total wealth, there are instances in history where economic growth was not followed by corresponding improvement in human development, rather, growth was achieved at the expense of greater inequality, higher unemployment, weakened democracy, loss of cultural identity, or over consumption of natural resources needed by future generations (Soubbotina, 2004).

Most definitions of sustainable development encompass the idea that there are three interdependent pillars of sustainable development: environmental, economic and social (Elliot, 2006). Economic: An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable levels of government and external debt, and to avoid extreme sectoral imbalances which damage agricultural or industrial production.

Environmental: An environmentally sustainable system must maintain a stable resource base, avoiding over-exploitation of renewable resource systems or environmental sink functions, and depleting non-renewable resources only to the extent that investment is made in adequate substitutes. This includes maintenance of biodiversity, atmospheric stability, and other ecosystem functions not ordinarily classed as economic resources. Social: A socially sustainable system must achieve fairness in distribution and opportunity, adequate provision of social services including health and education, gender equity, and political accountability and participation. These three elements of sustainability introduce many potential complications to the original, simple definition of economic development (Holmberg, 1992; Reed, 1997; Harris, Wise, Gallagher, & Goodwin, 2001).

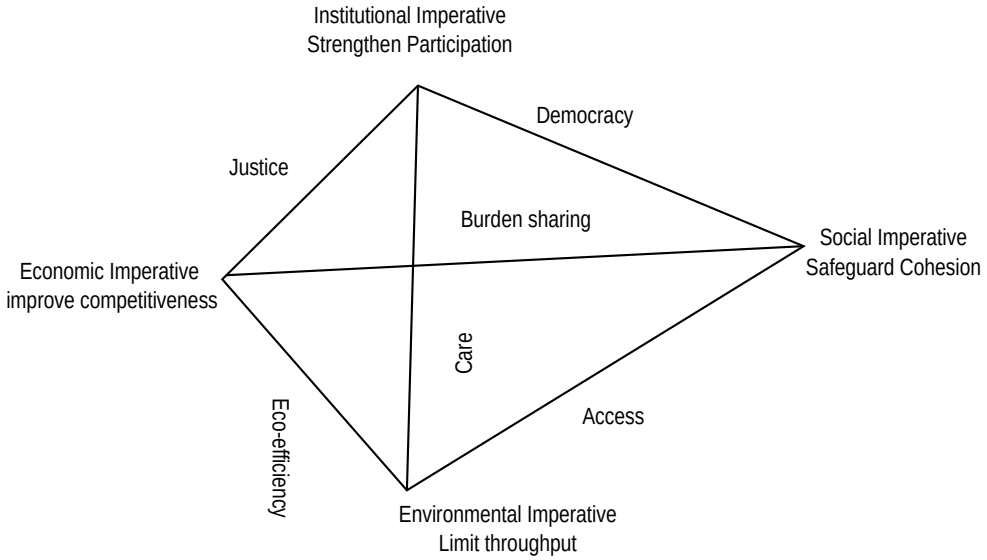
Models of sustainability

There are five models of sustainability identified by the Centre for Environment Education (2007) namely: the Three Pillar Basic Model, the Egg of Sustainability, Atkinson Pyramid Model, the Prism of Sustainability and the Amoeba model but the interest of this study is the Prism of Sustainability model.

Prism of Sustainability

This model was developed by the German Wuppertal Institute and defines sustainable development with the help of four components - economy, environment, society and institution. In this model the inter-linkages such as care, access, democracy and eco-efficiency need to be looked at closely as they show the relation between the dimensions which could translate and influence policy. In each dimension of the prism, there are imperatives (as norms for action). Indicators are used to measure how far one has actually come in comparison to the overall vision of sustainable development. This is described in the following diagram:

Prism of Sustainability



Source: Centre for Environment Education (2007). Sustainable development. Internship series, vol. 1

The progressive theory of public expenditure

This theory was proposed by Walker (1930) in an attempts to develop a positive budget theory. In the views of Beckett (2002), "Walker's purpose was to provide a theory based on economic thought, particularly aspects of marginal utility, to be tested through statistical data analysis sufficient to be descriptive and a theory to aid in decisions for allocation of government expenditures". The progressive philosophy holds the view that a society can only develops and improves with the help of government who is regarded as the agent to bring about this desired change.

Relationship between budgeting, governance and sustainable development

Budgeting for sustainable development: Public debt and deficit

In this study sustainable development is represented by accumulation of public debt and deficit which is created by current generation, and expenditure on education, health and infrastructure representing concern for future generation. Public debt refers to the total amount owed by government, while deficit is the excess of government expenditure over revenue in a given year (Henry, 1999). Interest in sustainability has largely been stirred by innovations in accounting and economic analysis such as accrual accounting and budgeting, the application of present value analysis to government budgets, intergenerational accounting, and fiscal gap analysis (Schick, 2005). Fiscal sustainability entails the notion that governments should manage their finances prudently in such a manner that would guarantee future growth. According to H.M. Treasury, (2004, p. 4), "Britain's long-term fiscal objective is to ensure "that the public finances are sustainable, contributing to a stable environment that promotes economic growth". Australia's Intergenerational Report which states: "Fiscal sustainability … ensures future generations of taxpayers do not face an unmanageable bill for government services provided to the current generation." Further, a sustainable fiscal stance "promotes fairness in distributing resources between generations of Australians" (Commonwealth of Australia, 2002, p. 2).

Thus, fiscal policy is adjudged to be unsustainable if it would cause potential output to be lower at some future time than it would otherwise be. A fiscal policy will be considered as sustainable when tax burdens and expenditure benefits are equitable across generations. In the views of this perspective, it would be unfair to provide benefits to one age cohort that will have to be paid for by taxes levied on younger cohorts. For example when a government regime contracts debt obligations that would be repaid over several decades. Consequently, the budgeting for sustainability and public debt and deficit hypothesis suggests that public debt and deficit accumulated during the military and democratic dispensations in Nigeria are the same, therefore, successive governments in Nigeria have not shown much concern for unborn generations.

Budgeting for sustainable development: Expenditure on education

Governments spend public funds on education because they believe that a better educated population will contribute to faster and more sustainable development. Attending primary school helps children acquire basic literacy and numeracy as well as other knowledge and skills needed for their future education. In low-income countries primary education in itself often improves the welfare of the poor by making them more productive workers, enabling them to learn new skills throughout their working lives, and reducing the risk of unemployment. In addition, primary education—especially for girls and women—leads to healthier and smaller families and fewer infant deaths (Soubbotina, 2004). But "human capital"—people's abilities, knowledge, and skills—is at least as important tool for production, and at least as valuable to people who have it.

The importance of the "human factor" in modern production is reflected in the distribution of income among people who own physical capital and people who "own" knowledge and skills.
This recognition stemmed from the fact that the countries that invested most actively in knowledge creation and adaptation (through investing in research and development activities, R&D) as well as in knowledge dissemination (through investing in education as well as in information and communication technologies, ICT) tended to become most successful in solving their development problems. Moreover, it is now widely believed that even poor countries, with insufficient resources to invest in creating new knowledge, can "leapfrog" in their development provided that they succeed in absorbing advanced global knowledge and adapting it for the needs of their developing economies (CBO, 2003; Crippen, 2003). A well-educated and adaptive population is seen as central to this task. The hypothesis for investigating the difference in expenditure on education during the military and democratic dispensations believes that there may be no significant difference between expenditure on education during the military and democratic regimes.

Budgeting for sustainable development: Expenditure on health
Life expectancy at birth and the under-5 mortality rate are two statistical indices for monitoring the health of a country's population. These indicators are part of the overall measures of a population's quality of life because they indirectly reflect many aspects of people's welfare, including their levels of income and nutrition, the quality of their environment, and their access to health care, safe water, and sanitation (Soubbotina, 2004).
Life expectancy at birth how long a newborn baby would live if health conditions prevailing at the time of its birth were to stay the same throughout its life time. This indicator does not attempt to predict how long a baby will actually live, but rather reflects the overall health conditions characteristic of this particular country in this particular year. The under-5 mortality rate indicates the number of newborn babies who are likely to die before reaching age 5 per 1,000 live births. Because infants and children are most vulnerable to malnutrition and poor hygienic living conditions, they account for the largest portion of deaths in most developing countries. Therefore, decreasing under-5 mortality is usually seen as the most effective way of increasing life expectancy at birth in the developing world. Availability of quality health care facilities is still a big challenge for Nigeria and many other nations in sub-Sahara Africa (Olufemi, Olatunbosun, Olasode &A deniran, 2013). Soubbotina (2004) opines that "the average level of public health expenditures in low-income countries is still only 1 percent of GDP compared with 6 percent in high-income countries".Therefore, the apriori expectation of relationship between budgets for healthduring the military and democratic eras argues that expenditure on health during the military and democratic eras in Nigeria are the equal.

Budgeting for sustainable development: Expenditure on infrastructure
The quest for development as encapsulated in the millennial development goals is rooted in the global desire to ensureeradication of extreme poverty; achievement of universal primary education; promotion of gender equality and women empowerment; reduction of child mortality rate; improvement in maternal health, combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; development of global partnership for development especially in less advanced economies where the scourge of the menace is pervasive.In 2015, leaders from 193 countries across the globe created a plan called Sustainable Development Goals (SDGs). It consists of 17 set of goals aimed to rid our world of poverty and hunger and enable safety from the scourge of climate change. The United Nations Development Programme is one of the organisations working to

fulfil the attainment of these goals by 2030. The goals are: No poverty; Zero hunger; Good health and well-being; Quality education; Gender equality; Clean water and sanitation; Affordable and clean energy; Decent work and economic growth; Industry, innovation and infrastructure; Reduced inequalities; Sustainable cities and communities; Responsible consumption and production; Climate action; Life below water; Life on land; Peace, justice and strong institutions and Partnerships for the goals.

Infrastructure is a basic physical and organizational structural elements such as such asbuildings, transport, energy resources, roads, telecommunications, pipe borne watersupply, railways, urban transport, ports, waterways, airports and so on that provides framework for supporting an entire structure of development needed for the operation of a society or enterprise, or such services and facilities essential for enhancing and sustaining the living condition of societies (Omagu, 2016; Usman, 2014). Adenipekun (2013) examined the implementation of MDGs parameters in the rural areas of Atakunmosa West Local Government Area of Osun State using the basic infrastructure available. The goal of the study was to articulate the challenges confronting development in the area and the means of sustaining human development. The study found that the present state of the rural development in AWLGA of Osun state, is a clear indication that choices and opportunities for living a decent life within the context of MDGs may not be achieved in Nigeria by the year 2015. The study recommended that the natural endowments in the rural areas of Nigeria should be put to effective utilization as these constitute potential means of sustainable economic base of each rural settlers.The fourth hypothesis indicates that the relationship between budget for infrastructure and sustainability as measured by public debt and expenditure on infrastructure during the military and democratic rule in Nigeria are not expected to be different. The hypothesis suggests that if either of the regimes under focus had made concerted effort in development of infrastructural facilities in Nigeria, the hue and cry about decrepit infrastructure would not have persisted.

Methodology

To estimate the difference between military era and democratic dispensation, the researcher employed the independent t-test. The Independent T-test is used for comparing the mean of two groups which are selected independently so as to determine whether there is evidence that the associated population means of budgeting for sustainability during the military and democratic eras are significantly different statistically. The formula for equal variance not assumed is given as:

$$t = \frac{X1 \quad X2}{\sqrt{\frac{S1^2}{n1} + \frac{S2^2}{n2}}} \qquad \text{---------- (3.1a)}$$

$$\text{Where } S2 = \frac{(Sx_1^2 - (Sx_1)^2/n_1 + (Sx_2^2 - (Sx_2)^2/n_2}{n_1 + n2 \quad - \quad 2} \text{ ---------- (3.1b)}$$

Where t represents the t-test calculated value

X_1 =mean score of group 1

X_2 =mean score of group 2

S^2=common standard deviation of the groups

n_1= sample size of group 1

n_2= sample size of group 2

The formula for equal variance assumed is stated as:

$$t - \frac{X1 \quad X2}{Sp\sqrt{\frac{1^1}{n1}+\frac{1^1}{n2}}} \quad \text{---------- (3.1c)}$$

$$Sp\sqrt{\frac{(n1-1)s1^2}{n1 \quad +} + \frac{(n2-1)s2^2}{n2-2}} \quad \text{---------- (3.1d)}$$

Where:
X_1 = mean of first sample
X_2 = mean of second sample
n_1 = sample size of first sample
n_1 = sample size of second sample
S_1 = standard deviation of first sample
S_2 = standard deviation of second sample
S_p = pooled standard deviation
The *p*-value of Levene's Test for Equality of Variances helps the researcher to determine which equal variance to interpret. If p <a, it implies that the samples are significantly different, then Equal variance not assumed and the corresponding confidence interval is reported. But if p > a, the equal variance assumed and the corresponding confidence interval are reported.

Results and Discussion

Descriptive Statistics

Descriptive statistics reported in table 1 shows the summary of data and other basic characteristics of the series. The Jarque-Bera value is significant at the 1 percent level, indicating that the hypothesis of normality in the distribution cannot be accepted. This implies that the data series may have endogeneity issues but because the interest of this study is not to measure the effect of one variable on another, there is no cause to worry about endogeneity problem. The mean values of the various expenditures for the period are also shown. The average public debt of 256.4 is relatively high. The median value is low, suggesting di-similarity among the data series over the period. The Table indicates that expenditure on education is higher, on average, during the period of the study than the others.

Table 1: Summary Statistics

	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob.
PDEBTDEF	256.24	74.81	362.50	1.97	6.72	44.04	0
EXPEDU	93.02	27.37	126.32	1.28	3.17	9.86	0.01
EXPHEALTH	53.93	9.98	77.97	1.39	3.54	11.98	0
EXPINFRAS	44.89	7.79	60.95	1.19	3.10	8.55	0.01

Source: Researcher's computation (2018)

Discussion of result of Levene's test for equality of variance and equality of means

In Table 2, p < 0.001 is less than the threshold significance level of this study, a = 0.05, so the null hypothesis is rejected. The result indicates that PDEBTDEF variance during DEMERA is significantly different than that of MILERA. Therefore, equal variance not assumed is reported. The result of the t-test for the equality of means shows that the p-value (p < 0.001) is less than the chosen significance level of this study, a = 0.05, so the null hypothesis is similarly rejected. The result indicates that the public debt and deficit during the military regime

and democratic dispensation are significantly different. Thus, there is a significant difference between public debt and deficit accumulated during civilian and military eras at $t_{21.29} = 4.319$, $p < 0.001$with average PDEBTDEF for democratic era being 372.11 higher than PDEBTDEF of the military era. The plausible reason for this is that expenditure on sustainability related matters were higher during the democratic era than military era requiring more funding. Conversely, it appears that expenditures as percentage of revenue were generally lower during the military era than democratic dispensation.

Table 2: Independent T-test

Group Statistics

	ERA	N	Mean	Std. Deviation	Std. Error Mean
DEBTDEF	DEMERA	22	400.9468	402.67770	85.85118
	MILERA	14	28.8336	26.91599	7.19360

Variable	Levene's Test		T-test for Equality of Means				
PDEBTDEF	F	p-value	T	df	p-value	Mean Diff	Std error
Equal variance assumed	14.13	0.001	3.435	34.01	0.001	372.11	108.34
Equal var. not assumed			4.319	21.29	0.000	372.11	86.15

Source: Researcher's computation (2018)

In Table 3, p <0.001 is less than the threshold significance level of this study, a = 0.05, so the null hypothesis is rejected. The result indicates that EXPEDU variance inDEMERAis significantly different from that of MILERA. Therefore,equal variance not assumed is reported.The result of the t-test for the equality of means shows that the p-value ($p < 0.001$) is less than the significance level of this study, a = 0.05, therefore the null hypothesis is as well rejected. The result indicates that the expenditure on education during the military regime and democratic dispensation are significantly different. Expenditure on education during civilian and military eras differs at $t_{21.09} = 5.062$, $p < 0.001$with average EXPEDU for democratic era being 145.00 higher than EXPEDU of the military era. The implication is that democratic governments were more concerned about human capital development than governments during military era.

Table 3: Independent T-test

Group Statistics

	ERA	N	Mean	Std. Deviation	Std. Error Mean
EXPEDU	DEMERA	22	149.4127	134.20822	28.61329
	MILERA	14	4.4093	5.02165	1.34209

Variable	Levene's Test		T-test for Equality of Means				
EXPEDU	F	p-value	T	df	p-value	Mean Diff	Std error
Equal variance assumed	31.78	0.000	4.019	34	0.000	145.00	36.08
Equal var. not assumed			5.062	21.09	0.000	145.00	28.65

Source: Researcher's compilation (2018)

Similarly, the p <0.001in table 4 is less than the threshold significance level of this study, á = 0.05, so the null hypothesis is rejected. The result indicates that the variance in EXPHEALTH during the DEMERA is significantly different than that of MILERA. Therefore, equal variance not assumed is reported. The result of the t-test for the equality of means reveals that the p-value ($p < 0.001$) is less than the threshold significance level of this study, á

= 0.05, so the null hypothesis is rejected. The result indicates that the expenditure on health during the military regime and democratic dispensation are significantly different. There is a significant difference between expenditure on health during civilian and military eras at t21.02 = 4.79, p < 0.001with average EXPHEALTH for democratic era being 86.04 higher than EXPHEALTH of the military era. The plausible reason for this is that government may have had more health challenges to deal with during the democratic era than military era. This may also not be unconnected with the huge accumulation of public debt and deficit.

Table 4: Independent T-test

Group Statistics

	ERA	N	Mean	Std. Deviation	Std. Error Mean
EXPHEALTH	DEMERA	22	87.3900	84.34667	17.98277
	MILERA	14	1.3471	1.52990	.40888

Variable	Levene's Test		T-test for Equality of Means				
EXPHEALTH	F	p-value	T	df	p-value	Mean Diff	Std error
Equal variance assumed	31.97	0.000	3.80	34	0.001	86.04	22.67
Equal var. not assumed			4.79	21.022	0.000	86.04	17.99

Source: Researcher's computation (2018)

Similarly, the p <0.001in table 5 is less than the threshold significance level of this study, a = 0.05, so the null hypothesis is rejected. The result indicates that the variance in EXPINFRAS during the DEMERA is significantly different than that of MILERA. Therefore, equal variance not assumed is reported as in the earlier cases. The result of the t-test for the equality of means shows that the p-value (p <0.001) is less than the threshold significance level of this study, a = 0.05, implying that the null hypothesis should be rejected. The result shows expenditure on infrastructure during the military regime and democratic dispensation are significantly different. Thus, expenditure on infrastructure during civilian dispensation is significantly different than that during the military eras at $t_{21.03}$ = 5.173, p < 0.001with average EXPINFRASfor democratic era being 70.97 higher than EXPINFRAS of the military era. The plausible reason for this may due to the observed difference in public debt and deficit accumulation during the comparative eras.

Table 5: Independent T-test

Group Statistics

	ERA	N	Mean	Std. Deviation	Std. Error Mean
EXPINFRAS	DEMERA	22	72.4886	64.32931	13.71506
	MILERA	14	1.5164	1.34526	.35954

Variable	Levene's Test		T-test for Equality of Means				
EXPINFRAS	F	p-value	t	df	p-value	Mean Diff	Std error
Equal variance assumed	62.05	0.000	4.106	34	0.000	70.97	17.29
Equal var. not assumed	5.173	21.029	0.000	70.97	13.72		

Source: Researcher's computation (2018)

Conclusion

Effective budgeting should enhance proper planning and achievement of national objectives including sustainability. Since independence, various regimes in Nigeria have been preparing annual estimates which reflects how resources have to be allocated to various sector of the economy. This study sought to examine budgetary allocations and expenditure on education, health and infrastructure vis-à-vis public debt

accumulation and deficit budgeting during the period of military rule and democratic dispensation in Nigeria. The study finds that public debt accumulation, expenditure on education, expenditure on health and expenditure on infrastructure were all higher during democratic era than military era. The plausible reason for this may be because revenue was higher during the democratic dispensation than the military era. No doubt, Nigeria need to watch the rate of accumulation of public debt to avoid shifting the burden of governance to its teeming youth population and unborn generations. However, the study suggests that further researchers may wish to ascertain whether figures for democratic era were higher than periods of military rule in real terms by taking cognizance of inflation.

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Appendix

YEAR	PDEBTDEF N' Billion	EXPEDU N' Billion	EXPHEALTH N' Billion	EXPINFRAS N' Billion
1981	.03	0.17	0.08	0.13
1982	0.14	0.19	0.1	0.15
1983	-0.16	0.16	0.08	0.12
1984	1.24	0.2	0.1	0.16
1985	1.61	0.26	0.13	0.2
1986	1.63	0.26	0.13	0.2
1987	3.93	0.23	0.04	0.59
1988	9.24	1.46	0.42	0.92
1989	13.27	3.01	0.58	0.79
1990	23.82	2.4	0.5	0.92
1991	26.41	1.26	0.62	0.65
1992	19.4	0.29	0.15	1.69
1993	81.08	8.88	3.87	4.35
1994	49.4	7.38	2.09	1.59

1995	51.06	9.75	3.32	2.78
1996	53.04	11.5	3.02	3
1997	68.54	14.85	3.89	3.39
1998	64.39	13.59	4.74	7.55
1999	30.84	43.61	16.64	27.76
2000	131.05	57.96	15.22	8.02
2001	155.42	39.88	24.52	41.13
2002	163.87	80.53	40.62	36.78
2003	363.51	64.78	33.29	39.63
2004	382.5	76.53	34.2	22.97
2005	393.96	82.8	55.66	25.96
2006	249.33	119.02	62.25	29.83
2007	213.33	150.78	81.91	103.52
2008	381.2	163.98	98.22	161.85
2009	251.79	137.12	90.2	170.66
2010	415.66	170.8	99.1	99.5
2011	527.18	335.8	231.8	209
2012	679.3	348.14	197.9	106.5
2013	828.1	390.42	179.99	110.7
2014	941.7	343.75	195.98	134.6
2015	1060.38	325.19	257.72	138.99
2016	1584.11	341.88	202.36	119.4

INTEGRATED REPORTING IN CONSUMER GOODS COMPANIES IN NIGERIA

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Abstract

Value creation can also be achieved through integrated reporting by deployment of strategic thinking in the annual reports because integrated reporting requires a new form of disclosure to provide all-inclusive view of the organisation. The objective of this paper is to examine the extent of adopting integrated reporting in consumer goods companies in Nigeria. Secondary data were sourced from published annual reports and financial statements of 16 consumer goods companies quoted on the Nigerian Stock Exchange for 2017.Contents analysis was used and the results revealed that the rate of adopting integrated reporting is very low. It is therefore recommended that Nigerian companies should increase the rate of adopting integrated reporting to be able to explore the benefit embedded in the adoption of integrated reporting.

Keywords: Integrated Reporting, consumer goods

Introduction

Corporate reporting are increasingly changing as a result of increasing pressure and demand for more information about social, economic and environmental impact on the organisation performance by the stakeholders. Corporate reporting which is a means by which companies communicate with stakeholders as part of their accountability and stewardship obligations changes with the rapid change in the business environment and technology.

Historically, companies present the activities of their business strictly on financial reports which focused mainly about financial performance of companies. Investment analysist and other stakeholders employed key financial indicators on the financial reports to support investment decisions (Buhr 2007; Ligteringen & Arbex, 2010). As a result of financial crisis, corporate failures and changes in the business environment, stakeholders and investors began to demand for other forms of non-financial information to be measured and reported on in order to supplement the financial information provided (Eccles&Krzuz, 2010; Ligteringen & Arbex, 2010).

Stakeholder are therefore requesting organisiation to be more transparent and more responsible in their business dealings in respect of how employees, communities in which they are operating are being treated and how they govern themselves (DiPiazza & Eccles, 2002; White, 2009). For the

organization to provide relevant, timely, and understandable information about their activities, there is a shift from financial reporting to sustainability reporting for sustainable development.

However, it is discovered that sustainability reports separated itself from the organisation's financial reports and does not lay emphasis on sustainability issues and the organisation's core strategy (Gray & Milne, 2002; Elkington, 2004; Sonnenberg&Hamman, 2006; Bebbington, Brown, & Frame, 2007; Buhr, 2007; Larrinaga-Gonzalez, 2007; Milne& Gray, 2013; Jeyaretnam&Niblock-Siddle, 2010; IRCSA, 2011; Lozano &Huisingh, 2011; Turk& Whittington-Jones, 2013). Having identified these weaknesses, international attention is now focusing on Integrated reporting (IRCSA, 2011).

As at February 2017, there were 165 companies that voluntarily publish integrated reporting, only South Africa mandated integrated reporting in the world. This is as a result of existence of internal benefits, external benefits and reduced regulatory risk; for example, a better allocation of resources, the company's inclusion in sustainability indices and preparation for a wave of global regulation (Eccles& Saltzman, 2011).

Nigerian Stock exchange 2018 describe consumer goods sector as companies that are engaged in the production and manufacturing of final goods. In general, these are products and services classified for personal use, specifically intended for the mass market. This major sector encompasses goods that are consumed rather than used in the production of other goods, and include both durable and non-durable consumables. Included in this sector are manufacturers of automobiles/auto parts, household durable good, textiles and apparel, as well as manufacturers' food, beverages and tobacco products.

Statement of problem

Value creation is the main core of integrated reporting. Value is created not only for its shareholders but to the wider society as a whole by means of sustainable strategy. Financial capital providers are interested on how an organization crates value over time. An integrated report benefits all stakeholders interested in an organization's ability to create value over time, including employees, customers, suppliers, business partners, local communities, legislators, regulators and policy-makers.

Integrated reporting is a means of assessing organization to create value. There is need for organisation to effectively and efficiently manage a wider range of resources to be able to create value over time. Intangible assets such as intellectual capital, research and development, brand value, natural and human capital have become as important as tangible assets in many industries. However, these intangible assets are not universally assessed in current financial reporting frameworks even though they often represent a substantial portion of market value. It is on this note that the study is examining the extent of adopting integrated reporting in consumer goods companies in Nigeria.

Research question

The research question for this study is stated below:

To what extent consumer goods companies disclose non-financial information in its integrated reports?

Objective of the study

The main objective of the study is to examine the extent of adopting integrated reporting in consumer goods companies in Nigeria

The specific objective was to assess the extent of integrated reporting on non-financial disclosure of consumer goods companies in Nigeria.

Hypothesis

There is no disclosure of non-financial information for integrated reporting of consumer goods companies in Nigeria.

Justification for the study

As at December, 2018, the market capitalization of the consumer goodsindustry sector in Nigeria was N3 trillion ($8.24bn) and it was second to the industrial goods industry sector with market capitalization of N3.89 trillion ($10.69bn). However, consumer goods industry sector had 21 companies while industrial goods sector had 14 companies hence the choice of consumer goods industry sector as the preferred sector in the study.

Scope of the study

Firms listed under consumer goods sector for the year 2017 on the Nigerian Stock Exchange were examined. Contents analysis were carried out on non-financial information disclosed to assess the extent of integrated reporting in the year 2017 and minimum content required to be disclosed as stated by International Integrated Reporting Council, 2011.

LITERATURE REVIEW

Conceptual Framework

Integrated Reporting

Integrated Reporting is a periodical preparation of corporate reports that is based on integrated thinking by an organization about value creation over time and related communications regarding aspects of value creation (International Integrated Reporting Council (IIRC), 2013). Corporate reporting based only on accounting standards are also increasingly being criticised as it allows companies to externalise environmental and social costs due to the fact that financial results are not placed within the context of the greater economy, society or the environment in which the firms operate (Terry, 2008, p. 178).

Corporate reporting is the responsibility of an organization for indicating the impacts of an organisation'sdecisions and activities on society and the environment through the conduct of transparent and ethical behaviour (Blowfield& Murray, 2011). Integrated reporting provides all necessary information for internal purposes while at the same time offering appropriate information to shareholders and other stakeholders. Integrated reporting is a holistic discipline which is based upon interlinking all kinds of data sets. This also means that relevant data, including non-financial information, must be made available on a regular, timely and reliable basis (PricewaterhouseCoopers (Pwc), 2012).

Integrated reporting (IR) is a concept which advocates that, besides conventional financial reporting, organisations should prepare separate reports which specifically communicate the following: environmental, social and economic impacts; value-creation process; linkages of financial and nonfinancial performance to strategies. IR is a response to the increasing clamour for disclosure of more information to serve the need of stakeholders (Deloitte, 2011).The market forces are the second set of factors driving IR. Shareholders, employees, customers, government, potential investors and other stakeholders are increasingly becoming interested in how a company is creating value and how this can be sustained in the foreseeable future (Druckman, 2013).

Integrated reporting presents numerous advantages as information is aligned more accurately to stakeholders' needs with greater non-financial information becoming available, which provides for better resource allocation by investors and stakeholders alike (Frias Aceituno, Rodríguez Ariza & Garcia Sánchez, 2014). The IR Framework also seeks to address accountability in relation to the entity's use of all the various sources of capital by an entity, be it financial, manufactured, social, human and natural (IIRC, 2013). Integrated reporting is a new reporting paradigm that is holistic, strategic, responsive, material and relevant across the short-, medium-and long term (Adams & Simnett, 2011). The integrated report combines financial information with sustainability information in one, understandable report. The main philosophy behind integrated reporting is that it gives a richer picture of the organization by incorporating qualitative as well as quantitative information (Owen, 2013).

An integrated report is a concise communication about how an organization's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term (IIRC, 2013). Integrated thinking leads to integrated decision making and actions that consider the creation of value over the short, medium and long term (IIRC, 2013). Integrated reporting requires analytical and integrated thinking (GRI, 2013).

The IIRC Framework (2013b) presents the following principles: Strategic focus and future orientation, Connectivity of information, Stakeholder relationships, Materiality, Conciseness, Reliability and completeness, Consistency and comparability. It is necessary that an integrated report should ensure better understanding regarding the strategy of a company and how it contributes to the creation of value in the short, medium and long term, both in terms of capital use and the effects on capital types (Deloitte, 2012). An integrated report should show the quality of the relationship with stakeholders, since value is not created only using the organization's efforts, but through relationships with others (IIRC, 2013b). The integrated report should contain relevant information that has the capacity to affect the value creation process (Deloitte, 2012)

International Integrated Reporting Council (IIRC) (2011) identifies minimum items of information to be disclosed by the organisation thus:

Organisation overview and business model
Mission, principal activities,
markets, products and services,
business model, value drivers and critical stakeholder dependencies, attitude towards risk

Operation context including risks and opportunities
Description of the commercial,social, environmental and context description of the key relations with internal and external stakeholders, description of the key risks and opportunities

Strategic objectives and strategies to achieve those objectives
Risk management of most important resources and their main relations. How the strategies is linked to other elements.
Identification what gives the organisation its competitive advantage.
Governance and Remuneration

Describes leadership and decision-making process.
How corporate governance can influence strategic decisions.
How the remuneration of executives is linked to performance
Performance
Identification of key performance and risk indicators (KPIs, KRIs).
Organisation impact on key relationships and resources.
Most important external factors that impact performance.
Comparison of targets and performance.
Future outlook
Identification if organisation is currently ready for future trends.
How short and long-term interest are balanced.
Potential effects of the expected future in short, medium and long-term

The Consumer Goods Industry Sector
Global Edge (2014) described consumer goods industry as consisting almost every item an individual can purchase most especially in the areas of toiletries and cosmetics, appliances, electronics, beverages and food, and other generic beverages items. it is observed to include durable and non-durable items while durable items includes home furnishings and non-durable items includes more ephemeral products, with a life expectancy of lesser than three years, like personal care items.

NSE, (2015) referred to consumer goods industry sector as companies that involved in the production and manufacturing of final goods. Consequently, it includes production and manufacturing of products and services that are classified as personal use which is specifically intended for the mass market. It also stated to include goods that are consumed rather than used in the production of other goods, and consist of both durable and non-durable consumables. The sector is described not limited to manufacturers of automobiles/auto parts, household durable goods, textiles and apparel but also includes manufacturing food, beverages and tobacco products as well as companies that are involving in the production and manufacturing of durable and non-durable goods that are not intended for the production of other goods but rather for personal use.

Theoretical Framework

The beneficiaries' theory
This theory underpinning this study because it explainsvoluntary disclosure and because it distinguishes between the beneficiaries and society issues and also suggests an application framework to evaluate the social responsibility of the company using social and environmental information disclosure. Since according to ethical directory of beneficiary theory, the beneficiaries have the right to receive information about organization activities and investors as the beneficiaries pay attention to annual reports, the companies disclosed social and environmental information in response to information request of stakeholders (Alikhani&Maranjury, 2014).
Empirical Evidence
Mahmood,Yaeesh, and Nirupa (2018) in their study investigated the trends in integrated reporting by state-owned companies for the 2013, 2014 and 2015 financial periods with reference to section 2 of The Public Finance Management Act 1999. The nature and extent of disclosures made by state-owned companies with reference to the recommendations and requirements of King III and The International Integrated Reporting Framework with respect to integrated reporting were studied by using a

scorecard approach to identify the level of disclosure made by each state-owned company. Key findings suggest that the level of reporting disclosure by state-owned companies increased over the period evaluated. A positive trend was identified in the level of reporting disclosures over the measurement period. Reporting disclosures generally increased from providing "little information" in 2013 to providing "some information" in 2015. There were no instances of non-compliance with overall disclosures with respect to King III and the IR Framework by any of the state-owned companies analysed over the three-year period. Furthermore, no company provided disclosure overall at an excellent level in any of the three years analysed.

Anria (2013) *empirical evidence was obtained by assessing the sustainability reporting disclosures made by the best performers according to the Johannesburg Stock Exchange (JSE) Sustainability Index. The Integrated Reporting process is still in the development phase with many companies only now developing methodologies to measure their various impacts. The study found that, although many companies are attempting or claiming to be creating Integrated Reports, the level of integration is still very low. Few companies have incorporated or understood the importance of environmental and social sustainability in achieving long-term success.*

Ruiz-Lozano and Tirado-Valencia (2016) presents a scored based analysis on the level of attention given to the Guiding Principles by the industrial companies. The results state that in the integrated reports for the 2013 fiscal year, not all the guiding principles are equally followed by the companies.

METHODOLOGY

Introduction

This chapter discusses the research methods adopted in this study which include method of data analysis, explanations of selected items, sources of data and research design.

Sources of Data

Audited financial statements and annual reports were sourced from the Nigerian Stock Exchange (office and website) and companies' websites.

Research Design

Content analysis method was employed. The occurrence of a particular disclosure item on a disclosure checklist was ascertained.The analysis of disclosures is done according to a LikertScale. The distinctions between the various levels of the Likert Scale is based on the quality and perceived usefulness of the information reported on by the entities.

The Likert Scale should be interpreted as follows:

Scale 1: No Disclosure - Topicnot mentioned in the report.

Scale 2: Disclosure to a lesser extent - Topic mentioned briefly in the report (which might include measured results) with little or no context provided.

Scale 3: Disclosure to some extent - Topic and measured results are discussed and a measurable target is provided for the current and/or future.

Scale 4: Disclosure to a large extent - The current year performance is discussed against the target and mitigation is provided to improve performance.

Scale 5: Significant disclosure - Full integration is achieved by linking the risk, target, and mitigation with the financial aspects.

IIRC (2011) minimum information required is employed using liket scale and it is coded thus:

OOBM= Organisation overview and business model

OCRO= Operation context including risks an opportunities
SOSAO= Strategic objectives and strategies to achieve those objectives
GR= Governance and remuneration
P= Performance
FO= Future outlook

Population

The population of this study is the 21 firms listed under the consumer goods industry sector on the Nigerian Stock Exchange as at 2018 (NSE, 2018).

Sampling Procedure and Sample

The study adopted a purposive sampling technique. From the population, some companies' financial statements were not available for the selected years and as a result the sample used for the study is16 companies.

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

Introduction

This section consists of data presentation, analysis and interpretation of results.

Testing of hypothesis

H_{01}: There is no disclosure of non-financial information for integrated reporting of consumer goods companies in Nigeria.

Table I: The Extent of Integrated Reporting by consumer goods sector companies in 2017 Annual Reports

	OOBM	OCRO	SOSAO	GR	P	FO
Cadbury	3	4	3	2	2	2
Dangote Flour	2	1	1	2	2	2
Nig Enamelware	2	2	2	2	2	2
Dangote Sugar	4	2	2	3	4	2
FMN	3	3	4	3	3	2
Guiness	3	2	3	3	2	2
Honeywell	2	2	2	2	2	2
Int Brew	2	1	1	1	1	1
Mcnichols	2	1	1	1	1	1
Northern Nig Flour	2	1	1	1	1	1

Nascon	3	3	3	4	3	3
Nestle	3	3	3	4	4	3
Nig Brew	3	2	2	2	2	2
PZ Cussons	3	4	3	4	3	3
Uniliver	2	2	2	3	3	2
Vitafoam	3	2	2	3	2	2

Source: Reserchers' Computations, 2018

From the table I, FMN, Nasscon, Nestle and PZ Cussons were found to disclose nothing less than to some extent and to a large extent while others are within disclosure to a lesser extent and some extent aside from International Brewery, Mchnichols and Northern Nig Flour which had significant of no disclosures.

	1	2	3	4	5
Organisation overview and business model					
Mission, principal activities, markets, products and services, business model, value drivers and critical stakeholder dependencies, attitude towards risk	-	7(43.75%)	8(50%)	4(25%)	-
Operation context including risks and opportunities					-
Description of the commercial, social, environmental and context description of the key relations with internal and external stakeholders, description of the key risks and opportunities	4(25%)	7(43.75%)	3(18.75)	2(12.5%)	-
Strategic objectives and strategies to achieve those objectives					
Risk management of most important resources and their main relations. How the strategies is linked to other elements. Identification what gives the organisation its competitive advantage	4(25%)	6(37.5%)	5(31.25%)	1(6.25%)	-
Governance and Remuneration					
Describes leadership and decision-making					

process. How corporate governance can influence strategic decisions. How the remuneration of executives is linked to performance	3(18.75)	5(31.25%)	5(31.25%)	3(18.75)	-
Performance Identification of key performance and risk indicators (KPIs, KRIs). Organisation impact on key relationships and resources. Most important external factors that impact performance. Comparison of targets and performance.	3(18.75)	7(43.75%)	4(25%)	2(12.5%)	-
Future outlook Identification if organisation is currently ready for future trends. How short and long-term interest are balanced. Potential effects of the expected future in short, medium and long-term	3(18.75)	10(62.5%)	3(18.75)		-

Table II: Integrated Reporting

The table II above reflects the level of integrated reporting of the companies selected under consumer goods sector in the Nigerian Stock Exchange from their annual reports. It is discovered that eight (8) companies which represent 50% of the companies examined disclosed organization overview and business model to some extent, three (3) companies (18.75%) disclosed operation content including risks and opportunities, five (5) companies (31.25%) disclosed strategic objectives and strategies to achieve those objectives and governance and remuneration, four (4) companies (25%) disclosed performance and three (3) companies (18,75%) disclosed future outlook to some extent respectively.

In the same vain, four (4) companies (25%) disclosed organization overview and business model, two (2) companies (12.5%) of the companies sampled disclosed operation content including risks and opportunities and performance individually, one (1) company (6.25%) disclosed strategic objectives and strategies to achieve those objectives, three (3) companies (18.75%) disclosed governance and remuneration to a large extent and none of the companies disclosed future outlook.

Consequently, seven (7) companies (43.75%) disclosed organization overview and business model, operation content including risks and opportunities and performance disparately, six (6) company (37.5%) disclosed strategic objectives and strategies to achieve those objectives, five (5) companies (31.25%) disclosed governance and remuneration to a lesser extent.

Subsequently, four (4) companies (25%) did not disclose operation content including risks and opportunities and strategic objectives and strategies to achieve those objectives distinctly while three (3) companies did not disclose governance and remuneration, performance and future outlook unconnectedly.

Finally, there is no significant disclosure in respect of all the minimum information required for integrated reporting according to IIRC, 2012.

CONCLUSION AND RECOMMENDATION

Conclusion

The results of the contents analysis of the Nigerian consumer goods companies revealed that very few companies are adopting the integrated reporting in their annual reports and that those that are adopting it are only reporting it slightly. It is concluded that the rate of adopting integrated reporting in Nigeria industries is very low.

Recommendation

Integrated reporting is about value creation therefore Nigerian companies should fully adopt integrated reporting in their annual reports to fully maximize the benefits therein.

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SUSTAINABILITY REPORTING AND MARKET VALUE OF LISTED NON-FINANCIAL FIRMS IN NIGERIA

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Abstract

The study examined the effect of sustainability reporting on market value of selected non-financial firms in Nigeria. The study adopted ex post facto research design. A sample size of 65 listed non-financial firms in Nigeria was used. Data was obtained from the annual reports and accounts of these sampled firms through content analysis. The data were analyzed using multiple regression analysis. The results show that environmental reporting has a small but positive relation with Tobins Q, social reporting was negatively related with Tobins Q, and economic reporting was positively related with Tobins Q. The study recommended that companies should intensify environmental reporting as this could lead to increased market performance in terms of Tobin's Q.

Introduction

Human activities taking place today are regarded by some people as having a detrimental impact on the society, ecology and economy which future generations will experience (Unerman, Bebbington & O'Dwyer 2007). We are now faced with a series of very tangible environmental and social crises. Responding to these issues by business leaders helps companies to mitigate risks, protect corporate brand and gain competitive advantage while helping to reduce poverty and improve the quality of life for many. Companies are no longer paying attention to the maximization of shareholders wealth alone but are embracing activities that tend to maximise the benefits accruable to all the stakeholders. Big corporations once looked upon as the exclusive concern of its owners is now viewed as being responsible to the society also (Ekwueme, 2011). This to a larger extent means that companies are responding positively towards issues of sustainability.

Sustainability reporting has become prominent in accounting and reporting literature for the past three decades. This is because stakeholders now need both financial and non-financial information to help them make informed decisions. Stakeholders such as investors and shareholders use this information to carry out investment and other business-related decisions. Utile, Zayol and Aondoakaa (2018) maintain that there is global need for sustainability reporting probably because it will help mitigate restiveness among stakeholders and create business friendly environment. The usefulness of sustainability reporting is more when the market reacts to such information disclosure. This information should inform managers' decisions as to the right ways of channeling their funds. Sustainability reporting (a term used to describe a company's reporting on its economic, environmental and social performance) is expected to increase sales volume, improves profitability, enhance customer satisfaction and above all, provide an avenue for managers to weigh their investment options.

Although, the Nobel award winner, Milton Friedman claimed that Corporate social responsibility (CSR) is mere waste of shareholders' money, a position that has generated a lot of debate on the usefulness of such reports (Dunn & Burton, 2006). This has prompted researchers to conduct studies on the effect of sustainability reporting on firm performance in general and market performance in particular and this has shown mixed and inconclusive results. While others report positive association, others report negative and in some cases no relationship. However, it is pertinent to note that differences in these results may be attributed to differences in methodologies adapted, legal, regulatory and institutional frameworks of the countries where these studies were conducted.

Back home to Africa in general, and Nigeria in particular, there are issues of environmental degradation and pollution, depletion of the soil from industrial activities, youth restiveness, labour disharmony, poor maintenance of waste and other health-related hazards (Akinbi, 2012; Kadafa, 2012). Managers of non-financial companies are in a position to carry out social investments and report on them accordingly. It is against this backdrop that this study investigated whether non-financial companies operating in Nigeria are responding to this kind of reporting and whether this reporting has any impact on their market value.

Statement of the Problem

Sustainability reporting has gradually gained grounds across the globe. This is in response to the demand for organizations to be more transparent in how they treat their economic, social and environmental activities as they affect stakeholders. It is also widely recognized in the business world and most academic literature on sustainability reporting that this reporting system is beneficial. However, most studies on sustainability reporting reviewed such as Reddy and Gordon (2010); Burhan and Rahmanti (2012); Aggarwal (2013); Eccles, Ioannou, and Serafeim (2014); Maletic, Maletic, Dahlgaard and Dahlgaard-Park (2014); Nugroho and Arjowo (2014); Backstrom and Karlsson (2015); Hussain (2015); Alshehhi, Nobanee and Khare (2018); and Ndukwe and Nwakanma (2018) have reported on the effect of sustainability reporting on profitability. These studies have largely related sustainability reporting to backward-looking firm profitability, that is accounting based returns, rather than forward-looking market value or stock returns. Only few studies such as Bartlett (2012); Maletic, Maletic, Dahlgaard, Dahlgaard-Park and Gomiscek (2015) to the best of the reserachers knowledge that reported on the effect of sustainability reporting on market value, but with unclear link between sustainability reporting and market value may be due, in part to the omission in some studies of control variables such as firm size and leverage hence the need for more studies to be carried out in this area especially in the Nigerian context. It is in view of this that this study examined sustainability reporting and market value of listed non-financial firms in Nigeria.

Statement of Hypotheses

The following are the hypotheses of the study:

HO1 Environmental reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

HO2 Social reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

HO3 Economic reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

Review of Related Literature

Relevant and related literature to the study is reviewed in this section. This include conceptual, theoretical framework and empirical review.

Conceptual Framework

The concepts of sustainability reporting and market value are explained below.

Sustainability Reporting

Sustainability reporting, also known as social accounting, social and environmental accounting, corporate social reporting, corporate social responsibility reporting, triple bottom line accounting or non-financial reporting originated about four decades ago (Asaolu, Agboola, Ayoola and Salawu, 2011). However, there is no single, generally accepted definition of Sustainability reporting. It is a broad term generally used to describe a company's reporting on its economic, environmental and social performance. It can be synonymous with triple bottom line reporting, corporate responsibility reporting and sustainable development reporting, but increasingly these terms are becoming more specific in meaning and therefore subsets of sustainability reporting (KPMG, 2008).

The Global Reporting Initiative (GRI)'s Sustainability Reporting Guidelines encompass three linked elements of sustainability relevant to organizations (GRI, 2011) as follows:

Economic: includes wages and benefits, labour productivity, job creation, expenditures on research and development and investments in training and other forms of human capital. The economic element includes, but is not limited to, financial information.

Environmental: including, for example, impacts of processes, products and services on air, water, land, biodiversity and human health.

Social: including, for example, workplace health and safety, employee retention, labour rights, human rights, wages and working conditions at outsourced operations.

Market Value

Market value is a forward-looking measure of company performance. The market based approach evaluates the value of a firm on the basis of prices already quoted on the stock exchange, that is, the current quoted price at which investors buy or sell shares of a company or a bond at a given time often referred to as market capitalization (Akinlo & Iredele, 2014) . Market value is often different from book value in that market–based approach values a company based on quoted price on the stock exchange. The market value is usually different from the book value because market value factors in future earnings and market sentiments (Okwy, 2018).

Theoretical Framework

Accountability Theory

Accountability means the ethical responsibility to provide an account or reckoning of the actions for which one is held responsible (Popa, Blidisel and Bogdan, 2009; Wilson, 2003). An organisation's accountability is fulfilled by being transparent, being responsive and by its compliance with appropriate rules; and by engaging with and accounting to stakeholders for its performance in these respects. SIGMA Project (2003); Frink and Klimosk (2004) see accountability as revolving around two specific themes. One theme concerns the context, that is, who and what is involved in a given situation, and the second theme involves the notion of an evaluation and feedback activity in some form. The first theme

concerns the interpersonal context and focuses on persons in two distinct roles. One is sometimes referred to as the 'agent' and is the focal person whose behaviour is subject to evaluation by another. The other is often referred to as the 'audience' or 'principal,' and is some person or persons having opportunity and reason to observe and evaluate the agent. The contribution of corporate accountability theory is that it helps define the nature of the relationship between corporate managers and the rest of society. It also sets out the arguments as to why companies should report on their environmental, social, and economic performance, not just financial performance. (Popa et al, 2009; Wilson, 2003).

Political Economy theory

The political economy has been defined by Gray et al. (1996) in Deegan (2007) as the social, political and economic framework within which human life takes place. Political economy theory explicitly recognizes the power conflict that exist within society and the various struggles that occur between various groups within the society. The perspective embraced in political economy theory is that society, politics and economics are inseparable and economic issues cannot meaningfully be investigated in the absence of considerations about the political, social and institutional framework in which the economic activity takes place. It is argued that by considering the political economy, a researcher is better able to consider broader (society) issues which impact on how an organization operates, and what information it elects to disclose. Following from the above point, Guthrie and Parker (1990) in Deegan (2007) explain the relevance of accounting within a political economy perspective. They stated that the political economy perspective perceives accounting report as a socio-political and economic document. They serve as a tool for constructing, sustaining, and legitimizing economic and political arrangements, institutions and ideological themes which contribute to the corporation's private interests. This theory acknowledges struggle amongst the various company stakeholders and that these struggles and conflict of interests are inseparable. This is the kind of information sustainability reporting sets to provide.

Stakeholder Theory

The traditional definition of a stakeholder is any group or individual who can affect or is affected by the achievement of the organization's objectives (Fontaine, Harman and Schmid, 2006). Thus, Popa, et at. (2009) maintain that stakeholder theory is based on the premise that the stronger the companies' relationships are with other interest parties, the easier it will be to meet its business objectives. Stakeholder theory contributes to the corporate sustainability concept by bringing supplementary business arguments as to why companies should work toward sustainable development. Also, Perrini and Tencati (2006) states that the sustainability of a firm depends on the sustainability of its stakeholder relationships; a company must consider and engage not only shareholders, employees and clients, but also suppliers, public authorities, local (or national according to a firm's size) community and civil society in general, financial partners etc. nowadays and more and more in the future, the quality, that is the sustainability, of stakeholder relationships must be the guiding principle for the managerial decision making process and the pillar of a more comprehensive corporate strategy.

Review of Empirical studies

This review takes into account the research variables as well as the way researches are conducted in this area. It follows this pattern:

Social Reporting Studies

Bowerman and Sharma (2016) investigated whether corporate social responsibility disclosure

(CSRD) is associated with firms' market values in order to assess whether CSRD provides incremental value relevant information to investors. A modified Ohlson (1995) model was used, which is a widely accepted equity valuation model in accounting research. The findings suggest that investors in the UK consider CSRD information in the total information set they use for their investment decision-making, whereas Japanese investors do not appear to find that CSRD provides incremental information over and above financial information to assist in their valuations of firms. These findings have implications for investors and regulators, specifically around the control and governance of firms.

Zhang (2017) examined the impact of corporate social responsibility on the stock returns of U.S. publicly-traded companies that constitute S&P Composite 1500 Index, based on the stock performances during 2000-2014. Following a disaggregate measure as well as conducting cross-sectional one-year lagged regression analyses, the study assessed the effect of three corporate social responsibility indicators from the KLD STATS database, including: Environmental Performance; Corporate Governance Performance; and Social Performance indicators. All three variables were compared with an aggregated CSR rating score, measured as the KLD indicator. The result indicated that Environmental performance has a stronger, though statistically non-significant, negative impact on stock returns compared to Social and Corporate Governance performance scores. Based on four cross-sectional models, the analyses in this study indicate that taking the CSR initiatives will in fact have negative effect on the stock performance as well as the development of the company.

Hirigoyen and Poulain-Rehm (2015) investigate the causal relationships between the various dimensions of corporate social responsibility (human resources, human rights in the workplace, societal commitment, respect for the environment, market behavior and governance) and financial performance (return on equity, return on assets, market to book ratio). Control variables were evaluated on the impact of shareholder structure, financial variables, company size, and sector of activity. It was based on a sample of 329 listed companies in three geographical areas (the United States, Europe and the Asia-Pacific region) for the years 2009 and 2010. The study was based on data from Vigeo's database whose analysis methods are fully compatible with the ISO 26000 Guidelines for Social Responsibility, which adopts a definition of social responsibility that draws upon the idea of 'respect for international standards of behaviour'. Linear regression analysis and the Granger causality test were used to examine the causal relationships between social responsibility and financial performance. The results show that all three measures of financial performance have a negative impact on the overall social responsibility score in 2010.

Ahlen and Ahlen (2012) investigated how the announcement of CSR rating affects stock prices of companies listed on the Stockholm Stock Exchange (Nasdaq OMX Stockholm) and whether any potential impact differs accross industries. An event study was performed to measure the impact of publication of the Folksam Index of CSR on stock prices. 20 companies with thr highest rating, 20 with the lowest rating and 5 without a rating were selected each for the 5 years (2006-2009 and 2011) that the index was released . additionally, top-ranked and bottom-ranked firms for nine industries were analysed. Cumulative abnormal returns were calculated after the publication to determine whether stock prices wrwe affected by the release of the rating. The result revealed that, a bottom has a negative impact on a company's share price, whereas a top ranking firm has no effect. It was also disclosed that the impact varied across industries.

Environmental Reporting Studies

Ezejiofor, John-Akamelu and Chigbo (2016) investigate the effect of sustainability environmental reporting on financial performance of Nigerian corporate organizations. Ex post facto research design and time series data were adopted. Data for the study was collected from annual reports and accounts of the two manufacturing companies in Nigeria in Nigeria for the period, 2009-2013 through simple sampling technique. It uses environmental costs as a dependent variable while revenue and profit were independent variables. Findings were that cost of maintaining environment impact positively on profit realised by companies in Nigeria, meaning that an increase or decrease in the environmental cost may not affect negatively the profit generated by these companies. The study concludes that companies should take their responsibility vis-à-vis the sustainable development into account by decreasing their negative environmental impacts through the implementation of environmental policies, strategies and operations.

Manrique and Martí-Ballester (2017) studied the relationship between corporate environmental performance and corporate financial performance and maintained that the area has been extensively studied in developed countries, and has received less attention in developing countries. For this reason, the main objective of this paper was to examine the effect of corporate environmental performance on corporate financial performance during a global financial crisis, depending on the economic development level of the country where a firm is located. To this end, they obtained data for a sample of 2982 large firms from 2008 to 2015 and applied Petersen's approach to these data, adjusting the standard errors for clustering by both firm and year. The results obtained show that the adoption of environmental practices significantly and positively affects the corporate financial performance in developed and developing countries. However, this effect was stronger for firms located in developing countries than those located in developed countries.

Chang (2015) carried out a study on the impacts of environmental performance and propensity disclosure on financial performance to obtain empirical evidence from an unbalanced panel data of heavy-pollution industries in China. The sample consists of 23 firms in thermal electric industry, 16 firms in steel industry, 19 firms in non-ferrous metal industry, 20 firms in chemical-petrochemical industry, 14 firms in coal-oil-mining industry, 14 firms in building material industry, 24 firms in pharmaceutical industry and 12 firms in textile-leather industry. The study applied stationary variables using unit root and co-integration test of panel data. Panel data analysis was used to determine the impacts of environmental performance and propensity disclosure on financial performance from 2008 to 2012.It was found that environmental performance and propensity exhibits mutual causality relationship with Tobin's Q value using unit root and co-integration test of panel data. Also environmental performance has a significantly negative impact on Tobin's Q value at the significance levels of 1%, while environmental propensity has a significantly positive effect on Tobin's Q value at the significance levels of 5%. Firm size, financial leverage and return of assets have significantly positive impacts on financial performance at the significance levels of 1%.

Sustainability Reporting studies

Reddy and Gordon (2010) investigate the effect of sustainability reporting on financial performance using listed companies in New Zealand and Australia. Using event study method to estimate abnormal returns for a 31 day event window for a sample of 68 listed companies, 17 listed in New Zealand Stock Exchange (NZX) and 51 listed in the Australian Stock exchange (ASX). The study indicates that

sustainability reporting was statistically significant in explaining abnormal returns for the Australian companies.

Burhan and Rahmanti (2012) examine the relationship between sustainability reporting as a whole and each of the elements of sustainability reporting with company performance. The sample of the study was 32 companies listed on Indonesian stock exchange during the period of year 2006-2009. The independent variables were sustainability reporting, economic performance disclosure, environmental performance disclosure and social performance disclosure. These variables were measured by means of disclosure index. Sustainability Reporting Guidelines from Global Reporting Initiative (GRI) was used as the basis of calculating the index score. The dependent variable was Return on Asset (ROA) as a measure of company performance. The result shows that sustainability reporting influences company performance. However, partially, only social performance disclosure influences the company performance. It concludes that sustainability reports do have an association with company performance.

Bartlett (2012) investigates the effect of corporate sustainability reporting on firm valuation in the USA. The study analysed these effects during the Great Recession to note if there was any change in the effects on a year-by-year basis due to macroeconomic differences. The study used data from the Roberts Environmental Centre at Claremont McKenna College. The study conducted multiple corporate sustainability sector analyses using the Pacific Scoring Index (PSI) scoring system. This system the work noted, analyses the quality of a firm's sustainability reporting by reviewing how much information the company releases, their plans for the future, and performance relative to competitors in the industry. This study found that not only was superior corporate sustainability reporting positively correlated with increased firm value, but also that the degree of the impact greatly dropped during the recession.

Aggarwal (2013) investigated if sustainable companies are more profitable. Their study made use of secondary data. The average data over a period of two years from FY 2010-11 to FY 2011-12 was used to enable cross-sectional analysis. Five Accounting-based measures, namely, Return on Assets (ROA), Return on Equity (ROE), Return on Capital Employed (ROCE), Profit before Tax (PBT), and a growth variable - Growth in Total Assets (GTA), was used as proxies for financial performance. Overall Sustainability Rating (OSR), Community Performance Rating (COM), Employees Performance Rating (EMP), Environmental Performance Rating (ENV) and Governance Performance Rating (GOV) were used as proxies for sustainability performance of a company. The statistical results reveal that corporate sustainability as a whole has no significant influence on financial performance. Further, corporate sustainability influences some of the financial performance measures positively (ROA, PBT & GTA) while others negatively.

Eccles, Ioannou, and Serafeim (2014) investigate the effect of corporate sustainability on organizational processes and performance. Using a matched sample of 180 US companies that voluntarily adopted sustainability policies by 1993 – termed as High Sustainability companies and which were compared with a matched sample of firms that adopted almost none of these policies – termed as Low Sustainability companies. They found size and asset turnover load with a positive and highly significant coefficient in the logit regression (untabulated results). The coefficient on MTB was positive and weakly significant. The coefficients on leverage and ROA were both insignificant.

Maletic, Maletic, Dahlgaard and Dahlgaard-Park (2014) investigate the relationship between sustainability oriented innovation practices and organizational performance in Slovenian. The study uses data obtained from a survey of 116 organizations encompassing both the non-financial and service industries. Descriptive statistics and exploratory factor analysis was applied to extract the underlying factors and to provide a basis for assessing their reliability and validity. Regression analysis was used to quantify the effect of sustainability practices on the organizational performance. Data analysis results show that sustainability-oriented innovation practices were significantly associated with organizational performance.

Nugroho and Arjowo (2014) examine the effects of sustainability report disclosure on the company's financial performance using secondary data obtained from 33 non-financial companies' annual financial reports in 2010 which are listed in Indonesian Stock Exchange and which contained information on sustainability reporting and financial statements data in 2011 to measure the financial performance variables. Descriptive statistics were also used to describe the variables in this study. The results indicate that Sustainability Report disclosure had a significant influence towards the ROA in the positive direction. Companies with extensive Sustainability Report disclosure tend to get big ROA in the following year. On the other hand, for testing the hypotheses, it was found that the Sustainability Report disclosure does not have any significant effects towards CR, DER, IT and DPR.

Backstrom and Karlsson (2015) examine corporate sustainability and financial performance in a Swedish context. To achieve this, the study analyses the relationship between corporate sustainability performance and financial performance in a new contextual setting of Sweden. The study used a deductive approach in which a multivariate regression method was used. Six indicators were divided into three levels: qualitative reporting, proactive quantitative target setting and quantitative progress. It uses control variables such as firm size, debt ratio and board size. Univariate regression analysis and ordinary least squares (OLS) multivariate regression analysis was performed to control for other potentially influential variables. The results indicate a positive relationship between corporate sustainability and financial performance.

Maletic, Maletic, Dahlgaard, Dahlgaard-Park and Gomiscek (2015) investigate to clarify the relation between sustainability practices and financial and market performance, and also, the role of non-financial performance outputs in this relation. The questionnaire was administered on managers of firms in Germany, Poland, Serbia, Slovenia and Spain, in portion of 8.1%, 23.1%, 8.1%, 47.0% and 13.8%, respectively. Using a sample of 247 companies, financial and market performance were the dependent variables while quality performance, innovation performance, environmental performance and social performance were potential mediators. The results indicate that direct effect is not statistically different from zero, indicating no relationship between SER and financial and market performance after controlling for mediators.

Hussain (2015) analysed the relationship between sustainability performance (SP) measures (Economic, Environmental, and Social) and financial performance (FP). Data for all SP dimensions were obtained by applying manual content analysis technique on the sustainability reports of 44 among Global Fortune N100 firms from 2007 to 2011. Tobin's Q ratio was used as a measure of market value according to Lindenberg and Ross 1981. Results obtained from fixed effect regression models revealed that the economic performance information was not relevant, while the impact of

environmental and social dimensions of sustainability remains relevant and significant across different measures of FP. No evidence showed any relation between SP and ownership structure. The use of control sample further corroborates the relevance of sustainability dimension to explain changes in FP. Caesaria and Basuki (2017) investigated the effect of Sustainability Report Disclosure to the Firm's market performance. Three material aspects disclosed in the Sustainability report such as economics (EC), environmental (EN), and social aspect (SC) were used as the independent variables while the dependent variable was the market performance proxied by Tobin's Q. The samples taken were 44 observations from all listed companies in the Indonesia Stock Exchange (IDX) that reveal sustainability reports using GRI-G4 guidelines. The results showed that economic, environmental and social aspects have positively significant influence on the company's market performance. The practical implication of this research is the value given by society in term of the company image to those companies which disclosure of their activities related to economics, social, and environment activities affects their company performance.

Alshehhi, Nobanee and Khare (2018) presented an analysis of the literature concerning the impact of corporate sustainability on corporate financial performance. They used content analysis to examine the literature and establish the current state of research. A total of 132 papers from top-tier journals were shortlisted. They found that 78% of publications report a positive relationship between corporate sustainability and financial performance. Variations in research methodology and measurement of variables led to the divergent views on the relationship.

Ndukwe and Nwakanma (2018) investigated the relationship between corporate sustainability reporting and profitability of selected quoted companies in Nigeria. The study adopted ex post facto research design. Data used for the study were sourced from annual reports and financial statements of the companies for the period 2011 to 2015. Multiple regression analysis technique was used to test the hypotheses. Findings revealed a negative relationship between return on equity and corporate sustainability reporting. No significant relationship was established between earnings per share and corporate sustainability reporting.

Methodology

This work adopted a descriptive type of ex-post facto research design which is undertaken after the events have taken place and the data are already in existence. A sample of 65 listed non-financial firms was used for the study. Data was obtained from the annual reports and accounts of these sampled firms through content analysis. Multiple regression analysis was applied to examine the impact of sustainability reporting on the market. Content analysis was used to pick the items reported in annual reports. If an item of interest is found, 1 is recorded and 0 if otherwise. Quality of reporting was coded as 2 for qualitative reporting of an item and 3 for quantitative reporting of the item. An index was calculated by dividing total reporting quality by total occurrence of an item. This represented the independent variables while Tobin's Q, calculated as the market value of equity+ book value of liabilities less book values of total assets was used as an indicator of market performance. Size and Leverage were used as control variables. The multiple regression model was built as follows:

$$TQ = \beta_0 + \beta_1 ENV_{it} + \beta_2 SOC_{it} + \beta_3 ECO_{it} + \beta_4 SIZE_{it} - \beta_5 LEV_{it} + e$$

Where,

TQ = Tobin's Q

ENV = Environmental reporting

SOC = Social reporting
ECO = Economic reporting
SIZE = Logarithm of total revenue
LEV = Leverage
β_0 =the constant;
β_1, β_2, β_3, β_4 = the regression coefficients;
it = firm i at time t
e =the error term used in the regression model.

Results and Discussion

Results

The result of the study is presented thus:

Table 4.1 Regression result of sustainability reporting and Tobins Q

R	.261			
R^2	.068			
R^2 adj	.053			
P-value	.000			
Variable	Coefficient	t-value	P-value	VIF
Constant	8.868	2.520	.012	
ENV	1.422	1.539	.125	1.441
ECO	.818	.708	.480	1.407
SOC	-3.208	-2.788	.006	1.316
SIZE	-.272	-3.772	.000	1.041
LEV	1.188	1.785	.075	1.017

From table 4.1, there is a weak relationship between sustainability variables and performance (Tobins Q) at a value of 26.1%. It also indicates that sustainability reporting accounts for only 6.8% of variations in Tobins Q while 93.2% is accounted by factors outside this study. The difference between R^2 and R^2 adjusted is 1.5% (6.8% - 5.3%) and shows that the result is a true reflection of the population from which the sample was drawn. The table also indicates that a unit increase in environmental and economic reporting will insignificantly increase Tobins Q by 1.42% and 0.82% respectively while a unit in social reporting will significantly reduce Tobins Q by 3.20%. Also, a unit increase in SIZE will significantly decrease Tobins Q by 0.27% and an increase in leverage by 1 unit will insignificantly increase Tobins Q by 1.19%. This means that environmental and economic reporting quality insignificantly increases Tobins Q while social reporting significantly reduces Tobins Q.

Test of hypotheses

The research hypotheses stated earlier are tested below:

HO1 Environmental reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

The null hypothesis is accepted since p-value is greater than 0.05 (0.125 > 0.05)

HO2 Social reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

The null hypothesis is accepted since p-value is greater than 0.05 (0.480 > 0.05)

HO3 Economic reporting does not have significant effect on market value of listed non-financial firms in Nigeria.

The null hypothesis is rejected since p-value is less than 0.05 (0.006 < 0.05)

Discussion of results

From the model summary, it was observed that the model is weak. This is in line with studies such as Maletic, Maletic, Dahlgaard, Dahlgaard-Park and Gomiscak (2015); Aggrawal (2013); Qiu, Shaukat and Thuryan 2016); Burhan and Rahmanti (2012); Otlizky, Schmidt and Rynes (2003); Mohammed (2014); and Nag and Bhattacharyya (2015) who reported a weak to no relationship between social and environmental reporting and financial/market performance. From the studies so far, none has reported strong association between sustainability reporting and performance. This could be attributed to the nature of reporting on sustainability issues, as companies are at liberty to report what they feel like reporting and how to report it. This is because there is no accounting framework that can serve as a guide to preparers of this non-financial information. Hence, reporting in this area is voluntary as to whether a company should report, how and what to report.

From the direction and nature of the correlation between the variables found in the regression coefficients, the results show that environmental reporting has a small but positive relation with Tobins Q. This result is in line with the studies of Nwobu (2015); Peiyuan (2015); Barlett (2012); Eccles, Ioannou and Serafeim (2014): Backstrom and Karlsen (2015); Quea, Lia and Zhang (2017); John-Akamelu and Chigbo (2016) as well as Friedel, Busch and Bassen (2015) who also reported positive association between environmental reporting and performance. However, studies like Chang (2015); Nag and Bhattacharyya (2015) reported negative relationship. Since human health is very vital and the life expectancy rate of all human is on a continuous decline, a positive relation between environmental reporting and market performance signifies a right step in the right direction. Importance is attached to environmental reporting in order to show that companies are environmentally friendly and this is shown in the result of this study.

The results also show that social reporting was negatively related with Tobins Q. This is in line with Lopez, Garcia and Rodriguez (2007); and Hirigoyen and Pourlain-Rehm (2015) who also reported negative relationship between social reporting and performance. The result is against studies such as Tsoutsoura (2004); Charlo, Moya and Mufloz (2015); Najah and Jaboui (2013); Qiu, Shaukat and Tharyan (2016), and Servaes and Tamayo (2013) who reported positive association between social reporting and performance. This result indicates that importance should not be attached to social issues as a basis for ensuring that companies behave socially responsible. This shows that the level of reporting on CSR is adequate and so there is no need to intensify and stress increased reporting quality, as doing this will negatively affect performance.

For economic reporting, a positive relationship was found for the Tobins Q. The result is in line with the study of Caeseria and Basuki (2017). This shows that the current level of reporting is inadequate and so there is a need to intensify efforts towards increased economic reporting. In times of series of economic meltdowns and recessions world over, stakeholders in the information sector in particular and capital market in general, is interested in the kind of disclosure that companies project such information to them. This has the potentials of motivating accelerated economic reporting and boosts the thrust and confidence stakeholders have in sustainability reports, especially the economic aspect.

Conclusion and Recommendations

Conclusion

From the findings of this study, the following conclusions are advanced. Environmental reporting has the potentials of enhancing market performance using Tobins Q. This is because an increase in environmental reporting could lead to increased market performance, though not significant. Increased social reporting is by this study not relevant as statistics have shown that it is capable of decreasing market performance, using Tobins Q. This confirms the claim by Merton Freeman that corporate sustainability reporting is mere waste of Shareholders' value in the short run. That economic reporting should be encouraged as an increase in its reporting could lead to increase in market performance. That statistically, sustainability reporting is not a major determinant of market performance. This is because it is weakly correlated with Tobins Q and is also found to be statistically insignificant.

Recommendations

The study recommended that companies should intensify environmental reporting as this could lead to increased market performance and that local communities where these companies operate and other stakeholders like employees and social and environmental non-governmental organizations must demand sustainability reporting to meet their information needs and help them hold companies to account for not only economic performance but also environmental and social performance as its affect them.

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Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.261[a]	.068	.053	3.10941	.068	4.649	5	319	.000	1.659

a. Predictors: (Constant), LEV, SIZE, ENV, SOC, ECO
b. Dependent Variable: TOBINSQ

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	8.868	3.519		2.520	.012		
ENV	1.422	.924	.100	1.539	.125	.694	1.441
ECO	.818	1.156	.045	.708	.480	.711	1.407
SOC	-3.208	1.151	-.173	-2.788	.006	.760	1.316
SIZE	-.272	.072	-.208	-3.772	.000	.960	1.041
LEV	1.188	.666	.097	1.785	.075	.983	1.017

Conference theme 7:

Auditing, Investigation and Assurance Services

AUDIT FIRM CHARACTERISTICS ON FINANCIAL REPORTING QUALITY OF LISTED INSURANCE COMPANIES IN NIGERIA

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Abstract

This study examines the effect of audit firm characteristics on financial reporting quality of listed insurance companies in Nigeria. Data was generated from the annual reports and accounts of thirteen sampled insurance companies during the period of 2008 to 2016. The dependent variable was financial reporting quality and the independent variable audit firm characteristics of auditor independence, auditor type, audit firm tenure, and audit firm size. Descriptive statistics, Pearson correlation and multiple regression were utilized to analyze the study data. It was found that auditor independence and audit firm size has positive and significant effect on financial reporting quality of listed insurance companies in Nigeria. Auditor type has negative and significant effect on financial reporting quality while audit firm tenure has positive but insignificant effect on financial reporting quality. The control variable of audit committee independence has negative but insignificant effect on financial reporting quality and audit committee financial expertise has positive and insignificant effect on financial reporting quality. On the whole, auditor independence is shown as the audit firm characteristics that matters most in improving financial reporting quality. It is therefore recommended that regulators of the industry should regulate and shareholders should act to maintain independence of audit firms by not allowing audit firms to earn excess revenue from one client in order to ensure and sustain high financial reporting quality.

Keywords: Auditor Independence, Auditor Type, Audit Firm Tenure, Audit Firm Size, Financial Reporting Quality

Introduction

The credibility of the financial reporting is achieved through the statutory work of the auditor. This is because the review of the financial transactions, books of accounts and opinion expressed by the auditor on the financial statements examined serve an assurance function therefore promote the confidence of shareholders and other users on the financial statements. Liu, Wang and Wu (2011)

maintain that audit plays a vital role in serving the public interest by increasing the accountability of managers and reinforcing trust and confidence in financial reporting. Impliedly, it could be inferred that the quality of audit performed by the auditor determines the extent of financial reporting quality of the reporting entity.

Interestingly, the quality of an audit conducted by the auditor is predicated on the characteristics of the audit firm including auditor specialty, auditor independence, auditor tenure, audit firm size, audit fee, auditor expertise, joint audit and audit type (Abedalgader, Ibrahim & Baker, 2010; Umaru, 2014). Umaru (2014) posit that to perform effectively, audit firm need to be properly structured by possessing the right attributes.

There has been an increased research interest in the role of auditors in promoting high financial reporting quality (Umaru, 2014; Eyenubo, Mohammed & Ali, 2017; Jerry & Saidu, 2018; Olanisebe, Ekundayo & Adeyemo, 2018) particularly following corporate failures and scandalous reporting involving high profile corporations such as Enron and WorldCom. Investigations into these scandals actually revealed auditors of these companies were culpable. Hence, another group of studies had sought to determine how factors like audit firm characteristics relates with audit quality (DeAngelo, 1981; Lennox, 1999; Johnson, Khurana & Reynolds, 2002; Kamarudina, Dunstanb & Zijlc, 2010; Lawrence, Minitti & Zhang, 2011; Yeganeh, Kangarlouei & Motavassel, 2012; James & Izien, 2014; Alareeni, 2017; Saidu, 2017). However, whereas audit quality is shown to be determined by audit firm characteristics (James & Izien, 2014) which in turn influences financial reporting quality (Umaru, 2014), few studies has examine the direct relation between audit firm characteristics and financial reporting quality in Nigeria (Umaru, 2014; Eyenubo, Mohammed & Ali, 2017; Jerry & Saidu, 2018; Olanisebe, Ekundayo & Adeyemo, 2018). However, most of these studies focused on the relation between a single or only two audit firm attributes and financial reporting quality.

Moreover, the results are mixed. This current paper contributes to this stream of research by examining the effect of audit firm characteristics of auditor independence, auditor type, audit firm tenure, and audit firm size on financial reporting quality of listed insurance companies in Nigeria.

The literature has shown that the higher the degree of independence of the auditor to the management and shareholders, the higher the tendency to issue uncompromising opinion on the audit work performed (De Angelo, 1981). The Big-4 audit firms are also stated to have higher possibility to resist management pressure to issue a favorable audit report because of higher trade-off of doing so (Francis, 2004). Arrunada and Paz-Ares (1998) and Johnson, Kharana and Reynolds (2002) also show that when auditors audit a client for too long a time, it bleeds familiarity therefore likelihood to perform rigorous tests, and issuance of a favorable audit report. Thus, reasonable audit tenure is critical to the credibility of audit work that auditors perform. Furthermore, larger audit firms tend to have greater incentives to perform high quality audit therefore enhance financial reporting quality (Lennox, 1999).

Based on these propositions, the paper hypothesizes that auditor independence, auditor type, audit firm tenure and audit firm size has no significant effect on the financial reporting quality of listed insurance companies in Nigeria.

The insurance business is a major part of the financial service industry and as such a vital industry in the production and service activity of the national economy as no modern economy can survive without the support of viable and discipline insurance companies (Arena, 2006).

This study is significant because it reveal to regulators and shareholders what audit firm characteristics

matter in promoting financial reporting quality therefore better position them to act to improve the financial reporting quality of companies in the Nigerian insurance industry. The paper is divided into the foregoing introduction, literature review, methodology, results and discussion, and conclusion and recommendations.

Literature Review

Financial reporting is the communication of information on the economic activities of the company to the users of the information (Samaila, 2014). This shows financial reporting as the process involving the production in accordance with prescribed rules and release of financial statements which is adopted by users for their various decisions making. To be relevant and meaningful for users decision needs, financial reporting is to be of high quality. Verdi (2006) opined financial reporting quality as the precision with which financial reports convey information about the reporting entity's operations in the financial year.

Martinez (2014) construed financial reporting quality to relate to the faithfulness of the information conveyed in the financial statements. These views reveal financial reporting quality as the truthfulness, faithfulness and accuracy of the information content in the financial reports. Financial reporting quality has been measured variously in the literature. But Tuta (2014) and Adamu (2017) identify two major measures of financial reporting quality to include quantitative and qualitative approaches. The quantitative approach has been measured using accrual model and value relevance model. The accrual model estimates the extent of earnings management. The model is based on the assumption that the management of companies use discretionary accruals which they can exert some level of control to manage earnings to their advantage (Beast, Braam & Boelens, 2009). The strength in the use of accrual model as a measure of financial reporting quality is argued on its use of information in the annual reports which is more accurate and verifiable. However, the model is criticised on grounds of difficulty to distinguish between discretionary and non-discretionary accruals and exclusion of non-financial information (Healy & Wahlen, 1999).

The value relevance model estimates financial reporting quality based on the association between accounting figures and stock market reaction (Nichloas & Wahlen, 2004). Using the model, firm value is often used as a proxy of accounting figure while share price to proxy company market value. Beast et al., (2009) documented that the model is very useful in examining earnings persistence, predictive ability and variability as elements of financial reporting quality. The model is associated with similar advantages as the accrual model but suffers the shortcoming of not providing insight into the trade-off between relevance and reliability. The use of quantitative approach for measuring financial reporting quality is regarded as not been a comprehensive measure because of its exclusion of non-financial information in the estimation which may be critical for users decision making (Samaila, 2012).

Following the criticisms of the quantitative approach, the qualitative approach described as the qualitative characteristics of financial reporting information was evolved by the IASB and FASB joint project in 2008. The IASB (2008) in its conceptual framework “An improved conceptual framework for financial reporting” stated that a key pre-requisite for quality in financial reporting is the adherence to the objective and the qualitative characteristics of financial reporting information. The IASB maintain that qualitative characteristics are the attributes that makes financial information useful. These are divided into fundamental qualitative characteristics and enhancing qualitative characteristics including relevance, faithful representation, comparability, timeliness, and understandability. Beast et al., (2009) operationalized the qualitative characteristics by assigning scores ranging from 1-5 that has been

widely adopted in the literature to qualitatively measure financial reporting quality. The qualitative approach to the measurement of financial reporting quality is noted to be more comprehensive as it covers both financial and non-financial information. However, there is element of subjectivity in the scoring system therefore reliability of the approach comes to question.

Audit Firm Characteristics and Financial Reporting Quality

Audit firm characteristics are the attributes of the audit firm. It has to do with the features of the audit firm engaged to perform audit of financial statements. DeAngelo, (1981) maintained that the ability of an auditor to mitigate financial statement irregularities is a function of, among others, the auditor's attributes. Audit firm characteristics are identified to include auditor independence, audit specialty, audit tenure, auditor type, joint audit, audit firm size, audit fee, auditor expertise (Abedalgader et al., 2010; Umaru, 2014). However, this current study is interested in the audit firm characteristics of auditor independence, auditor type, audit firm tenure, and audit firm size influence on financial reporting quality.

Auditor Independence and Financial Reporting Quality

Auditor independence is an attitude of mind characterized by integrity and objective approach to professional work. It is a state of mind in which the auditor is in position to express an opinion on matters of financial reporting without bias or being under pressure (The Consultative Council of Accountant Body, CCAB, 2012). The auditor is a third party whose professional opinion on financial statement is relied upon in making far reaching decisions about the reporting entity by investors and other users. To be able to issue an unbiased opinion, the auditor must necessarily maintain distance with the management, shareholders or not have any interest in the entity that may influence the opinion in any way. Where the auditor acts independently and in accordance with auditing standards and professional requirements, financial reporting quality is enhanced. Auditor independence has largely been measured in the literature using size of audit fee (Osamudiame, Nwadialor & Imuentinyan, 2015). In developing economies like Nigeria, auditors are reported as lacking high degree of independence due to huge earnings in revenue from clients. Semiu and Kehinde (2011) investigation of the perception of auditor's independence in Nigeria during the period of 2000 to 2008 reveal that size of audit fee is an important factor capable of deterring auditor independence in the country. Also, Semiu and Johnson (2012) examines Nigerian investors perception of the relation between non-audit services and auditor independence and found that the provision of audit alongside non-audit services impairs auditors' independence, therefore, ability to contribute to high financial reporting quality.

Auditor Type and Financial Reporting Quality

Auditor type is a classification of audit firms into big or small audit firms. This is also known as the Big-4 or the non-Big-4 audit firms. The Big-4 audit firms are large audit firms with international presence while the non-Big-4 is small audit firms with only national or local presence. High audit quality which translates to high financial reporting quality is associated with large audit firms because of superior resources to perform audit, wide client network therefore non-dependence on a particular client than smaller audit firms (DeAngelo, 1981). They also have greater incentives to protect their established reputation by performing high quality audits so as not to be associated with audit failure (Francis, 2004). Auditor type is usually measured by way of assigning a dummy variable 1 where a firm is audited by the big audit firms, otherwise, 0. In Nigeria, the Big-4 auditors are Akintola Williams Delloitte, Pricewaterhouse Cooper, Ernst and Young, and KPMG (Jerry & Saidu, 2018).

Audit Firm Tenure and Financial Reporting Quality

Audit tenure is about the length of the audit firm client relationship as at the fiscal year end covered by the audited financial statements. Put differently, it is the number of years pass that the auditor has been performing the audit function of a client since date of appointment. The longevity of service of the auditor with a particular client is argued to bleed familiarity therefore possibility of the auditor turning a "blind-eye" to some of the financial reporting irregularities that affect the quality of financial statements. According to Arrunda and Paz-Ares (1998), a long auditor-client relationship could result to bonds of loyalty, trust or emotional attachment that may end in the auditor neglecting or engaging in the conduct of less rigorous audit procedures. The recognition of this phenomenon has led to legislation on auditor tenure with emphasis on auditor rotation around the world. For example, in the United States of America, auditors are required to audit a client for a period of maximum of 10 years. In the Nigerian banking industry, the Central Bank of Nigeria regulates for a maximum of 10years. Though the foregoing position is well documented in the audit literature, there is also a school of thought which holds that lengthier auditor tenure is benefiting in improving audit quality therefore financial reporting quality. Simon and Francis (1988) document that long audit tenure makes it possible for the auditor to gain an in depth and specific knowledge of the client hence is better placed to achieve high audit quality.

Audit Firm Size and Financial Reporting Quality

Audit firm size is a measure of the assets including quantity and quality of personnel, technology and other resources available to the audit firm necessary to conduct effective audit. The primary proxy of audit firm size is natural logarithm of total assets (James & Iziens, 2014). Lys and Watts (1994) show that larger audit firms have better financial resources, research facilities, superior technology, and talented employees to effectively perform audit of large clients than small audit firms. Muhammed and Karbhari (2006) also stated that large audit firms are better position to resist management pressure arising from conflicts than small audit firms. On the whole, large audit firms are expected to perform more rigorous audit test because of their huge resources, high experience and technical personnel. Empirically, Lennox (1999) in the United Kingdom (UK) document that a positive relationship exist between audit firm size and accuracy of the work of the auditor.

Empirical Review

The relation between audit firms attributes and financial reporting quality is based on the argument that audit firm attributes influence audit quality which in turn affects financial reporting quality. Alareeni (2017) examines the relation between audit firm characteristics and audit quality of listed firms in Bahrain for the period 1992 to 2016. The study found that there is a positive and significant relationship between audit client-tenure, audit fee and audit quality while audit firm size has negative relationship with audit quality. More specifically, Yeganeh, Kangarlouei and Moavassel (2012) investigate the impact of auditor tenure and audit firm size on accounting conservatism of firms listed in the Tehran Stock Exchange. Based on firm data spanning 2002 to 2010, auditor tenure and audit firm size were found as not affecting accounting conservatism of the firms. Contrarily, Kamarudina, Dunstanb and Zijlc (2010) reported that auditor tenure is positively related with earnings conservatism in Malaysia.

In Nigeria like elsewhere, the empirical evidence of the relation between audit firm characteristics and financial reporting quality are mixed. Umaru (2014) examine the impact of audit firm attributes on financial reporting quality of four building material companies during the period 2002 to 2011. Adopting

OLS multiple regression for analysis, the study found that audit firm independence has positive and significant impact on financial reporting quality while auditor type measured as the Big-4 has a negative but insignificant impact on financial reporting quality. In another study, Jerry and Saidu (2018) who examine the impact of audit firm size on financial reporting quality of thirteen listed insurance companies using OLS multiple regression reported audit firm size has a positive and significant impact on financial reporting quality. Olanisebe, Ekundayo and Adeyemo (2018) found that audit fee has a positive and significant effect on financial reporting quality whereas audit firm rotation and audit tenure has negative relationship with financial reporting quality of deposit money banks in Nigeria.

Theoretical Framework

This paper is underpinned by the agency theory. The agency theory was propounded by Alchian and Demseo (1972) and later developed by Jensen and Meckling (1976). The theory is rooted on the relationship that exists between shareholders who are considered the principal and mangers (agent) within the corporate setting. The theory holds that the shareholders hires managers to administer the company on their behalf. Thus, managers are obliged to pursue the interest of shareholders above their personal and any other interest. Conversely, managers are self-interested inclined therefore may not necessarily make decision in the best interest of the shareholders (Padilla, 2004). The conflict of interest is known as agency problem. Mangers communicate the affairs of the company to the shareholder who are owners periodically through the financial reporting process. To perpetrate their self-interest, managers may manipulate the financial reporting process to the detriment of shareholders.

Thus, to check mate managers from taking advantage of their position to pursue self-interest, a monitoring mechanism becomes necessary. Auditing perform by the external auditor is a crucial monitoring mechanism in mitigating financial reporting malpractices of managers therefore improve financial reporting quality. Umaru (2014) document that the ability of the auditor to mitigate misstatement in financial statement is based on the effort and effectiveness which empirically could be proxy by the hours spent auditing and auditor industry expertise which in turn are composed into auditor independence, auditor compensation, auditor type and joint audit. Simply put, the auditors' ability to mitigate financial statements misstatements is a function of the auditors attributes (De Angelo, 1981). Therefore, audit firms with the right attributes will better monitor mangers from indulging in material misstatement in the process of financial reporting thereby contribute to high financial reporting quality.

Methodology

This study adopt an ex-post factor research design where historical data on audit firm characteristics and financial reporting quality were extracted from the published annual reports and accounts of thirteen out of the twenty-eight insurance companies listed on the Nigerian Stock Exchange (NSE) as at 31st December, 2017. The study period covers 2008 to 2016.

The dependent variable is financial reporting quality which was measured qualitatively based on Beest et al., (2009) framework.

The independent variable is audit firm characteristics which was proxy by auditor independence, auditor type, audit firm tenure, and audit firm size. Auditor's Independence (AUI) was measured by the proportion of audit fee to the audit firm's revenue (James & Izien, 2014). Auditor Type (AUT) was measured using a nominal scale of “1” for Big4 audit firm (Akintola Williams Delloitte, Priceterhouse

Cooper, Ernst and Young, and KPMG) and "0" for non Big4 audit firms. Audit firm tenure (AFT) was measured in length of years spend by the audit firm as external auditor whereby consistent with the section 8.0 clause of the NAICOM; 1-5 years was scaled "1" and above 5 years "0" and audit firm size was measured by the natural logarithm of total assets (James & Izien, 2014).

For robustness, the control variables of *a*udit committee independence (ACI) and audit committee financial expertise (ACE) was introduced into the model. The AI was measured by the proportion of non-executive directors in the audit committee to total number of the audit committee members and audit committee financial expertise (ACE) by the proportion of audit committee members with financial know-how in the audit committee to total number of the committee (*Khrishnan & Visvanathan, 2008)*.

Table for Summary of Variables Measurement

Variables	Type of Variable	Proxies	Measurement	Cited by
Financial Reporting Quality	Dependent	Qualitatively	Relevance, Faithfull Representation, Understandability, Comparability and Timeliness	Beast et al. (2009)
Audit Firm Characteristics	Independent	Auditor Independence (AUI)	proportion of audit fee to the audit firm's revenue	James and Izien, (2014).
		Auditor Type (AUT)	A nominal scale of "1" for Big4 audit firm (Akintola Williams Delloitte, Priceterhouse Cooper, Ernst and Young, and KPMG) and "0" for non Big4 audit firms.	
		Audit Firm Tenure (AFT)	In length of years spend by the audit firm as external auditor whereby consistent with the section 8.0 clause of the NAICOM; 1-5 years was scaled "1" and above 5 years "0"	
		Audit Firm Size (AFS)	Natural logarithm of total assets	James and Izien, (2014).
Audit Committee Characteristics	Control	Audit Committee Independence (ACI)	proportion of non-executive directors in the audit committee to total number of the audit committee members	
		Audit Committee Expertise (ACE)	Proportion of audit committee members with financial know-how in the audit committee to total number of the committee	Khrishnan and Visvanathan, (2008).

The empirical model is stated as:

$FRQ_{it} = b_{0it} + b_{1it}AUI+b_{2it}AUT+b_{3it}AFT+ b_{4it}AFS+b_{5it}ACI+b_{6it}ACE + e_{it}$----------(1) Where: FRQ = Financial Reporting Quality (Qualitative), AUI = Auditor Independence, AUT = Auditor Type, AFT= Audit Firm Tenure, AFS= Audit Firm Size, ACI = Audit Committee Independence, ACE = Audit Committee Financial Expertise, â0 = Regression intercept, â1, â2, â3, â4 = Parameters to be estimated, e = Error term, and it = company i in year t.
The study data was analyzed using descriptive statistics, correlation statistics and OLS multiple regression analysis.

Results and Discussion

The Table 1 presents the descriptive statistics of the study data.

Table 1: Descriptive Statistics

Variables	Obs.	Min	Max	Mean	Std. Dev.
FRQ	117	1.88	3.57	2.780684	0.3575147
AUI	117	0.04	1.53	0.2786325	0.1891036
AUT	117	0	1	0.5128205	0.5019854
AFT	117	0	1	0.6153846	0.4885968
AFS	117	7.29	12.08	9.337607	0.8434214
ACI	117	0.17	0.67	0.4924786	0.0750506
ACE	117	0.29	0.87	0.6251282	0.1452502

Source: Generated by the Authors from Annual Reports and Accounts of Sampled Insurance Companies using Stata 12.0.

Table 1 indicates that the financial reporting quality of insurance companies is moderate. This is inferred from the mean score of 2.780684 out of the maximum of 5.00. The insurance companies highest financial reporting quality was 3.57 with the lowest being 1.88 during the period under review. The standard deviation of 0.355147 shows little dispersion in the financial reporting quality of the sampled companies during the period of study. The statistics with respect to the independent variables reveal mean auditor independence of 27.9%, about 51.3% of the insurance companies are audited by the Big-4 audit firms, 61.5% of the company's auditors have spent between 1 to 5years as required by section 8.0 clause of the NAICOM, and average total assets size of N9.33 million. The standard deviations associated with the variables do not show elements of wide dispersion. These statistics clearly indicates that audit firms of insurance companies in Nigeria possess attributes capable of contributing to high financial reporting quality. A look at the mean value of the control variables indicates that the audit committees of the sampled insurance companies is averagely 49.2% independent, and about 62.5% of the members have relevant financial expertise.

Table 2 depicts the correlation between financial reporting quality and the independent variables as well as the independent variables among themselves.

Table 2: Correlation Matrix

Variables	FRQ	AUI	AUT	AFT	AFS	ACI	ACE	VIF
FRQ	1.0000							
AUI	0.3305*	1.0000						1.10

AUT	-0.2762*	0.0756	1.0000					1.27
AFT	0.0124	0.0605	0.1784	1.0000				1.04
AFS	0.1637	0.2023*	0.3399*	0.0398	1.0000			1.39
ACI	0.0153	0.2015*	0.3733*	0.0732	0.4276*	1.0000		1.40
ACE	0.0517	0.1828*	0.1102	0.0341	-0.1053	0.1777	1.0000	1.13

*Correlation is significant at the 0.05 significance level.

Source: Generated by Authors from the annual reports and accounts of the sampled insurance companies using Stata 12.0.

Table 2 shows that auditor independence has a positive and significant effect on financial reporting quality as reveal by the coefficient of 0.3305 which is significant at the 5% significance level. Auditor type is negatively and significantly associated with financial reporting quality. Audit firm tenure, audit firm size and the control variables of audit committee independence and audit committee financial expertise all have positive but insignificant effect on financial reporting quality as reveal by the coefficients of 0.0124, 0.1637, 0.0153 and 0.0517 respectively.

The correlation coefficients on the main diagonal are 1.0000 because each variable has a perfect positive linear relationship with itself. The correlation among the independent variables shows that audit firm size is positively and significantly correlated with auditor independence and auditor type with coefficients of 0.2023 and 0.3399 respectively. Audit committee independence is positively and significantly correlated with auditor independence and auditor type, and audit firm size while audit committee financial expertise is positively and significantly correlated with auditor independence. The relationship of all the others is positive but insignificant except in the case of audit committee financial expertise and audit firm size which are negatively correlated.

The suitability of the study data was confirmed by performing normality, multicollinearity, heteroskedasticity and Hausman specification tests. The normality test reveal normal p-plot of the regression standardized residual indicates a good fit and does not suggest the presence of any significant outliers among the regression standardized residuals. The result of the multicollinearity test indicates a Variance Inflation Factor (VIF) of minimum of 1.04 and maximum of 1.40 (see Table 2). Since, the mean VIF of 1.22 is less than 10, it is clear that there is absence of multicollinearity between the independent variables of the study. The result of the heteroskedasticity test shows the presence of heteroskedasticity as the p-value of the chi-square is 0.0000 which is significant. Since heteroskedasticity which is not the ideal condition was found, it was corrected through the Ordinary Least Square (OLS) robust test. Due to the trade-off between the efficiency of the Random Effect (RE) and consistency of the Fixed Effect (FE) approach of the OLS regression, Hausman specification test was conducted to decide which of the approach was best to analyze the study results. The test shows chi-square p-value of 0.5712 which is insignificant and indicates that the variables are correlated which further implies that the study result is to be interpreted using the Random Effect (RE) model. Table 3 presents the summary OLS regression and RE model results.

Table 3: Summary Regression Result

	OLS				Random Effect			
Variables	Coef.	Std. Err.	T	$p^{>/t/}$	Coef.	Std. Err.	Z	$p^{>/z/}$
Constant	1.6119	0.3933	4.30	0.000*	1.5771	0.4744	3.33	0.001*

AUI	0.5630	0.1637	3.44	0.001	0.5925	0.1638	3.62	0.000*
AUT	-0.2802	0.0661	-4.24	0.000*	-0.2424	0.0804	-3.01	0.003*
AFT	0.0393	0.0614	0.640	0.523	0.0519	0.0598	0.87	0.386
AFS	0.1066	0.0412	2.59	0.011	0.1261	0.0448	2.81	0.005*
ACI	-0.1030	0.4639	-0.22	0.825	-0.2656	0.5413	-0.49	0.624
ACE	0.1701	0.2155	0.79	0.431	0.1329	0.2799	0.47	0.635
R^2	0.2522							
Adj. R^2	0.2114							
F-value	6.18							
Prob-F	0.0000							
Rho	0.1434							
Prob	0.0000							

*Correlation is significant at the 5% significant level.

Source: Generated by Authors from the annual Reports and Accounts of Sampled insurance companies using Stata 12, 2018.

Table 3 shows R2 of 0.2522 which means that about 25.22% of total variation in financial reporting quality of listed insurance companies in Nigeria is accounted for by auditor independence, auditor type, audit firm tenure and audit firm size. The F-statistics of 6.18 is associated with p-value of 0.000 which is less than the 5% significance level indicating the model is a good fit. Jointly considered, the OLS p-value of 0.001 at 5% reveal that audit firm characteristics has significant effect on financial reporting quality of listed insurance companies in Nigeria.

The individual results indicates that auditor independence and audit firm size has positive and significant effect on financial reporting as reveal by the coefficient of 0.5925, 0.1261 and p-value of 0.000 and 0.005 respectively at 5% significance level. The finding with respect to auditor independence and audit firm size is consistent with that of Umaru (2014) and Jerry and Saidu (2018) respectively. Auditor type is reveal to have a negative and significant effect on financial reporting quality as the coefficient is -02424 with p-value of 0.003 at 5% significance level. This finding is similar but different from Umaru (2014) who found a negative but insignificant effect of auditor type on financial reporting quality. Furthermore, audit firm tenure has a positive but insignificant effect on financial reporting quality as indicated by coefficient of 0.0519 and p-value of 0.386 which exceed the chosen 5% significance level. This result is contrary to Olanisebe, Ekundayo and Adeyemo (2018) that found a negative relationship between audit firm rotation and financial reporting quality. A consideration of the control variables reveal that audit committee independence has a negative but insignificant effect on financial reporting quality while audit committee financial expertise is positively but insignificantly related with financial reporting quality.

Conclusion and Recommendations

This study examines the effect of audit firm characteristics on the financial reporting quality of listed insurance companies in Nigeria. The results show that audit firm characteristics could affect significantly the financial reporting quality of insurance companies in Nigeria. This means that regulators and especially shareholders of insurance companies in Nigeria should be concern with the attributes of audit firms when deciding on the appointment of the external auditor. It is obvious from the

results that auditor independence, audit firm size and audit firm tenure of the audit firm engaged to perform audit work matters in improving financial reporting quality of Nigerian insurance companies while auditor type (i.e engagement of a Big-4 or non-Big-4) does not matter. In particular, the audit firm attribute of auditor independence derive financial reporting quality the most as indicated by it having the highest coefficient of 0.5925. To ensure and sustain high financial reporting quality, therefore, regulators of the industry need to regulate and shareholders should act to maintain independence of audit firms by not allowing audit firms to earn excess revenue from one client. It is needless to point out that where an audit firm earns excess revenue from a client through the rendering of consultancy services, the likelihood of bending to management aspiration is higher.

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AUDIT QUALITY AND THE LEVEL OF EARNINGS MANIPULATION: A STUDY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This study examines the impact of audit quality on earnings manipulation in the Nigerian Deposit Money Banks. Expost-facto research design was adopted and data was extracted from the annual reports and accounts of the banks for the period under study. The data were analysed using multivariate regression analysis. The findings revealed that total audit fees has a positive but not significant relationship with the level of earnings manipulations, non-audit fees equally exhibit a positive but not significant relationship with the level of earning manipulations, joint audit has a positive but not significant relationship with the level of earning manipulations, audit partner rotation exhibit a negative but not significant relationship with the level of earning manipulations. Further, board independence exhibits a negative but not significant relationship with the level of earning manipulations. The study concludes that the roles of audit quality in reducing the level of earning manipulations in the listed DMBs in Nigeria cannot be underestimated. This is in consideration of the fact that audit failure might have a detrimental effect not only on the shareholders, but on all the stakeholders. The study recommends that audit leading partner rotation should be encouraged since this will reduce the level of earning manipulations of DMBs in Nigeria. Regulatory bodies should encourage joint audit as this will reduce the domination of Big 4 audit firms in the audit market allowing fair competition and enabling small indigenous audit firms to excel.

Keywords: Audit Quality, Earnings Manipulations, DMBs

Introduction

Background to the Study

The roles of commercial banks in economic development of any country whether developed or a developing economy cannot be underestimated considering its intermediation role of sourcing deposits from surplus segment of the economy and channeling it to the deficit segment of the economy. However, concerns about audit quality have gained increased ascendancy especially as a result of the spectacular financial reporting scandals in major corporations the world over, for example window dressed accounts in the USA which resulted to the collapse of the energy corporation ENRON in 2001, the company filed for bankruptcy after adjusting its accounts. WorldCom, Global Crossing and Rank Xerox are other companies in the USA with similar problem. In Italy, Parmalat failed in 2003 when it

engaged in accounting scandals worth 8 billion Euros (Demaki, 2011; Norwani, Mohammad, &Chek, 2011). In New Zealand, Allied Nationwide Finance failed in September 2010 while NZF Money became bankrupt in January, 2011 (Lianne, 2011). Nigeria had its own share of financial reporting failures with the problems in Cadbury Nigeria Plc. In 2006; Afribank Nigeria Plc faced problem of financial reporting in 2009 and Intercontinental Bank Plc. (2009).

Audit quality can be seen as the market-assessed joint probability that a given auditor will both identify a breach in the client company accounting system and report that breach, that is the auditor has both the technical competence to detect any material errors during the audit process, and the independence to ensure that material errors and omissions are corrected or disclosed in the auditor's report. Certainly, this will promote the credibility of financial statement (De-Agelo, 1981).

According to Okaro, Okafor and Ofoegbu (2016) a critical success factor in any audit is the values, ethics and attitudes of audit is performed in the wider public interest and, the importance of complying with ethical requirements, the engagement team exhibits objectivity and integrity, the engagement team is independent, the engagement team exhibits professional competence and due care, the engagement team exhibits professional skepticism (IAASB, 2014).

In a joint audit, two different audit firms jointly form an opinion of a client's financial statements, it follows that both audit firms are jointly liable for the issued audit opinion, this will enhances the independence of the auditor and hence has a salutary effect on audit quality. This has a tendency to weaken the economic bonding between the auditor and the client because of the fee sharing between the auditors, and will also reduce the risk of collusion between the auditors and two pairs of eyes are better than one (Oostebosch, 2015; Otusanya&Lauwo, 2015).

Boards of Directors and management are in the best position to assess the auditors performance as part of their fiscal and fiduciary responsibility to the company in overseeing the financial reporting process, these individuals knows what data is meaningful to them based on their understanding of the company; hence, the board of directors is responsible for the accounting of daily activities in organizations and rendering proper stewardship on how the financial resources of the shareholders were managed. To this end, the law gives the shareholders the mandate to appoint an external auditor at the AGM to provide assurance services that the financial statements prepared by management represent the underlying financial transactions of the organization for the period covered. This is because understanding key risks that could have an effect on financial statements of a company and effectively translating that knowledge in to a well-defined audit plan to address the risks identified are the main elements in a quality audit. In addition, a quality audit results from the performance of the audit team in planning and executing the audit plan within the system of quality control established by the audit firm.

Management has a large arsenal of techniques that can trick investors into believing that a company has generated more profit than it really has, however, Countries all round the world have set codes of best practice as guidelines to address governance and financial reporting anomalies. Despite the interventions of the regulatory authorities, the challenges of ensuring credibility in financial reporting is that corporate financial failures have been on the increase, especially in the past decade (CBN 2010).

Despites the unethical nature of earnings manipulations, it is embedded in the culture of many organizations as it enable the management to capitalized on accounting loopholes and report

consistent profit. However, the intent to use earnings management to deceived stakeholders implies that it can be unethical, even if the earnings management remains within the boundaries of GAAP or IAS. It therefore becomes pertinent to investigate the interface between audit quality and earnings manipulations and more so the factors affecting audit quality in order to enhance the relevance of audit and assurance functions. The present study find answers to the questions how does audit quality influence level of earnings manipulation of listed DMBs in Nigeria? As such the main objective of this study is to examine the impact of audit quality on the level of earnings manipulation on listed DMBs in Nigeria.

The remainder of this paper is organized as follows; next section contained definition of concepts and the review of existing literature, section three contained methodological approach and its justification. Section four presents discussion of results and the last section contained conclusion and recommendations based on the findings of the study.

Literature review

This section provides the review of literature including the concept of audit quality, the concept of earnings manipulations, review of empirical literature and theoretical framework.

Conceptual literature

Concept of Audit Quality

Audit Quality is made up of many different factors and the relative importance of these factors is dependent upon the users of financial information and their specific needs. According to DeAngelo (1981, p.186), " is market-assessed joint probability that a given auditor will both (a) discover a breach in the client accounting system and (b) report the breach." Titman and Trueman (1986) see audit quality as the accuracy of the information reported by auditors. Jackson, Moldrich and Roebuck (2008) view the quality of audits from actual and perceived quality. Actual quality shows levels of risk of material errors in financial statements that can be reduced by the auditor. Perceived quality indicates the level of confidence of users in financial statement and the auditor's effectiveness in reducing material misstatement in financial statements prepared by management. It can therefore be deduced that audit quality can be seen as the accuracy and fair presentation of the information contained in the auditor's report.

Concept of Earnings Manipulation

While earnings manipulation is synonymous with earnings management, it is important to have a conceptualize earnings before diving into earning management. Earnings are profits of a company, investors and analysts look to earnings to determine the attractiveness of a particular stock. Hence; companies with poor earnings prospects will typically have lower share prices than those with good prospects (Kanagaretnam, Lobo & Mathieu, (2004) and Anandarajan, Hassan &McCarthy (2007)). It is predominantly a function of manipulating accruals (Barton & Hodder, 2014). Earning management is defined as the active manipulation of accounting results for the purpose of creating an altered impression of business performance (Mulford&Comiskey, 2012). It can therefore be deduced that earnings management is the mis-use of discretionary judgment to restructured financial transactions to either mislead stakeholders or to influence the outcome of their negotiations.

Empirical studies

A lot has been written on Audit quality and earnings management which includes but not limited to the

following; Duff (2009) examine the changing perceptions of audit quality in the UK during a period of significant environmental change using the views of three audit stakeholder groups of auditors, auditees and investors. The results identify that audit quality as defined by four higher-order factors labeled competence, independence, relationship and service qualities. Confirmatory factor analyses indicated measurement equivalence across groups drawn from the three samples and two time periods. Contrary to expectations, mean scores on the "technical" audit factors (competence, relationship and independence) fell from 2002 to 2005. However, as expected no change in service quality means scores was identified across the period.

Becker, Defond, Jiambalvo and Subramanyam (2010) examine the relation between audit quality and earnings management using a cross-sectional version of the jones 1991 model and found that clients of non-Big Six auditors report discretionary accruals that are, on average, 1.5-2.1 percent of total assets higher than the discretionary accruals reported by clients of Big Six auditors. Also, consistent with earnings management, the findings revealed that the mean and median of the absolute value of discretionary accruals are greater for firms with non-Big Six auditors, this result also indicates that lower audit quality is associated with more " accounting flexibility". Chi, Lisic and Pevzner (2011) examine whether firms resort to real earning management when their ability to manage accruals is constrained by higher quality auditors, and found that longer auditor tenure is associated with greater real earnings management, which could suggest merit of mandating audit firm rotation. This was confirmed by Adeyemi and Okpara (2011) who found a positive and significant relationship between audit quality and the quality of financial reporting in Nigeria.

Similarly, Perols and Lougee (2011) examine how previous earning management impacts the likelihood that a firm will commit financial statement fraud and find that fraud firms are more likely to have managed earnings in prior years and that earnings management in prior years is associated with a higher likelihood that firms that meet or beat analyst forecasts or that inflate revenue are committing fraud, and further revealed that fraud firms are more likely to meet or beat analyst forecasts and inflate revenue than non-fraud firms are even when there is no evidence of prior earnings management. However, in not too distant time, Adeyemi, Okpala and Dabor (2012) responded to the recommendation of Adeniyi and Mieseigh (2010) by investigating the factors affecting audit quality in Nigeria and found that provision of non-audit services have significant effect on the quality of the audit in Nigeria but did not find audit firm rotation to be a significant factor for enhancing audit quality in Nigeria. The study recommends that regulatory authorities should ensure that the same firm do not render audit service and offer management advisory services in the same company simultaneously.

However, Zerni, Ki, Rvinen and Niemi (2012) examine whether the decision to voluntarily (i.e without a statutory obligation) employ two audit firms to conduct a joint audit is related to audit quality. The empirical findings suggest that companies opting to employ joint audits have a higher degree of earnings conservatism, lower abnormal accruals, better credit rating and lower perceived risk of becoming insolvent within the next year than other firms. However, in contrary to Lesage, Ratzinger-Sakel and Kettunen (2012) conducted a comparative analysis on mandatory joint audit in Denmark and France; the results confirmed the non-significant association between fees (either audit fees or total fees) and joint audit, and the non-significant association between abnormal accrual and joint audit in Denmark. While the French case where joint audit has long been a tradition, the findings revealed

similar results for audit quality (no significant differences between both countries regarding abnormal accruals in France) and higher fees (audit fees and total fees) in France.

Ayorinde and Babajide (2015) examine the link between audit tenure, rotation and accounting conservatism using empirical data from Nigeria, and found that tenure of auditor has a significant positive influence on firms accounting conservatism; the rotation of audit firms also significantly influences accounting conservatism. The study recommends the mandatory rotation of audit firms' lead engagement partner and the review partner on an engagement for publicly listed companies, and the strict prohibition of providing non-audit services by auditors to their clients to enhance auditors' independence and the quality of audit services. In the same vein, Okaro, Okafor and Ofoegbu (2016) examine the perceptions of Nigerian Accountants, Auditors and Accounting Academics on the effect of joint audit on audit quality and found that respondents believe that the introduction of joint audit will positively affect audit quality. Similarly, Abubakar (2016) examine the effect of audit quality and corporate governance on real earning management of banks in Nigeria and found an insignificant negative relationship between Big 4 auditor and real earnings management (revenue and discretionary expenses manipulation); and a positive relationship between joint audit and real earning management. The results show that governance mechanisms (board independence and board size) have significant positive effect on cash flows manipulation, while audit committee (size, independence and financial knowledge) has a significant negative effect on cash flows manipulations during the period. Overall, the results indicate a significant relationship between aggregate real earning management and the audit quality measures and governance mechanisms. The study recommends that regulators and policy makers in the Nigerian banking industry should consider real and accrual earnings management when making policy to mitigate unethical practices.

Nawaish (2016) examine the prediction that external audit quality is positively associated with earnings management in Jordanian banking firms listed in Amman Stock Exchange (ASE). Findings revealed that (AT), (AFEE), and the (INT) have significant relations with earnings management. It means, future earnings management forecast is predictable based on audit quality leading indicators (AT, AFEE, and INT). contrary to this Lobo, Paugam, Zhang &Casta (2016) document that firms audited by Big 4-non-Big 4 auditor pair (BS) are more likely to book an impairment and book a larger impairment than firms audited by a Big 4-Big 4 auditor pair (BB) when low-performance indicators suggest a greater likelihood of impairment. Moreover, firms audited by a BB pair reduce impairment disclosures when they book impairments, while firms audited by a BS pair do not, suggesting lower transparency for firms audited by a BB pair. The results inform investors and firms in mandatory joint audit regimes, as well as regulators who are considering requiring joint audits.

Saleem and Alzoubi (2016) examine the association between audit quality and earnings management and found a significantly negative association between audit quality and earnings management. The findings inferred that EM level is significantly lower among companies using the services of independent auditors. Moreover, the study exposed that the level of EM is significantly less among companies hiring a Big 4 audit firm, as compared to companies utilizing the service of a non-Big 4 auditor firm and concluded that accruals would reduce when the auditor is independent or the audit firm is large.

Jayeola, Taofeek and Toluwalase (2017) examine relation between audit quality and earnings management on Nigerian listed deposit money banks and found a significant positive relationship between joint audit and earning management which implies that a change to joint audit from single audit increases earnings management which implies that every unit increase in audit specialization decreases earnings management, a significant positive relationship between audit independence and earnings management. Equally revealed an insignificant negative relationship between audit tenure and earnings management and concluded that lengthy audit tenure be discouraged. Similarly, Eyenubo, Mohamed and Ali (2017) conceptualize the effect of audit firm tenure and financial reporting quality and concludes that the longer the audit tenures the higher the level of familiarity threats and this will adversely affect audit quality and suggested that the audit firm tenure should be moderate between the range of one and three years. At the same, the study of James and Izien (2017) suggested the need for the Nigerian Financial Reporting Council and other regulatory bodies in line with best practices to look critically into the three years professional requirements for auditors.

However, while Nazir & Afzan (2018) analyze the role of corporate governance in enhancing firm value along with the moderating role of discretionary earnings management and found that the behavior of managers is opportunistic towards managing earnings and this opportunistic behavior of managers to manipulate earnings is negatively moderating the well-established positive relationship of corporate governance and firm value, Amat, Elvira and Platikanova (2018) studied the role of auditors in the prevention of earnings management practice and found that companies more often overstate than understate their earnings and the magnitude of an audit adjustment depends, other things constant, on annual revenues and free cash levels. However, Huma and Ilyas *(2019) finds evidence that big 4 auditors constrain earnings management of their client firms.*

It can be deduced that there is a conflicting findings in the existing empirical literatures which might perhaps be as a results of the use of different variables and their measurement, sectoral differences and difference in the period covered as some were conducted during an economic boom others during economic recessions.

Theoretical framework

Three theories relevant to this study were considered to give the theoretical basis for understanding the dynamics of audit quality and its roles in minimizing the level of earnings manipulations in the Nigerian banking sector. These include positivist theory, Agency theory and Stakeholders theory. However, the theory that best guide this study is the stakeholder theory because audit failure might have a detrimental effect not only on the shareholders but on investors, employees, management, the government and the general public at large, as such stakeholder theory was adopted to guide this study.

Methodology

This study adopted *ex-post facto* research design because the study entails the use of data extracted from annual report and accounts of the ten selected Nigerian Deposit Money Banks under study; it was adopted in view of its relative importance to the actualization of the research objective which is to evaluate the relationship between audit quality and the level of earnings manipulation of Nigerian DMBs.

The population of this study is made up of all the 16 quoted Nigerian Banks. The study covers the

period 2012 to 2016. 10 banks were selected as a sample size for this study and the sample size was derived using the yaroyamani sample selection formula used by Kantudu (2006) and Barde (2009).

$$n = \frac{N}{1+Ne^2}$$

Where
N = the population size
n= the sample size
e= the marginal error at 20%
By substitution, the sample of the study was determined as follows:
N = 16, and e = 20%
$n = 16/1 + 15\,(0.2)^2$ $n = 16/ 1+ 15\,(0.04)$ $n= 16/1 + 0.6$ $n = 16/ 1.6$ $n = 10$
From the computation, 10 banks were randomly selected from the total population to make the sample size of the study and are presented in the table 3.1

Table 3.1 Sample size of the study

S/N	Bank Name	Year of Incorporation	Year of Listing
1	FBN	1969	1971
2	GTB	1990	1996
3	Access Bank	1989	1998
4	Zenith Bank	1990	2004
5	Diamond Bank	1990	2005
6	UBA	1961	1970
7	Union Bank	1969	1970
8	FCMB	1982	2004
9	Fidelity Bank	1987	2005
10	Starling Bank	1960	1993

Source: Generated by the Researchers from the NSE fact book

Table 3.2 Variables and their Measurement

S/N	Variables	Measurement	Type
1	Total accruals (TACC)	Net income minus operating cash flow deflated by total assets Li & Lin (2014)	Dependent
2	Loan loss provision (LLP)	Co + Loan outstanding + NPL_{it} + NPL_{it+1}	Dependent
3	Non-Audit fees (NAUDFEE)	Natural logarism of non-audit fees	Independent
4	Audit fees (AFEE)	Log of total audit fees paid	Inependent
5	Audit firm tenure (AFT)	Number of years the audit firm served	Independent
6	Joint audit (JA)	Joint audit firm1, single audit firm 0	Independent
7	Audit partner rotation(APR)	Change in leading partner 1, otherwise 0	Independent
8	Board Independence	Number of non-executive directors / total number of directors	Independent

9	Return on asset (ROA)	PBT divided by total assets	Control
10	% change in net interest income (CNII)	Current NII minus previous NII divided by previous NII	Control
12	Bank Age (BANKAGE)	Number of years from the date of listing on the NSE	Control
13	Net cash flow (NCFTTA)	Net operating cash flow deflated by total assets	Control

In order to achieve the objectives of the study and following the techniques used by (Li and Lin (2005) Adebayo (2011); Perols & Lougee (2011); Adeyimi & Okpala (2011); Beslic, Bebslic, Jaksic & Andric, 2015; Khalil & Ozkan (2016) and Jayeola, Taofeek & Toluwalase (2017) this study adopted multivariate regression techniques. This is because multivariate regression explains the variation in dependent variables due to the variation in any of the independent variables, and OLS regression will not produce multivariate results, nor will they allow for testing of coefficients across equation.

Results and Discussion

This section presents the results of the analysis conducted on the data collected from the annual report and report and account. The descriptive statistics, correlation and multivariate regression results are presented below.

Table 4.1 Descriptive statistics of the variables

Variables	Obs.	Mean	Std. Dev.	Min	Max
Tacc	50	0.039	0.150	-0.217	0.704
Dllp	50	0.382	0.229	0.009	1.006
Lgauditf	50	8.401	0.206	8.053	8.797
Naudfee	50	0.345	2.439	0	17.249
Ja	50	0.140	0.351	0	1
Apr	50	0.260	0.443	0	1
Auditten	50	4.08	1.736	1	8
Bi	50	0.651	0.099	0.438	0.909
Cinii	50	5.640	38.943	-0.858	275.495
Roa	50	0.0214	0.0157	-0.0007	0.0636
Ncftta	50	-0.0205	0.151	-0.688	0.233
Bankage	50	22.4	14.661	7	46

Source: Generated from Annual Report Data of the Banks using STATA

The descriptive statistics above revealed that total accruals has a mean of 0.039, standard deviation of 0.1504, with a minimum and maximum of -0.2167 and 0.704 respectively. Discretionary loan loss provision has a mean of 0.3818, a standard deviation of 0.2288 with a minimum and maximum of 0.0086 and 1.0059 respectively. Audit fees has a mean of 8.4006, standard deviation of 0.2057 with a minimum and maximum of 8.0531 (N113, 000, 000) and 8.7966 (N 626, 000, 000) respectively. Non audit fee has a mean of 0.3450, a standard deviation of 2.439 with a minimum and maximum of 0 and 17.22495 respectively.

Joint audit has a mean of 0.1400, standard deviation of 0.3505 with a minimum and maximum of 0 and 1 respectively. this mean that joint audit has not been popular in the Nigerian banking sectors considering the fact that only first bank Nigeria plc and fidelity bank Nigeria plc engaged two audit firms for an audit assignment. Audit leading partner rotation has a mean of 0.2600, a standard deviation of 0.4431 with a minimum and maximum of 0 and 1. Auditor tenure has mean of 4.08, meaning on average auditors serve for 4 years, standard deviation of 1.74 with a minimum and maximum of 1year and 8years respectively. On average 65.07% of the board members are non-executive directors with a standard deviation of 0.0993, however, the minimum and maximum are 0.438 and 0.909 respectively. This is in line with CBN code of corporate governance which stipulates that the number of non-executive directors should be more than the executive directors in other to ensure effective decision making. A change in net interest income has a mean of 5.640, a standard deviation of 38.94 with a minimum and maximum of -0.858 and 275.50 respectively signifying high rate of fluctuation in net interest income within the period under study.

On average the return on asset of the banks under study has a mean of 0.0214 signifying 2.14% of returns on assets utilized within the period under study, a standard deviation of 0.0157, with the minimum and maximum of -0.07% and 6.36% respectively, net cash flow to total asset has a mean of -0.021, a standard deviation of 0.1509 with the minimum and maximum of -0.688 and 0.233 respectively.
On average the banks under study have an average age of 22 years, a standard deviation of 14.661 with the minimum and maximum of 7 years and 46 years respectively.

Table 4.2 Multivariate regression results on Earnings Management and Audit Quality

Equation	ObsParms	RMSE	R-sq	F	P-value	Mean VIF
Tacc 50	11	0.0072	0.998	211.86	0.0000	1.33
Dllp 50	11	0.2342	0.1657	2.7746	0.6518	1.3

Variables	Coefficients	Standard err.	T-statistics	P >/t/
Tacc				
Constant	-0.1383	0.0539	-2.56	0.014
Lgauditfee	0.0176	0.0067	2.61	0.013
Nlnauditfee	0.0004	0.0005	0.86	0.393
Ja	0.0045	0.0034	1.33	0.192
Apr	-0.0048	0.0025	-1.94	0.060
Auditten	-0.00002	0.0007	-0.02	0.982
Bi	-0.0068	0.0116	-0.59	0.559
Cinii	0.0002	0.0003	5.20	0.000
Roa	0.5888	0.0864	6.8	0.000
Ncftta	-0.9881	0.0072	-137.81	0.000
Bankage	0.0001	0.0008	0.70	0.491
Dllp				
Constant	-1.2517	1.7457	-0.72	0.478
Lgauditfee	0.2057	0.2181	0.94	0.351

Nlnauditfee	0.0105	0.0145	0.72	0.473
Ja	-0.0046	0.1085	-0.04	0.966
Apr	-0.3002	0.0792	0.38	0.707
Auditten	-0.0047	0.0241	0.19	0.849
Bi	-0.0677	0.3757	0.18	0.858
Cinii	0.0002	0.0009	0.55	0.585
Roa	-3.1493	2.7955	-1.13	0.267
Ncftta	0.3691	0.2320	1.59	0.120
Bankage	-0.0043	0.0026	1.67	0.102

Source: Regression results computed by the authors using STATA

The multivariate regression results displayed in Table 4.3 reveals a cumulative R2 of 0.998 for total accrual model and 0.1567 for discretionary loan loss provision which is the multiple coefficient of determination that gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variable jointly. Thus, it signifies that 99.8% of total variation in total accruals of listed Nigerian banks is caused by the Non-audit fees, Total audit fees, Joint audit, Audit partner rotation, Auditor tenure, Board independence, change in net interest income, Return on asset, Net cash flow to total assets and age of the banks while 0.2% of the variation is as a result of other variables not considered in this study. The P-value is 0.000 and the F-statistics value is 211.86, implying that the model is fit and significant at 5% significance level considering the rule of thumb of 2 (Hassan &Abubakar, 2012 and Samaila, 2014). Similarly, 16.57% of total variation in discretionary loan loss provision of listed Nigerian banks is caused by the Non-audit fees, Total audit fees, Joint audit, Audit partner rotation, Auditor tenure, Board independence, change in net interest income, Return on asset, Net cash flow to total assets and age of the banks while 83.43% of the variation is as a result of other variables not considered in this study. The P-value is 0.6518 and the F-statistics value is 2.775 implying that the model is fit but not statistically significant at 5% significance level. Therefore, the models are fit and the variables were properly selected, combined and used as substantial changes in the level of earnings manipulations is accounted for by the explanatory variables.

The results as shown in Table 4.3 indicate that total audit fees has a positive relationship with the level of earnings manipulations (total accruals and discretionary loan loss provision), the relationship is statistically significant with total accruals and not significant with discretionary loan loss provision. This implies that an increase in audit fees higher than the industry average will increase the level of earning manipulations (total accruals) by 0.018% and (discretionary loan loss provision) by 0.206%. Non-audit fees equally exhibit a positive relationship with the level of earning manipulations (total accruals and discretionary loan loss provision) but the relationship is statistically not significant, however increase in non-audit fees will increase the level of earnings manipulation (total accruals) by 0.0004% and (discretionary loan loss provision) by 0.0156% perhaps is because when auditors carries out non-audit work at the same time and the ratio of non-audit fees to total audit fees is high, this will have a detrimental effects on audit quality because the auditors may lost independence as they might be unwilling to perform rigorous substantive test to detect earnings manipulations. This finding is consistent with Li and Lin (2005) who provides evidences that total audit fees and non-audit fees are positively associated earnings restatements, Adebayo (2011) who uncovered a positive relationship between auditors' independence and the credibility of financial statement. Equally consistent with Adeyemi, Okpala & Dabor (2012) who reported that provision of non-audit services would likely have a

significant effect on the audit quality in Nigeria, and also in line with the findings of Ayorinde & Babajide (2015) who recommends the strict prohibition of providing non-audit services by auditors to their clients to enhance auditors' independence and audit quality.

Joint audit exhibit a positive but not significant relationship with total accrual but negative and not significant with discretionary loan loss provision, the positive influence of joint audit on the level of earning manipulation might be as a result of competition between auditors aiming to acquire a larger share of the business in the upcoming years may hinder cooperation and even compromise audit quality because of insufficient information exchange. This findings is consistent with the findings of Jayeola, Taofeek & Tolwoelse (2017); Abubakar (2016) and Lesage, Ratzinger-Sakel & Kettunen (2012) who uncover a non-significant association between earnings management and joint audit, but the findings is contrary to the findings of Zerni, Ki, Rvinen (2012) who uncovered that joint audit is associated with substantial increase in audit fees paid suggesting a higher perceived audit quality.

Audit partner rotation exhibits a negative and significant relationship with total accrual this implies that a change in audit leads engagement partner will reduce the level of earning manipulations by -0.0048% and this relationship is significant. This finding is consistent with the findings of Ayorinde & Babajide (2015) who recommends mandatory rotation of audit firm lead partner and the review partner on an engagement for publically listed companies.

Audit tenure showed a negative relationship with total accruals implying that longer audit tenure reduced the level of earnings manipulation but this relationship is not significant, this findings is consistent with the findings of Adeniyi & Mieseigh (2010) who found a negative and not significant relationship audit tenure and audit quality, Dantas & Medeiros (2014) who found that audit quality will be lower when auditor-client relationship is of long term, equally in line with the findings of Nawaiseh, (2016) and Jayela, Taofeek & Tolwoelse (2017) who uncovered a negative relationship between audit tenure and earning management. And Eyenubo, Mohd & Ali (2017) who documented that the longer the audit firm tenure the higher the level of familiarity threats and this will have a detrimental effect on earning management. However, the finding has contradict the findings of Shafie, Hussin, Yusof&Hussain (2016) who found that audit firm tenure is positively and significantly related with auditor reporting quality.

The findings revealed a positive but not significant relationship between Audit tenure and discretionary loan loss provision, meaning increase in audit tenure by 1% increase discretionary loan loss provision by 0.005%. This is consistent with the findings of Chi, Lisk & Perzner (2011) who reported that longer auditor tenure is associated with greater real earnings management which could suggest merits of mandatory audit firm rotation.

Board independence exhibits a negative but not significant relationship with total accrual implying a decrease in total accruals by -0.0068% as a result of increase in board independence by 1%. Perhaps is because the non-executive directors serve as monitoring mechanism to executive directors, this finding is contrary to the findings of Khalil & Ozkan (2016) who cast doubt on the notion that a high ratio of non-executive members is associated with lower earning management.

Change in net interest income and return on assets exhibits positive relationship with both the total

accruals and discretionary loan loss provision, however only the relationship total accrual was found to be statistically significant implying increase in total accrual by 0.0002% and 0.5888% respectively and discretionary loan loss provision by a 0.0002% and -3.1493% respectively this is in line with the notion that higher interest income and higher profitability results to high level of earnings manipulation as management may try to save for the rainy season to ensure tomorrow look fantastic in the eyes of investors.

The net operating cash flow to total assets revealed a negative and significant relationship with total accruals indicating that an increase in net operating cash flow to total assets by 1% will leads to a decrease in the level of earnings manipulation by -0.9881% and this relationship is statistically significant, but the relationship is positive and not significant with discretionary loan loss provision. Bank age was found to have a positive and significant relationship with total accruals, but the relationship is negative with discretionary accruals although not statistically significant, this imply that the older the bank the lower the level of earnings manipulation perhaps is because of the value of reputation and the bank does not want to lost corporate reputation overnight.

Conclusion and Recommendations

This study empirically examined the impact of audit quality on the level of earnings manipulation on the Nigerian DMBs. Based on the findings; the study concludes that the roles of audit quality in reducing the level of earnings manipulation in the financial institutions cannot be underestimated in considerations of the fact that audit failure might have a detrimental effect not only on the shareholders but also on all other stakeholders. The study recommends that audit leading partner rotation should be encouraged since this will reduced the level of earnings manipulations of DMBs in Nigeria. Regulatory bodies should encourage joint audit as this will reduce the domination of big 4 audit firms in the audit market, this will encourage fair competition and will enable small indigenous audit firms to excel.

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INTERNAL CONTROL, RISK-BASED AUDITING AND FINANCIAL REPORTING QUALITY

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Abstract

The significance of effective corporate governance has gained a tremendous regulatory and public attention in recent years. An important element of company's corporate governance is its internal audit function. At the same time, there has been public concern about the reliability and integrity of company's financial reporting quality. The objective of this study is to examine the relationship between internal audit characteristics and financial reporting quality in Nigeria using a survey approach in form of questionnaire personally administered on internal auditors using a sample of fifty companies listed on the Nigerian Stock Exchange (NSE) to collect information for the period December 2018 to February 2019. PLS 2.0 was used to analyze the data where hypotheses were tested at 0.01 significant level. The findings of the study provided significant and positive evidence between internal control activities, risk-based internal auditing and financial reporting quality. Finally, the study provided direction for future research.

Keywords: Internal auditing, financial reporting, internal control activities, risk-based auditing.

Introduction

Recently publicized high profile corporate scandals such as Transmile Group Berhad, WorldCom, Bond Corporation, Enron, Shenzhen Yuanye, BCCI, Savannah Bank PLC and publicly accounting scandals involving Lehman Brothers and Arthur Anderson has raised a serious question on the reliability and integrity of disclosures in financial reports around the world. These happenings resulted to companies going into liquidation, loss of jobs and crash in share prices in the Nigerian Stock Exchange (Iyoha, 2011; Kantudu & Samaila, 2015; Ojeka, Iyoha, & Obigbemi, 2014; Ugwu, 2016 and Report on Observance of Standards and Codes (ROSC, 2011). This wave of accounting scandal that had happened at both national and international level has raised concern about the financial reporting quality which eroded the investor's confidence on the credibility and quality of financial reports prepared by the management.

An effort to restore investors' confidence has given rise to the enactment of several regulations and the issuance of Code of Corporate Governance. For example, The Sarbanes-Oxley Act (SOX, 2002) in the USA, the Committee of Sponsoring Organization (COSO, 2006) and The Treadway Commission 1997. Likewise, in an effort to restore investors' confidence in Financial reporting in Nigeria, the

Financial Reporting Council (FRC) was established in 2011which resulted to the enactment of Financial Reporting Act (FRA, 2012) and the release of FRC Code of Corporate Governance (CCG, 2016) which addresses the issue of internal audit function as a monitoring mechanism in improving the quality of financial reporting. These regulations has made academic researchers to focus more attention towards internal audit function as a monitoring mechanism in financial reporting (Abbott, Daugherty, Parker, & Peters, 2016; Al-Shetwi & Ramadili, 2011; Alzeban, 2018; Davidson, Goodwin-Stewart, & Kent, 2005; Marius Gros, Koch, & Wallek, 2017; Johl, Johl, Subramaniam, & Cooper, 2013; Prawitt, Smith, & Wood, 2009).

The role played by internal audit function in effective financial reporting monitoring is considered to be crucial (SOX, 2002). Internal audit function is vital in obtaining good corporate governance (Cohen, Krishnamoorthy, & Wright, 2004; Gramling, Mario, Schneider, & Church, 2004) which in turn demands clear and sufficient financial information disclosure. Internal audit function has become an important impetus for board of directors, audit committees, management, external auditor and other stakeholders in the present business setting. If adequately resourced and implemented, the internal audit function can play a role in advancing and supporting effective organizational governance (Bhasin, 2010; Hermanson & Rittenberg, 2003; Sarens, 2009).

The existing literature present support that internal audit function has a positive influence on financial reporting monitoring (Abbott, Daugherty, Parker, & Peters, 2016b; Marius Gros et al., 2017; Johl et al., 2013). However, the role of internal audit in improving financial reporting quality is based on the argument on the development of the function competencies, independence, risk management, internal control activities; and coordination with the external auditor as an important elements that can help improve the quality of governance process and financial reporting quality (Abbott et al., 2016a; Coetzee, 2016; Aloke Al Ghosh & Lee, 2013; Gras-Gil, Marin-Hernandez, & Garcia-Perez de Lema, 2012; Johl et al., 2013; Oh, Choi, Jeong, & Pae, 2014).

Companies usually report financial reports and information to key stakeholders and continuously are reporting more than financial results, communicating on organization values concerning stewardship, management practices, employee relations and other related topics (Guxholli, Karapici, & Gjinopulli, 2012). Additionally, established evidence showed that internal audit function impact on financial reporting quality in terms of detecting and preventing fraud (Kabuye, Nkundabanyanga, Opiso, & Nakabuye, 2017). Cohen et al.,(2004) revealed that internal auditors are integral parts of corporate governance and contribute in ensuring the reliability and integrity of financial statements. However, the study of Davidson et al., (2005) noted a weak and negative association between internal audit function and financial reporting quality in Australia. Similarly, Mohammed Al-Shetwi, Ramadili, Chowdury, & Sori, (2011) reported a negative association between mere establishment of internal audit function and financial reporting quality of Saudi Arabian companies listed in the Saudi Stock Exchange.

The motivation behind this write-up sprang from lack of empirical study in this area as well as limited researches available on the area of internal audit function and financial reporting of emerging economies. The overall objective of the study is to determine the validity and reliability of the variables of the study and investigate the relationship between internal control activities, risk-based internal auditing and financial reporting quality. Several studies have examined the relationship between internal audit characteristics (competency, independence, objectivity) and financial reporting quality

(Abbott et al., 2016; Johl et al, 2013; Prawitt et al., 2009). However, little is known about the relationship between internal control activities, risk-based internal auditing and financial reporting quality. Thus, the present study contribute to the literature by looking at the relationship between internal audit characteristics (internal control activities, risk-based internal auditing) and financial reporting quality from small emerging economy Nigeria.

The rest of the paper is organized as follows, section 2 present the literature review and hypotheses development, section 3 provides the theoretical foundation, section 4 covers the methodology, section 5 contains the empirical results and section 6 present the conclusion.

Literature Review and Hypotheses Development

Prior studies

In the recent years and aftermath of the world financial crises the focus of attention has been move towards internal audit function on financial reporting quality as a critical element in the corporate governance structure (COSO1994; SOX, 2002; Treadway Commission, 1997). The Institute of Internal Auditor (IIA) defined internal auditing as:

"an independent, objective assurance and consulting activity designed to add value and improve an organization operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate the effectiveness of risk management, control and governance processes"

According to Tang, (2008) financial reporting quality is the level to which financial reports present true and fair information about the underlying performance and financial position of an organization. The objective of financial reporting is to present information that are useful to the present and potential investors in making investment decisions and to the other stakeholders IASB, (2008). There are two main qualitative characteristics of financial accounting information: fundamental qualitative characteristics and enhancing qualitative characteristics (IASB, 2008).

Over the years' literature have shown that internal audit function has positive and negative influence of company's financial reporting quality in the area of fraud detection and prevention (Coram, Ferguson, & Moroney, 2008; James, 2003; Kabuye et al., 2017). James, (2003) reported no difference in the users perception of financial statement fraud prevention between in-house and out sourced internal audit departments when both department report to audit committee. The result of Kabuye et al., (2017) acknowledged that internal audit competence and organizational status are significant predictors of fraud management in the Ugandan financial service sector. Oh et al., (2014) indicated that strict regulations of internal control over financial reporting minimizes the opportunistic behavior of management leading to better accounting information quality. Church, McMillan, & Schneider, (2001) indicated that internal auditors can detect fraud factors and when they encounter such factors they are likely to investigate fraud which can in turn increase the possibilities of fraud prevention and detection.

Furthermore, internal auditors play a critical function in financial reporting, one of such area is in preventing management opportunistic behavior in earnings management (Abbott et al., 2016a; M Al-Shetwi & Ramadili, 2011; Davidson et al., 2005; Gebrayel, Jarrar, Salloum, & Lefebvre, 2018; M Gros, Koch, & Walker, 2017; K. Johl, Kaur Johl, Subramaniam, & Cooper, 2013; Prawitt et al., 2009). Prawitt et al., (2009) based on PCAOB (2007), SAS No.65 and AICPA, (1991) developed their measures

taking into consideration factor in assessing the internal audit function competence and the information gathered from IIA GIAN data base which comprised of survey responses from Chief Audit Executives (CAE's) concerning the development of internal audit activities. The authors indicated that internal audit function quality is positively related to financial reporting quality as proxies by discretionary accruals and the propensity to beat/miss analysts forecast. Thus, the result suggested that increases in internal audit function quality increased the possibilities of the internal audit function to identify and prevent management opportunistic accounting behavior and thereby ensuring that irregularities are corrected before the release of financial statements.

In a different approach using a sample of Saudi listed companies, Mohammed Al-Shetwi et al., (2011) analyzed the impact of the internal audit function quality on financial reporting quality. The result provided a weak relationship between existence of internal audit function and financial reporting quality as a reduction in the level of discretionary accruals. Similarly, Davidson et al., (2005) using a sample of Australian companies examined the effect voluntary formation of internal audit function on the financial reporting quality. The study presented no significant association between reduction in the level of discretionary accruals and voluntary formation of an internal audit function. However, in contrast to Davidson et al., (2005) and Mohammed Al-Shetwi et al., (2011)Sierra García, Ruiz Barbadillo, & Orta Pérez, (2012) reported a negative and significant relationship between formation of an internal audit function and the level of earnings management in a Spanish environment. Both studies of Davidson et al., (2005), Mohammed Al-Shetwi et al., (2011) and Sierra García et al., (2012) focus on existence of an internal audit function and do not investigate any information with regard to the design or quality of an internal audit function.

Hypotheses Development

Internal Control Activities

In previous studies, various aspects of internal control activities have been investigated for instance, within the “three line of defense model” of the IIA, (2013) some studies examined internal control activities. Goh & Li, (2011) provided a positive association between internal control quality and timely loss recognition as a means of financial reporting quality. Krishnan, (2005) indicated that an effective internal control system constitutes a significant factor in attaining good financial reporting quality. Kasim (2015) reported a significant positive relationship between internal control activities and financial reporting quality, however, Setiyawati, (2013) indicated that implementation of internal control system within an organization does not have a significant effect on financial reporting quality. Elbannan, (2009) found companies with low internal control quality are more likely to be smaller in size, lower credit rating lower cash flow from operating activities and lower profitability. Despite the important role played by internal auditors in ensuring effective monitoring of internal controls activities, studies examining internal control activities on financial reporting quality in emerging economy are scant as most studies are conducted in developed countries (Aloke and Ghosh, 2013; Doyle et al., 2007) and the findings of these studies are limited to the developed countries and do not take into consideration specific situations in emerging economies where the governance structures may be weak (ROSC, 2011). As such, study into the relationship between internal control activities and financial reporting quality in an emerging economy like Nigeria where the new governance structure were released such FRC Code of Corporate Governance 2016 which stipulate the requirement of internal control activities over financial reporting on all listed companies deserve a scholarly attention and motivate this study. Based on this contentions our hypothesis is follows:

H1: There is a positive association between internal control activities and financial reporting quality.

Risk-Based Auditing

Consistent with King 111 Report (2009), risk-based auditing approach enhances the strength of internal financial controls and inspired the internal audit to be risk based. Susan Fraser (2011) indicated that risk-based method of auditing centered on the timing, nature and level of audit techniques to areas that has the possibilities to bring about material misstatement in financial statements. The notion of risk-based auditing as stated by Griffiths, (2016) is to provide normality in financial reporting system. Hemmatfar, Rahimi, & Maleki, (2013) also emphasized that risk-based auditing contributes significantly to the validity and reliability of audit reports. Thus, risk-based strengthen the trust of financial statement users, reduces mistakes and misrepresentations and reduces auditing cost. Risk-based auditing and financial reporting quality have an association from the discussion. However, most of the risk-based internal audit studies focused on the role of internal auditing can play with respect to the company's overall risk management strategy and its implementation (Abdullatif & Kawuq, 2015; Benli & Celayir, 2014; Bowlin, 2011; Castanheira, Rodrigues, & Craig, 2010; Hamatfar & Hemmati, 2013; Plant, Coetzee & Fourie, 2013; Salehi & Khatiri, 2011; Selim & McNamee, 1999) Both these studies ignore the potential benefits of using risk-based internal auditing approach as a basis when performing financial reporting processes. Thus, the present study looked as the risk-based auditing in association financial reporting quality from small emerging market Nigeria where Section 17(1) of the FRC Code of Corporate Governance 2016 required all private sector companies to have an effective risk-based internal audit function. Based on this assertion our study hypothesis is follows:

H1: There is a positive association between risk-based auditing and financial reporting quality.

Theoretical Foundation: Agency Theory

Agency theory is based on the assumption of the relationship between management and principals (Jensen & Meckling, 1976). The agency theory believed that managements are in a better position to secure information regarding the business more than the principals and this information advantage resulted to information asymmetry. The principals require information to monitor and control the management, whereas the management are in full control of information flow and this sometimes resulted to agency conflicts (Lazarides & Drimpetas, 2008). As a result of these conflicts of interest principals, believed that management actions need to be checked. Effective oversight could be attained if principals can personally partake in the monitoring process. However, because of lack of expertise and cost involved they cannot personally partake in the process. Thus, the principals have to set a monitoring mechanism to provide oversight on their behalf (Johnson, Daily, & Ellstrand, 1996).

Fama & Jensen, (1983) indicated that it is the duty of the board of directors to reduce agency problems and agency cost arising as a result of the division of ownership and control. Hoitash, Udi, Hoistash, and Bedard, (2009) stated that agency conflicts can be minimize through effective internal audit function. Similarly, corporate governance advocates have emphasized the role of internal auditors as effective monitoring mechanisms in reducing agency conflicts (Agrawal, A & Knoeber, 1996; Dezort, Hermanson, Dana, Archambeault, Deborah, & Reed, 2002). The role of financial reporting is mostly explained by agency theory (Myllymäki, 2015), the agency relationship between management and principals is seen mostly to create the demand for financial reporting. Financial reporting reduces

agency conflicts by bringing the interests of the management and those of the principals (bonding) and by monitoring. The bonding role can be seen from the incentive contracts, which are usually based on financial statement numbers. The monitoring role suggest that financial statements are used to monitor management actions (contracts terms and performance). Further to the management and principals relationship financial reporting also minimizes information asymmetry between various stakeholders. Publicly disclose financial statements present information for decision-making for a number of different stakeholders (Bushman & Smith, 2001; Fama, 1980).

Methodology

Population and sample of the study

The population of this study comprised of all listed companies on the floor of the Nigerian Stock Exchange, while organizations are the unit of analysis and the head of internal audit units are the respondents as the representative of their organizations. The sample size of the study comprised of fifty listed companies. Hence, a total copies of 50 questionnaires were personally distributed in purposive sample approach, the questionnaire consist of closed ended multiple questions on a five-point Likert Scale. Out of the total 50 questionnaires distributed, 30 were returned valid for analysis which represent 60 percent response rate.

With regard to the validity and reliability of the instrument, the study carried out content/face validity to ensure the instrument is measuring the proposed variables. The reliability test was also carried out using Crobach's alpha coefficient which is widely employed by researchers in testing the internal consistency of the instrument(Sekeran& Bougie, 2012). Using SPSS v21 for windows to test the reliability of the measures and Smart-PLS 2.0 statistical package to test the measurement model, (discriminant convergent validity), and structural model to test hypotheses of two independent variables on the dependent variable of the study.

Variable measurement

Internal audit characteristics in this study include two dimensions comprising of 15 items. Six items identified by Ackermann, (2015), Abdullatif & Kawuq, (2015) and Castanheira et al., (2010) to measure risk-based internal auditing and nine items to measure internal control activities as identified by Utami, (2016) and Wah, (2011). As mentioned in the previous studies, there is no agreement among researchers about measuring financial reporting quality. Researchers relate this concept to the quality of accruals (Abbott et al., 2016; Gros et al., 2017; Johl et al., 2013; Prawitt et al., 2009) contended that a number of researchers (Hodge, 2001; Krishnamoorthy, Wright, & Cohen, 2002) have considered survey of different stakeholders such as investor and analysts rating to measure financial reporting quality. Tang, (2008)Tang et al., (2008) confirmed that financial reporting quality is the level to which financial reports presented true and fair information about the underlying performance and financial position of a company.

In this study, financial reporting quality is measured based on items provide in the International Accounting Standards Board (IASB, 2008) Conceptual Framework for financial reporting which considered financial reporting as effective only when financial information can positively influence capital providers and other stakeholders in making investment, credit and similar resource allocation (Beest, Braam, & Boelens, 2009). Therefore, 22 items in this study are used to measure financial reporting quality based on comparability, faithful representation and relevance of annual reports from

the internal auditor's perspective. Respondents in this study were asked to rate financial reporting quality by using five-point Likert scale ranging from 1 strongly disagree to 5 strongly agree.

Results

The results of the study reliability test indicated that all the items in the instrument have a high reliability values ranging from 0.77 to 0.94, this is in accordance with the standard established by Hair, Black W.C, Babin, Anderson, & Tatham, (2006), Nunnally, (1978) and Cavana, Delahaye, & Sekaran, (2001) that an instrument with coefficient of 0.60 is considered as having average reliability and a coefficient of .70 or higher indicates the instrument has high reliability. Table 1 below presents the summary of reliability result.

Table 1: Reliability Result

Variables	No. of Items	Reliability
Risk Based Audit	6	.93
Internal Control Activities	9	.87
Financial Reporting Quality	22	.89

The Measurement Model

The main objective of measurement model is filter the data which is assess and confirm the variable validity and reliability before establishing the goodness of measures. They are examined through the indicators reliability, which 0.4 is accepted, internal consistency, using composite reliability, 0.7 is accepted level, convergent validity using average variance extracted (AVE) which must be 0.5 and above (Hair, Ringle, & Sarstedt, 2011), and discriminant validity using factor loading, any item loading on the construct higher than their loading should be deleted (Hair, Anderson, & Tatham, 2010). Therefore, to achieve the measurement model assessment out of 37 items, 15 were deleted. Hence, it has been resolved that the instrument adapted in this study is reliable since is with less than 0.4. All items loaded on their respective construct ranges from 0.665 to 0.904, this is in line with (Hair et al., 2011), which is acceptable since it is above the cut-off value of 0.4. To determine the convergence validity, AVE was used, the AVE ranges from 0.500 to 0.739 which is above the minimum cut-off value of 0.5 (Hair et al., 2011). Equally, the composite reliability values ranges from 0.875 to 0.944 which are also greater than the recommended value of 0.7 (Hair et al., 2011). Lastly, to determine the discriminant validity the average variance extracted (AVE) is compared to correlation squared of the interrelated variables of concerned variables which indicated adequate discriminant validity. Table 2 present the convergent validity of measurement model and Table 3 presents the discriminant validity.

Table 2.Convergent Validity of Measurement model

Constructs	Items	Loadings	AVE	CR
Financial Reporting Quality	FRQ1	.665	.500	.875
	FRQ3	.734		
	FRQ4	.702		
	FRQ14	.697		
	FRQ19	.755		
	FRQ20	.727		
	FRQ22	.668		
Internal Control Activities	ICA1	.566	.551	.906
	ICA3	.662		

	ICA4	.841		
	ICA5	.900		
	ICA6	.778		
	ICA7	.841		
	ICA8	.651		
	ICA9	.676		
Risk-Based Audit	RBA1	.793	.739	.944
	RBA2	.904		
	RBA3	.865		
	RBA4	.888		
	RBA5	.862		
	RBA6	.842		

Table 3. Discriminant Validity

Constructs	FRQ	ICA	RBA
FRQ	.907		
ICA	.806	.742	
RBA	.442	.194	.859

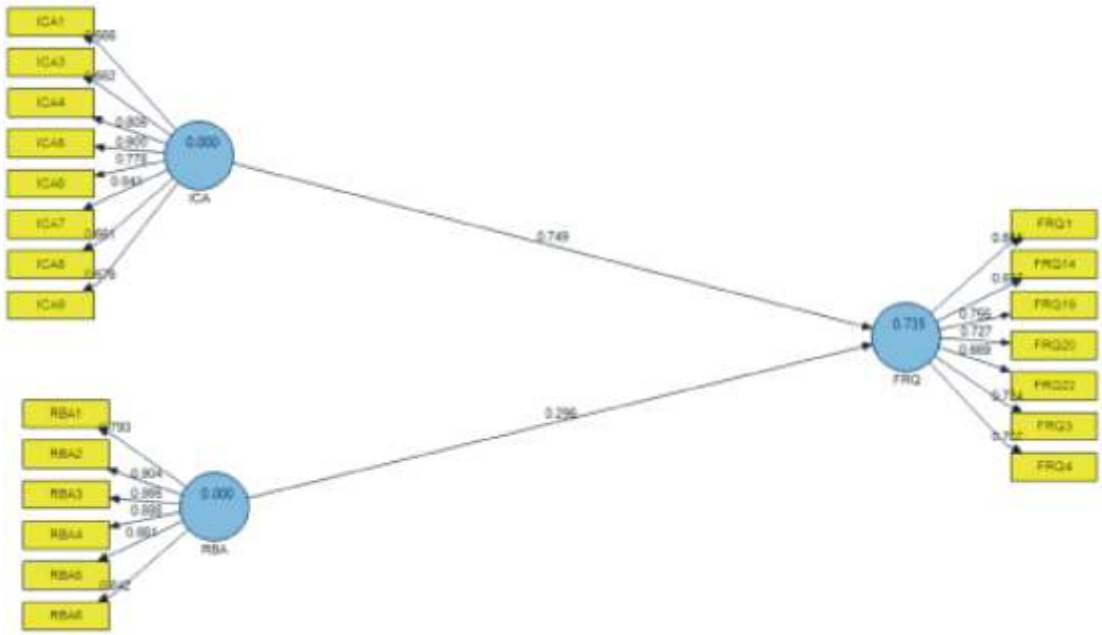

Figure 1 Measurement Model

Structural Model

After achieving the requirement of the measurement model, the next step was to test the proposed hypotheses of the study by running PLS Bootstrapping in Smart PLS 2 (see table 3).

Table 4: *Hypotheses Testing Results*

Hypotheses	Relationships	Std Beta	SE	T Statistics	Decision
H1	ICA -> FRQ	.748	.109	6.884**	Supported
H2	RBA -> FRQ	.296	.142	2.080**	Supported

**P<0.01 (1 tailed)

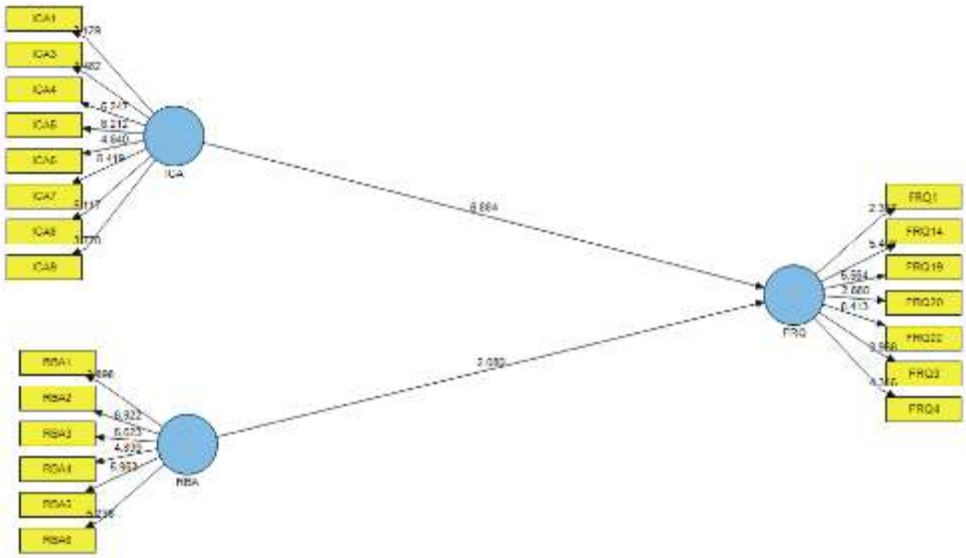

Figure Structural Model

Discussion of Results

The result of the reliability test provided Cronbach's values for individual variables are all above 0.70. Given the established standard of 0.70 it can be concluded that all the variables have higher reliability level. Furthermore, the statistical result of the study revealed that hypothesis 1(H1) is supported, where ICA – FRQ relationship is positively significant (β = .748, t = 6.884), this is in line with the earlier findings that internal control activities improve financial reporting quality . Consequently, it indicates that the higher the internal auditor involvement in internal control activities related to financial reporting processes, the higher the financial reporting quality. Similarly, hypothesis 2 (H2) is also supported where RBA is positively related to FRQ (β = .296, t = 2.080) this is consistent with the earlier assumptions of that internal auditors involvement in internal risk-based auditing would prevent financial misstatement in the annual reports which in turn improve financial reporting quality.

Conclusion

The findings of this study provided evidence that the variables measured have higher reliability to measure internal audit function and financial reporting quality and the internal control activities and internal risk-based auditing are significantly and positively related to financial reporting quality. These findings called for attention as a result of inadequate empirical study in this particular area. The findings also augment the previous studies and present some support for the theoretical framework presented by agency theory and the result are in line with the claim in internal audit and financial reporting literature and could have some implications. As with all other studies, this too has its own

shortcomings, first the study similar is to all several studies that employed questionnaire to collect information and this is expected to be affected from the shortcomings associated with this approach including biasness and response rate. Conversely, study tried to reduce these drawbacks by means of using personally administered questionnaire which mostly have higher response rate than other approaches. Additionally, the sample size was too small which limits the generalization of the result across sectors. Hence, the present study highlighted the need for further research in this area with large sample.

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AUDIT COMMITTEE ATTRIBUTES AND INTELLECTUAL CAPITAL DISCLOSURE OF LISTED BANKS IN NIGERIA

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Abstract

The purpose of this study is to investigate the influence of audit committee attributes on intellectual capital disclosure of 8 Nigerian listed banks from 2014-2017 financial year. Using intellectual capital disclosure index to extract data for disclosure from the financial statement, the empirical results of multiple regressions reveal that audit committee gender diversity and firm age have significant impact on intellectual capital disclosure. Audit committee size, audit committee frequency of meeting, audit committee independence and audit committee financial expertise are not significantly associated with intellectual capital disclosure. This study provides empirical evidence to policy makers to see the need to introduce a framework that would consider gender diversity during appointment of audit committee members. The results would further strengthen extant literatures on the level of impact of audit committee characteristics on intellectual capital disclosure.

Keywords: Audit committee attributes; intellectual capital disclosure; corporate governance

Introduction

The audit committee is saddled with the responsibility of ensuring that the accounting and policies of the company are in tandem with legal requirements and ethical practices. It is one of the committees required by the corporate governance code to carryover oversight function over the management, external auditors and directors. Previous studies have indicated that the structure of the audit committee does have an impact in the effectiveness and overall performance of the firm (Bedard, & Gendron, 2010; Li, Mangena, & Pike, 2012; Karajeh, & Ibrahim, 2017; Alqatamin, 2018). While some researchers found no significant relationship between audit committee characteristics and value creation (Soewignyo & Soewignyo, 2018). Soewignyo and Soewignyo (2018) opined that AC is the core of the monitoring mechanism for shareholders and other constituents and especially in light of the many accounting scandals. Its formation helps to protect shareholder's value (Islam, Islam, Bhattacharjee & Islam, 2010) and to oversee a company's management, with the aim of safeguarding the interest of the owners (Kallamu & Saat, 2015).

The audit committee is one of the closest committees or body that checkmates the activities of the board, management and auditors (both internal and external). A well-constituted audit committee would go a long way to impact positively on the activities of management. Previous studies have examined the effect of audit committee characteristics on firm performance/value (Al-Matari, Al-Swidi,

Fadzil, & Al-Matari, 2012; Zábojníková, 2016; Agyemang-Mintah, & Schadewitz, 2018; Alqatamin, 2018), financial reporting quality and shareholders value (Moses, Ofurum, & Egbe, 2016; Mwangi, Oluoch, Muturi, & Florence, 2017; Karajeh, 2017; Eyenubo, Mohammed, & Ali, 2017; Jerubet, Chepng'eno, & Tenai, 2017; Soewignyo, & Soewignyo, 2018), earnings quality (Kiryanto, 2014), firm's cost of equity (Khemakhem, & Naciri, 2015), audit quality (Habbash, 2015), interaction with the internal audit department (Nasser, 2015), and corporate voluntary disclosure (Madi, Ishak, & Manaf, 2014). Few studies have examined the impact or association between audit committees and intellectual capital disclosure.

Intellectual capital (IC) is a burning issue in modern-day research. It is an intangible asset of an organisation. According to Maleki and Serkani (2014) IC is a portfolio of intangible assets which are not usually reflected in the balance sheet (statement of financial position) of companies. IC disclosure in the annual reports of companies is important because it mitigates information asymmetry between the management and stakeholders (Farag, Meng & Mallin, 2015). Some researchers are of the opinion that the structure or attributes of the audit committee might have influence on the intellectual capital disclosure. Li et al (2012) confirm that the effectiveness of audit committees in the corporate reporting process is a function of certain characteristics.

Most of the studies carried out in this research area are in the developed countries and there are still limited empirical literature that examined the effect of audit committee characteristics on intellectual capital disclosure. Therefore, this study seeks to examine the influence of audit committee characteristics on intellectual capital disclosure in listed banks in Nigeria. The banking industry in Nigeria is one of the sectors that demand a very high intellectual capital to function. Based on the researchers' knowledge, there is a paucity of research in this field from the Nigeria perspective.

Agency Theory

Agency theory is the relationship that exists between the principal and the agent (Jensen & Meckling (1976). This relationship is based on existing contract (Susanto, 2016). Corporate governance mechanisms in practice have been applied to minimize information irregularity and asymmetry. Sound governance mechanisms reduce the possibility that management will try to further their interests by using information irregularities and asymmetry (Oba, Ibikunle & Damagum, 2013). The audit committee is a part of the corporate governance mechanism that ensures that the self interest of management does not compromise the best interest of investors. One of the ways of reducing information asymmetry that may subsist between the principal and the agent is for disclosure on issues that affect the organisation as a whole. This study is therefore anchored on agency theory, in order to ascertain the relationship between audit committee attributes and intellectual capital disclosure.

Literature review and hypothesis development

Audit Committee Characteristics

The Nigerian Code on Corporate Governance (2016) states that the AC is expected to ascertain whether the accounting and reporting policies of the company are in line with legal requirements and agreed ethical practices. The oversight and monitoring role of the AC cannot be overemphasized. The effectiveness of AC in voluntary disclosure is dependent on AC characteristics (Bedard et al, 2010; Li, Mangena, & Pike, 2012; Madi et al, 2014). From the above, we hypothesize that;

H1 There is an association between audit committee characteristics and intellectual capital disclosure of listed banks in Nigeria.

Audit committee size

This is the number of members that make up the AC. Larger audit committee membership affords a more likely diversity of experience and skill to ensure more effective monitoring (Karajeh et al, 2017). Most studies found a significant positive association between audit committee size and performance (Al-Matari, 2012; Alqatamin, 2018; Ferchichi, & Skanji, 2017; Asiriuwa, Aronmwan, Uwuigbe, & Uwuigbe, 2018), voluntary corporate disclosure (Madi et al, 2014; Jerubet et al, 2017), and intellectual capital discloure (Li et al, 2012) . Based on these studies, we hypothesize that;

H2: There is a significant relationship between audit committee size and intellectual capital disclosure.

Audit committee frequency of meeting

The Nigerian Code of Corporate Governance (2016) requires that the audit committee should meet at least once in every quarter. The code also expects that the number, timing and duration of the meetings should be appropriate to ensure that the committee achieves its objectives. Frequent meetings create avenue for deliberation of key issues that centers on adequate disclosure and other matters. Board members that regularly meet are likely to accomplish their work and responsibilities attentively and successfully (Amina, 2018). The frequency of meetings indicates an active audit committee (Yadirichukwu, & Ebimobowei, 2013).

Previous studies found a positive significant relationship between AC frequency of meeting and audit quality (Asiriuwa et al, 2017; Amina, 2018), and intellectual capital (Li et al, 2012). Amina (2018) state that as the frequency of meetings increases, awareness and experience increases among members, and there will be more encouragement of IC efficiency.Nevertheless, these studies found an insignificant association between AC frequency of meetings and quality of financial reporting (Miettinen, 2008; Moses et al, 2016), audit quality (Habbash, 2015; Kamardin, & Al-Rassas, 2015), value creation efficiency (Soewignyo et al, 2018), performance (Al-Matari et al, 2012), earnings management (Susanto, 2016), and corporate voluntary disclosure (Madi et al, 2014). Based on these inconclusive results, the foll owing hypothesis is tested;

H3: There is a significant relationship between audit committee frequency of meeting and intellectual capital disclosure.

Audit committee independence

This is measured as the percentage of independent non-executive directors to the total number of AC members. When the independence of the AC is compromised it becomes a toothless bull and its activities a waste of time and resources. Where AC independence is available, it could enhance the quality of voluntary disclosure (Menon, & Williams, 1994). Independence makes the committee more objective in monitoring the transparency of financial reporting; a committee unbiased toward the executive thereby reduces the agency problem between executives and other shareholders (Alqatamin, 2018). Lee (2014) posit that AC's role supports both the resource dependency and agency theories but conflicts with managerial hegemony theory. The resource dependency theory focuses on the ability of the board of directors to provide resources (expertise, coordination, reputation etc.) for the benefit of the organisation, while the agency theory explains the contract between the owners and the managers of the firms. The theory posits that managers or executives should not put their interests before that of the shareholders (owners) who provide the financial capital in which the business is

being run. Managerial hegemony theory explains the supremacy that the management is likely going to have over the board because of the in-house information in which they are privy to. A board principally composed of non-executive directors would be deemed more passive regarding the activities and information within the company than management (Jensen, & Meckling, 1976; Lee, 2014). Previous studies found a significant relationship between AC independent and corporate performance (Al-Mamun, Yasser, & Rahman, 2014; Glover-Akpey, & Azembila, 2016; Alqatamin, 2018), corporate voluntary disclosure (Madi et al, 2014). While others found a negative association between AC independence and accounting and reporting quality (Velte, & Stiglbauer, 2011; Suárez, & García, 2012; Jerubet, 2017), corporate fraud (Kamarudin & Ismail, 2014), and intellectual capital disclosure (Oba, Ibikunle, & Damagum, 2013). Based on the above discussion, we expect that AC independence should influence intellectual capital disclosure. Hence, the following hypothesis is tested:
H4: There is a significant relationship between Audit committee independence and intellectual capital disclosure.

Audit committee gender diversity
Gul, Srinidhi, and Ng (2011) as cited in Fakhari and Pitenoei (2017) believe that the existence of women in the audit committee decreases the opportunistic behaviour and financial misstatements. Women are more ethical (Levin, Taylor, & Chatters, 1993; Ittonen, Miettinen, & Vähämaa, 2011) and likely to be more environmentally conscious than males. Previous studies show a significant relationship between AC gender diversity and earnings management (Susanto, 2016), while Kamarudin et al, (2014) found no relationship between AC gender diversity and earnings management. Therefore, the following hypothesis is indicated:
H5: There is a significant relationship between audit committee gender diversity and intellectual capital disclosure.

Audit committee financial expertise
Financial expertise of the AC members is a major requirement in the Nigerian Corporate Governance Code of 2016. It is a requirement for all members to have financial literacy and the ability to read and interpret financial statements (NCGC, 2016). In addition, the code requires that at least one member of the committee should have be an expert in accounting and financial management. The financial prowess of the member enables them to appreciate the relevance of the annual report and not seeing it as a means of just fulling statutory demands. We expect that AC financial expertise should have significant impact on the intellectual capital disclosure of quoted banks in Nigeria. Therefore, we hypothesize that:
H6: There is a significant relationship between audit committee financial expertise and intellectual capital disclosure.

Methodology
Sample selection
The population for this study was made up of 10 listed commercial banks licenced with international authorization as at 31st December 2017. The purposive sampling techniques was employed to select 8 banks based on the availability of their annual reports on the internet for the relevant years. The annual reports were specifically downloaded from the websites of the selected banks for 2014-2017 financial years.

Intellectual capital disclosure score

The intellectual capital disclosure score was derived using intellectual capital disclosure checklist developed by Muttakin, Khan, & Belalp- (2015). The checklist is made up of 32 items, which was categorized into: internal capital category (7 items), external capital category (10 items) and human capital category (15 items). A score of 1 is assigned if an item on the checklist is available on the annual report and 0 if not. The total score obtained is divided by the maximum score obtainable.

Model

The following is the estimated regression model for the study:

$ICDS = \beta_0 + \beta_1 ACSZ + \beta_2 ACFM + \beta_3 ACID + \beta_4 ACGD + \beta_5 ACFE + \beta_6 FAGE + \beta_7 FSIZ + \beta_8 PERF$

Where:

ICDS = Intellectual capital disclosure score

β_0 = Co-efficient of the regression model

β_1ACSZ = Audit committee size

β_2ACFM = Audit committee frequency of meeting

β_3ACID = Audit committee independence

β_4ACGD = Audit committee gender diversity

β_5ACFE = Audit committee financial expertise

Control variables:

β_6FAGE = Firm Age

β_7FSIZ = Firm Size

β_8PERF = Performance

Table 1: Measurement of variables

Code	Variables	Measures	Apriori expectation	Author
Dependent variable		The checklist is made up of 32 items. A score of 1 is assigned if an item on the checklist is available on the annual report and 0 if not. The total score obtained is divided by the maximum score obtainable (32).		Muttakin, Khan & Belal (2015).
ICDS	Intellectual capital disclosure score	Profit before tax at the year-end divided by total assets		
Independent variables				

ACSZ	Audit committee size	The total number of AC members of the firm i and the t year.	+	A-Matari (2012) Alqatamin
ACFM	Audit committee frequency of meeting	The total number of AC meetings of the firm i during the year t.	+	Amina (2018)
ACID	Audit committee independence	The ratio of independent non-executive directors to the total number of AC members of the firm i during the year t.	+	Alqatamin (2018) Lee (2014)
ACGD	Audit committee gender diversity	The proportion of female members in the AC to the total number of members.	+	Kamarudin et al, (2014)
ACFE	Audit committee financial expertise	A dummy variable of 1 if there is at least one expert on the AC and 0 if otherwise.	+	Susanto (2016) Madi et al, (2014)
Control variable				
FAGE	Firm Age	From date of incorporation	+	
FSIZ	Firm Size	Natural log of the total revenue/sales of the firm	+	
PERF	Firm	Return on Asset (ROA) stands for return on assets, and is measured dividing total net income by the total assets of the i and the year t.	+	

Empirical results

Descriptive analysis

Table 1 presents the descriptive statistics for the dependent and independent variables. The intellectual capital disclosure score as a mean disclosure score of 71.15%, minimum score of 62.5%, maximum score of 81.25% and a standard deviation of 5.10, respectively.

Table 1. Descriptive statistics for dependent and independent variables

	Mean	Minimum	Maximum	Standard deviation
Dependent variable				
Intellectual capital disclosure score	71.15	62.50	81.25	5.10

Independent variables				
Audit committee size	6.11	5.00	7.00	0.43
Audit committee frequency of meeting	3.88	2.00	5.00	0.82
Audit committee independence	0.42	0.00	0.50	0.17
Audit committee gender diversity	0.16	0.00	0.43	0.14
Audit committee financial expertise	0.88	0.00	1.00	0.33
Firm age	40.88	25.00	100	25.03
Firm size	2.62	1.10	8.87	2.35
Performance	0.05	0.00	0.08	0.02

The independent variables from Table 1 above, show that the AC size has a mean of 6.11 and the range is from 5 to 7 members. The mean of the AC frequency of meeting is 3.88 ranging from 2 to 5 meetings held annually by the sampled banks. AC independence, AC gender diversity and AC financial expertise have means of 0.42, 0.16 and 0.88 respectively with standard deviations of 0.17, 0.14 and 0.33. For the control variables, the mean size of the firm is 2.62, firm age has an average years of 40.88, ranging from 25 to 100 years and the average performance is 5%.

Multiple regression results

The results of the multiple regression of the relationship between audit committee characteristics and intellectual capital disclosure of listed banks in Table 2, show R-squared of 0.77 (77%) and adjusted R-squared of 0.67 (67%). This means that 67% of the systematic variations of ICDS is jointly explained by the independent variables. The probability of the F-Statistics is 0.000287 supports the overall significance of the model.

Table 2. Multiple regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-16.20207	46.39329	-0.349233	0.7312
AC_SIZE	0.629130	1.887678	0.333283	0.7430
AC_FREQ_OF_MEETING	0.037781	0.928163	0.040705	0.9680
AC_INDEPENDENCE	-0.037661	7.316743	-0.005147	0.9960
AC_GENDER_DIVERSITY	23.13762	6.742452	3.431633	0.0032
AC_FINANCIAL_EXPERTISE	-2.328346	2.179641	-1.068224	0.3004
FIRM_AGE	0.141226	0.049800	2.835859	0.0114
NLGF_SIZE	3.944219	2.636280	1.496131	0.1530
FIRM_PERFORMANCE_ROA	-0.222572	71.58296	-0.003109	0.9976

R-squared	0.776718	Mean dependent var	71.15385
Adjusted R-squared	0.671644	S.D. dependent var	5.101141
S.E. of regression	2.923075	Akaike info criterion	5.250574
Sum squared resid	145.2542	Schwarz criterion	5.686069
Log likelihood	-59.25746	Hannan-Quinn criter.	5.375981

F-statistic	7.392102	Durbin-Watson stat	1.559165
Prob(F-statistic)	0.000287		

AC size is not significantly associated with intellectual capital disclosure score. We therefore, reject our hypothesis one that states that AC size has a significant relationship with intellectual capital disclosure. The results suggest that the number of members on the AC does not have significant impact on intellectual capital disclosure.

AC frequency of meeting from the regression results has a p-value of 0.9680, which is statistically not significant. This suggests that frequency of meeting of the audit committee does not have significant impact on intellectual capital disclosure. This is consistent with the findings of Madi et al (2014). We therefore, reject the hypothesis that states that there is a significant relationship between AC frequency of meeting and intellectual capital disclosure. The number of times committee members meet may not be a determinant but the quality of the discussions and resolutions made at each meeting may be a likely factor that influences intellectual capital disclosure.

The result for AC independence show a p-value of 0.9960, suggesting that there is no significant relationship between AC independence and intellectual capital disclosure. This result is consistent with previous studies (see Jerubet, 2017; Li et al, 2012; Oba, Ibikunle & Damagum, 2013; Suárez and García, 2012; Velte & Stiglbauer, 2011).

The hypothesis test result for AC gender diversity and intellectual capital disclosure showed a p-value of 0.0032 at 5% level of significance. This suggests that AC gender diversity has a significant relationship with intellectual capital disclosure. This finding agrees with the position of Susanto, (2016) but defer from the position of Kamarudin et al, (2014).

The result on the effect of AC financial expertise on intellectual capital disclosure has a p-value of 0.3004 at 5% level of significance. We therefore reject the hypothesis that states, AC financial expertise has a significant effect on intellectual capital disclosure. This findings is in tandem with previous studies (Li et al, 2012; Susanto, 2016).

Conclusion

The audit committee is saddled with the responsibility of ensuring that the accounting and policies of the company are consistent with legal requirements and ethical practices. It is one of the committees required by the corporate governance code to carryover oversight function over the management, external auditors and directors. In carrying out its statutory responsibilities certain attributes of this committee can influence the extent of voluntary disclosure like intellectual capital disclosure.

The study examined the effect of audit committee characteristics on intellectual capital disclosure of listed banks in Nigeria. We find that the size, frequency of meeting, Independence and financial expertise of the audit committee does not have significant effect on intellectual capital disclosure. We also find that AC gender diversity has significant effect on intellectual capital disclosure. This study provides empirical evidence to policy makers to see the need to introduce framework that would put gender diversity into consideration during the appointment of audit committee members. The results

would further strengthen extant literatures on the level of impact of audit committee characteristics on intellectual capital disclosure.

However, the study was based on quoted banks in Nigeria, these may pose a limitation to the research. Further studies can be examined in other sectors of the economy and the consideration of other independent variables that may have impact on intellectual capital disclosure.

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Appendix 1

Intellectual capital disclosure checklist

I. Internal capital category	
1. Intellectual properties	It is a term that encompasses patents, copyrights, trademarks, trade secrets, licenses, commercial rights and other related fields.
2. Management philosophy	The way leaders in the firm think about and its employees i.e. the way a firm is managed.
3. Corporate culture	Specific reference to working culture.
4. Processes	Management or technical processes implemented
5. Systems	Information systems.
6. Networking	The systems available in a firm that allows interaction of people via a broad array of communication media and devices.
7. Financial relations	Defined as a favourable relationships the firm has with investors, banks, and other financiers, financial rating, financial facilities available, and listings.
II. External capital category	
8. Brand	Description of brands owned/bought by the firm.
9. Customer satisfaction and loyalty	Reference to overall satisfaction of customers
10. Quality standards	Includes ISO accreditations, reference to quality initiatives.
11. Company image/ reputation	It refers to the perception of a firm by the stakeholders.
12. Favourable contract	Favourable contract signed.
13. Business collaborations	Reference to informal collaborations with business partners which did not lead to formal agreements.
14. Licensing agreements	Any partnership or collaborative agreements with other firms
15. Franchising agreements	Any franchise agreements signed.
16. Distribution channels	Reference to supply chain management and distribution.
17.Market share	Any mention of product/division market share or competitive Position.

III. Human capital category	
18. Number of employees	Clear detail of total number of employees.
19. Know-how	Description of knowledge, know-how, expertise or skills of directors and other employees.
20. Vocational qualifications	Additional qualification held by employees and directors.
21. Employee training	Any mention of training programme.
22. Employee education	Education of directors as well as other employees.
23. Work related knowledge	It mainly relates to knowledge that employees have related to their current job description, including employees' previous working experiences.
24. Entrepreneurial spirit, innovativeness	It refers to employee engagement, empowerment, and creativity.
25. Union activity	Trade union relations.
26. Employee thanked	Thanks given to the employee.
27. Employee involvement in the community	Company and employee involvement in community based activities
28. Employee share and option scheme	Employee share and option ownership plan
29.Employee benefits	Employee benefits such as provident fund, gratuity and group Insurance.
30 Profit sharing	Employee profit sharing.
31. Health and safety	Employee occupational health and safety.
32.Equity issues	Equity issues such as race, gender, disability and ethnic group

Source: Adapted from Muttakin, M. B., Khan, A., & Belal, A. R. (2015)

Appendix 2

This is a list of commercial banks with International Authorization in Nigeria, arranged alphabetically:

Access Bank Plc
Diamond Bank Plc
Fidelity Bank Plc
First City Monument Bank Plc
First Bank of Nigeria Limited
Guaranty Trust Bank Plc
Skye Bank Plc
Union Bank of Nigeria Plc
United Bank for Africa Plc
Zenith Bank Plc

AN ASSESSMENT OF THE EFFECTIVENESS OF INTERNAL CONTROL SYSTEM IN THE NIGERIA POLICE ACADEMY WUDIL

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Abstract

Internal control is the priority to detect assets misuse, ensuring efficiency of operations and adherence to rules and regulation. Thus, this study focused on assessment of the effectiveness of the internal control system in Nigeria police Academy to identify the possible areas of deficiencies in the system. The study administered questionnaires to employees of the Academy. Data were analyzed using descriptive statistics and inferential statistics using SPSS results. The result indicates that the internal controls in the Academy are effective enough to achieve the control objectives. On the other hand the result revealed that the risk assessment in the Academy is adverse. The Academy has not sufficiently designed appropriate strategy of identifying risk and no sufficient system designed to respond to risk. Hence, it is recommended that there is need for commitment from both the Academy management and responsible government authorities to improve those specific areas of deficiencies' in internal control of the Academy especially in the area of risk management.

Keywords: Internal Control Systems, Effectiveness, Nigerian Police Academy

Introduction

Protecting the assets of an organization has always been an important responsibility of management. However, the incredible advancements in IT, as well as the pervasive use of IT across firms of all sizes, have dramatically changed how managers establish and monitor internal controls. Indeed, the pervasiveness of IT also has a profound impact on internal and external auditors, and how they assess the strength of the internal control environment.

For some time now, risk management in general and internal control more specifically; have been considered as fundamental elements of organizational governance. As a consequence, risk management is beginning to be perceived as a new means of strategic business management, linking business strategy to daily risks and then optimizing those risks in order to realize value (Saarens and de Beelde, 2006.) In the United States for instance in 1992, a group of companies sponsored the formation of the tread way commission to study and report on how to improve on the effectiveness of internal control systems, and in 2002 the US congress passed the Sarbanes Oxley act giving new directives on how companies are to report on the effectiveness or otherwise of their internal control systems. (Circular 123 Spring 2005, KPMG LLP). Jeremiah Munene (2013) conducted a study and found out that some of the challenges experienced in regard to internal controls include; struggles with liquidity problems, financial reports are not made timely, accountability for financial resources is wanting, frauds and misuse of institutional resources have been unearthed and a number of decisions made have not yielded the expected results.

However in the university system, the Institutions still struggles with liquidity problems, accountability for the financial resources is still wanting, misuses of institutional resources have been unearthed and a number of decisions made have not yielded the expected results. To ensure the effective and efficient managements of credit delivery and recovery of all facilities granted at expiry, internal controls are normally put in place. Notwithstanding, internal controls only provide reasonable assurance, not absolute assurance. This is because it is people who operate the internal controls, breakdowns can occur, human error, deliberate circumvention, management override and improper collusion among people who are supposed to act independently can cause failures of the internal control to achieve objectives.

In the light of the foregoing, this study seeks to establish the position of Nigeria Police Academy, Wudil, Kano (a special university) with respect to existence of and compliance with internal controls and how these controls have enhanced the financial management of the institution. The result of this study will complement the result of existing studies in formulating policies that would guide the formulation and implementation of internal controls in a special tertiary institutions in Nigeria.

Objectives of the Study

The main objective of this study is to assess the effectiveness of internal control practiced Nigeria Police Academy. While the specific objectives are as follows:

1 to assess the effectiveness of the internal control system in the Academy

2 to assess which is/are areas of deficiencies in internal control system of the Academy

This research work will provide a basis or a conceptual framework and standard against which institutions could assess their internal control system and judge their effectiveness. In other words, the study is to provide common language, understanding and a practical way for institutions to assess and improve their internal control systems.

Literature Review

The Concept of Internal Control

Internal control system can be defined "as the whole systems of control financial or otherwise established by the management of an entity, in order to carry on the business activities of that entity in an orderly and efficient manner, ensure adherence to management policies, safeguard the assets of the business and secure as far as possible the completeness, accuracy and validity of the accounting records (Babatunde F., 2017: 156). The wider definition of internal control by United Kingdom Auditing practice Committee (UKAPC,1979) defined internal control as the whole system of control, financial and operational in order to carry on business of any enterprise to safe guard asset, ensure the completeness, accuracy of records , detect errors and fraud and ensure timely report of financial information. Robertson and Davis (1988) defined internal control from accounting perspective, accordingly internal control is a set of client procedure both computerized and manual imposed on accounting system for purpose of detecting errors and irregularities that may enter the system and affect the financial statements.

Large number of studies made on internal control however used an internal control definition made by Committee of Sponsoring Organizations (COSO, 1992) and Auditing Practices Board (APB, 1999). The two sources define internal control as a process, effected by an entity's board of directors (Council), management and other personnel, designed to provide reasonable assurance regarding

the achievement of organizations objectives in the effectiveness and efficiency of operations, reliability of financial and management reporting, compliance with applicable laws and regulations and protect the organization's reputation . In conjunction to afro mentioned definitions and purpose of internal control it is noteworthy to know who is responsible of internal control. Meisser (2003) note that internal control is affected by board of directors and management, indicate that they are responsible about the internal control established in organization. An Act of Sarbanes Oxley (2002) and statement of Audit Standard make the management accountable for internal control established in the organization. Among its provisions, SOX Section 302 required the corporate CEO and CFO in public filings to acknowledge their responsibility for establishing and maintaining internal controls and to report on the current operational effectiveness of the corporation's internal control system.

The mandate of managers on the established internal controls makes the management to provide reasonable assurance on the effectiveness of the controls. Reasonable assurance of internal controls is defined by Bradford (1997) as assurance equates to a satisfactory level of confidence on the controls under given considerations of costs, benefits, and risks, though how much assurance is reasonable is a matter of judgment. Bradford explained the reasonable assurance is the result for deficiencies of internal control. These deficiencies are referred to as limitations of internal control which will be discussed later in this section.

Effective Internal Control System

COSO (1992) provided criteria's against which effectiveness of internal controls can be assessed. Internal control can be judged effective if the entity's operations objectives are being achieved; published financial statements are being prepared, reliable and applicable laws and regulations are being complied with. While internal control is a process, its effectiveness is a state or condition of the process at a point of time. Accordingly, the effective functioning of components of internal control provides a reasonable assurance regarding achievement of one or more of the stated categories of objectives to ensure high levels of organizational performance. Thus, the company's criteria for effective internal control and success of the entire organization. Efficiency and effectiveness of operations have been taken to mean efficiencies and effective use of its resources including personnel, accurate information for decision making and safeguarding of assets and records (Aren and Lwebbecke, 1994).

As stated in internal control frame work of COSO (1994) an effective internal control should in priority encompass the five elements the control. In addition effective, internal controls must satisfy three basic criteria:-

- They must be appropriate (that is, the right control in the right place and commensurate to the risk involved).
- They must function consistently as planned throughout the period (that is, be complied with carefully by all employees involved and not bypassed when key personnel are away or the workload is heavy).
- They must be cost effective (that is, the cost of implementing the control should not exceed the benefit)

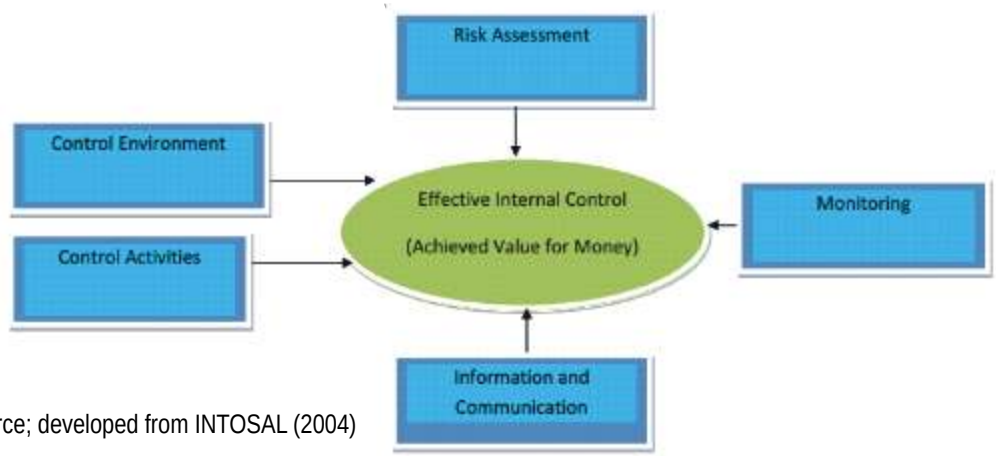
Basel Committee on Banking supervision (1998) states that in order an internal control effective there should be an effective and comprehensive internal audit carried out operationally independent ,appropriately trained and competent staff. It is part of monitoring of internal control system.

Value for Money

The success for a public sector organization is the degree to which it fulfills its set objectives and mission in terms of being efficient, effective and economical. The Internal Control Systems are keys in achieving the organizational set mission and objectives; hence Value for Money. However, many authors hold that Value for Money is a term used to assess whether or not an organization has obtained the maximum benefit from the goods and services it acquires and / or provides, within the resources available to it. Value for Money (VFM) can be achieved by eradicating waste in benefits services processes and systems. Value for Money is not paying more for a good or service than its quality or availability justifies as well public spending implies a concern with economy (cost minimization), efficiency (output maximization) and effectiveness (full attainment of the intended results) (Glendinning, 1998; Davies, 2007; Deakin 1998). The most effective way to improve Value for Money is by reducing the level of irregularity and fraud through improvements in the Government's systems of internal financial control (Kaplan, 2009). Communities need to be assured that their resources are being used efficiently and effectively in providing the right service at the least cost. However, Kerr (2005) observed that the will to provide Value for Money in Government spending is weak because accountability to taxpayers and the public is generally weak. According to Heald (2003), VFM analysis needs to pay attention to total risks and VFM is related to concepts of efficiency and effectiveness. Fryer, Jiju, & Ogden, (2009) hold that despite a long period of implementing performance management within the public sector, improvements in performance, accountability, transparency, quality of service and Value for Money have not yet been achieved.

Government policies now promote effective control particularly in the management of resources while stressing the values of economy, efficiency and effectiveness (Value for Money) (Sanderson, 2001). Effective; Control Environment, Control Activities, Risk Assessment, Information and Communication, and Monitoring are a necessary to achieve organizational objectives and should achieve Value for Money (INTOSAI 2004). Internal Control Systems were studied under the constructs of Control Environment, Control Activities, risk assessment, information and communication and monitoring while Value for Money constructs were Economy, Efficiency and Effectiveness. The model on INTOSAI (2004) shows that effective Internal Control Systems results in the achievement of Value for Money. The following diagram shows the relationship between components of internal control and value for money.

Figure 2.1 Framework of Internal Control



Source; developed from INTOSAL (2004)

Empirical Review

Despite rare studies on internal control in Nigeria, several investigations were made in world to evaluate internal control of businesses and governmental institutions. Accordingly Ronald (2011) evaluated internal Control Weaknesses in Local Government. Towns and villages account for more than 1,400 municipal government entities in New York State constituted in the study. The study focused on the internal control issues identified in an extensive, ongoing series of audits of towns and villages undertaken by the New York State Comptroller's Office. All towns and villages audit reports issued by the office were examined. These general internal control audits were used to identify towns and villages with internal control weaknesses. The budgets of the towns reviewed were limited to an examination of the annual budget for the following year, reviewing the reasonableness of projected revenues and expenditures, the proper use of accumulated fund balance, and general financial condition of the municipality (especially deficit issues).

A review of the findings of more than 300 town and village audits conducted for four years showed that all but a handful of these public entities exhibited numerous governance and control deficiencies. The results also showed that there is much room for improvement. In addition, the study revealed that Small towns and villages have several inherent control limitations; small size limits the number and quality of personnel, and the extent and quality of oversight which are the components of internal control. The limitations were found evident in several of the weaknesses discovered.

Mahdi, Mahmoud, Shiri and Fatemeh (2011) investigated the effectiveness of internal control in the Iranian banking sector with special reference to Bank Mellat. The study used questions that needed to be answered in the study are: (1) Does an internal control system in Bank Mellat has proper power in preventing fraud and error? (2) Is there a significant relationship between the weakness of internal control system components (control environment, risk assessment, information and communication, control activities and monitoring) and the occurrence of error and fraud? To test the validity of the questions, hypotheses are postulated relating frequency of fraud reported as failure of internal control with the questionnaire answered on the relationship between the fraud and components of internal control. The paper evaluated the effect of control environment, control activities, risk assessment, information and communication and continuous monitoring on failure of internal control quantified as reported errors and fraud. The empirical evaluation found out that all the elements of the internal control have significant effect on occurrence of errors and fraud, though the magnitudes are different. Accordingly, Weakness of control environment, control activities, risk assessment, information and communication and monitoring as a component of internal control system in an incident of error and fraud is effective.

Abu-Musa (2004) examined the existence and adequacy of implemented security controls in the Egyptian Banking Sector (EBS). The results revealed that the computer departments paid relatively more attention to technical security controls, while internal audit departments emphasized more on the behavioral and organizational security controls. The study also provided valuable empirical results regarding inadequacies of implemented Accounting Information Systems (AIS) security controls, and introduced some suggestions to strengthen and improve the security controls in the EBS.

Alaudin et al. (2006) focused on management control systems, justice and trust in the Malaysian Islamic banks with the help of a questionnaire and interview and examined the documents relating to the concepts of justice and trust. Due to the inherently complex nature of the internal control process, a

study by O l2eary et al. (2006) spread itself across a broad range of auditing, accounting and general business areas, and stated that an adequate system of internal control is considered critical for good corporate governance.

Moses (2011) examined the effectiveness of Internal Control Systems in achieving Value for Money in school projects in Local Governments of Uganda. The purpose of the study was to identify the impact of internal control in achieving value for money. The study used a cross sectional survey design implementing self-administered structured questionnaire to gather data. The respondents were drawn from the elected and appointed staff, staff from the Office of the Auditor General, members of the District Public Accounts Committee and the School; were requested to respond to existence of standards of internal control. In addition the respondents were requested to respond if existing internal control in the school project is efficient, effective and economical. The findings revealed that Internal Control Systems have a significant positive effect in achieving Value for Money. The study further reveals that there a significant positive relationship between the Control Environment, Control Activities, Risk Assessment, Information and Communication and Monitoring and Value for Money in Local Governments. The findings revealed that Internal Control Systems have a significant positive effect in achieving Value for Money. All the constructs of Internal Control Systems (Control Environment, Control Activities, Risk Assessment, Information and Communication and Monitoring) had a significant positive relationship with Value for Money. Sartini and Wardiwiyono(2012) conducted an exploratory study on Internal control system for Islamic micro financing This paper aimed to evaluating the implementation of internal control system for Islamic micro financing. It also aims to investigate the implementation of an internal control system for financing activities practiced by BaitulMaalwatTamwil (BMT), a special micro finance organization; in Indonesia system for Islamic financing is formulated.

Internal control is integration of elements which are used to operate and control its system. The common elements/frame works are control environment, control activities, risk assessment, information and communications and monitoring. Control environment is the atmosphere or the stone at the top of internal control system. Control activities are policies and procedures used to operate the internal control system. Identifying risks caused by failure of internal control and an inherent risk of the system also a standard of ICS. A flow of communication by financial reports and accounting system plays role in effective internal control. Monitoring is done continuously by external auditors, internal auditors and management; to review and evaluate the effectiveness of internal control, if corrective actions are required. Internal control is not without limitation. Obviously ICS cannot guarantee an absolutely free of errors and fraud performances. The system is designed and operated by people, who can cause failure of internal control by inherent nature of errors or an intentional collusion.

The context in Nigeria doesn't seem sufficient in exploring internal control effectiveness of the government units, private organization and not for profit organizations. Particularly taking into consideration the recent reports of OFAG in government units, it is an area to put an intensive effort and contribute to the foundation of the development objective underway.

Methodology

Research design in this paper is descriptive study which focuses on studying a situation or a problem in order to explain the relationship between variables and used scientific method which involves observation and describing the situation. Population cover the Bursary, Internal audit, and Registry

departments of the Nigeria Police academy. The sample size under this study constitutes 50 respondents from the selected departments, in the Academy. The non-probability sample through purposive sampling is used to select respondents from the selected departments who are informed and competent to provide information as regards to accountability, transparency and integrity. Most of these individuals are decision makers of the selected departments. Under this study the primary method is used through questionnaire-based-survey, the researcher intends used SPSS for data analysis, because it is a statistical software that interprets and analysis data in social science researcher.

Result and Discussion

Reliability Test of Instrument

One of the common methods to test the reliability and validity of data collected through questionnaire is the use of Cronbach's alpha coefficient. Lee Cronbach (1951) defines Reliability as an attribute of an instrument used to measure consistency. The Cronbach's alpha for data collected for 32 components of control environment, control activities, risk assessment, information and communication and monitoring is 0.868 (approximated to 0.9).

The survey results are used to answer the research questions. Next the results of data gathered through questionnaire are used to answer the research questions and draw conclusion. The data gathered through questionnaire were tested to verify reliability of the instrument; and subsequently analyzed using descriptive statistics and inferential statistics on examining each elements of internal control. The descriptive statistics indicated a mean value of each components of internal control less than 4. As a final point using this approach of research; the internal controls in the Academy are effective enough to achieve the control objectives. Particularly the risk assessment is found to be only theoretical and new to the Academy. The following chapter therefore presents the major findings of the study and possible recommendations.

Effectiveness of Control Environment

Control environment considered as a —tone on the top? in internal control system. It indicates the general atmosphere of internal control which includes the policies and procedures of internal control, management structure, reporting structure, competence of employees and discharging responsibility and others. The survey made is based on those components of control environment and the result is scaled as follows.

Table 1. Control Environment table:
Control Environment

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness
In the Academy there is clear separation of roles and responsibilities	40	2.00	5.00	3.9500	.38895	.151	-3.261

The policies, procedures and guidelines in the Academy are documented	40	1.00	5.00	3.8000	.91147	.831	-1.506
The Academy has a clear organizational structure.	40	1.00	5.00	3.8750	.93883	.881	-1.306
The reporting structure is clearly stipulated	40	2.00	5.00	3.9500	.84580	.715	-.705
All employees in charge of the Academy program are aware of the guidelines of the program	40	2.00	5.00	3.2250	.97369	.948	.046
All staff in charge perform their responsibilities as per the regulations and guidelines	40	1.00	5.00	3.5000	1.17670	1.385	-.895
Segregation / separation of roles can lead to attainment of set Academy objectives.	40	1.00	5.00	4.3000	.93918	.882	-1.826
The control environment in your Academy is enough to attain the Academy set objectives	40	1.00	5.00	3.2250	1.12061	1.256	.105
Segregation / separation of roles can lead minimizing of costs.	40	2.00	5.00	3.9250	.97106	.943	-.728
Valid N (listwise)	40						

Source; Survey Results and Own Computation

As indicated in above table the mean value of the response computed based on Likert scale indicated the average agreement of respondents on existence and practice of each element of internal control. The overall mean of the control environment can be approximated to 3.75 which indicate an agreement in practices of control environment but rooms for improvement.

The highest mean 4.300 indicates that majority of respondents agreed that segregation / separation of roles can lead to attainment of set Academy objectives. Majority of respondents agreed that there is a clear organizational structure in the Academy. The result of the survey is also in line with this theory which is indicated by mean value of 3.8750.

The above table also indicated three areas; where the control environment of the Academy is not effective. The least mean 3.2250 indicates that a handful number of the respondents disagreed that all employees in charge of the Academy program are aware of the guidelines of the program. In percentiles 30.0% of respondents disagreed with this statement while 37.5% and 7.5% of respondents either agree or strongly agree respectively and 25.0% were undecided (Appendix, CE05).

Effectiveness of Risk Assessment

Risk assessments become an integral part of internal control system. The management is responsible to identify and assess control risk caused by failure of internal control. There should be strategies of identifying Risk, system to respond to risk and reduce the risk. The survey result and analysis on this issue therefore; is presented as follows.

Table 2 :Table Risk Assessment

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness
The Academy committee has designed an appropriate strategy of identifying risks.	40	2.00	5.00	3.1250	.82236	.676	.341
The Committee designed a system to offer appropriate response to risks	40	1.00	5.00	3.1000	.87119	.759	-.201
It is management's role to identify, evaluate and respond to risk.	40	2.00	5.00	4.1750	.71208	.507	-.717
Involvement of the Internal Audit staff during implementation reduces the occurrence of risk.	40	2.00	5.00	3.9000	.59052	.349	-.771
Valid N (listwise)	40						

Source; Survey Results and Own Computation

From the table it shows that was no employee strongly agreed that there exists appropriate strategy of identifying risks (Min 1 and Max 5). The Academy have not sufficiently designed appropriate strategy of identifying risk and no sufficient system designed to respond to risk (3.125 and 3.100) respectively. About 70% of respondents were collectively either disagreed or undecided that the Academy committee has designed an appropriate strategy of identifying risks. (Appendix, RA01) An average agrees that Audit staff during implementation reduces the occurrence of risk (mean 3.900).

Conclusion

Internal Control is a policy, methods and practices employed for attainment of organizational

objectives. These objectives are ensuring operational efficiency, safeguarding assets and adherence to rules and regulations. Both government and private institutions need a guarantee that the internal control system in their institutions is effective enough in attaining such objectives. As indicated in literature, customarily the management of organizations performs this task through monitoring the effectiveness of internal control they designed. Though managements may use different criteria's to evaluate effectiveness of an internal control, COSO (1992) revealed that; internal control effectiveness is resulted from an effective function of the control environment, control activities, the risk assessment, information flow and communication and monitoring of the system itself. INTOSAI (2004) indicates an effective functioning of these elements helps in achieving Value for Money which is an objective of effective internal controls. The evaluation of internal control problems in Nigeria context seems under developed. Government institutions under mandate of OFAG audit particularly public Universities are serially under criticisms of OFAG for years. Based on this ground it was necessary to examine the effectiveness of internal control in practices in Nigeria Police Academy. The study aimed to assess whether there is an effective internal control, identify areas of deficiency, and there to indicate areas of emphasis to improve the internal control. To achieve these objectives a survey method is employed in quantitative approach. The survey method used questionnaires to employees in the Academy and analyzed through descriptive and inferential statistics analysis. The questionnaires were aimed to examine whether components of internal controls were adequately practiced in the Academy. Using this approach of research the internal controls in the Academy were effective enough to achieve the control objectives afro mentioned. The detailed findings and areas of deficiencies in internal control are summarized as follows:

The competence level of employees practicing internal control in Academy from experiences and academic competence perspective can be concluded as good. The control environment of the internal control system is inadequate to be judged as ineffective, despite the fact that majority of employees in charge of the Academy program are not aware of the guidelines of the Academy program. In addition the control environment of the Academy is enough to attain the Academy set objectives.

The control activities responses from the survey cast doubt in the area of lack of updated asset register and documentation, in the Academy only.
The risk assessment in the Academy faces weakest in the area were the Academy have not sufficiently designed appropriate strategy of identifying risk and no sufficient system designed to respond to risk
Risk assessment is considered to be new for the Academy; the managements were not adequately identified risk and developed clear procedures to control risks. Information and communication suffer the only setback in the aspect lack of information related to some fund sources and how the funds are not allocated adequately communicated to all stakeholders. Monitoring is believed help in achievement of objectives; in the Academy the monitoring was on continuous basis and no deficiencies were indicated.

Recommendations

Based on the findings of the study, the following recommendations are offered to assist in improving on the effectiveness of internal control systems in Nigeria police Academy and Nigeria as a whole. There is no absolute guarantee from internal control that organizations objectives will be achieved. This implies the inherent limitations of internal control; that internal control is designed, operated and

monitored by human beings. However it is possible to improve internal control effectiveness through continuous monitoring, related risk assessment, designing sound control methods and with good communication in the organization. Base on this research survey it was found that the internal control system of the Academy is effective but in spite of the fact that, the study found the internal control structures to be effective, some weaknesses were however revealed which must be brought to the attention of management for the necessary corrective actions to be taken. These are discussed below. Under the control environment all employees in charge of the Academy program are not aware of the guidelines of the program and secondly, the control environment in your Academy is enough to attain the Academy set objectives. The control activities many of the participants cast doubt over the up-to-date asset register in Academy. Risk assessment deficiencies falls under the facts that Academy has not sufficiently designed appropriate strategy of identifying risk and no sufficient system designed to respond to risk in the Academy. Weakness were also identify under the value for money categories in the Academy. The commitment of the Academy management in providing value for money is weak and the quality of service by the Academy assures the community that funds are well utilized are the main aspect which the management of the Academy has to look into in other to implement a proper corrective measure in the Academy internal control system.

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APPENDIX

Ra01 the Academy committee has designed an appropriate strategy of identifying risks.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	9	22.5	22.5	22.5
undecided	19	47.5	47.5	70.0
Agree	10	25.0	25.0	95.0
strongly agree	2	5.0	5.0	100.0
Total	40	100.0	100.0	

Ca05 the Academy invoices or requests for disbursements are backed by appropriate supporting documents.

Valid Percent	Frequency	Percent	Valid Percent	Cumulative
Disagree	6	15.0	15.0	15.0
Undecided	5	12.5	12.527.5	
Agree	23	57.5	57.5	85.0
Strongly agree	6	15.0	15.0	100.0
Total	40	100.0	100.0	

JOINT AUDIT AND EARNINGS QUALITY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The study examined the impact of joint audit on the earnings quality of listed deposit money banks in Nigeria. The study used descriptive research design and a sample of seven (7) listed deposit money banks. Secondary source of data from the annual reports and accounts of the sampled banks were used for a period of ten (10) years from 2006 to 2015. Auditors' independence was proxied by joint audit, while earnings quality was proxied using the modified Dechow and Dichev model. The data for the study was analyzed by means of Ordinary Least Square (OLS) and Generalized Least Square (GLS) panel data regression technique. The study found that joint audit had significant positive impact on financial reporting quality. The study recommended that the Management of listed deposit money banks should emphasize more on the use of joint audit services.

Keywords: Audit Independence, Joint Audit and Earnings Quality.

Introduction

Reports of recent questionable accounting practices employed by some companies in Nigeria have brought to the forefront the issue of auditor independence, and have put the auditing profession in a serious credibility crisis (Otusanya & Lauwo, 2010). The issues of recent bankruptcies of many large corporations that have clean auditors reports in the world over have called to question the validity of the financial statements prepared by those corporations. Examples of such cases among others are: Enron scandal of 2001 in the United States; Parmalat 2003 in Italy; Cadbury Nigeria Plc. 2006 in Nigeria; Afribank Nigeria Plc. in 2009, Oceanic bank and Intercontinental bank in Nigeria respectively.

Consequently, Auditor independence is seen as a cornerstone of the auditing profession, a crucial element in the statutory corporate reporting process and a key prerequisite for adding of value to an audited financial statement (Mautz & Sharaf, 1961). It is argued that the independent auditor's opinion adds credibility to the financial statements (Stice & Stice 2014). Therefore, if auditors are not independent, or do not appear to be independent, their opinions do not add much value or even receive the desired attention. The importance of maintaining both independence *"in fact* ?and *"in appearance* ?has been acknowledged by a number of professional accountancy bodies (ICAEW, 2006 and AICPA, 1988). Mautz and Sharaf (1961), in their seminal work on auditor independence, pointed out that, the auditors perform a quasi-judicial function in ensuring credibility of financial statements.

The external users of financial statements, which includes current and potential investors, Creditors, suppliers, stock brokers, lenders, government needs reliable financial information to base their resource allocation decisions. If the financiers of organizations have confidence and trust in the audited financial reports of an organization, they are likely to bring in more funds into the organization, and this in turn results to an increased financial performance.

Thus, financial reporting quality is concerned with detecting the presence or absence of target error classes in accounts. The reporting quality stems from the overall quality of financial statements and it refers to the extent to which the published information describes the financial position and operations of the company (Robinson & Munter 2004). According to Bowrin's (2008) definition, the financial reporting quality can be seen deriving from the two qualitative characteristics from IASB's conceptual framework: relevance and reliability. IASB's conceptual framework states that the financial information is relevant if it influences the economic decisions of users. According to Bowrin (2008), relevance is strictly related to the information's ability to affect users' decision making and timeliness is one part of relevance. Further, reliability means the extent to which the financial releases are free from material errors (Bowrin 2008). In addition to the framework's concepts of relevance and reliability, earnings quality can also been seen as a qualitative attribute to financial reporting. The earnings quality is defined as earnings' ability to provide useful information for evaluating cash flow prospects (Entwistle & Phillips, 2003).

Banks are economic institutions that facilitate economic growth and development by mobilizing savings from the surplus unit and channelling them to deficit unit for productive investments. They also provide the payments and settlement system and implement monetary policy of government; it is on this strength that Sanusi (2012) considers banks in the financial system as the central nervous system of the economy. In order to ensure efficiency and safeguard the economy from crises, the sector operates on stringent regulations and supervisions. One of the major mechanisms put in place for quality control and quality assurances that the public funds are safe is financial statement audit.

Earnings quality as a measure of financial reporting quality is essentially the responsibility of directors and this is carried out by accountants and verified by auditors. It is targeted at producing reliable in addition to the accurate information to assist users in taking a good stand. The aim of Generally Accepted Accounting Principles (GAAP) compliance is to ensure that companies prepare accurate financial statements that faithfully represent their financial positions and operating results. However, Fields, Fraser and Wilkins (2004), note that accounting researchers have done little to investigate the various relationships that exist between banks and their auditors despite the economic importance of the banking industry. This study therefore, aims at determining the impact of auditor independence on the earnings quality of listed deposit money banks in Nigeria.

External auditing is seen as a powerful tool that can assist the performance and existence of a company. Sensitivity in the nature of banks especially in Nigeria has put in more demands for external audit reports. This is because, stakeholders look up to these reports which provides assurance and affirmation on the viability or otherwise of these banks .Stakeholders expect the external auditors to discharge their obligations by ensuring that the financial statements of the organizations to which they are engaged show the real and actual position of their financial affairs.

A number of studies have been conducted on various aspects of auditor independence and earnings quality; these studies were conducted in both developed and developing countries of the world. For instance, Geiger and Rama (2006), Seyam and Brickman (2016), Going concern and reporting accuracy, Adeniyi and Mieseigha (2013), Odia (2015); audit tenure, rotation and audit quality. Kanagaretnam, Krishnan and Lobo (2010), Enofe, Nbgame, Okunega, and Ediae, (2013); audit independence;
Islam (2016), Bratten, Causholli and Omer (2015), non-audit services and FRQ, using earnings management as the measure of financial reporting quality/earnings quality.
This is taken as the study gap as the study tends to make use of earnings quality as a measure of financial reporting quality.

In light of the above, the following hypothesis is developed in null form as follows:
H01 Joint auditorship has no significant impact on the earnings quality of listed deposit money banks in Nigeria

Literature Review

In Nigeria, statutory audit of companies is enshrined in the 'Companies and Allied Matters Act, 2004, Section 357 which deals with the appointment of auditors by members at annual general meeting (AGM). Section 358 deals with the qualifications for the appointment of an auditor of a company and requires that a person shall not be qualified for appointment as an auditor of a company for the purpose of this Act, unless he is a member of a body of accountants in Nigeria established from time to time by an Act. The Statutory Duties of auditors are dealt with under section 359 CAMA 2004 and provides that: (i) The primary duty of the auditors of a company is to make a report to its members on the accounts examined by them, and on every balance sheet and profit and loss account, and on all group financial statements, copies of which are to be laid before the company in a general meeting during the auditors' tenure of office; (ii) Schedule 6 of CAMA 2004 sets out those matters that must be expressly stated in the auditors' report.

Audit Independence

Audit independence may be defined as an auditor's unbiased mental attitude in making decisions throughout the audit and financial reporting process. Independence on the other hand refers to the quality of being free from influence, persuasion or bias, the absence of which will greatly impair the value of the audit service and the audit report (Sweeney, 1994). An auditor's lack of independence increases the possibility of being perceived as not being objective. This means that the auditor is not likely to report a discovered breach (Deangelo, 1981).Studies assert that high fees paid by a company to its external auditor increase the economic bond between the auditor and the client and thus, the fees may impair the auditor's independence (Frankel et al, 2002; Li & Lin, 2005). The impaired independence results in poor audit quality allows for greater earnings management and lower earnings quality (Okolie, 2013).
Audit independence has various measures. A review of empirical studies has shown that majority of these measures are; audit tenure, audit fees; non audit services; going concern; management advisory services and joint audit; . For the purpose of this study, the following measures which are joint audit, audit tenure and audit fee are used as the independent variables to measure audit independence.

Earnings Quality

Earnings quality has various definitions in the literature, and there is no generally accepted definition (Khajavi & Nazemi, 2005). This diversity could be as a result of different views of researchers on the different dimensions of the concept. Therefore, earnings quality is of a complex nature, and no researcher has ever been able to define it comprehensively or has found a complete index for it (Karami et al., 2005). Different researchers have suggested different concepts for earning quality, among which are that earnings quality is the degree of conservatism applied in calculating earnings (White et al., 2003) and accruals volume (Dechow, Sweeney, & Sloan 1995). While Hicks (1939) defined earnings quality as the extent to which reported earnings correspond to economic income: The amount that the firm can pay out as dividends (that is, the amount that can be consumed) during a period, while leaving the firm equally well off at the beginning and the end of the period.

Review of Empirical Studies

Although there are several theories relating to what economic role auditing plays, the level of auditor independence is presumed to further such role. Thus, a study on what factors influence auditors' independence with regards to earnings quality is worthwhile.

Joint Audit and Earnings Quality

Joint audits are always perceived to be of higher quality report than audits by single Big 4 auditors according to D'Angelo's (1981) framework. Consistent with D'Angelo's (1981) framework, a substantial body of prior empirical studies have documented a positive relationship between auditor size and various proxies for audit quality (e.g., Teoh and Wong 1993; Becker et al. 1998; Francis 2004).

Francis et al. (2009), analyzed the consequences of France's joint audit requirement on earnings quality and find that Big 4 auditor-pairs are associated with lower levels of income-increasing abnormal accruals. They found that in France, firms with one or two Big 4 auditors are less likely to have income increasing abnormal accruals than other firms. They concluded that a pecking order explain this with regards to earnings quality and auditor-pair choice.

Lesage et al. (2011), examined the impact of joint audit on both audit costs and audit quality in Denmark during the period of mandatory joint audit (2005-2009). Firms that continue to use joint audit after the 2005 regulation change are associated with significantly higher audit fees compared with firms who voluntarily chose to use a single auditor. There is no significant relationship between voluntary joint audit and total fees. Similarly, Marmousez (2009), examined the impact of joint auditor pairs in France on financial reporting quality, measured by the degree of earnings conservatism. He provides evidence that Big 4–Big 4 auditor pairs are not associated with earnings conservatism whereas Big 4–non-Big 4 auditor pairs are associated with conservatism.

Zerni et al. (2012), studied the impact of voluntary joint audit in Sweden on audit quality. While controlling for differences in characteristics between firms choosing joint audits from other firms, they demonstrated that joint audits improved audit quality. Zerni et al. (2012) define audit quality as earnings conservatism, abnormal accruals, credit ratings, and perceived risk of bankruptcy. They provided evidence of a positive relation between joint audits and general attributes of audit quality. They also reported that Big 4–Big 4 auditor pairs are not related with higher earnings quality – defined as lower income-increasing abnormal accruals – than Big 4–

non-Big 4 auditor pairs.Empirical review of these studies revealed that the impact of joint audit on earnings quality has remained mixed, i.e. positive and negative.

Theoretical Framework

In examining the impact of joint audit on the earnings quality of listed deposit money banks in Nigeria, agency and stakeholder's theories are found relevant.

According to agency theory, an agency relationship is a contract under which one or more principals engage an agent to perform some service on the principals' behalf and delegate some decision-making authority to the agent (Jenson and Meckling, 1976). As a result, when there are conflicts of interest between the principal and the agent, the agent is likely not to act in the best interests of the principal. In order to avoid or minimize such divergences from his or her interests, the principal can establish monitoring systems. The financial statement audit is a monitoring mechanism which helps in reducing information asymmetry and protecting the interests of the principals, specifically, the existing and potential stockholders, by providing reasonable assurance that management's financial statements are free from material misstatements (Watts and Zimmerman, 1986).

The stakeholder theory, originally defined by Freeman (1984) is a theory of organizational management and business ethics that addresses morals and values in managing an organization. In this theory, the concept “stakeholders” refers to managers, shareholders or other users of financial reports which are influenced, either directly or indirectly by the actions of the auditor. A fundamental characteristic of stakeholder theory is therefore to attempt to identify individuals and groups that states, organizations and companies are accountable to. This has also been part of the theory's challenge (Anheier, 2005).

The former links shareholders and the management who are the providers of financial statements to be audited by audit firms and the latter anchored managers and audit firms that plays a prominent role in ensuring quality of financial reporting.

Methodology

This research adopted descriptive research design. A panel data analysis was carried out considering the fact that the paper simultaneously combines cross sectional and times series data. The population of this study consists of all the sixteen (16) Deposit Money Banks listed on the Nigerian Stock Exchange as at 31st December, 2015. Census sampling technique is used in arriving at the sample size of seven (7) out of a population of sixteen (16) listed Deposit Money Banks in Nigeria over a period spanning between 2006 to 2015 accounting-year. Secondary Data was used for this study and the data were sourced from the annual reports and accounts of the sampled Deposit Money Banks. The Data analysis techniques that were adopted for this study consist of multiple regression using ordinary least square method of estimation (OLS) and correlation.

Model Specification

The study utilizes two models, the earnings quality model which is used as the dependent variable measuring earnings quality; and the combined regression model of the earnings quality and audit independence variable.

Dependent Variable (Discretionary Accruals)

DWCit= βo + β1CFOit-1 + β2CFOit + β3CFOit+1 + ? it

$TCA_{it} = \alpha + \beta 1CFO_{it-1} + \beta 2CFO_{it} + \beta 3CFO_{it+1} + \beta 4? Rev_{it} + \beta 5PPE_{it} + e_{it}$……i

Where:

a = is the intercept

β1-β5 = are the parameters estimate in the equation

TCA = Total Current Accruals at time t (which equals change in current assets - change in current liabilities- change in cash + change in debt in current liabilities), scaled by total assets

CFO_{it-1} = Last year Cash flow from operation of firm I at time t, scaled by total assets

CFO_{it} = Current year Cash flow from operation of firm I at time t, scaled by total assets

CFO_{it+1} = A year ahead Cash flow from operation of firm I at time t, scaled by total assets

$DREV_{it}$ = Change in revenue of firm I at time t, scaled by total assets

PPE_{it} = Natural log of Gross property, plant and equipment of firm I at time t

et = error term/residual

Regression Model:

The analytical model considered in this study took an element of auditor independence (joint audit) as the independent variable and earnings quality proxied by discretionary accruals as dependent variables. Below is the general model guiding the research which is adopted and modified from Dechow and Dichev (2002).

$EQ_{it} = f (JA_{it}, FS_{it}, AGE_{it})$……ii

$EQ_{it} = \beta_0 + \beta_2 JA_{it} + \beta_4 FS_{it} + \beta_5 AGE_{it} + e_{it}$ ……iii

Where:

EQ_{it} = Financial Reporting Quality for bank in period t;

JA_{it} = Joint Auditorship for bank I in period t;

FS_{it} = Firm Size for bank I in period t;

FA_{it} = Firm Age for bank I in period t;

β0– Bn = intercept for bank I in period t;

e_{it} = error term for bank I in period t.

South Africa recorded 15% and Kenya 3.5% both in 2012. Several reasons have been adduced by

Table 3.1: Variables and their Measurements

S/N	VARIABLES	DEFINITION	TYPE	MEASUREMENT
1	EQ	Earnings Quality (Discretionary Accruals	Dependent	Total Accrual minus Non-Discretionary Accrual. modified Dechow and Dichev (DD) model, 2002
2	JA	Management) Joint Audit	Independent	A dichotomous measure of joint audit; 1 if the firm has joint auditors & zero if otherwise. Dangana (2016)

3	CoySize	Size of Company	Control	Natural log of company Total Assets
4	AGE	Age from Date Listed	Control	From date listed

Source: Researcher (2019)

Results and Discussions

This section analyses and interprets the results obtained from the tests conducted on the data collected for the study. This is then followed by drawing relevant inferences from the analysis. Thus, this section begins with the descriptive statistics of the data collected, this is then followed by the presentation of correlation matrix of the variables of the study. Finally, the presentation of the regression results and the test of hypotheses are then conducted.

Table 2: Summary of Descriptive Statistics

Variables	Obs	Mean	Std.Dev.	Min	Max
FRQ	70	-1.97e+07	1.13e+08	-3.53e+08	2.32e+08
JA	70	0.1714	0.3796	0	1
SIZE	70	8.9615	0.4733	7.0461	9.7435
AGE	70	19.6429	13.803	2	45

Source: Output generated using STATA 13

Table 2 shows that the measure of earnings quality (EQ) which is the absolute value of residuals of the modified Dechow and Dichev (2002) accruals model, has an average value of -1.97e+07 with standard deviation of 1.13e+08 , and minimum value of -3.53e+08 and 2.32e+08 as the maximum value. The standard deviation of 1.13e+08 signify that the data deviate from the mean value from both sides. This implies that there is a wide dispersion of the data from the mean because the standard deviation is close to the mean.

Table 2 also indicates that Joint Audit have an average value of 0.1714 with standard deviation of 0.3796, and the minimum and maximum value of joint audit as measured by dichotomous variable are 0.0000 and 1.0000 respectively. This shows that only 17% of the sample deposit money banks in Nigeria were audited by joint auditors during the period of the study.

Table 2 also indicates that Firm size measured by the natural log of total assets have an average value of 8.961446, but the standard deviation of 0.4733057 suggests a considerable level of dispersion in size during the period with a minimum and maximum value 7.046069 and 9.74352. Finally, Age have an average value of 19.64286 with standard deviation of 13.803, and the minimum and maximum value of 2 and 45. This means that the sampled banks have been listed for at least two (2) years.

Table 3 shows the summary of the spearman rank Correlation of the variables

Table 3: Spearman Rank Correlation Matrix

Variables	EQ	JA	SIZE	AGE	VIF
EQ	1.0000				
JA	0.0233	1.0000			1.38
SIZE	-0.3282	0.3304	1.0000		1.28
AGE	-0.3050	0.5153	0.4534	1.0000	1.60

Source: Output generated using STATA 13.

Table 3 presents the correlation matrix of all the variables of the study. The earnings quality (EQ and joint audit, size and age) of the sampled listed Deposit Money Banks in Nigeria. The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative); the absolute value of the correlation coefficient indicates the strength, with larger values indicating stronger relationships. The correlation coefficients on the main diagonal are 1.0, because each variable has a perfect positive linear relationship with itself.

Table 3 for the correlation matrix shows that there is a weak and positive relationship between earnings quality (EQ) and Joint Audit. This result suggests that earnings quality is likely to increase with an increase in Joint Audit.

The table shows that there is a negative relationship between firm size and earnings quality. This relationship suggests that the earnings quality of deposit money banks in Nigeria decreases as they become bigger. Similarly, the table shows that there is a negative relationship between age and earnings quality. This also implies that the reporting quality of deposit money banks decreases as they grow older.

Table 4.3: Pooled-OLS Regression Result

Variables	Coefficient	Std. Error	P/t/
1 Constant	6.04e+08**	2.59e+08	0.023
Joint Audit	8.45e+07**	3.86e+07	0.032
Size	-6.54e+07**	2.98e+07	0.032
Age	-2637645**	1125398	0.022
Hettest	0.4727		
Sktest	0.3526		
Hausman	0.2991		
R^2	0.1943		
Adj. R^2	0.1577		
F	5.31		
Normality for error term	0.3526		

Source: output generated using STATA 13

The regression results as shown in table 4.3 indicate that joint audit is positive and significantly related to earnings quality at 5% level of significance. The implication of this is that joint audit contributes significantly in improving the quality of earning of listed deposit money banks in Nigeria. Based on this, the study rejects the null hypothesis one (H01) which states that, joint audit has no significant impact on the earnings quality of listed deposit money banks in Nigeria. Therefore, the study infers that joint audit has significant positive effects on the earnings quality of DMBs in Nigeria. This finding is consistent with the findings of DeAngelo (1981), Teoh and Wong (1993), Becker et al„ (1998) and Francis (2004). However, the study contradicts the findings of Aliyu, Musa and Zachariah (2014), Dangana (2014), Marmousez (2009), that Joint audit does not improve earnings quality.

To check if the variability of error terms is constant or not, a test for heteroskedasticity was conducted. The heteroskedasticity test conducted revealed that there is absence ofheteroskedasticity and existence of homoskedastacity. In order to examine if endogeneity exists, which could potentially lead to biased coefficient, a Hausman specification test to make the choice between Fixed Effect (FE) and Random Effect (RE) regression was performed. The Hausman specification test suggested that Random Effects Regression Model is the most appropriate model for the study as evidenced by the p-value of 0.2991. However, the Breusch and Pagan Lagrangian Multiplier Test for Random Effects, indicated that there is no statistical significant difference between the effects (p-value of 0.4690), and therefore, OLS model can also be used for the study. This is not significant. Thus, the test perfectly suggests that OLS is the most efficient and appropriate.

Conclusions and Recommendations

Based on the analysis conducted on the data and the analysis of the research hypotheses, the study concludes that Joint audit has a significant and positive relationship with earnings quality.
Management of listed deposit money banks should emphasize more on the use of joint audit services.

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Conference theme 7:

Issues in Public Sector Accounting and Finance: Implication for IPSASs

DO ACCRUAL BASED IPSASs IMPLEMENTATION AFFECT ACCOUNTABILITY?

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Abstract

The study aims to examine the effect of International Public Sector Accounting Standards (IPSASs) implementation on accountability in terms of four variables of clarity for office-holders' decisions and action; efficient service delivery; actualisation of developmental promise; proactive and fair public funds management. Data gathered are from a sample of 540 respondents. The response rate is about 98%. Multivariate regression analysis is adopted for the study. Findings are that IPSASs implementation has a statistically significant effect on accountability at .000 level of significance. Clarity for office-holders' decisions and action scores F (1, 395.92) = 456.49; p < .000; There is a statistically significant effect of IPSASs implementation on accountability in terms of efficient service delivery which scores F (1, 402.11) = 437.09; p < .000; Actualisation of developmental promise scores a statistically significant value of F (1, 403.27) = 547.02; p < .000; Proactive and fair public funds management scores F (1, 450.33) = 320.42; p < .000. In all the criteria tested the R squared are ~ 0.5, which means that IPSASs implementation is a major factor for improving office-holders' accountability. The mean scores are also close to 1 at .758, .837, .773 and .863 for accountability in terms of clarity for office-holders' decisions and actions, Efficient service delivery, Actualisation of developmental promise, proactive and fair public funds management respectively, which implies that the respondents are strongly in agreement in their responses to the questions asked. This study concludes that the implementation of accrual IPSASs would improve accountability. The recommendations include the need for government's special attention to solve accountability problems of office-holders in terms of proactive and fair public funds management.

Keywords: Accountability, International Public Sector Accounting Standards; Public funds management, Officeholder.

Introduction

Background to the study

The desire for accountability is a critical issue in the public sector "Accountability is the obligation to demonstrate that work has been conducted following agreed rules and standards and report fairly and accurately on performance results vis-à-vis mandated roles and or plans"(United Nations Development Programme (UNDP) 2008,p.4). Its rise promotes effective, transparent public management. Ball and Pflugrath, (2012); Salawu and Agbeja, (2007) find an alignment between accountability and best practise. 'weak accountability is the source of many ills in the world' (Michael, 2005, p. 97). The failures in the public sector are attributable to weak accountability. Haroun (2007) argues that the Government is reluctant to insist on transparent accounting reforms because of the impression that accountability poses a threat to politicians and bureaucrats' income levels.

Nigerians are dissatisfied with government accountability process of accounting. For instance, Onalo, Lizam, and Kaseri (2013) argue that a large part of public spending is voted based on guesswork, horse trading or barely concealed electoral calculations. Babatunde (2013) explains that low accountability leads to corruption and consequently results in a low rate of poverty. Low poverty rate poses security risks such as experienced with Boko Haram, Ansir- Dine and militancy in Borno state, Plateau state and Niger-Delta respectively. Moreover, Transparency International Corruption Perception Index (2019) placed Nigeria at a score of 27% or a rank of 144 out of 180 Countries surveyed for perceived levels of public sector corruption. The ranking did not improve and has recorded perpetual failure over the years.

The continued accountability failure could be due to an accounting style that allows for low disclosure of necessary information for appropriate decision making. For instance, Hitherto the adoption of IPSASs, Nigeria has been operating under the cash basis of accounting. The cash basis of accounting entails that only cash transactions are recorded. In cash basis of accounting, the government does not explicitly disclose its finances and revenue as and when necessary, it does not capitalise the costs of assets at acquisition and no trace of the life of the asset in the records of accounts. Contingent liabilities such as pensions and commitments like salaries are ignored in the financial reports (Omolehinwa & Naiyeju, 2015).

This poor disclosure of information in the accounting books of records makes it difficult for users to determine the revenue of the government or establish the expenditure, the beneficiary of government spending and the items upon which the spending occurs. There is no useful trail of government debtors and creditors (Babatunde, 2019; Omolehinwa & Naiyeju, 2015). This type of record keeping has adversely affected accountability in the area of responsiveness to the yearnings of citizens with a dire consequence on the future generation because inter-generational activities are omitted in the records. The trend must be reversed for proper accountability.

According to Omolehinwa (2012), accountability is the obligation by officeholders to demonstrate that work has been conducted per agreed rules and standards and report fairly and accurately on performance results based on electorates mandate, official roles and government plans. An analysis of

the need for improved accountability drive in government has generated debate stemming from the New Public Management (NPM). Andriani, Kober and Ng (2010); Mack and Ryan (2006); Cortes (2006) explain that NPM focuses on efficiency, performance measurement, fiscal discipline, accountability and transparency (Onalo, et al., 2013). The various theories of governance accommodate that social conflicts are resolved by a sovereign from an accountability perspective as guided by the new public management theory (Bevir, 2011). Haroun (2007) explains that in tandem with NPM, there is a growing consensus concerning the merits of accounting reforms especially accrual accounting in the public sector.

In response to NPM, Nigeria gained a historic opportunity to develop a more democratic political system and to improve the accountability of the government. The country adopted a multiparty system for the election of office-holders like legislative members, the executive, including the president at the centre, and governors and local government presiding officers at the states and local levels. Besides, a set of new accounting standards based on International Public Sector Accounting Standards (IPSASs) was adopted in 2010 for the public sector alongside the International Financial Reporting Standards (IFRS) for the private sector. IPSASs implementation is for effective and efficient governance in the provision of services to Citizens. This applies to the underlying principles of recent social and economic public sector reforms as a means to strengthen government accountability in Nigeria. Ironically, despite all these efforts, not much improvement has been recorded.

Accounting reforms continue in the standardisation of operations and formats of presentation. The promulgation of the Financial Reporting Council of Nigeria (FRCN) Act No.6 2011 results from the culmination of previous efforts undertaken since the 1980s to improve the quality of the Nigeria public sector reporting system. FRCN (2011) mandates the adoption of IPSASs. The International Federation of Accountants (IFAC). IFAC (2012) mandates all countries of the World to adopt IPSASs because of their numerous benefits including accountability.

IPSASs are a set of accounting standards that areissued by the IPSAS Board for public sector entities in the world in the preparation of financial statements (Babatunde, 2017). They are based on International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). Many countries were using the cash basis of accounting for their public sector accounting. Hence, IPSASs were first issued on a cash basis but later developments resulted in the improvement of the IPSASs which are currently issued on an accrual basis of accounting. Accrual accounting is a method that measures the financial status of a business entity by recognizing economic events irrespective of when cash transactions occur. It allows the current cash flows to be combined with future cash flows to give a reliable picture of a company's current financial condition.

IPSASs are introduced by the International Public Sector Accounting Standards Board (IPSASB) which metamorphosed from the public sector accounting committee of IFAC. They are used for the preparation of general purpose financial statements by governments and other public sector entities around the world. Through these standards, the IPSASB aims to improve the quality, consistency and accountability of public sector financial reporting globally.

Accrual-based IPSASs present a complete, true and fair view of accounting and promote transparency and accountability in financial reporting for public sector entities in a standardised approach. IPSASs

benefits of transparency and accountability made the Nigerian States and Federal Accountants-General under the auspices of Federal Accounts Allocation Committee (FAAC), to develop an Accrual Accounting Manual as a crucial milestone and deliverable towards the implementation of IPSASs in Nigeria. The public sector accounting reform in Nigeria conforms with the new public management philosophies which promote the use of effective managerial tools, such as the accrual accounting system, output based accrual accounting, and performance-based measurement techniques in government organisations.

The proponents of accrual accounting in the public sector suggest that facilitates performance measurement, accountability by government organisations, efficiency, effectiveness and decision making for a functional democracy. The objective of moving financial reporting in government to IPSASs is to make the actual cost of government more transparent. For instance, accrual accounting affords attribution of the pension costs of government employees to the period when they are employed, accumulating and providing their pension rights as and when due, instead of having this as an independent expenditure. Also, Jagalla, Becker, and Weber (2011) explain that rather than an increase in expenditures when individual capital projects are procured, they are incorporated into the annual, operating expenditures, through an allowance for depreciation

Furthermore, the treatment of Loans and guarantee programs on an accrual basis fosters more attention to the risks of default, especially if such default risks are to be pre-funded by government. Outstanding government debts are also designed in a way that all interest expenditure is paid in a single amount at the end of the loan rather than being spread through the years when the loan was outstanding (Marti, 2013; Ball & Pflugrath, 2012; Jagalla et al., 2011). People are better informed as to how an elected government spends tax-payers' money. Danescu and Rus (2013) argue that accounting information available should serve the users for their target purpose. However, The Nigerian public sector is still lagging in the application of accrual-based IPSASs in defiance of the requirements of FRCN Act 2011 which mandates the adoption of International Public Sector Accounting Standards (IPSAS) under the accrual basis.

Drawing on these perspectives, the urge to elaborate on the usefulness of accrual accounting to agencies that are not entirely subject to contestability and market forces constitutes the motivation for this study. The shortage of IPSASs studies in a transitional economy is of concern to this study. Some studies have discussed accrual accounting in the public sector, in general, but few have investigated its workings in the government departments (Rkein, 2008; Harun, 2012; Thaddeus, 2014). There are also divergent views on the benefit of IPSASs. For instance, Caruana and Grima (2019) find that IPSASs worsens deficits. They argue that IPSASs implementation does not affect the quality of macro-surveillance. Whereas, Balogun (2016) argues that IPSASs improves accountability. Hence, it is necessary to investigate the issue of IPSASs benefits like accountability further. This study is based on a descriptive analysis that is suitable for understanding accounting change and the outcomes of the change in the public sector. This approach is appropriate for the study because it involves the description of reality that allows for an understanding of the underpinnings of accounting reforms and its implications for performance in the public sector. This study promotes a discussion on the link between reform processes and economic development in the area of accountability.

This study brings to light the more worrisome issue of accountability as a critical necessity in the government appropriations to reduce the menace of corruption in a transitional economy. This is a scholarly contribution to citizens' welfare strategy to improve the availability of limited research on accounting reforms. This study utilises a methodological style in the assessment of accrual-based IPSASs by using the concept of cost/benefit analysis procedure, with accrual-based IPSASs reform as the cost and accountability, the resultant, improved citizens' welfare as the benefit. Accountability is approached in four perspectives. That is provision of clear reasons for officeholders' decisions and actions PCRDA; Efficient Service Delivery (ESD); Actualisation of developmental promise (ADP); Government pro-activeness and fairness to public funds providers (GPFPP). Therefore, this study investigates the implementation of accrual-based IPSASs as it affects accountability. It is expected that IPSASs implementation would affect accountability.

Statement of the problem

Accountability challenges are unresolved. Failing responsiveness to the plight of citizens continues to the detriment of the society. Although some factors have been suggested as essential elements in governance, the effects of accountability appear a common trend. Unfortunately attention has not been paid to accrual accounting as a tool for improving accountability in transitional economies. If inadequate accountability continues, the Nigerian nation may be backward in economic development. However, the benefits of accountability as essential features of accrual IPSASs have been documented in the literature (Babatunde, 2017; Babatunde, 2013; Ball & Pflugrath, 2012; Marti, 2013). At the practical level, the adoption of new policies including the introduction of a new accounting system involves a complex process (Dambrin, Lambert, & Sponem, 2007; Nor-Aziah & Scapens, 2007). Hence, further analysis of the way forward is necessary.

Aim and objectives of the study

This study aims to provide concise analysis to assess the implementation of IPSAS accrual accounting as it impacts on good governance in the area of accountability in Nigeria. Specifically, the objectives are to:

Examine the effect of accrual IPSASs on accountability.

Research Question

The research question is:

How does IPSASs implementation affect accountability?

Hypothesis

Ho: IPSASs implementation does not affect accountability.

Significance of the study

The findings from this study shall provide information on new knowledge about the accounting basis desirable for public accounting. It addresses a diverse population of practitioners thereby contributes to the scientific field of knowledge in Nigeria. The results are essential for the government on the implementation of accrual accounting in the Nigerian public sector. This study would be of benefit to students and researchers in the face of a dearth of empirical literature available in this area of study. The findings provide a reference to regulatory authorities, private and institutional investors, politicians and public servants for decision making and policy formulation.

This study provides the missing link in public sector accounting reforms in Nigeria which is the bane of Nigeria's development. It provides answers as to; what accounting basis is required to turn around an inefficient and ineffective public sector. Expectedly, this study will be useful to scholars and practitioners in public sector management in general and accounting reforms in particular. The citizenry would use the findings of this study to benchmark the requirements to improve their welfare through effective management of public resources and expenditure in the form of the budget.

The findings will avail policymakers with critical lessons on strategic areas of policy gaps that they can focus on to improve public service. Supervisory agencies will have insights on where to concentrate their oversight functions for the faster return on governance investment. More importantly, this study will guide other researchers that may be interested in a study of this nature in other localities nationally and internationally. Jagalla et al. (2011) explain that he various recipients of public financial information should include at least seven different groups such as voters, taxpayers, and consumers of public goods. Including policy-makers, the civil servants and other advisers, managers within governmental organisations and public sector agencies, employees and professionals working in the public sector, monitoring bodies and creditors to public sector bodies. Moreover, users in non-finance functions such as politicians and line management of administrative units. This study satisfies the seven group of beneficiaries.

Scope

The public sector accounting system in Nigeria is across all the three tiers of government, Federal, State and Local government. This study draws its primary data from the federal and state levels of government. The data are gathered from three sources. However, extensive literature review covers various sources such as laws and regulations including the Nigeria government accounting standards as the basis of information to understand the purpose and claimed rationales of the adoption of the accrual accounting system in the Nigerian public sector. Secondly, to facilitate the triangulation of the data as a means to ensure the credibility of the data collected from laws and regulations, information is also collected from publicly available sources such as government reports, audit reports, press releases, and press reports. Thirdly, to complement the information drawn from government rules and publicly available sources, the study also uses a questionnaire to gather primary data from the accountants who are experienced technocrats involved in the implementation of IPSASs in both Federal and States civil service of Nigeria.

Based on Yin's (2003) suggestion, this research focuses on why and how questions on the effect of IPSASs on accountability in the Nigeria public sector by examining the people's words relating to the topic of the study. The use of primary data has been widespread in recent years in managerial accounting, auditing, and financial accounting studies both for developing theories and generating new knowledge (Nor-Aziah & Scapens, 2007; Sharma & Lawrence, 2008). The study recognises that primary data may be necessary for methodological issues such as the effect of quantitative data in the research analysis, especially because IPSASs have not been fully actualised in the Nigerian public sector. Thus, it is only possible to discuss evidence which is available through peoples' feelings and perception and the limited ones in the public domain. For this reason, this study does not pretend to offer an exhaustive analysis but instead provides some to show how practitioners perceive the subject matter. This study provides an analytical interpretation of the results to reduce this delimitation.

Literature review

Accrual accounting is an accounting method that measures the financial status of a business entity by recognising economic events irrespective of when cash transactions occur. It allows the current cash flows to be combined with future cash flows and gives an accurate picture of an entity's current financial condition.

Accrual based IPSASs

The adoption of accrual accounting has been central to the public sector reforms in recent years as part of its financial management reforms. The reforms consists of a significant amount of work in rebuilding a change of the management attitude and outlook. It was heralded with praises based on improvements in efficiency, resource management, transparency and accountability to the public. Babatunde (2013) explains that there are arguments for and against accrual accounting in government. For instance, Ouda (2007) argues that at the aggregate level, accrual-based fiscal indicators provide better information about the sustainability of fiscal policies.

Whereas, some scholars like Omolehinwa (2012); Wynne (2007); Wynne (2008) recognise that there are weaknesses in accrual accounting. They explain that because accrual basis entails numerous, often complex, assumptions about future events, the assumptions are subject to self-judgment and manipulation. The implementation costs for users understanding, viz-a-viz the usefulness of the reports are expensive.

Some of the opponents of accrual accounting argue that shifting the government budget to the accrual basis will not avert an Enron type of fiasco because Enron reported its finances on the accrual basis, but accrual basis does not remedy the 'off- balance sheet' problem. They forget that accrual accounting is not the problem of ENRON but the fact that ENRON refused to use accrual accounting effectively especially in the area of absolute disclosure requirements. ENRON avoided consolidating special purpose entities. This was due to failure to follow accounting standards, not accrual accounting because accrual financial statements include cash flow information, which would have exposed the gaps. Hence, the merits of accrual accounting in the public sector reforms strategy cannot be overlooked. Technocrats should not see the introduction of accrual accounting as merely a technical reporting innovation. IFAC) (2003) gives guidance for Governments and Government Entities on the implementation of accrual basis IPSASs.

.Azrina and Mohammed (2014) find that accounting employees are willing to move to accrual accounting. Jorge, Carvalho and Fernandes (2007) find that it is not only governmental accounting reform in Portugal that has been going towards international harmonisation, but also problems that have arisen are common to others faced by several countries. This study pays attention to technical issues that are practical.. This study has a wide coverage of the whole of Nigeria. Carpenter and Feroz, (2001); Hopwood (1983) explain that a gap exists between the ideal concept of formal accounting change and its ultimate development and between the newly-developed accounting reforms and their actual application. Harun (2012); Jorge et al. (2007) argue that IPSASs accrual in government has not been adequately researched. In line with the World Bank (2018)'s call for transparency, accountability and sustainability in government, the need to fill the identified gap of dearth of similar studies in transitional economies is partly satisfied in this study by focusing on Nigeria, a transitional economy yearning for development.

Theoretical Framework

The attraction for informative and verifiable accounting lie with the expectations from the stakeholders theories. Freeman (2010) explains that the proponent of Stakeholders theory is Edward Freeman in 1984. The theory is used to identify the points at which the stakeholders are to benefit in the expenditure process of the government which necessitates moral constraints on the part of the government spenders. Stakeholders' theory explains that there are parties involved in governance such as financiers, communities, trade unions, donor agencies, public agencies, political groups and competitors (Heath, 2009). To this end, the citizens organise themselves into strata of the private entity and this constitute stakeholders groups which contribute to the running of their affairs in anticipation of benefits. Stakeholder theory provides decision support mechanism in the area of performance measurement of the way in which the government carries out its activities. According to Ball & Pflugrath (2012) the government insists on compliance with rules and regulations from the private sector; they patronize private sector for their needs. Ironically out of selfishness they are reluctant in applying a selfless reporting system that affords accountability in the public sector such as what they enjoy from the private sector. Hence, it is necessary to assist stakeholders to have assess to required information to meet their expectation for appropriate decision making. It is expected that accrual accounting basis of financial reporting provides fundamental requirement of accountability to the citizens in their various groupings to meet their expectation from the government.

Methodology

Research design

The research method is quantitative, inductive research based on evidences from primary source of data. This method of research design belongs to the numeric group called cross sectional survey design. This design is used because of the peculiarity of this study which is about a technically distinctive situation with many more variables of interest than just data points.

Thaddeus (2014) explains that in primary data studies, the researcher has direct in-depth contact with the organisational participants, and these contacts provide a primary source of research data. This study focuses on real tasks or practices, not situations artificially created by the researcher. The research design involves field observation. The presentation of data is described in organisation context and practices. The primary study approach provides some advantages to this study because it helps to deal with a reliable source of evidence such as documentary survey (Harun, 2012; Yin , 2003; Thaddeus, 2014).

Sample and Sampling Technique

The population for this study comprises the qualified accountants working in the Federal and State government civil service establishments in the six geopolitical zones of Nigeria namely, North-East, North-Central, North-West, South-East, South-West and South-South zones. According to the offices of the accountants and auditors-general reports as at January 31, 2017, there are 2242 Accountants and 1121 Auditors in the target population totalling 3363 qualified accountants. The choice of the population is because accountants are the knowledgeable users of IPSASs, whose work interface frequently with accounting standards. Clearance for cooperation with the researcher from each of the concerned jurisdictions was obtained through an official letter from the researcher backed up by a letter of introduction from the University of Lagos.

Determination of sample size

A representative sample size was determined using the Yamane's (1967) formula as follows:

$$n = \frac{N}{1+ N(e)2}$$

where *n* is the sample size, *N* is the target population size and *e* is the margin of error.

N = 3363

e = 0.05

$$n = \frac{3363}{1+ 3363(.05)2}$$

However, this calculated sample size was adjusted to accommodate possibility ofno returns and non-responses to some items in the questionnaire by an assumed minimum questionnaire response rate of 65% based on the researcher's experience in previous studies carried out. Hence, the final sample is

$$n = \frac{357}{0.65} - 549$$

Sampling Techniques

Convenience sampling technique was adopted in selecting a state from each of the six geo-political zones in Nigeria. They are Federal Capital Territory-Abuja and the States of Bauchi, Imo, Kano, Lagos and Rivers. Proportionate stratified sampling method is applied to each of the jurisdictions to arrive at the final proportion of accountants and auditors according to the jurisdictions for the study sample of size 549.

The research instrument is a questionnaire. The questionnaire is designed on a five-point Likert-type scale. The questionnaire contains two major sections, A and B. Section A features questions on the bio-data of the respondents such as the location of the respondents and length of service in the public sector. The inclusion of these variables is necessary as they help to classify the respondents as well as analyse their responses correctly.

Section B of the questionnaire comprises questions in form of statements of assertion and allows for open-ended responses. The response rate is 98%. Hence the sample size utilised for this study is 540 respondents. Reliability test reportsa Cronbach's Alpha of .94 which is above the acceptable threshold of .7. This indicates that the data gathered are reliable.

Measurement of Variables

In studying the effect of one variable on the other using linear regression statistics, Tanjeh (2016); Hoffman (2015) explains the need to regress the dependent and independent variables to assess their effects. Linear regression statistics are expressed through the equation of a straight line, which is stated for the four items under focus are as follows:

$$Y_1 = a_1 + bX_1$$

$$Y_2 = a_2 + bX_2$$

$$Y3 = a_3 + bX_3$$

$$Y4 = a_4 + bX_4$$

Where X is the independent variable and Y the dependent variable

Y_1 is - PCRDA
Y_2 is - ESD
Y_3 is - ADP
Y_4 is - GPFRP;

a_i is the intercept of model i; & b_i is the slope of model I

In studying the effect of the implementation of IPSASs on accountability, two variables are recognised, the independent and dependent variables. The independent variable is IPSASs implementation, while the dependent variables are the benefits accruable to the implementation of IPSASs, as per accountability attributes of PCRDA, ESD, ADP and GPFRP respectively. Hence, the accountability attributes are functions of IPSASs implementation, as presented in arithmetic models 1 to 4 as follows:

Model 1: PCRDA $=_f$ IPSAI
Model 2: ESD $=_f$ IPSAI
Model 3: ADP $=_f$ IPSAI
Model 4: GPFRP $=_f$ IPSAI

The variables are analysed using multivariate linear regression technique.

Data Analysis and Results

Social-Demographic Characteristics of Respondents

The social- demographic characteristics of respondents is as shown in Table 4.1

Table 4.1: Social-Demographic Characteristics of Respondents

S/N	Respondents bio-data		Frequency	Percentage (%)
1	Highest academic qualification	HND/ B. Sc.	359	66.5
		M.Sc./MBA	152	28.1
		M.Phil. /Ph.D.	29	5.4
		Total	540	100
2.	Highest professional qualification	ICAN	129	23.9
		ANAN	281	52.0
		Others	130	24.1
		Total	540	100
3.	Job title	Accountant	363	67.2
		Auditor	177	32.8
		Total	540	100
4.	Work experience	1-5 years	133	24.6
		6-10 years	161	29.8

		Above 10 years	246	45.6
		Total	540	100
5.	Place of work	FCT-Abuja,	265	49.1
		Bauchi State	73	13.5
		Imo State	39	7.2
		Kano State	32	5.9
		Lagos State	111	20.6
		Rivers State	20	3.7
		Total	540	100

Source: Field survey, 2018.

Table 4.1 shows the social-demographic characteristics of respondents which included highest academic qualification, professional qualification, work experience, job title and place of work. The Table shows that 66.5% of the respondents have HND/B.Sc., 28.1% have MSc. /MBA while 5.4% possess M.Phil./Ph.D. This result implies that the respondents are well educated and knowledgeable enough to understand the issue of IPSASs implementation.Table 4.1 shows that ICAN members sampled are 23.9%, ANAN members are 52.1% while others are 23.9%. This indicates that respondents are adequately equipped professionally to attend to the questions asked on IPSASs in the questionnaire.

Table 4.1 shows that the respondents with above 10 years of experience are in majority at 45.6%. This indicates that the respondents are well experienced civil servants who can address the questions asked adequately. Table 4.1shows that majority of the respondents work as accountants at 67.2% while those who work as auditors are 32.8%. This shows that the respondents are the accounting practitioners in the public sector who are in a position to contribute to the debate on IPSASs implementation.

Table 4.1 shows that respondents are from diverse locality in the six geopolitical zones of Nigeria. They work in both the Federal and State government Ministries, Departments and Agencies (MDAs). Out of 540 respondents, 265 of them work in FCT Abuja. Lagos state government reported 111 respondents. Respondents from Bauchi, Imo, Kano and Rivers States are 73, 39. 32 and 20 respectively. The respondents satisfy the questions asked based on their qualifications and experience on the job, which makes the responses reliable.

Descriptive statistics of the measurement of the research variables
IPSASs implementation.

Table 4. 2: Descriptive Statistics for IPSASs implementation measurement

Item No.	Description	Mean
1.	Existence of accounting regulations for the implementation of IPSASs.	3.98
2.	Adherence to transition timetable for the implementation of IPSASs.	3.95
3.	Commencement of Pilot study on the implementation of IPSASs.	4.14

4.	Availability detailed chart of account for the element of all revenues in the MDAs.	4.06
5.	Availability of detailed chart of accounts for the element of all expenditure in the MDAs.	4.01
6.	Availability of detailed chart of accounts for the element of all changes in net assets in the MDAs.	4.00

N = 540; Scale: Max. = 5; Min. =1
Source*: Field survey, 2018.*

Table 4.2 shows the descriptive statistics of IPSASs implementation measurement. Table 4.2 shows that pilot study on the implementation of IPSASs has commenced in most MDAs (Pilot study: m= 4.14) There are also progress in the availability of detailed chart of account for elements of all expenditure (m= 4.01), all revenues (m= 4.06)) and that of all changes in net assets (m= 4.00) in the jurisdictions sampled. There is progress in the existence o faccounting regulation (m= 3.98) and adherence to transition timetable (m= 3.95) to some extent.

Table 4. 3: Descriptive Statistics of Accountability measurement

Item No.	Description	Mean
1.	Provision of clear reasons for office- holders' decisions and actions.	4.01
2.	Efficient service delivery.	4.02
3.	Actualisation of developmental promise.	4.00
4.	Government pro-activeness and fairness to public funds providers.	3.96

N = 540; Scale: Max. = 5; Min. =1
Source: *Field survey, 2018.*

Table 4.3 shows that most of the questions are answered by the respondents based on a high mean score recorded for all the questions. The mean scores are close to the maximum score of 5 at 4.01, 4.02, 4.00 and 3.96 for items 1 to 3. The result indicates that respondents agree that IPSASs implementation is a way for providing clear reasons for office-holders' decisions and actions (Provision of clear reason for decision making: m= 4.01), efficient service delivery (Efficient service delivery: m= 4.02), actualisation of developmental promise (Developmental promise: m= 4.00) and it is also an effort to display pro-activeness and fairness to the providers of public funds (Pro-activeness and fairness: m= 3.96). The implication of these high mean scores recorded as shown in Table 4.10 is that the data gathered are reliable.

Table 4.4 : Multivariate Testsafor IPSASs implementation effect on accountability

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.112	16.368[b]	4.000	519.000	.000
	Wilks' Lambda	.888	16.368[b]	4.000	519.000	.000
	Hotelling's Trace	.126	16.368[b]	4.000	519.000	.000
	Roy's Largest Root	.126	16.368[b]	4.000	519.000	.000

IPSASIMP	Pillai's Trace	.541	152.803[b]	4.000	519.000	.000
	Wilks' Lambda	.459	152.803[b]	4.000	519.000	.000
	Hotelling's Trace	1.178	152.803b	4.000	519.000	.000
	Roy's Largest Root	1.178	152.803b	4.000	519.000	.000

a. Design: Intercept + IPSASIMP
b. Exact statistic
Source*: Field survey, 2018.*

Effect of IPSASs implementation on Accountability

In Table 4.4 the multivariate analysis result indicates that IPSASs implementation has a significant effect on accountability at a .05 level of significance. There is also a significant level of Wilks' Lambda at .000.

Table 4.5 : Tests of Between-Subjects Effects of IPSASs implementation on four accountability criteria

Source	Dependent Variable	Type Sum III of Squares	df	Mean Square	F	Sig.
Corrected Model	Clearity for office-holders' decisions and actions	346.238[a]	1	346.23	456.49	.000
	Efficient service delivery	336.711[b]	1	336.71	402.11	.000
	Actualisation of developmental promise.	422.606c	1	422.60	547.02	.000
	Proactive and fair public funds management	276.433d	1	276.43	320.42	.000
Intercept	Clarity for office-holders' decisions and actions.	27.983	1	27.98	36.89	.000
	Efficient service delivery	29.358	1	29.35	35.06	.000
	Actualisation of developmental promise.	10.626	1	10.62	13.75	.000
	Proactive and fair public funds management	46.991	1	46.99	54.46	.000
IPSASIMP	Clarity for office-holders' decisions and actions.	346.238	1	346.23	456.49	.000
	Efficient service delivery	336.711	1	336.71	402.11	.000
	Actualisation of developmental promise.	422.606	1	422.60	547.02	.000
	Proactive and fair public funds management	276.433	1	276.43	320.42	.000
Error	Clarity for office-holders' decisions and actions.	395.920	522	.758		
	Efficient service delivery	437.098	522	.837		
	Actualisation of developmental promise.	403.272	522	.773		

	Proactive and fair public funds management	450.336	522	.863
Total	Clarity for office-holders' decisions and actions.	9295.000	524	
	Efficient service delivery	9238.000	524	
	Actualisation of developmental promise.	9274.000	524	
	Proactive and fair public funds management	9023.000	524	
Corrected Total	Clarity for office-holders' decisions and actions	742.158	523	
	Efficient service delivery	773.809	523	
	Actualisation of developmental promise.	825.878	523	
	Proactive and fair public funds management	726.769	523	

a. R Squared = .467 (Adjusted R Squared = .466)
b. R Squared = .435 (Adjusted R Squared = .434)
c. R Squared = .512 (Adjusted R Squared = .511)
d. R Squared = .380 (Adjusted R Squared = .379)
Source: *Field survey, 2018*

Table 4.5 shows that IPSASs implementation has a statistically significant effect on accountability at .000 level of significance. Further analysis of the effect records that clarity for office-holders' decisions and action scores F (1, 395.92) = 456.49; p< .0005.

Table 4.5 reveals that there is a statistically significant effect of IPSASs implementation on accountability in terms of efficient service delivery which scores F (1, 402.11) = 437.09; p< .000;

Actualisation of developmental promise scores a statistically significant value of F(1, 403.27) = 547.02; p< .000;

In Table 4.5 accountability in terms of proactive and fair public funds management scores F (1, 450.33) = 320.42; p< .000;

For the four criteria tested the mean scores are also close to 1 at .758, .837, .773 and .863 for accountability in terms of clarity for office-holders' decisions and actions, Efficient service delivery, Actualisation of developmental promise, proactive and fair public funds management respectively.
The results indicate that the respondents agree with one another in their choices of answers to the questions asked.

The extent to which IPSASs implementation affects accountability is depicted with the results of R Squared and the Adjusted R Squared as shown in Table 4.5. For instance, the R Squared ˜0.5 and similarly for the Adjusted R Squaredfor clarity for office-holders' decisions and action. This implies

that the proportion of accountability in terms of clarity for office-holders' decisions and action that is predicted by IPSASs implementation is to a large extent.

For efficient service delivery the R Squared ~ 0.5 and similarly for the Adjusted R Squared. This implies that the proportion of accountability in terms of efficient service delivery that is predicted by IPSASs implementation is to some extent as shown in Table 4.5.

In Table 4.5, fo rActualisation of developmental promise the R Squared = 0.512, Adjusted R Squared = 0.511 which implies that the proportion of accountability in terms of Actualisation of developmental promise that is predicted by IPSASs implementation is to a large extent as shown in Table 4.5

In Table 4.5 accountability in terms of proactive and fair public funds management R Squared = .38, Adjusted R Squared = .379. This result implies that the proportion of accountability in terms of proactive and fair public funds management that is predicted by IPSASs implementation is to an extent as shown in Table 4.5.In all the criteria tested the R squared are close to .5

These results imply that other factors may affect accountability in addition to IPSASs implementation in Nigeria. However, the overall results indicate that IPSASs implementation has a statistically significant effect on accountability in Nigeria. Hence, the null hypothesis tested is not supported.

Result discussion

This study finds that IPSASs implementation has a significant effect on accountability. The result supports the findings in some earlier studies. For instance, Babatunde (2019) finds that the implementation of IPSASs affects transparency and accountability favourably. Wang and Miraj (2018) argue that IPSASs improves accountability. Kartiko, Rossieta, Martani and Wahyuni (2018) finds that accrual practices based on IPSASs strengthen accountability if government prioritises accrual accounting policies extensively. Ademola, Adegoke and Oyeleye, (2017) finds that adoption of IPSASs increases the level of accountability. Similarly, Acho (2014) finds that the adoption of IPSASs would significantly improve accounting and financial recording systems in the Nigerian Public Sector. These findings imply that the implementation of IPSASs will improve accountability. The results buttress the need to implement IPSASs across the globe as advanced by IPSASB (2017) and IFAC (2012). Notably, IPSASs implementation is necessary for improved accountability. The study lays credence to the presumption that the variables tested could combine to benefit citizens. This study further reinforces the principles of stewardship as enjoined by stakeholders theory.

Conclusion

Accountability is about the promotion of effective and efficient service delivery. It allows for office-holders' decisions and actions to meet peoples' expectation. The government is not able to deliver on its promises to fit the life expectation of the people in general and that of the users of financial reports in particular. A solution to improve officeholders' accountability to ameliorate the suffering of the citizens has been found in this study which concludes that accrual IPSASs prevent Office-holders culpability in governance mismanagement as IPSASs implementation will enhance accountability.

Recommendations

I. The findings of this study suggested the need for governments to fast track the implementation of IPSASs to improve accountability and reduce corruption rate.

II. Based on the statistical analysis and the results in this study. Accountants are skeptical that IPSASs implementation alone could solve the accountability problems of office-holders in terms of proactive and fair public funds management. Hence, special attention is required in this area from all angles of financial reporting in addition to IPSASs implementation.

III. The government should establish policy reform processes to ensure accountability such as in the area of service delivery system

Contributions to knowledge

I. This study contributes some unique multivariate regression models that can be referenced in further studies.

II. This study presents four necessary variables of accountability to ease further research in the area of study.

III. This study exposes the proactive and fair public funds management aspect of accountability as a difficult variable that will be hard to be solved with IPSASs implementation alone. This exposure will improve decision making by policy makers and users of General Purpose Financial Reports (GPFRs).

IV. This study fills a gap of available work for referencing in further research in a developing economy where there is a shortage of such research.

V. This study enhances the doctrine of stakeholders theory in government financial reporting.

Suggestion for further study

Further study could explore how best IPSASs implementation could contribute to improve the behavioural aspect of financial reporting as it affects proactive and fair public funds management.

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EFFECT OF TREASURY SINGLE ACCOUNT ON THE PERFORMANCE OF DEPOSIT MONEY BANKS (DBMS) IN NIGERIA

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Abstract

The study is an assessment of the effect of Treasury Single Account (TSA) on the performance of Deposit Money Banks in Nigeria (DMBs). Guaranty Trust Bank and Zenith Bank were selected as the focal point from the DMBs in Nigeria. Data were obtained from the published statements of account of these banks, while the Index numbers, coefficient of variation, correlation and regression analyses were the main analytical tools used. Results for Guaranty Trust Bank and Zenith Bank varied. For Guaranty Trust Bank, profit before tax fell in all cases at varying levels before the base year but increased by 2.41% in 2015, 39.54% in 2016 and 68.71% in 2017 after the base year. Similarly, in the case of Zenith Bank, profit before tax fell in cases at varying levels before the base year but increased by 6.83% in 2015, 29.74% in 2016 and 60.93% in 2017 after the base year. The coefficient of variation values were 89.45%, 75.41% and 22.51% for profit before tax, customers' deposits and return on investment, respectively. The effect of customers' deposits on the performance of banks was positively significant especially for profit before tax for Guaranty Trust Bank and Zenith Bank. Thus, one naira increase in customers' deposits led to 0.0627 naira increase in the profit before tax of Guaranty Trust Bank and 0.05396 naira of Zenith Bank. The study concludes that the introduction of the TSA does have a significant effect on the performance of DMBs in Nigeria. The study therefore recommends that DMBs should work towards effective utilization of all sources of funding so that no one source can jeopardize their success. The banks should avoid over-reliance of government funds and source for funds from other sectors of the economy, while rural banking should be aggressively undertaken to mobilize funds from the un-banked among rural dwellers.

Keywords: Base year, Deposit Money Banks, Return on Investment, Treasury Single Account

Introduction

The importance of Deposit Money Banks (DMBs) to an economy cannot be overemphasized. DMBs play an important role in the financial system and the economy. As a key component of the financial system, banks allocate funds from savers to borrowers in an efficient manner. They provide specialized financial services, which reduce cost of obtaining information about both savings and borrowing opportunities. These financial services help to make the overall economy more efficient. The banking system is the life wire of an economy. The economic status of any nation depends on how

their banking sector is. In other words, any issue that affects banks also has an impact on the economy. In Nigeria, commercial banks have been the major keeper of government funds. The banking sector in Nigeria has gone through so many reforms, both the favourable and unfavourable. One of such reforms is the Treasury Single Account (TSA).

According to Faith (2018), Treasury Single Account can be defined as a process and tool that unifies all government accounts in a single unit for the effective management of its finances, bank and cash position. TSA initiative is the operation of a unified structure of Government Bank Accounts, in a single account or a set of linked account for all Government payments and Receipts. The TSA is primarily designed to bring all government funds in bank accounts within the effective control and operational purview of the Treasury, in other to, enthrone centralized, transparent and accountable revenue management; facilitate effective cash Management; ensure cash availability; promote efficient management of domestic borrowing at minimal cost; allow optimal investment of idle cash; black loopholes in revenue management; establish an efficient disbursement and collection mechanism for Government funds; improve liquidity reserve and eliminate operational inefficiency and costs associated with maintaining multiple accounts across multiple financial institutions. Until the introduction of the TSA, government ministries, Departments and Agencies (MDA'S) operated a multiplicity of accounts in the commercial banks. The MDA's use part of the funds they generated, to fund their operations, and remitted the residual to the federation account. This resulted in leakages, embezzlement of funds and inadequate budgetary and financial planning. However the highest beneficiaries of this situation were the banks who relied on deposits from government agencies and lent back to the government at high interest rates.

In view of these, the federal Government directed all MDA's to close their accounts with commercial banks and transfer the balances into the federation account with the central bank of Nigeria which was conveyed in a CBN circular to BPS/CSO/CON/01/079; dated February 25, 2015 and addressed to all Deposit Money Banks (DMB). The circular was titled 'Commencement of Federal Government's Independent Revenue Collection Scheme' under the Single Treasury Account' Initiative. Prior to the introduction of TSA, Nigeria had fragmented banking arrangement for revenue and payment transactions. They were more than 10000 bank accounts in multiple banks, which made it impossible to establish government consolidated cash position at any point in time. It led to pockets of idle cash balances held in MDA's account when government was borrowing out money. 'The maintenance of Treasury Single Account will help ensure that proper cash management by eliminating idle funds usually left with different commercial banks and in a way reconciliation of revenue collection and payment. The implementation of the Treasury Single Account (TSA) in Nigeria in 2015 has generated a lot of interest because of the possible impact the implementation can make on the running of government, performance of commercial banks and the entire economy in the short, medium or long run. TSA is a public accounting system in which all government revenue, receipts and income are collected into a single account. The Central Bank of any country operating TSA maintains and makes payment through this account. With the implementation of the TSA in Nigeria, the Central Bank of Nigeria (CBN) has opened a consolidated revenue account to receive revenue and effect payment to Ministries, Departments and Agencies through individual commercial banks who act as collection agents. The role of commercial banks in this case involves collecting and remitting revenue from these organs of government to the consolidated revenue account with the CBN at the end of each banking day. The principal aims of the TSA policy are tailored towards combating corrupt practices, eliminating

indiscipline in public finance and ensuring adequate fund flow is channeled to the critical sectors of the economy to catalyze development.

What constitutes the deposits that were moved from commercial banks to CBN under the TSA policy can be termed public sector deposits with commercial banks. Other deposits open to commercial banks could come from the private sector, states and local government organs, development banks and other financial institutions. Operationally, commercial banks use fund deposit as the raw materials with which they create products and services that generate income streams for them through fees and commission. It is widely viewed that the absence of the deposits from the Federal Government sources could disrupt and hamper the performance of commercial banks; and even affect the role commercial banks play in intermediation to create wealth, jobs and earn profit. There are different shades of opinions that the full implementation of the TSA policy would affect commercial banks. The possible effects include liquidity squeeze, shrinking of deposits and increase in interbank rates. The consequence of the reduction of banks' net liquidity position, is capable of constraining their ability to create credits which could in turn affect their profitability and also the fear of unfavourable impact of the high Monetary Policy Rate of 13%, Cash Reserve Ratio (CRR) at 20% and 75% available for private and public sector deposits, respectively. On the contrary, others believe that it does not envisage any negative impact if commercial banks perform the original purposes for establishing them. The purposes mentioned include establishing depositor's' funds, keeping them safe, engaging in intermediation to create jobs for the economy and in the process earn profit.

Consequently, there is need to support the opinions that the TSA affect the performance of commercial banks, with empirical information in the short and long run, which will enable commercial banks and/or government make necessary adjustment(s), if any. So far, no such relationships have been established between the performances of specific banks in terms of credit to the private sector, customers deposit mobilization, loans and advances and their effects on Bank Performance indicators such as Return on Investment (ROI) and Profit before Tax (PBT). The portion of the Federal Government deposits moved to the Central bank as a result of Treasury Single Account is only a fraction of the total customers' deposits. Therefore, the broad objective of this study is to examine the effect of TSA on the performance of DMBs in Nigeria, while the specific objectives are to;

i. Investigate the difference between the performance of commercial banks, before and after the implementation of TSA;
ii. Examine the trend of the performance of commercial banks and customers deposits;
iii. Examine the relationship between the performance of commercial banks and their customer's deposits.

The selected performance indicators for the study are profit before tax and returns on investment. The study provides in particular empirical information for banks, existing and potential investors, government and the general public on the impact of the TSA policy. The impact, whether positive or negative, would help the banks to brace up to the challenges this may impose and in re-assessing the objectives of the policy by government. Investors would rely on the empirical information for effective investment decisions in the specific banks, while the general public may be preoccupied with the outcome of such impact on employment and generally, economic development.

Literature Review

Conceptual Framework

Treasury single Account

Treasury Single Account is a public accounting system under which all government revenue, receipts and income and collected into one single account, usually maintained by the country's Central Bank and all payments done through this account as well. The purpose is primarily to ensure accountability of government revenue, enhance transparency and avoid misapplication of public funds. The maintenance of a TSA will help to ensure proper cash management by eliminating idle funds usually left with different commercial banks and in a way enhance reconciliation of revenue collection and payment. According to Oyedele (2015), TSA is a unified structure of government bank accounts that gives a consolidated view of government cash resources. He said that it is based on the principle of unity of cash and the unity treasury, that a treasury single account is a bank account or a set of linked accounts through which the government transacts all its receipts and payments. He then said it is necessary to distinguish individual cash transactions for the control and for reporting purposes.

According toOnuorah and Chigbu (2016), TSA can be seen as a unified financial policy structure of federal government bank accounts opened by the Central Bank of Nigeria, to make strong all inflows such as money and other financial transactions from all the ministries, different category of agencies in the country for consolidated revenue account by way of receiving all deposits from commercial banks and government revenue and effect payment through the account, so that it will noticeable in a single account at the apex bank in the country. Essential features of treasury single account highlighted by IMF include that:

i. The government banking arrangement should be unified, to enable ministry of finance (or treasury), to have an oversight responsibility for cash flows in and out of these bank accounts;

ii. No government agency operates bank account outside the treasury single account arrangement;

iii. The consolidation of resources should be comprehensive and encompass all funds, both budgetary and extra-budgetary.

The TSA is therefore a network of subsidiary accounts all linked to a main account such that, transactions are effected in the subsidiary account but closing balances on these subsidiary accounts are transferred to the main account, at the end of each business day(Eme, Chukwurah, &Iheanacho; 2015). The objectives of treasury single account include ensuring fiscal discipline, transparent management of the nations' finances and effective aggregate control over government cash balances (Kanu, & Isa; 2016).

Accounts under Treasury Single Account system

There are essentially a number of accounts under the TSA system and as conceptualized by Faith (2018), some of these accounts are discussed below.

TSA Main Account

This is the treasury's account with the central bank, which consolidates the government's cash position. It is the main TSA account when the TSA arrangement in a particular country consists of a set of linked accounts. Cash balances in all other linked accounts are swept into this account. In other words, all government receipts finally flow into, and all disbursements are met from, the central TSA account.

TSA Subsidiary Accounts (TSA Sub-Accounts)

These are not separate bank accounts (in the sense of holding individual cash balances), but are special subaccounts within the main TSA account. This is basically an accounting arrangement to

group together a set of transactions and allows the government to maintain the distinct accounting identity or ledger of its budget organizations (line ministries/agencies) effectively. A cash disbursement ceiling for each entity can be enforced against these ledgers. Balances in these accounts are netted off with the TSA main account for cash management purposes.

Transaction Accounts

Sometimes government bank accounts that are justified for retail transaction banking operations are opened separately and structured as transaction accounts. These separate transaction accounts could be opened for government entities that need transaction banking services, but do not have a direct access to the TSA main account or a subsidiary account, and/or specific category of operations (e.g. special funds). A transaction account could take the form of a zero-balance account or an imprest account.

Zero-balance accounts (ZBAs)

Where transactional accounts are necessary, these are generally opened on a zero-balance basis, i.e., end-of the day cash balances in these accounts are swept back into the TSA main account periodically (preferably daily). Such accounts opened in commercial banks are used for disbursements or for collection of government revenues (particularly nontax revenues). At the end of the day, all revenues collected would be deposited in the TSA. The commercial bank would honor payments of the respective agency, and would be reimbursed by the TSA overnight. ZBAs have many similarities with special credit line arrangements, where budget agencies are provided spending credits towards theamount of payments they can make within a specified period, to be reimbursed by the TSA in the central bank. A ZBA also has the benefit that it bypasses the normal interbank settlement process for each individual transaction, which is often time consuming in developing countries, and ensures same-day settlement on a net basis for all receipts and payments passing through the accounts.

Imprest Accounts

These transaction accounts can hold cash up to a maximum authorized amount and are recouped from time to time. Such accounts might be necessary in some cases, particularly when there is only limited availability of interbank settlement facilities. However, the number of imprest accounts should be kept to a minimum and the strategy should be to progressively transform these accounts into zero

Transit Accounts

These accounts are not meant for day-to-day transaction banking operations of government units. A transit account simply serves as a transit for eventual flow of cash into the TSA main account. Transit accounts might be necessary for major revenue streams to monitor their collection and remittance by the banking system and to facilitate revenue sharing (formula-based sharing from a common pool of resources) between tiers of government in a federal system in line with constitutional provisions.

Correspondent Accounts

A separate ledger account is opened for each correspondent. The correspondent entity has realtime information on the balances it maintains in the TSA. There should be safeguards to ensure that each correspondent government is provided with the funds needed to implement its own budget in a timely manner. The central bank (which maintains the accounts in the TSA) has the obligation to make payments to the extent of the balances available in a correspondent's account. (Including the required ex ante control for authorizing payments).

Bank Deposits

Operationally, banks use fund deposits (time, demand and savings) as raw materials with which they

create products and services that generate income streams for them through interest income, fees and commissions (Onuorah&Chigbu: 2016). The financial intermediation function of commercial banks plays a crucial role in economic growth of both developed and developing economies. It is through this process that commercial banks mobilize money from surplus economic units in the form of savings and channel such funds to sectors of the economy that are in needs of funds to carry out useful economic activities through loans and mortgages (Eugene, 2016). One of the principal sources of this fund is from public funds deposited with these banks. Through their function of financial intermediation, banks ensure continued availability of funds for investment. What constitutes the deposits that were moved from commercial banks to Central Bank under the recent TSA policy can be termed as public sector deposits with commercial banks (Onuorah&Chigbu; 2016).

The study conceptualizes bank performance as a function of customers' deposits as indicated in figure 2.1. The bank performance indicators are profit before tax (PBT) and return on investment (ROI). Profit before tax is a profitability measure that examines a company's profit before the company pays corporate income tax., by deducting all expenses from revenue including interest expenses and operating expenses except for income tax. PBT or pretax profit combines all company's profit before tax, including non-operating, continuing and non-continuing operations. PBT exists because tax expenses is constantly changing and taking it out helps to give an investor a good idea of changes in a company's profit or earnings from year to year.

Return on investment on the other hand, is a financial ratio that compares the amount of income derived from an investment, with the cost of the investment. ROI is known as a profitability ratio, because it provides information about management's performance in using the resources of businesses to generate income. ROI is used by bankers, investors and business analysts to assess a company's use of resources and financial strength. Customers deposits consists of federal Government deposits and other sectors deposit as shown in Figure 2.1. The proportion of the federal government deposits used as a proxy for TSA could be an important and influential component of the total deposits. Deposits are normally considered as cost-effective sources of working fund. There are different types of deposits with different maturity patterns and carrying different rates of interest.

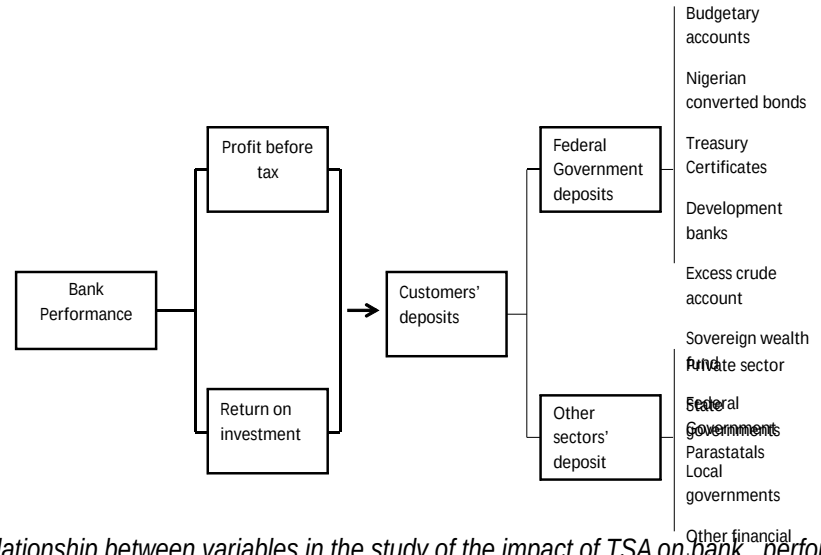

Figure 2.1: Relationship between variables in the study of the impact of TSA on bank performance

Empirical Literature

The study by Chigbu (2016) was centered on the impact of Federal Government time, demand and savings deposits on bank performance using returns on equity (ROE) and ROI as performance indicators. The exogenous variable, Federal Government Treasury Single account was proxied using federal government demand deposit, federal government time deposit and federal government savings deposit. The coefficient of determination (R^2) is 0.239 indicating that the model was poorly fitted at 23.9%. Coefficient of variability of commercial bank performance based on the public sector deposit variables suggested that the adjusted R^2 values revealed that the federal government time deposit, demand deposit, and savings deposit can explain 90.4% variation on banks performance negatively. This study showed that the implementation of TSA in the public sector deposits (savings demand and time) Accounting system did not impact very well on the performance of the commercial banks.

Also, in a study by Ndbuaku, Ohaegbu and Nsimoh (2016), some relationships were established between the performance of banks in terms of credit to the private sector, deposit mobilization, loans and Federal government deposits. The research was aimed at determining the impact of TSA on the performance of the banking system in Nigeria. The data was analyzed using regression and correlation analysis. The correlation coefficient of 59.3% indicated a strong positive relationship between the federal government deposits and credit to the private sector. The regression model also explains that the federal government deposit has a positive relationship with loans and advances. An increase in one naira of federal government deposit will lead to a proportionate increase of N2.980 of loans and advances and vice versa. The results from this research indicated that Treasury Single Account (TSA) had a significant effect on credit to the private sector, deposit mobilization and Loans and Advances.

Clementina (2016) in her study, which was centered on impact of TSA on the liquidity of commercial banks assessed the positive effect of the implementation of TSA on the economy, the public accounting system and the undesired consequences of the liquidity base and performance of banking sector in Nigeria. Questionnaires were administered to the management staff. Ten banks were selected for the study. Chi-square was used as a statistical tool for the study. The results obtained showed that the implementation of TSA in the public system impacted negatively on the liquidity base and performance of banking sector in Nigeria.

Oguntodu, Alalade, Adekunle and Adegbie (2015) carried out an assessment of Treasury Single Account and Nigeria's economy between 1999 and 2015. According to the study, a treasury single account is a tool in which all government revenue is collected and controlled by the Central Bank of Nigeria, with the view to boost the economy and reduce corruption. CBN statistical bulletin (1999-2015) was analyzed using the OLS estimator. To this effect, an empirical analysis of the relationship between Treasury Single Account and economic performance in Nigeria was carried out. The result shows that the Treasury Single Account has a positive significant impact on the country's economic growth but this impact is limited by various factors, one of them being the recent implementation of the policy in Nigeria which made the discovery of historical data difficult. The recommendation of this study is that the federal government of Nigeria should initiate policies and various means to make sure that there are proper accountings of the funds entering into the Treasury Single Account, and that such fund should follow due process. Also that any subsequent foul play by any agencies, or even the CBN is duly prosecuted.

Ahmed (2016) studied the Treasury Single Account (TSA) as an instrument of financial prudence and management: Prospects and problems. According to the study, the Treasury Single Account (TSA) was recently implemented fully in the Nigerian economy by the present government in order to ensure prudence and probity in the management of financial resources. With the TSA government expects to block all loopholes and leakages of financial resources of the government and also ensure a robust financial management system. The paper therefore provides the conceptual meaning of the TSA and also gives its expected benefits to the economy of Nigeria such as enhance system of financial management and control, unification of various accounts of government, reduction of the costs of government borrowing and ensuring of optimum utilization of government financial resources. The study also analyses the objectives of the TSA system and its various accounts such as TSA main account, Subsidiary Account, ZBAs, Transit and Imprest Account among others. The study finally discusses the prospects of the TSA system and its challenges and concludes that the system requires political will, honesty and determination so as to overcome the various challenges identified in the paper in order to achieve the expected benefits of the system.

Ekubiat & Edet (2016) studied the Adoption of Treasury Single Account by State Governments of Nigeria: Benefit, challenges and Prospects. The study examined the benefits, challenges and prospects of adoption of Treasury Single Account (TSA) by State Governments of Nigeria. The study made use of both primary and secondary data. Descriptive cross-sectional survey design was adopted for the study. The population for the study consisted of 200 Professional Accountants in Akwalbom State. Taro Yamane's statistical formula was used to select sample size of 133. Purposive sampling technique was used to select the 133 respondents/samples. The data obtained from questionnaire administration were analyzed using descriptive statistics and t-test statistics. It was found that TSA adoption and full implementation by the state governments will be of greatest benefit as showed in the weighted means scores of 4.20 and tcal of 24.87; there will be challenges in a short-run but the benefits at a long-run will definitely out-weight the challenges.

Mutalib, Bulkachuwa, Uarame and Chijioke (2015), also studied the Impact of Treasury Single Account (TSA) on Ministries, Departments and Agencies (MDA's) Accounting Information and Accountability: A conceptual Review. The study examined the effect of TSA on MDAs accounting information and accountability of public funds in Nigeria. The study employed both primary and secondary data for the purpose of the study. The result shows that there is no doubt that with the introduction of TSA on MDAs Accounting information, the issue of corruption, mismanagement of public funds and government capital base will improve drastically thereby boosting the Nigeria

Kanu, (2016) assessed the positive effect of implementation of treasury single account and economy, the public accounting system and the undesired consequences on the liquidity base and performance of banking sector in Nigeria. The study was done by questionnaire targeted to the management staff of ten banks and chisquare statistical tool was used to analyze the data. The findings revealed that the implementation of treasury single account in the public accounting system impacted negatively on the liquidity base and the performance of banking sector in Nigeria.

Oti, Igbeng and Obim, (2016) examined the policy impact of treasury single account in Nigeria. The objective of this research was to appraise the policy impact with a view to proffering solution to the identified gaps. Questionnaires were administered to gather views of individuals and institutions. The

data were analyzed using survey and exploratory research design. The study revealed various sheds of opinion: while bankers decry the distortion of their liquidity management plan, the federal government on the other hand claims a huge success because it can now comment on its aggregate cash holding without the drudgery hitherto associated with getting to all money deposit banks or MDAs with multiple accounts.

Theoretical Review

The TSA is an account through which the government transacts all its receipts and payments and gets a consolidated view of its cash position at any given time. Although the introduction of TSA is quite recent, researchers so far indicate that some relationships exist between bank performance and TSA. The proxy for TSA has been federal government deposits including time, saving and demand deposits withdrawn from the commercial banks. Equally important is the customers' deposits of which federal government deposits is a substantial portion and a change in federal government deposit will in essence reflect a change in customers' deposit. Measures of bank performance used by researchers include credit private sector, deposit mobilization, loan and advances, return on investment, return on equity, return on capital employed and profit after tax.

Financial Intermediation Theory

The financial intermediation theory highlights the role of financial intermediaries in the economy. Financial intermediaries are firms that borrow from consumers/savers and lend to companies that need resources for investment (Andries&Cuza; 2009). Financial intermediaries can be regarded as commercial companies that produce different types of loaning products for the individuals who wish to borrow. Their role is to mediate between the providers and users of financial capital. The main finished products of financial intermediaries are the loans granted to clients and the main variable input are the deposits attracted from the depositors. Financial intermediation is the transfer of funds from agencies with surplus to agencies with deficit through financial intermediaries. The process of financial intermediation stated by (Andries&Cuza; 2009) showing the network of interrelationships is presented in figure 2.2.

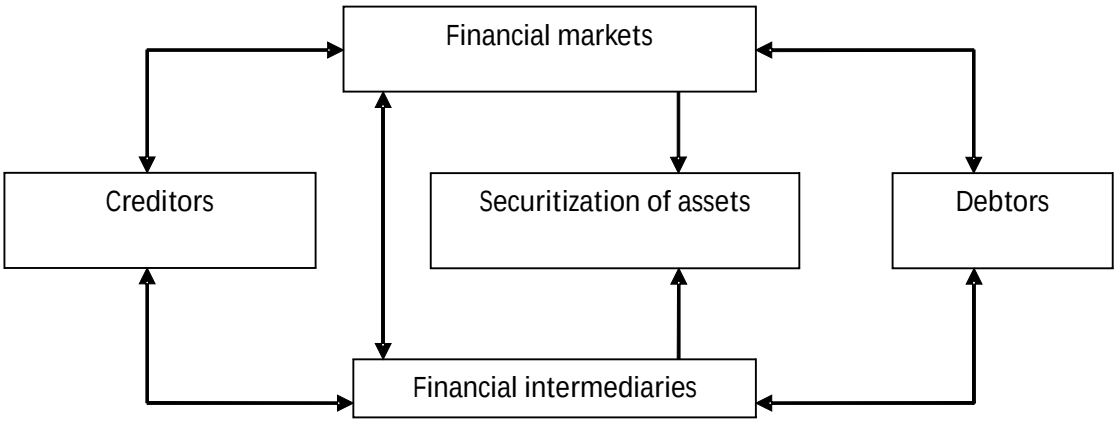

Figure 2.2: process of financial intermediation.

The functions of intermediaries stated by Andries and Cuza in the theory include:

i. Reduction in transaction costs;
ii. Reduction of liquidity;
iii. The information provisions and
iv. Debt negotiation.

The first of these two concerns the problem of accessibility of financial markets for households/ individuals and for firms. The second and third functions concern the services the bank offers to savers, which cannot be obtained from financial markets. The fourth function concerns the services a bank offers to its borrowers rather than depositors.

Diffusion of Innovations

Diffusion of innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread through cultures (Richard, Florence, & Zénon, 2015). Rogers(1995) explained diffusion as the process by which an innovation is communicated through certain channels over time among the participants in a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines. The four main elements of diffusion are the innovation, communication channels, time, and the social system. Diffusion is a special type of communication, in which the messages are concerned with a new idea. It is this newness of the idea in the message content of communication that gives diffusion its special character. This process consists of a series of actions and choices over time through which an individual or an organization evaluates a new idea and decides whether or not to incorporate the new idea into ongoing practice. This behaviour consists essentially of dealing with the uncertainty that is inherently involved in deciding about a new alternative to those previously in existence. It is the perceived newness of the innovation, and the uncertainty associated with this newness, that is a distinctive aspect of innovation decision making (Rogers, 1995). This theory is related to the study as it presents the process of newness, implementation and consequences of the innovation as regards the Treasury Single Account (TSA) policy.

The Management Theory

This theory assumed that all aspects of financial resources – mobilization and expenditure should be well managed by government for the benefits of the citizenry. It includes resources mobilization, prioritization of programs, the budgetary process, efficient management of resources and exercising control to guide against threats. Treasury Single Account (TSA) primarily is to avoid misapplication of public funds.

Modern Money Theory (MMT)

This is a macroeconomic theory that analyses and describes the modern economies as the economy in which the national currency is fiat money, that is a currency established and created as money by the government. The modern money theory, majorly contributed in the study of the relationship between the treasury and the central bank. The central bank is the treasury's bank; it receives payments on behalf of the treasury. The central bank stands between the treasury and the spending unit, as well as the treasury and tax payers making payments to the government (Randall, 1998). The modern monetary theory gives insights on how monetarily sovereign governments operate and their impact on the economy. The modern monetary theory claims that a sovereign government's finances are nothing compared to those of households and firms. The sovereign government cannot be insolvent in its own

currency. Thus, it can always make payments when due in its own currency. Governments don't need to borrow their own currency in order to spend(L. Randall, 2012). This theory shows the relevance of aggregating the central bank and the treasury into a government sector that finances itself through the creation of money, in order to ensure the smooth running of the monetary and fiscal policy (Ekubiat&Ime, 2016).

Stakeholder Theory

A stakeholder is any group or individual who can affect or is affected by the achievement of the organization objectives (Freeman, 1984). Stakeholders are people who have classifiable relationships with the organization. The purpose of an organization is to manage the interest, needs and viewpoints of its stakeholder. Stakeholder management is a major thought to be fulfilled in an organization (Friedman & Miles, 2006). The implementation of treasury single account could be likened to stakeholders 'theory; this is because the adoption of treasury single account was as a result of the pressure from stakeholders/citizen who are majorly against corruption. The stakeholders' theory suggests that government should take into consideration the interest, needs and viewpoints of the stakeholders/citizens, and some response should be informed of strategic opinions. It also provides insight to factors that motivate the federal government to implement treasury single account (Ekubiat&Ime; 2016).

Methodology

The methodology employed is the descriptive and expo-facto research design. Descriptive design method helps in gathering information about the existing status of the phenomena in order to describe what exists in respect to variables. According to Coopers and Schindler (2008), descriptive studies are formalized and typically structured with clearly stated hypothesis or investigative questions. As such, this method is employed because it addresses the objective of the study in investigating the relationship between the variables of the study. Ex post facto design is a quasi-experimental study examining how an independent variable, present prior to the study, affects a dependent variable. The target population of the study composed of all commercial banks in Nigeria between the years 2002-2017, however, Guaranty trust bank (GTB) and Zenith Bank were randomly selected from the 22 established commercial banks in Nigeria. The study employed secondary data collection. The study variables were obtained from published audited financial statements of these banks on the internet, for the financial periods stated.

Procedure for Data Analysis and Model Specification

Index number analysis was used to investigate the difference in performance of commercial banks, before and after implementation. Index number measures the percentage change in the performance of these banks over a period of time, expressed in terms of a base of 100. The formula is given as

$$Ii = \frac{Xt}{Xo}(100)$$

Where:

Ii= the index number (%) for the year of interest.

Xi= performance of either GTB or zenith Bank for a particular year.

Xo= performance of either GTB or zenith bank for the base year.

To examine the trend of performance of these commercial banks and their customers' deposits,

coefficient of variation and a graph of each of the data set (PBT, ROI, Customers deposits) for the two banks plotted against the time period were used as analytical tools. The formula for estimating the coefficient of variation is:

$$CV = \frac{S}{X}(100)$$

Where:
CV = coefficient of variation.
S = standard deviation.
$\overline{X}$ = Arithmetic mean
To examine the relationship between commercial banks and customers deposits, simple regression and Pearson's product-moment correlation are used. If both are used, there will better proof, for the authenticity of the result and further analysis such as forecasting, is possible with regression. The formula for the simple regression is given as

$$Y = a + b_i + X_i + e$$

Where:
Y = bank performance (PBT (N) or ROI (N)).
a = constant.
b_i = coefficient
X_i = customer's deposit
e = error term.
The formula for thee correlation analysis is stated as:

$$\frac{N \text{å} XY - (\text{å} X)(\text{å} Y)}{\sqrt{[N \text{å} X^2 - (\text{å} X)^2]\,[N \text{å} Y^2 - (\text{å} Y)^2]}}$$

N= the number of paired variables.
X= the raw score of the variable X.
Y= the raw score of the variable Y.
å =The sign for summation
T-test was used for testing the first two hypotheses, while regression analysis was used for the third hypothesis. Although the formulas are given, the SPSS (statistical package for social science) software was used for the analysis, including the t-test.
Index number measures the percentage change in the performance of these banks over a period of time, expressed in terms of a base of 100. Coefficient of variation is important in comparing the stability or otherwise of more than one set of variables, while the graphs show the trend of the variables over a specified period of time. Regression and correlation can complement each other and are useful in the inferential statistics as well as in determining the degree and quantitative relationships between bank performance and customers' deposits. Customers deposits have been used in previous studies as proxy for treasury single account, while profit before tax and return on investment are some measures used for bank performance (Chigbu, 2016) for data sets whose sample sizes are less than 30, t-test is more suitable for testing hypothesis.

Result and Discussions

The methodology employed as encapsulated above, yielded a number of empirical results which are subsequently presented in three layers namely; changes in performance of Guaranty Trust Bank and Zenith Bank between 2002 and 2017; trends and variability in the performance of banks and customers' deposits as well as ffects of customers' deposits on the performance of banks

Changes in Performance of GTB and Zenith Bank between 2002 and 2017

Table 4.1 shows changes in profit before tax and return on investment used as proxies for the performance of Guaranty Trust Bank and Zenith Bank. The analysis of the index number provides a standardized way of comparing changes in the performance of Guaranty Trust Bank and Zenith Bank over a period of 16 years (2002-2017). The use of 2014 as the base year will reveal whether or not, there were consistent pattern of changes before and after the introduction of the treasury single account. For Guaranty Trust Bank, the increases in profit before tax by 2.41% in 2015, 39.54% in 2016 and 68.71% in 2017, after the base year, could be an indication that this bank continued to make profits after the introduction of the TSA, while profit before tax fell in all cases in varying degrees before the base year. The increases in return on investment of 8.75% in 2008, 20% in 2012, 3.75% in 2013 all before the base year, and 33.75% in 2017, after the base year, did not reflect any pattern of change. The rating of return on investment is expected to be high, if a bank utilizes available resources well irrespective of size.

Table 4.1: *Analysis of index number of bank Performance*

Year	Profit before tax (%)		Return on investment (%)	
	Guaranty Trust Bank	Zenith Bank	Guaranty Trust Bank	Zenith Bank
2002	2.82	3.71	50	119.51
2003	3.76	5.04	43.75	107.32
2004	4.38	5.94	46.25	90.24
2005	5.91	5.50	47.50	87.80
2006	9.08	14.05	57.50	85.37
2007	42.45	21.59	98.75	85.37
2008	31.36	45.38	108.75	85.37
2009	31.72	29.44	46.25	54.15
2010	43.10	39.83	90.00	82.93
2011	58.66	47.42	75.00	75.61
2012	90.73	87.20	120.00	124.39
2013	91.02	87.26	103.75	104.88
2014	100.00	100.00	100.00	100.00
2015	102.41	106.83	91.25	100.00
2016	139.54	129.74	91.25	107.32
2017	168.71	160.93	133.75	85.37

Source: Published financial statements of Guaranty Trust Bank and Zenith Bank Plc.

The increases of 6.83% in 2015, 29.74% in 2016 and 60.93% in 2017 in profit before tax for Zenith Bank after the base year, also shows that the bank continued to make profit even after the introduction

of the TSA in 2015. For Zenith Bank too, the distribution of the return on investment is irregular, before and after the implementation of TSA.

Hypothesis (Ho) 1: There is no significant difference between the performance of banks before and after the implementation of the TSA.

Table 4.2: Results of t-statistics of the performance of banks, before and after the implementation of The TSA

	T-statistics		Significant/ not significant at 0.05 probability level
	Guaranty Trust bank	Zenith bank	
Profit before tax	4.432	4.485	Significant
Return on investment	11.058	17.772	Significant

Source: statistical package for social sciences (SPSS) software

The t-statistics in table 4.2 for Guaranty Trust Bank and Zenith Bank show that there were significant differences between the performances of these banks at 0.05 level of probability. This therefore means that the null hypothesis is rejected and the alternative hypothesis is upheld.

Trends and Variability in the Performance of Banks and Customers' Deposits

A trend is the long term general direction of data (Black, 1996). Figures 4.1, 4.2, 4.3 and 4.4 show the trend of profit before tax, return on investment and customers' deposits of Guaranty Trust Bank and Zenith Bank. Profit before tax as well as customers' deposit fluctuated, and also maintained an upward trend for the two banks, while return on investment shows trends with troughs for the two banks. From the figures of the coefficient of variation in table 4.3, profit before tax is the least stable in both Guaranty Trust Bank and Zenith Bank with coefficient of variation values of 90.26% and 89.45%, respectively. In the same pattern, the customers' deposits were more stable with coefficient values of 78.32% for Guaranty Trust Bank and 75.4% for Zenith Bank. The most stable is the return on investment with coefficient of variation values of 36.18% for Guaranty Trust Bank and 22.51% for Zenith Bank. Zenith Bank was more stable than Guaranty Trust Bank in profit before tax, customers' deposits and return on investment. Increasing the stability of each of these variables will enhance their performance, efficiency and effective decision making.

Table 4.3: *Descriptive statistics of profit before tax, customers' deposits and return on investment*

	Guaranty Trust Bank			Zenith Bank		
	Mean	Standard deviation	Coefficient of variation	Mean	Standard deviation	Coefficient of variation
Profit before tax	53378378	48180689	90.26	59559942	53278923	89.45
Customers' deposits	772342351	604890483	78.32	1268637494	956674690	75.41
Return on investment	65.44	23.68	36.18	37.81	8.51	22.51

Source: Statistical package for social sciences (SPSS) software

Hypothesis (Ho) 2: There is no significant difference in customers' deposits before and after the implementation of TSA.

From table 4.4, the t-statistics shows that there was a significant difference in customers' deposits before and after the introduction of the TSA. The null hypothesis is therefore rejected and the alternative hypothesis upheld.

Table 4.4: T-statistics of customers' deposits before and after the introduction of the TSA

Variable	T-statistics		
	Guaranty Trust Bank	Zenith Bank	Significant/non-significant
Customers' deposits	5.107	5.306	Significant

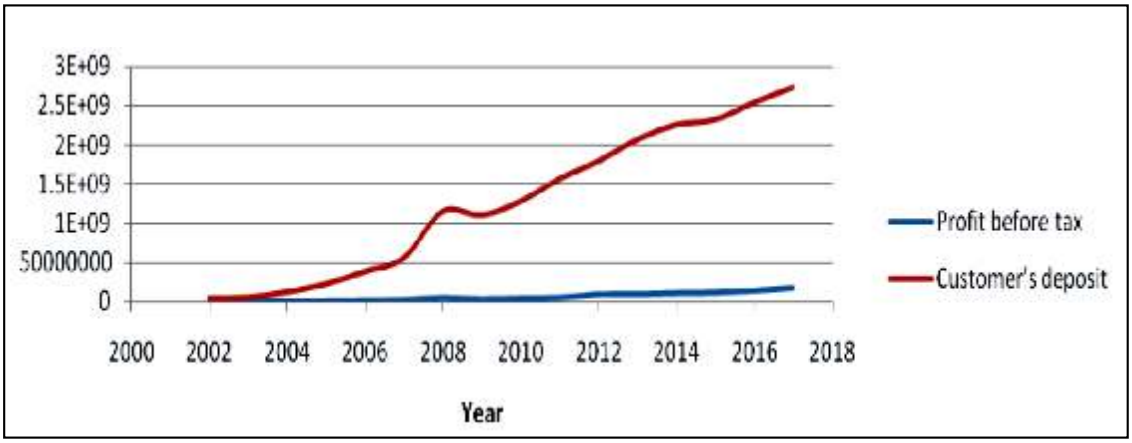

Figure 4.1: Graph showing the trend of profit before tax and customers' deposits of Zenith Bank

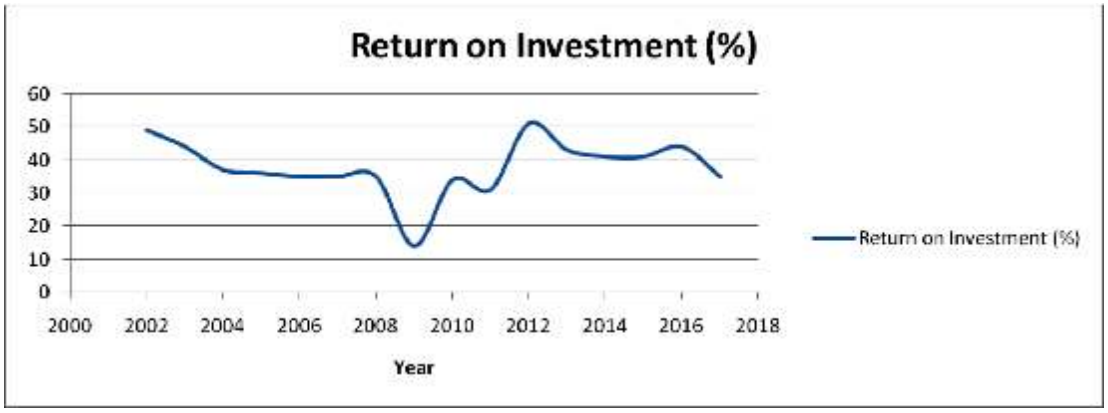

Figure 4.2: Graph showing the trend of return on investment for Zenith Bank

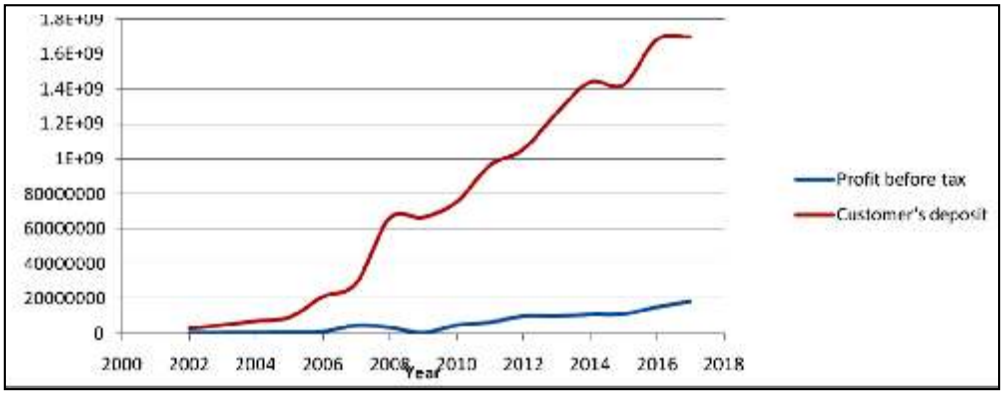

Figure 4.3: Graph showing the trend of profit before tax and customers' deposits for Guaranty Trust Bank

Figure 4.4: Graph showing trend of return on investment for Guaranty Trust Bank

Effects of Customers' Deposits on the Performance of Banks

From the regression results, in table 4.5, customers' deposits had significant positive effects on both profit before tax and return on investment of GTB at less than 1% level of probability. For every unit increase in customers' deposits of N1.00, there was N0. 0627 increase in profit before tax and no increase in return on investment. The coefficient of determination (R^2) of 62.05% for profit before tax and 55.56% for return on investment indicated the proportion of both profit before tax and return on investment explained by the change in customers' deposits over time. The regression line for Guaranty Trust Bank can therefore be regarded as a good fit to the observed data. In the case of Zenith Bank, significant effect existed between the customers deposits' at less than 1% level of probability. As customers deposits increased by N1.00, profit before tax increased by N0.05396. The R^2 of 92.61% is an indication of a very good fit of the regression line. Thus, 92.61% of the total variation of profit before tax was explained by variation in customers' deposits. The effect of customers deposit on return on investment of Zenith Bank was positive and not significant.

Table 4.5: Regression results of the effect of customers' deposits on the performance of banks.

Bank	Dependent variable	Independent variable	Constant	coefficient	R2
Guaranty trust bank	Profit before tax	Customers' deposit	4918883	0.0627*	62.05
Guaranty trust bank	Return on investment	Customers' deposit	42.90	0.0000*	55.56
Zenith bank	Profit before tax	Customers' deposit	-8269773	0.05396*	92.61
Zenith bank	Return on investment	Customers' deposit	36.96	0.0000	0.58

*significant at less than 1% level of probability.

Source: statistical package for social sciences (SPSS) software

These findings were corroborated by the results of correlation, presented in table 4.6 with good positive correlation between profit before tax, return on investment and customers' deposits for Guaranty Trust Bank and very good positive correlation before profit before tax and customers' deposits in Zenith Bank, while very weak positive correlation existed between return on investments and customers' deposits.

Table 4.6: Estimates of correlation coefficients between profit before tax and customers' deposits, and return on investment and customers' deposits of commercial bank

	Paired variables	Correlation coefficient
Guaranty trust bank	Profit before tax and customers' deposits	0.788
Guaranty trust bank	Return on investment and customers' deposits	0.745
Zenith bank	Profit before tax and customers' deposits	0.962
Zenith bank	Return on investment and customers' deposits	0.076

Source: statistical package for social sciences (SPSS) software

Hypothesis (Ho) 3: There is no significant relationship between customers' deposits and performance of commercial banks

From table 4.5, the relationship between profit before tax and customers' deposits for the selected banks were significant, indicating that the null hypothesis is rejected and the alternative hypothesis upheld. Relationship between return on investment and customers' deposits was significant for Guaranty Trust Bank and not significant for Zenith Bank. The null hypothesis was upheld in the case of Zenith Bank and rejected in the case of Guaranty Trust Bank.

Discussion of Findings

When the TSA was implemented in 2015 many analysts expressed fear that it could cripple the performance of commercial banks in Nigeria (Kanu, 2016; Ndubuaku 2017). Others viewed it as an opportunity for banks to re-focus re-strategise and mobilize customers' deposits from all sources and engage in intermediation to achieve the purposes of creating wealth and jobs for the economy and earning profits for themselves (Tari, Pwafeyno & Minessi, 2016; Onuorah & Chigbu, 2016) Contrary to the expectation of a fall in performance of commercial banks, the use of index number analysis indicated that the performance of these banks increased steadily at an increasing rate of the base year of 2014. This positive pattern of performance portrays that the banks continued to perform well in spite of the implementation of TSA in 2015.

Although customers' deposits and profit before tax of commercial banks, exemplified by Guaranty Trust Bank and Zenith Bank, fluctuated from year to year over the 16 years of the study, a steady and continuous increase was noticed before and after the implementation of the TSA, suggesting that the banks were using other sources of deposits and liquidity and not necessarily relying principally only on the deposits from Federal Government Ministries and parastatals. The relative stability or instability of these banks indicated by the coefficient of variation values did not seem to reflect any difference due to the implementation of TSA. Customers' deposits contributed positively and significantly to the performance of commercial banks. The specific amount of contribution per unit increase of customers' deposits means that banks can estimate and forecast their earnings. There are also empirical evidence of positive correlation between bank deposits and performance of banks in the study of Onuorah and Chigbu (2016) and Ndubuaka (2017). The sources of bank deposits are not restricted to Federal Government and its parastatals alone but include development banks, private sector, States and Local Governments and other financial institutions (Doguwa, 2013). Banks can exploit all these sources to reduce the impact of the implementation of the TSA to the barest minimum. Bank deposit could contribute to the liquidity status of banks. Liquidity is an effective indicator of corporate health and performance of commercial banks (Pradhan & Shrestha, 2017). It is from the liquidity that capital can be made available for investment and funds disbursed to meet maturing obligations at reasonable price at all times especially satisfying the withdrawal needs of customers.

From the foregoing therefor, Index number used to analyze the changes in bank performance before and after implementation of TSA showed decreases at varying degrees before the implementation and increases at varying levels after the implementation. This pattern of change did not indicate any impact of the introduction of TSA. The graphs describing the trend of customers' deposits and bank performance fluctuated over the years for the aspect of return on investment representing bank performance with evidence of remarkable up and down fluctuations. This could be an indication that in spite of the implementation of TSA, banks still mobilized adequate deposits and made profits. The effects of customer's deposits on the performance of banks were positively significant at 1% level of significance for the indicators of performance except the return on investment for Zenith Bank, which was positive but not significant. This is key to decision-making as banks can estimate and forecast earnings with any relative increase in customers' deposits.

Conclusion and Recommendations

TSA is a public accounting system in which all government revenue, receipts and income are collected into a single account. It was implemented in Nigeria in 2015 principally to combat corrupt practices, eliminate indiscipline in public finance and ensure adequate fund flow is channeled to the critical sectors of the economy to catalyze development. The implementation has generated a lot interest

because of the possible impact it can make on the running of government, performance of commercial banks and the entire economy in the short, medium or long run. The study conceptualizes bank performance as a function of customers' deposits. The performance indicators are profit before tax and return on investment. The customers' deposits of Federal Government origin are budgetary accounts, treasury certificates, development banks, excess crude account, sovereign wealth fund and Federal Government parastatals. The other sources are from the private sector, States and Local Governments, other financial institutions and development banks. Research outcomes from researchers vary. It was established with empirical proof that TSA had some impact on credit to private sector deposit mobilization, and loan and advances. Similarly, empirical evidence indicates that TSA in terms of Federal Government demand, saving and time deposits had impact on bank performance in Nigeria. In the methodology, Guaranty Trust Bank and Zenith Bank were randomly selected from the 22 established commercial banks in Nigeria. Data were obtained from the published statements of account of these banks in the internet. Index numbers, coefficient of variation, correlation and regression analyses were the main analytical tools used.

From all the analysis of the issue in question, there are alternative measures that deposit money banks can adopt to circumvent the negative impact of TSA on their performance at any given time. At present, sources of funds banks can mobilize include States and Local Governments, private sector and development banks. A searchlight can be beamed on the informal sector which is still largely untapped. Other performance indicators and sources of liquidity to banks such as return to assets, return to equity can be explored from time to time. Banks can also source funds from other sectors of the economy; more than 50% of the population of Nigeria does not have access to financial services. Savings and investment should be encouraged instead of people keeping their money under their pillow. It entails that unwavering commitment and sincerity of purpose are needed for the system to work effectively.
Consequently, the study recommends that government and deposit money banks should always conduct research on short or long term basis in order to forestall any possible negative impact on the economy. The DMBs should work towards effective utilization of all sources of funding so that no one source can jeopardize their success. The banks should avoid over-reliance of government funds and source for funds from other sectors of the economy. Rural banking should be aggressively undertaken to mobilize funds from the un-banked among rural dwellers. The government should find other avenues to encourage the private sector. Banks should avoid armchair activities' by meeting their customers where they are, reduce concentration given to government funds and go out to source funds from other sectors of the economy. People who were denied access to credit facilities, investments and savings opportunity should be encouraged as this will improve the economy and result from sustainable banking sector in the country. In addition DMBs should adapt swiftly and look inwards to face the core functions for which they were licensed for. For banks to sustain this performance, it must redefine the nature of competition, diversify economically and refocus on the original purposes for which they were set up- to collect depositors' funds (not necessarily government funds), keep them safe; engage in intermediation to create wealth and jobs for the economy and in the process earn profit for themselves. The policy however should not be killed by policy intricacies. The choice of the TSA should be informed and guided by the availability of clear operational basis technology infrastructure that supports the implementation of the model of their choice. CBN should go beyond the guidelines and put in place measures to correct any lapses or negative impact of the policy both on the banking sector and the economy at large.

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IMPACT OF IPSAS ON FINANCIAL REPORTING OF FEDERAL MDAs IN NIGERIA

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Abstract

In 2010, the Federal Executive Council (FEC) of Nigeria approved the adoption of the International Public Sector Accounting Standards (IPSAS) in the public sector. The roadmap for the adoption of IPSAS was also mapped out. Head (2003) noted that IPSAS is at present the focal point of global revolution in government accounting in response to calls for greater government financial accountability and transparency. This paper seeks to analyse the impact of IPSAS on Financial Reporting of federal MDAs in Nigeria. The study population in considered finite and 152 respondents were selected from thirty (30) MDA's and three (3) audit firms. The judgemental sampling technique was used in determining the sample size of the MDAs while the sample size of the respondents is drawn scientifically at 95% confidence level using Yamani (1967) formula. The survey questionnaires were used to gather data that were analysed using SPSS (version 22) application. The statistical techniques used were chi-square test, Krustal Wallis and descriptive tools. At the end of the study it was found that the application of IPSAS increased the level of reliance on public sector financial reporting in Nigeria because, it enabled the provision of more meaningful information for decision making as well as improve the quality of financial system. Also it was found that the accrual-based IPSAS shows a better financial integrity assurance compared to cash based or modified cash based accounting.

Keywords: IPSAS, Adoption, Roadmap, Financial System, Cash based.

Introduction

Prior to the public financial management reforms, government operations were derived from a cash-based cycle of expenditure control and reporting. In 2010, the Federal Executive Council of Nigeria approved the adoption of the International public Sector Accounting Standards (IPSAS) and business-style accounting throughout the public sector. The roadmap for the adoption of IPSAS is in phases as follows; full adoption of IPSAS cash basis in 2014 and full adoption of IPSAS accrual basis with effect

from 2016. The international Public sector Accounting Standards govern the accounting by public sector entities, with the exception of Government Business Enterprises. GBEs apply International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB). Heald (2003) noted that International Public Sector Accounting Standards (IPSAS) is at present the focal point of global revolution in government accounting in response to calls for greater government financial accountability and transparency. The Public sector comprises entities or organizations that implement public policy through the provision of services and the redistribution of income and wealth, with both activities supported mainly by compulsory tax or levies on other sectors as noted by Kara (2012). Public sector accounting is a system or process which gathers, records, classifies and summarizes as reports the financial events existing in the public or government sector as financial statements and interprets as required by accountability and financial transparency to provide information to users associated to public institutions(ICA-Ghana, 2010).

Nigeria, a leading African nation with the population of over 150 million people and a foremost Organization of the Petroleum Exporting Countries (OPEC) member, with a public sector dominated economy, has identified the need to consider the value proposition of the IPSAS and implement it in order to remain relevant (Ijeoma and Oghoghomeh, 2014). However, government interventions following the global financial crisis in the private sector have increased many governments' exposures and debt levels. Hence, decision-making is getting harder, especially if the view of what is “sustainable” is difficult to see. The focus on the private sector is huge when failure occurs and therefore accounting, audit, and reporting standards are set at a high level and rigorously enforced (IjeomaandOghoghomeh, 2014). Timely, clear, and open annual financial statements play a significant role in the accountability of governments to their citizens and their elected representatives. These financial statements are prepared on a cash basis or some variation of an accrual basis of accounting. The benefits of achieving consistent and comparable financial information across jurisdictions are very important and International Public Sector Accounting Standards (IPSAS) have been established by the IPSAS Board to assist in that endeavour (Stephen, Mercy, and Andy, 2012). Rose-Ackerman (1999) noted that in the light of the pervasiveness and severity of government corruption in many developing countries, financial integrity assurance is a critically important function of their government accounting systems.

In modern democratic governance, the basic objectives used in assessing the performance of public sector organizations are financial objective, public objective and growth objective. While the financial objective is concerned with the ability of the government to meet the needs and aspirations of taxpayers, public objective focuses on meeting the demands of the citizenry (i.e. those within and outside the tax bracket), and the growth objective is tailored towards improvement in economic performance and international relations (OkoyeandOghaghomeh, 2011). The need for unified standards made the IPSAS Board to develop IPSAS for public sector financial reporting. While the commercial entities world over are moving towards IFRS, governments are harmonizing with IPSAS.The development of any accounting system requires consideration of the fundamental purpose of that system. The nature of government accounting has the purpose of determining how much money was received and its sources, how much was spent and for what purposes and the financial obligations accrued (Ijeoma & Oghoghomeh, 2014). Profit is not the major focus, unlike the private sector, which has profit as the prime focus and determines the profit of the business over a given period. Hence, many factors influence government accounting such as the role of government in the different fields

like the armed forces, health and education and the policies set by government to achieve its aspirations and goals. In Nigeria, government accounting processes have been conducted within the general framework of the principles of fund accounting but the application of these principles to financial reporting has been a major challenge. Government is significantly different from a business, and the purpose of governmental accounting differs significantly. Following the Federal Executive Council's approval of the adoption of IPSAS from year 2014, the following objectives are set for this study:

1. To ascertain the extent to which IPSAS-based accrual basis promote efficient and effective financial reporting of public sector organisations compare to cash basis among Federal MDAs in Nigeria
2. To ascertain the contribution of the application of IPSAS by Federal MDAs in enhancing comparability (Internal and external) of their financial statements of public sector organisations in Nigeria.

Research Hypotheses

To achieve the objective of this study, the following hypotheses are stated in their null form:

$H_0$1: The adoption of IPSAS - based Accrual system will not significantly promote efficient and effective financial reporting among Federal MDAs in Nigeria.

$H_0$2: The application of IPSAS by Federal MDAs will not significantly enhance comparability of their financial statements.

Scope of Study

This research work on the adoption of IPSAS on the Financial Reporting of Federal MDAs in Nigeriafocused on adoption of accrual-based IPSASs. The IPSASB develops IPSASs, which apply to the accrual basis of accounting and those that apply to the cash basis of accounting. The IPSASs are designed to apply to the general-purpose financial statements of all public sector entities. This study focused on the application of IPSAS-based accrual basis of accounting to the financial reporting of Federal Ministries, Departments and Agencies in Nigeria. The study comprises all Federal MDAs not classified as Government Business Enterprises (GBE) because IPSAS do not apply to such (IPSAS-Board, 2007).

Review of Related Literature

There are two basic accounting methods used to determine when and how to report income and expenses in the books: cash method and accrual method. These methods differ only in the timing of when transactions, including sales and purchases are accounted to accounts (Adriana and Alexandra, 2005). Under the cash method, income is not accounted until cash is actually received, and expenses are not accounted until actually paid. Under the cash basis, revenues and expenses are recognized when payment is made or received (Adriana and Alexandra, 2005).

Public Financial Reporting

Government accounting refers to a government's financial information systems and financial disclosure practices. Public sector accounting used to be a mere record keeping of budget execution (Bergmann, 2009). The accounting system is a critical institutional infrastructure but not often visible until it fails. Effective government accounting makes it possible to manage the government's finances

smoothly and provides audit trails to prevent and detect financial misconduct (Chan, 2006). As a support function, accounting does not have values of its own, and does not decide the allocation. Nevertheless, once these decisions are made, the accounting system implements the critical function of following the money. By providing information serving internal control, audit, and public revenues and expenses management, the accounting ensures that resources are used for intended purposes (Chan, 2006). According to Omenika (2008), the basis of accounting is a set of rules and principles that determine the recognition of expenses and revenues in exchange transactions. Chan (2006) reported that Government accounting refers to a government's financial information systems and financial disclosure practices. Since it is costly everywhere to produce and disseminate information, governments in all types of political systems lack the economic incentives to do so. However, some political systems exert a greater demand for government accountability and transparency than others do; for example, representative democracies are more demanding than authoritarian and totalitarian political systems. In the early 1990s, New Zealand's shift to accrual accounting serves as a model for the UK to follow. The United Kingdom has adopted accrual accounting at the agency level and is looking to produce aggregate consolidated financial statements. It plans to prepare consolidated financial statements in a staged manner. By the turn of the millennium, New Zealand had become one of the countries with the most extensive set of accrual accounting disclosures (Piana and Torres, 2003). A few other governments have subsequently agreed to follow this path, but an increasing number are adopting a policy of 'wait and see'. The International Federation of Accountants (IFAC) by the Public Sector Committee developed International Public Sector Accounting Standards (IPSAS). The IFAC has been encouraging governments and other public sector entities to adopt the accrual basis of accounting for their general-purpose financial statements. In recent years, the IPSAS Board has made considerable progress in developing a set of standards for public sector financial reporting on the accrual basis of accounting and other guidance for public sector entities but IFAC-PSC has no power to require compliance with IPSAS (Benito, 2007). By February 2011, the IPSAS Board has issued 31 standards).

The rising importance of financial accounting in the public sector, as epitomized by the emergence of the IPSAS on the world scene, reflects the belief in the power of objective financial record keeping, which has been credited with inducing business-like behaviour. The promotion of accountability through greater transparency, which accountants traditionally call “foil disclosure,” is an explicitly stated goal of IPSAS. In particular, IPSAS emphasizes the accountability of government to citizens, voters, their representatives, and the public (IFAC, 2003).The IPSASB acknowledges the right of governments and national standard-setters to establish accounting standards and guidelines for financial reporting in their jurisdictions. Some sovereign governments and national standard-setters have already developed accounting standards that apply to governments and public sector entities within their jurisdiction. IPSAS may assist such standard-setters in the development of new standards or in the revision of existing standards in order to contribute to greater comparability. IPSAS are likely to be of considerable use to jurisdictions that have not yet developed accounting standards for governments and public sector entities. Standing alone, neither the IPSASB nor the accounting profession has the power to require compliance with IPSAS (IPSAS-Board, 2007).

To ensure that Nigeria remains relevant in the comity of nations and operates a uniform system of accounting, the Federal executive Council (FEC) on 28th July 2010 approved that Nigeria adopts the provisions of the International Financial Reporting Standards (IFRS) and International Public Sector

Accounting Standards (IPSAS) for private and Public Sectors respectively. To successfully draw up the process for the adoption of IPSAS; the Federation Account Allocation Committee (FAAC) at its meeting of 13th June 2011 set up a Technical Sub-Committee on Roadmap for the Adoption of IPSAS in Nigeria, (FAAC, 2013).

Material and Methodology

Data Collection

This study focused on all Federal MDAs in Nigeria. The population of this study comprised accounting professionals in all the Federal MDAs in Nigeria. The elements of the population consist of accountants, internal auditors, cash officers, as well as external auditors to MDAs. The study population is considered finite and 152 respondents were selected from thirty (30) MDAs and three (3) Auditing firms. The sample size used in this study was divided into two: sample size of MDAs and sample size of the respondents for questionnaires administration. Consequently, judgemental sampling technique was used for sample size of MDAs while the sample size of respondents was drawn scientifically at 95% confidence level using Yamane (1967) formula.Hence, primary source of data collection was employed for data generation. It is the only method of data collection employed in this study. SPSS (version 22) application was used to analyse the data that were gathered in the course of this study. The following statistical techniques were used; Chi-square test, Krustal Wallis test and descriptive analysis.

Analysis and Result

Kruskal-Wallis Test on the Impact of adoption of IPSAS on the efficient and effective financial reporting among Federal MDAs in Nigeria.

$H_0$1: The adoption of IPSAS-based Accrual system will not significantly promote efficient and effective financial reporting among Federal MDAs in Nigeria.

Decision Rule: Accept H_0 if p-value > significance level, Reject H_0 if p-value < significance level.

Table 1 Frequency Distribution of Questions 1a to 1e

Question Items	SA	A	D	SD	NS	Total
1a	70	31	7	0	2	110
1b	44	61	3	0	2	110
1c	33	67	7	0	3	110
1d	34	62	7	0	7	110
1e	59	44	3	2	2	110
Total	240	265	27	2	16	550

Key: SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, NS= Not Sure

Table 2 Ranks

	Option	N	Mean Rank
Responses	NS	5	8.6
	SD	5	3.3
	D	5	12.1
	A	5	20.9
	SA	5	20.1
	Total	25	

Key: SA= Strongly Agree, A= Agree, D= Disagree,SD= Strongly Disagree, NS= Not Sure

Table 3 Test Statistics [a,b]

	Response
Chi-Square	21.25
df	4
Asymp. Sig.	0

a. Kruskal-Wallis Test; b. Grouping Variable: Option

Kruskal-Wallis Test on the Impact of application of IPSAS in enhancing comparability of financial statements of public sector organisations in Nigeria.

$H_0$2: The application of IPSAS by Federal MDAs will not significantly enhance comparability of their financial statements.

Decision Rule: Accept H_0 if p-value > significance level, Reject H_0 if p-value < significance level.

Table 4 Frequency Distribution of Question 4a to 4e

Question Items	SA	A	D	SD	NS	Total
4a	52	56	0	0	2	110
4b	24	77	7	0	2	110
4c	30	55	10	6	9	110
4d	34	67	6	0	3	110
4e	32	68	6	2	2	110
Total	172	323	29	8	18	550

Key: SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, NS= Not Sure

Table 5 Ranks

	Option	N	Mean Rank
Responses	NS	5	8.50
	SD	5	5.00
	D	5	10.50
	A	5	23.00
	SA	5	18.00
	Total	**25**	

Key: SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, NS= Not Sure

Table 5 Test Statistics [a,b]

	Response
Chi-Square	20.078
Df	4
Asymp. Sig.	0

a. Kruskal-Wallis Test; b.Grouping Variable: Option

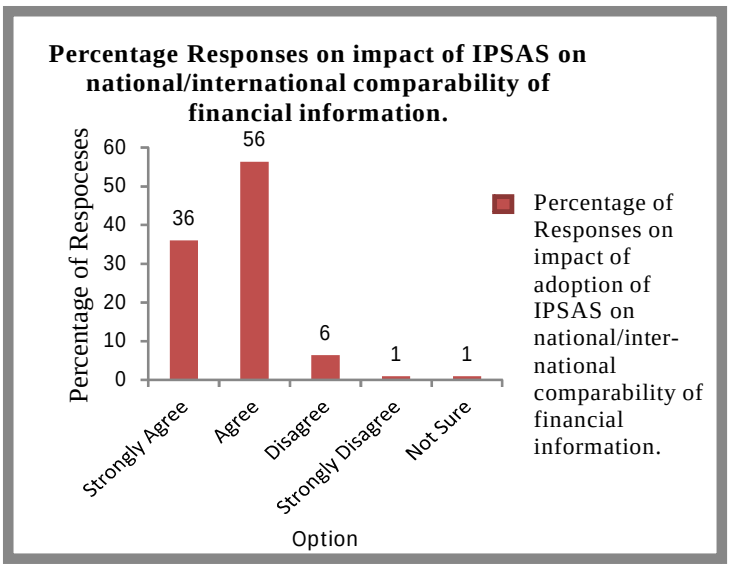

Figure 1. Percentage Distribution of Responses on Comparability of IPSAS - Based GPFS

Discussion

Table 1 showed the frequency distribution of questions 1a to 1e used for testing hypothesis one. The

result of analysis displayed in Table 2 revealed that most of the respondents agreed that the adoption of IPSAS would promote efficient and effective financial reporting among Federal MDAs in Nigeria since the highest mean Rank of 20.9 was obtained for Agreed. Table 3 showed the Chi-Square measure obtained as21.25 and a corresponding p-value of 0.0, which falls on the rejection region of the hypothesis. Hence, the null hypothesis was rejected and the alternative accepted since the p-value= 0.0< α = 0.05 at 95% confidence interval. Result of analysis in Table 4 showed that most of the respondents agreed that the adoption of IPSAS-Based Accrual system would benefit public sector organisations in Nigeria since the column total weight of 323 for option "Agree" was observed to be the highest weight followed by weight of 172 for option "Strongly Agree." The result of analysis displayed in Table 5 revealed that most of the respondents agreed that the application of IPSAS by Federal MDAs would enhance both internal and external comparability of their financial statements since the highest mean Rank of 23.0 was obtained for Agree. In addition, from the result displayed in Table 6, the Chi-Square measure obtained was 20.078 and a corresponding p-value of 0.000, which falls on the rejection region of the hypothesis. Therefore, the null hypothesis, which says that the application of IPSAS by Federal MDAs will not significantly enhance comparability of their financial statements, was rejected since the p-value is less than the 0.05 level of significance employed in the analysis that is equivalent to 95% confidence interval. This result implies that applying IPSAS to public sector financial reporting will make the results of financial transactions over a particular period prior to and after IPSAS adoption of a particular public sector organisation as well as other similar organisations comparable. In addition, Figure 1 showed that almost all the respondents claim that adoption of IPSAS would enhance national/international comparability of financial information, while only some respondents claimed otherwise. This implies that largest percentage (91.9%) of the study population accepted that adopting business-style reporting among the Federal MDAs would enhance comparability of financial information internationally.

Conclusions

The application of IPSAS is expected to increase the level of reliance on public sector financial reporting in Nigeria because IPSASs will enable the provision of more meaningful information for decision makers and improve the quality of financial reporting system in Nigeria. In addition, it was found that the accrual-based IPSAS has the potential to give a better financial integrity assurance compared to cash or modified cash based accounting. Therefore, the study affirmed that with IPSAS, budget and accounting categories at the national level could have a common set of classifications that conform to international standards that facilitate policy analysis and promote accountability. Hence, it is recommend that Nigerian government should implement practical and adequate reforms in public sector management to transfer to the accrual basis of accounting feasibly. Therefore, Nigerian government needs to improve the existing financial management mechanism and policy to enable the implementation of accrual-based accounting. In addition, there is need to train high qualified and professional accountants as well as building and developing sustainable accounting information system supported by relevant information technology platforms

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PUBLIC DEBT AND ECONOMIC GROWTH IN NIGERIA: A COMPARATIVE ANALYSIS OF THE MILITARY AND CIVILIAN ERA

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Abstract

The paper is aimed at examining the impact of public debt on economic growth and compare its impact during the military era with the civilian era. Ordinary Least Square (OLS) regression technique was adopted to examine the relationship, while Chow Test of structural change was used to compare the military and civilian era. Public debts during the military regimes tend to impact more on economic growth than during the civilian regimes. Proper utilization, especially for infrastructure of the borrowed fund is more likely to contribute to economic growth more than the strict processes and procedures.

Keywords: Public debts, economic growth, Nigeria, military era, civilian era.

Introduction

Annual estimates of national governments consist of expenditure estimates and revenue projections. Sometimes expenditure estimates outweigh revenue projection resulting in a deficit. Deficits are usually financed through borrowing, either from internal or external sources. Domestic borrowing are made through treasury bills, treasury certificates, bonds, promissory notes and development stocks. External borrowing are obtained from multilateral institutions such as World Bank, Paris Club and London Club. Deficit budgets are most popular among developing countries due to their huge infrastructure deficits; however, sometimes developed countries also have deficit budgets, especially during period of financial crises (Calderon & Fuentes, 2013). Thus, most developing countries have incorporated deficit budgeting as a key element of its fiscal policy to stimulate economic growth, relying on the Keynesian inspired expenditure led growth theory. Nigeria experienced its first budget deficit in 1957 and has only had seven years of budget surplus since then (Oyejide, 1972; CBN, 2017).

Deficit budgets are financed majorly through borrowing, either domestic or external and sometimes both. In Nigeria, borrowing to finance budget dates back to the period before independence, the first domestic debt through the issuance of development stock was obtained in 1946 (Ozurumba & Kanu, 2014). On the other hand, in 1958, its first external debt of $28 million was obtained for railway construction (Ijeoma, 2013). Successive governments during the military and civil regimes have continued to accumulate public debts. As at 31st December, 2015 Nigeria's total debt stock stood at N10.9 Trillion (CBN, 2015). While obtaining loans during the military era do not follow a stringent process and rules, borrowing in the democratic era is governed by the Debt Management Office (Establishment) Act 2003 and Fiscal Responsibility Act 2007. These Acts as they relate to public debt are aimed at ensuring that government only obtains debt that would not overburden the economy. However, the questions are; has these debts impacts positively on economic growth? Has the impact of public debts on economic growth been different in the military and civilian eras?

Several studies have examined the impact of public debt on the economy in developed countries; notables are (Spilioti & Vamvoukas, 2015; Panizza & Presbitero, 2014; Afonso & Jalles, 2013; Minea & Parent, 2012; Reinhart & Rogoff, 2010; Kumar & Woo, 2010). In emerging economies, studies by Saifuddin, (2016) in Bangladesh, Khan, Rauf, Haq, & Anwar (2016) in Pakistan, Blake (2015) in Jamaica, Lee & Ng (2015) in Malaysia and Al-Zeaud (2014) in Jordan. Using data from Nigeria, numerous studies have been conducted on debt and economic growth. Some of the studies are specific on domestic debts (Bakare, Ogunlana, Adeleye, & Mudasiru, 2016; Titus, Chidi, Tochukwu, & Babatunde, 2016; Ozurumba & Kanu, 2014) external debts (Ada, Chigozie, & Godwin, 2016; Egbe & Alfred, 2015) others examined total public debts (Mathew & Mordecai, 2016; Essien, Agboegbulem, Mba, & Onumonu, 2016; Egbetunde, 2012; Emmanuel, 2012; Amassoma, 2011). Findings from these studies showed mixed results while all the studies examined public debt over a long period, none of the studies considered public debt and economic growth in the military era against the civilian era. Especially as the public debt in the civilian era follows more stringent processes and procedures and thus expected to impact more on economic growth. The paper is aimed at examining the impact of public debt on economic growth and compare the impact of public debt on economic growth during the military era as against the civilian era. To ascertain whether or not the stringent processes and procedures in the civilian era significantly contribute in influencing public debt on economic growth.

Theoretical Framework

The relationship between debt and economic growth have been well captured in growth literature, it is believed that public debts negatively impact on economic growth. However, Gong & Zou (2002) argued that depending on the inter-temporal elasticity in consumption, volatility in government spending can positively or negatively affect economic growth.

The Neoclassical Growth Theory

The Neoclassical theorists believe that debts have a direct effect on economic growth. However, this effect can only be seen where the borrowed money is optimally used and the country does not suffer from macroeconomic instability, policies distorting economic incentives. This will increase growth and allow for timely repayment of debt. On the other hand, debts through debt servicing can reduce available resources for investment, which can in turn lead to an increase in long-term interest rates, crowding out of private investments necessary for productivity, growth and a reduction in capital accumulation (Mathew & Mordecai, 2016). The Nigerian economy is characterised by policy inconsistency usually influenced by changes in government at the central and rampant during the military regimes. We expect that this will have a negative influence on public debt impact on economic growth.

The Keynesian Theory

Keynes are of the view that borrowed funds injected into the economy lead to a multiple increase in aggregate demand, thus, increasing output and employment. This is so as government through borrowings frees unemployed funds from private individuals such that their consumption level remains unaffected (Matthew & Mordecai, 2016). This is especially seen from domestic borrowings through issuance of bonds, treasury bills etc. Thus, such funds are expected to be used in a more productive venture by the government and should stimulate economic growth through increased output and employment.

The Profligacy Theory

The profligacy thesis, a component of the system stability theory, recognizes that the debt crisis arose from weak institution and policies that have wasted resources through unbridled official corruption and damaged living standard and development. These policies led to distortions in relative prices and encouraged capital fight as seen in substantial external liquid funds of private citizens of countries in foreign banks (Matthew & Mordecai, 2016). This theory is an extension of the neoclassical growth theory. The theory goes to say that no matter how optimal the borrowed fund is used even with a stable macro economy; weak institution and policies will crowd out the impact of public debt on economic growth. With the strengthening of the institutions through the Fiscal Responsibility Act and the Debt Management Office will control for profligacy.

Empirical Review

The study conducted by Reinhart & Rogoff (2010), has been a major contribution to the study linking public debt to economic growth in developed economies. Their findings reveal that high levels of debt negatively relate to economic growth to an extent where public debt is 90 percent of GDP. In undertaking this study, data on debt and output growth for 20 advanced economies for the period 1946-2009 were collected. The sample countries were grouped into four: (i) country-years with public debt below 30 percent of GDP; (ii) country-years with public debt between 30 and 60 percent of GDP; (iii) country-year with public debt between 60 and 90 percent of GDP; and (iv) country-years with public debt above 90 percent of GDP. Computing median and average GDP group for each group

Minea & Parent (2012) extended the work of Reinhart & Rogoff (2010) used a Panel Smooth Threshold Regression model and found that public debt is negatively associated with growth when debt is above 90 percent of GDP and below 115 percent. They also found that the relationship between debt and growth becomes positive when debt is above 115 percent of GDP. In another study, Afonso & Jalles (2013) using a sample of OECD countries found that average growth rates over the period of 1970-2008 for countries with debt-to-GDP ratio of less than 30 percent is similar to those with debt-to-GDP ratio of above 90 percent. Checherita-Westphal & Rother (2012) using data from 12 euro-area countries over the period 1970-2008. The study used debt-to-GDP ratio of country *i* at time *t* with the average debt-to-GDP ratio with the 11 other countries at time *t*. They found a non-linear hump-shaped relationship between debt and growth. Suggesting that growth reaches a maximum when the debt-to-GDP ratio is around 90-100 percent.

Spilioti & Vamvoukas (2015) using data from Greece for the period 1970-2010 investigates the relationship between government debt and economic growth. While controlling for the different levels of growth in Greece during the period. The study found that there is a positive and statistically significant impact of debt on GDP growth. Calderon & Fuentes (2013) used a large data of countries for 1970-2010 to test whether public debt hinders growth and whether economic policy ameliorates this effect. The result showed a negative and robust effect of public debt on growth. The study also found that strong institutions, high quality domestic policies, and outward-oriented policies partly mitigate the adverse effect. The result also showed that the improved growth performance of industrial and developing countries for the period 2001-2005 as compared to the period 1991-1995 can be explained by the interaction of an enhanced policy environment with public debt.

Lee & Ng (2015) examined the contribution of public debt to economic growth using Malaysian data from the period 1991-2013. Using a regression model, the study consistent with previous study found that a negative association exists between debt and growth. Indicating that public debt has a negative impact on economic growth. Saifuddin (2016) in his study used a Two-staged Least square regression with data from Bangladesh for the period 1974-2014 to examine how public debt influences economic growth. Two models of Investment and Growth were used in the study. The findings from the study showed that public debt is positively related to both investment and growth, through an indirect positive influence on investment. Khan et al (2016) used Augmented Solow growth model with data from Pakistan for the period 1972-2013 and applied bound test for co-integration to examine the impact of public debt on economic growth of Pakistan. The study found that public debt has a positive but an insignificant impact on economic growth.

In a study conducted by Blake (2015) investigated the impact of public debt on economic growth in Jamaica. The study used quarterly data for the period 1990-2014 and employed an autoregressive distributed-lag model to jointly capture both short-run and long-run effects. The study found that public debt has a non-linear impact on economic growth, however, this is controlled by the composition of the debt. Al-Zeaud (2014) investigated the impact of public debt on growth in Jordan using the per capita income approach. The study covered the period 1991-2010. Using ordinary least square regression model the result showed that economic growth in Jordan is influenced by public debt, population growth and inflation rate, indicating that economic growth in Jordan is debt and population elastic.

Studies conducted in Nigeria have also reported mixed results. Ijeoma (2013) studying the impact of external debt of economic growth. Using data for the period 1980-2010 and adopting linear regression found that external stock has a significant effect on economic growth. In the same vein, Nwannebuike, Ike, & Onuka (2016) using data for the period 1980-2013 found that external debt has a positive relationship with economic growth measured by GDP at short run, but a negative relationship at long run. Ada, Chigozie, & Godwin (2016) using data from 1970-2013 obtained similar results. However, Egbe & Alfred (2015) using data from1970-2011 reported a contradictory finding.

Amassoma (2011) in a study examining the impact of domestic debts on economic growth, found that domestic debts have a significant impact on economic growth. Bakare et al (2016) using data for the period 1981-2012 and adopting OLS regression found a positive relationship between domestic debt and economic growth. Titus et al (2016) using data from 1980-2015 found that domestic debt stimulates economic growth. Their study found that FGN bonds have a positive significant relationship with economic growth in the short run while development stock has a significant negative relationship. On the other hand, Treasury bills are found to have a significant positive relationship with GDP in the long run.

Egbetunde (2012) examined the impact of total public debt on economic growth in Nigeria. Using data from 1970 to 2010 and adopting Vector Auto Regressive (VAR) model and found that public debt has a positive significant impact on economic growth. Essien et al (2016) examined the impact of public debt on prices, interest rates and output in Nigeria uses data from 1970-2014 and adopting VAR. The study found that the level of external and domestic debt have no significant impact on the general price level and output. However, the study found that external debt stock increases prime lending rate. Emmanuel (2012) analysed the long-run relationship and impact of debt from the perspective of the value impact

and proportional impact. The result showed that the joint impact of debt on economic growth is negative and quite significant in the long-run

From the foregoing, there is evidence of mixed results from several studies. This difference in results can be attributed to differences in countries' economy or differences in time period of the research or even both. This indicates the need for further studies in this area, especially looking at the time period, policies and enhanced environment. To determine the extent of influence these factors contributed to the impact of public debt on economic growth.

Research Method

The study used secondary time series data for the period 1984 to 2015 in an explanatory study to examine a causal relationship. Ordinary Least Square (OLS) regression technique was adopted to examine the relationship between the dependent and independent variables. OLS was adopted as the variables for the separate periods of military reign and that of civilian reign are not adequate for time series regression.

To examine the difference in the impact of public debt on economic growth during the military and civilian era we used the Chow (1960) test of structural change. Data were obtained from the CBN Statistical Database. The study adopted period of 1984-1999 being an unbroken 16 years of military reign in Nigeria, as the military era. The period of 2000-2015 with unbroken 16 years of civilian (Democractic) reign was adopted as the civilian era.

Model Specification

The study adopted a simple open macroeconomic debt growth model and specified in it functional form below:

RGDP = f (PDS, DSP, EXR)

The model is specified in its stochastic form:

$$RGDP = \beta_0 + \beta_1 PDS + \beta_2 DSP + \beta_3 EXR + \mu \quad - \quad - \quad - \quad (1)$$

Where:

RGDP	=	Real Gross Domestic Product
PDS	=	Public Debt Stock
DSP	=	Debt Service Payments
EXR	=	Official Exchange Rate
μ	=	Error term

The model is specified of its log-linear form:

$$LnRGDP = \beta_0 + \beta_1 LnPDS + \beta_2 LnDSP + \beta_3 EXR + \mu - \quad - \quad (2)$$

To test the impact of public debt on economic growth during the military against the civilian era, we used the Chow (1960) test of structural change:

$$LnRGDP_m = \beta_0 + \beta_1 LnPDS_m + \beta_2 LnDSP_m + \beta_3 EXR_m + \mu \quad (3)$$

$$LnRGDP_c = \beta_0 + \beta_1 LnPDS_c + \beta_2 LnDSP_c + \beta_3 EXRc + \mu \quad (3)$$

Data Analysis

We present the descriptive statistics, correlation matrix, regression results from the three models and Chow Test for structural Change.

Table I: Descriptive Statistics

Variables	Min	Max	Mean	Std. Dev.
RGDP	13,779	69,024	32,226.04	17,359.73
PDS	40.5	10,948	3,172.67	3,069.58
DSP	1.24	1,060	238.67	291.31
EXR	0.72	195	73.25	65.3

Source: SPSS 20 Output

The descriptive statistics table above presents a result of 32 years observations. From table I above, standard deviation as a measure of variability shows how the distributions are spread out. RGDP shows the highest variability from the mean, this can be explained from the fact that RGDP can be affected by the price index as well as output quantity which always varies. All the independent variables have their variability's within the same ranges, with some variables having standing deviation above the mean indicating the spread of the variable while others have standard deviations below the mean indicating little spread.

Table II: Correlation Matrix

	LnRGDP	LnPDS	LnDSP	EXR
LnRGDP	1			
LnPDS	0.910**	1		
LnDSP	0.851**	0.956**	1	
EXR	0.890**	0.962**	0.965**	1

** significant at 1%

Source: SPSS 20 Output

The table above shows LnRGDP has a significant relationship with LnPDS, LnDSP and EXR with LnDSP recording the highest correlation with LnRGDP. Looking at the independent variables, the table shows that all the independent variables are correlated with LnDSP and EXR recording the highest correlation. All the correlations between dependent variables and independent variable and the correlations among independent variables record positive relationships.

Table III: Regression Results

	Expected Sign	Pooled OLS	OLS (Military)	OLS (Civilian)
Constant	+/-	4.274**	4.029**	4.184**
LnPDS	+	-0.083	0.073*	-0.214
LnDSP	-	0.142*	0.030	0.317
EXR	+/-	0.002*	0.001	0.003
R2		0.925	0.949	0.849
Adj. R2		0.917	0.937	0.811
P-Value		0.000	0.000	0.000

* significant at 5%
** significant at 1%
Source: SPSS 20 Output

From the above table, the pooled OLS showed the debt service payment significantly and positively impact on economic growth in Nigeria. The result, although not expected, indicates that the payment of public debt contributes to the growth of the economy. The result also indicates that exchange rate contribute positively and significantly to economic growth while public debt stock has a negative and in significant impact on economic growth. The result also showed that 92% variation in economic growth can be explained by public debt stock, debt service payment and exchange rate.

The OLS result during the military regimes shows that public debt stock has a significant and positive impact on economic growth. While debt service payment and exchange rates have a positive but insignificant impact on economic growth in Nigeria. However, public debt stock, debt service payment and exchange rate jointly contribute about 94% variation in economic growth during the military regime. On the contrary the OLS results during the civilian regime showed that public debt stock, debt service payments and exchange rate contributes about 81% to the variation in economic growth and also showed that they can significantly predict economic growth. However, none of the individual variables have a significant impact on economic growth.

Chow Test for Structural Change

In order to test whether the period of military regimes saw public debt, impacting more on economic growth than the civilian regimes. Chow (1960) test of equality between sets of coefficients in two linear regressions was run. With the Ho: No Structural change, implying that the return of civilian regime has no significant change in the relationship between public debt and economic growth.

Using the following formula;

$$F= \frac{0.114 - (0.004 + 0.051)_{/4}}{(0.004 + 0.051)/_{(32 - 2(4))}}$$

$$F= 6.43554$$

Critical *F* value (α = .05, *df* = 5, 26) = 2.58679, since F = 6.43554 > 2.58679 we reject the hypothesis, no structural change. This implies that structural change existed in the data at the point of the return to civilian rule. However, the impact on economic growth is not positive and significant as seen in the result of OLS during the civilian rule.

Conclusion and Recommendation

Public debts, debt service and exchange rates have been found to contribute towards economic growth in Nigeria. The result is consistent with studies conducted by (Amassoma, 2011; Egbetunde, 2012; Ijeoma, 2013; Nwannebuike, Ike, & Onuka, 2016). The result indicates government borrowings toward the financing of deficit budgets in Nigeria can significantly stimulate economic growth when controlled by debt service payments and Dollar to Naira exchange. Therefore, deficit budgets can be used by the government during the period of slow economic growth to stimulate and accelerate growth in the economy.

On the other hand, public debts during the military regimes tend to impact more on economic growth than during the civilian regimes. This can be attributed to stability in the exchange rate notable during the military regimes. This also indicates that even though the process and procedure for government borrowings during the military era is more relaxed than the civilian era, it has not significantly directly or indirectly affects the relationship between public debt and economic growth. This goes to say that proper utilization, especially for infrastructure of the borrowed fund is more likely to contribute to economic growth more than the strict processes and procedures, in line with the Neoclassical Growth Theory.

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DETERMINANTS OF ACCRUAL BASIS INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS' (IPSASS) IMPLEMENTATION IN NIGERIA

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Abstract

Studies have documented findings with regard to the factors that affect IPSASs implementation which may not be generalisable to other countries due to jurisdictional, cultural and contextual differences. In Nigeria, few studies have been conducted on the issue of IPSASs implementation and most of the studies are theoretical and focused on the benefits of IPSASs implementation rather than the determinants. This study therefore investigated the determinants of accrual basis IPSASs implementation in the Nigerian Federal Government Ministries (using Abuja as the study area) with the view to further provide empirical evidence on the determinants. To achieve this, a survey of the federal ministries was conducted to collect data on perceptions of accountants, internal auditors, and budget officers on the determinants of accrual basis IPSASs implementation in Nigeria. The population of the study comprised the 656 accounting staff of all the 24 Federal Government Ministries in Nigeria. The sample size was 339 accounting staff selected using proportionate stratified random sampling techniques. Data collected were obtained from primary sources through the use of Questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The study found that political will, Infrastructure, manpower, and Culture Change were all positive and significantly related to accrual basis IPSASs implementation in Nigeria. While, collaboration and legislation are positive but insignificantly related to accrual basis IPSASs implementation in Nigeria. Coordination is the only factor that was negative but significantly related to accrual basis IPSASs implementation in Nigeria. It was therefore concluded that political will, infrastructure, manpower, and culture change have impacted on accrual basis IPSASs implementation in Nigeria. However, collaboration, coordination and legislation have not impacted on the accrual basis IPSASs implementation in Nigeria. The study recommends for an increased involvement of executives and legislatives, active participation, and provision of adequate funds to facilitate the implementation process. Again, government should provide the additional needed skilled personnel to handle the accrual basis IPSASs implementation and consider the benefits of Collaborating with other governments who are successful in IPSASs implementation. Finally, the study also recommends that government should provide additional efforts or be more proactive in providing the necessary Infrastructure for the implementation of accrual basis IPSASs in the federal government ministries.

Keywords: IPSASs Implementation, Federal Ministries, IPSAS, Determinants, Nigeria

Introduction

Nigeria made a pronouncement for the adoption of IPSASs since 2010. The roadmap for its adoption and implementation was one that necessitated a move by public sector entities to first of all migrate to the use of cash-based IPSAS for the preparation of accounts by 2014 and to later on migrate fully to accrual-based IPSASs by 2016. But some ministries are still in the process of adopting the standard and those who have started implementing accrual basis IPSASs, did not implement the full requirements of the standards (Idris, 2016).

The decision to adopt IPSASs in 2010 by government, mark the beginning of a shift in public sector financial reporting in Nigeria. The quest for the adoption of a uniform government accounting standards provides motivation for this study. First, the revelation of non-implementation or partial implementation across ministries in Nigeria provides the need to study the factors that influence/slow down the implementation. Second, few academic research have studied factors influencing the adoption of IPSASs in Nigeria, in particular, and Africa, in general.

The empirical results of the world-wide researches have however looked at or examined varied perceived factors that influence IPSASs implementation (Nobes, 1998; Jaggi & Low, 2000; Chan, 2006; Zeghal & Mhedhbi, 2006). Prior literature argued that the attributes documented as having significant effect on the adoption of IPSASs in one country may not be generalisable to other countries. This is so because a country's financial reporting system is affected by the local environment and tends to reflect cultural, economic, professional and contextual differences, and institutional pressures (Nobes, 1998; Jaggi & Low, 2000; Zeghal & Mhedhbi, 2006; Kossentini and Othman, 2011; Shima & Yang, 2012; Hamisi, 2012; Phan, 2014) among others.

In Nigeria which is the focus of the current study, few studies have been conducted on the issue of IPSASs implementation. Some of the few studies include Obazee (2011), Yerima (2012), Madawaki (2012), Baba (2013), Bello (2013), Acho (2014), Bello (2014), Otunla (2014), Nongo (2014), Ijeoma and Oghoghomeh (2014), Isa (2014), Ofoegbu (2014), Francis and Samuel (2015), Nkwagu, Okoye and Nkwagu (2016), Felix (2016). Most of these studies however, were literature based, analytical with the aid of content analysis or conceptual studies with little or no empirical evidence, focused on the relationship between IPSASs implementation and the anticipated benefits on one hand, and IPSASs adoption and familiarity and credibility on the other hand. Given the paucity of consistent research efforts on the topic in Nigerian literature as well as the assertions made by some scholars (Nobes, 1998; Jaggi & Low, 2000; Zeghal & Mhedhbi, 2006; Aggestam, 2010; Kossentini and Othman, 2011; Shima & Yang, 2012; Hamisi, 2012; Phan, 2014) that determinants documented for other countries may not be generalizable to other countries, the present study strives to provide further empirical evidence on the determinants in Nigeria and to bring ongoing IPSASs implementation in Nigeria into the international arena. Hence, perception was sought with regards to political will, infrastructure, manpower, collaboration, coordination, legislation and culture change and the extent to which each of them affect the successful implementation of IPSASs in the Nigerian federal government ministries.

The remainder of the paper is organized as follows. Section two reviews relevant literature relating to accrual basis IPSASs implementation and development of hypotheses of the study, Section three

deals with methodological issues of the paper, Section four analyzed the data and discusses findings of the study, Section five concludes the study and proffers recommendations.

Literature Review and Hypotheses Development

The implementation of accrual basis IPSASs in both developed and developing countries has attracted great attention from accounting researchers and is influenced by many factors. Prior studies such as Zeghal and Mhedhbi (2006), Abd-Elsalam and Weetman (2007), Ouda (2008), Caba-Perez, Lopez-Hernandez and Ortiz-Rodriguez (2009), Ouda (2010), Aggestam, (2010), Masoud (2010), Eriotis, Stamatiadis and Vasitious (2011), Lande and Rocher (2011), Shima and Yang (2012), Hamisi (2012), Brusca, Montesinos and Chow (2013), Guerra de Sousa, Fernandes de Vasconcelos, Caneca and Niyama (2013), Aidoo-Buameh (2014), Al-zubi (2015), Brusca and Martinez (2015), Jones and Caruana (2015), Tanjeh (2016), Agyemang and Yensu (2017a), Agyemang and Yensu (2017b) have identified Seven (7) key factors that affect accrual basis IPSASs implementation (IPSASIMPL) namely: Political will (POLWILL), Infrastructure (INFRAST), Manpower (MANPOW), Collaboration (COLLABO), Coordination (COORD), Legislation (LEGISL) and Culture changes (CULCHAN). In terms of this study, the attributes that are important in the IPSASs implementation in Nigerian environment may differ from those of other countries. Hence, the key factors were discussed below:

Political will

Political will and support are considered to be instrumental to gain acceptance of the possible benefits of accrual accounting by all levels of government (Ouda, 2004). Again, political support in terms of active participation of both the executives and legislatures as well as provision of adequate infrastructure is critical to the successful acceptance of IPSASs (Tanjeh, 2016). Rakoto (2008) also argued that political commitment is essential for accounting reforms to become a national priority and gain funding from the international community. Similarly, prior studies argued that the success of government accounting standards adoption mainly depends on political and management support (Ball, 2012; Oulasvirta, 2012; Chan, 2006; Aidoo-Buameh, 2014). Hamisi (2012) reported a positively correlated and significant relationship between political will and IPSAS implementation.

H_{01}: There is no significant positive relationship between political will and accrual basis IPSASs implementation in Nigeria.

Infrastructural Facility

Infrastructural facility is also one of the important factors which can influence the successful implementation of IPSASs in most of the developing countries. Prior literatures argued that introduction of a new standard require expertise, new technology or amending the existing information technology, cultural changes, co-operation, incentives and penalties and standard software (Hepworth, 2003; Lande & Rocher, 2011). Joshi, Bremser and Al-Ajimi (2008) argued that the development of infrastructure impacted positively and significantly on the development and implementation of single set of global accounting standards. Hamisi (2012), Tanjeh (2016) reported also reported positive and significant relationship between Infrastructure and IPSAS implementation.

H_{02}: There is no significant positive relationship between Infrastructure and accrual basis IPSASs implementation in Nigeria.

Manpower

Manpower is considered key to successful implementation of accrual basis IPSASs. As reported by Chan (2006:35), lack of technical personnel imposes a severe constraint to IPSASs implementation, thus human resources are obstacle to overcome in government accounting reform. Again, Ilie and Miose (2012) established that, policy change is effected by human beings and its success depends largely upon their active involvement in the change process. Eriotis, Stamatiadis, and Vasiliou (2011) argued that the level of accrual accounting adoption was positively related to Information Technology (IT) quality, reform related to training, education level of accounting staff, and professional consultants' support.

H_{03}: There is no significant positive relationship between manpower and accrual basis IPSASs implementation in Nigeria.

Collaboration

Collaboration between government entities and between the ministries, departments and agencies is an important factor to be considered during the implementation and even at post-implementation stages. Collaboration with donor agencies on implementation costs is equally important. Prior literatures argued that collaboration between the staff who will implement the IPSASs will also be of significance because that can provide information on the implementation which was not previously available to a particular ministry, it is therefore expected that effective collaboration will have positive impact on IPSASs implementation (Brusca, Montesinos & Chow 2013; Al-zubi, 2015; Cosimato, Torres & Troisi 2015; Adhikari & Garseth-Nesbakk 2016).

H_{04}: There is no significant positive relationship between collaboration and accrual basis IPSASs implementation in Nigeria.

Coordination

Prior literatures such as Ouda (2008), Rakoto (2008), Ouda (2010), Aggestam, (2010) have argued that, effective coordination is an important factor in determining IPSASs implementation and lack of effective coordination and communication between the civil servants and the accountants, led to the development of a standard which was not really understood, even by those responsible for its development and as a result, it was difficult to convince other stakeholders to support the process of accounting reform. However, Hamisi (2012) in his study of the factors affecting IPSASs implementation in Kenya documented a contrary view. The result of the study indicates a negative and significant relationship between IPSASs adoption and consultation and coordination.

H_{05}: There is no significant positive relationship between coordination and accrual basis IPSASs implementation in Nigeria.

Legislation

Prior studies revealed the need for enactment of new laws or amendments of existing ones to manage conflicts between existing legislation and international standards provisions (Pina, Torres & Yetano, 2009; Ouda, 2010; Isa, 2014). Ouda (2008) reported a positively correlated and significant relationship between legal barriers/environment and transition to accrual accounting. Similarly, Cam-Van (2016), Agyemang and Yensu (2017a) documented a significant positive relationship between existing laws and accrual basis IPSAS implementation.

H_{06}: There is no significant positive relationship between legislation and accrual basis IPSASs implementation in Nigeria.

Culture Change

In addition to adequate legal provision, culture has also been identified as an important factor for successful implementation of IPSASs. United Nations (1995) believed that a change in management culture towards output instead of input and the use of discretion by manager in allocation of resources could motivate manager to adopt new accounting system. Additionally, the use of efficiency and effectiveness as a measure of performance could also lead to demanding reliable financial information which will require new accounting system that satisfies managers need (United nation, 1995). Ouda (2008) revealed a positively correlated and significant relationship management culture and transition to accrual accounting. Furthermore, Zeghal and Mhedhbi (2006) investigated the factors affecting the adoption of international accounting standards (IASs) by developing countries. They documented that cultural membership is positively and significantly associated with the adoption of IASs. Similarly, Agyemang and Yensu (2017b) documented a significant positive relationship between cultural practices and accrual basis IPSASs implementation.

H_{07}: There is no significant positive relationship between culture change and accrual basis IPSASs implementation in Nigeria.

Theoretical Framework

The study is premised on Institutional and diffusion of innovation theories. Institutional theory was first developed by Meyer & Rowan, (1977) and later expanded by DiMaggio & Powell (1983). According to this institutional theory, the process of adapting institutionally acceptable practices where organizations resemble each other both culturally and structurally is recognized as institutional isomorphism (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). The theory explains that adoption of a new system in this case accounting practice by organization or country can be influenced by institutional isomorphism namely: coercive, normative or mimetic isomorphism. According to Zeghal and Mhedhbi, (2006); Hassan (2013) the choice of a particular accounting practice by an organization or country will to a large extent be affected by at least one of these three isomorphism. A country adopts a new system in order to meet up with the world best practice, pressure from other countries/from international organisations or as a result of a new legislation which made it mandatory for all public entities to comply. This is a clear example of coercive isomorphism. On the other hand, normative isomorphism explained the adoption of a new system through level of professionalism acquired by the implementers. The third and the last isomorphism that is mimetic isomorphism explain that countries within the same region are most likely to adopt the same accounting standards. This means that countries adopt new system from their counterparts who are successful in the adoption by way of imitation. Diffusion of Innovation theory is a theory that seeks to explain how, why and at what rate new ideas and technology spread through cultures. The theory was developed by French sociologist Gabriel Tarde in 1903 and Everett Rogers, a professor of rural sociology, popularized the theory in his 1962 book Diffusion of Innovations (Kaminski, 2011).

Rogers (1995) defines innovation as an idea, practice, or object that is perceived as new by individual or other unit of adoption and diffusion as “the process by which an innovation is communicated through certain channels over time among the members of a social system”. Overall the diffusion of innovation is defined as “the process by which an innovation is communicated through certain channels over time among members of the social system” (Rogers, 1995:5).

The theory specified and explained the five attributes of innovations that are perceived by the members of the social system to highly determine its rate of adoption, and defined the relationship between these attributes to rate of adoption. The attributes are: relative advantage, compatibility, complexity/simplicity, trialability and observability. According to Rogers (1995:212) relative advantage is the degree to which an innovation is perceived as being better than the idea it supersedes. He further observed that, the degree of relative advantage can be expressed in economic terms, social prestige, or other benefits. Compatibility is the degree to which an innovation is perceived to be consistent with the existing values, past experiences, and needs of potential adopters (Rogers, 1995:224). It is noteworthy that an idea that is more compatible would be less uncertain to the potential adopter and fits more closely with the individual's life situation. The degree to which an innovation is perceived as relatively difficult to understand and use is termed as complexity (Rogers, 1995:242). Any new idea may be classified on the complexity-simplicity continuum. While trialability is the degree to which "an innovation may be experimented with on a limited basis. It is argued that before deciding on whether to adopt or not to adopt a new system, a country should be permitted to use the system on a trial basis in order to test its suitability (Tanakinjal, 2012). And observability is the degree to which the results of an innovation are visible to others (Rogers, 1995:244). He also noted that the result of some ideas are easily observed and communicated to others, whereas some innovations are difficult to observe or describe to others.

Rogers concluded with a generalization (hypothesis) of the construct to the rate of adoption as follows:-
"The relative advantage, compatibility, trialability and observability of an innovation, as perceived by members of a social system, are positively related to its rate of adoption. The only construct that is perceived by the members of the social system to be negatively related to its rate of adoption is complexity."
Davis (1989) in his Technology Acceptance Model (TAM) argued that, if the members of the social system see the innovation as uncomplex (simple or ease of use), then the above hypothesis on complexity can be restated to become as follows to reflect positivity rather than negativity:-
"The uncomplex (simple or ease of use) of an innovation as perceived by members of a social system is positively related to its rate of adoption".

Methodology

The study employed cross sectional survey and correlation research designs and the period of the study is 2017. Data used in the present study were collected from primary source through the use of a Seven point Likert scale structured questionnaire. The Population is 656 accounting staff drawn from the 24 federal government ministries located in the federal capital territory Abuja, Nigeria while the sample size is 242 determined using a sample size table of Krejcie and Morgan (1970). However, Gregg (2008) suggested that where for example stratified or multistage sampling methods are employed, adjustments to certain sample size formulae are necessary especially for more complex designs or for more complex analysis rather than estimating proportions and means. Salkind (2012) further suggested that as rule of thumb researchers can increase the calculated sample size by 40% to 50% for a stratified random sample. He further stated that the increased sample size will account for lost questionnaires and non-respondents, and reduce sampling error which is the bias that resulted from mistakes in either the selection process for prospective sampling units or in determining the sample size. Hence, for this study the calculated sample size of 242 is increased by 40% to 339 sample

size. In addition, out of 339 questionnaires that were distributed, 298 were returned out of which 272 are the valid questionnaires which the study used for its analysis.

Questionnaires were distributed proportionately to the 24 ministries, with participating staff (that is accountants, budget officers and internal auditors) being selected randomly. The questionnaires themselves were personally distributed by the researcher and research assistants. The participants completed the survey and returned their responses through the same route. The questionnaire contained 58 items representing the theoretical constructs along with the personal/demographic data (job of the respondents, job designation, educational and professional qualifications, ministry and experience). However, the questionnaire items were reduced to 51 items due to content validity and reliability conducted.

In order to test the sets of hypotheses and to examine the relationships between the variables, Partial Least Square (PLS) path modeling is employed (Henseler, Ringle & Sinkovics, 2009). The PLS, developed by Wold (1985), is a method for estimating path models that involves latent constructs that are indirectly measured by multiple indicators. Thus, PLS approach is one of the structural equation models that estimate the relationships via regression among latent variables, as well as between the latent variables and their indicators. The PLS-SEM is considered as the most suitable technique in this study even though it is similar to conventional regression technique, because it has the advantage of estimating the relationships between constructs (structural model) and relationships between indicators and their corresponding latent constructs (measurement model) simultaneously (Chin, Marcolin, & Newsted, 2003; Duarte & Raposo, 2010), its ability to handle and predicts single-item constructs (Smart, 2012), its ability to use and handle small sample size (Ringle, Sarstedt & Straub, 2012), its ability to handle both formative and reflective measure (Hair, Black, Babin & Anderson, 2014a) and its ability to handle data that is not normal (Smart, 2012). This study, therefore, employed the use of Smart PLS Version 2.0 (3M) Software (Ringle, Wende & Will, 2005) to conduct its analyses. In the next section, the results are presented.

Research variables and their measurements

Based on the hypotheses stated in section two of this paper, the attributes used in developing the hypotheses are to be measured using the proxies in appendix A (questionnaire).

Table 3.1: Variables and Measurements

S/N	Variables	Type &Expected sign	Measurement	Source
1	Relative Advantage	Dependent Variable (+)	Questionnaire Items	Rogers, (1995); Altholaya, (2003)
2	Compatibility	Dependent Variable (+)	Questionnaire Items	Rogers, (1995); Altholaya, (2003)
3	Simplicity	Dependent Variable (+)	Questionnaire Items	Rogers, (1995); Altholaya, (2003)
4	Political Will	Independent Variable (+)	Questionnaire Items	Aidoo-Buameh, 2014; Ouda, 2008

5	Infrastructure	Independent Variable (+)	Questionnaire Items	Eriotis, Stamatiadis & Vasitious, 2011
6	Manpower	Independent Variable (+)	Questionnaire Items	Shima & Yung, 2012
7	Collaboration	Independent Variable (+)	Questionnaire Items	Brusca et al., 2015
8	Coordination	Independent Variable (+)	Questionnaire Items	Hamisi, 2012
9	Legislation	Independent Variable (+)	Questionnaire Items	Shima & Yung, 2012
10	Culture Change	Independent Variable (+)	Questionnaire Items	Zeghal & Mhedhbi, 2006

Source: Author's compilation from the empirical literature

Table 3.6 displayed the dependent and independent variables, the a priori expected sign and literature sources. The table further shows that the expected sign for all the variables is positive (+) and questionnaire items serve as a basis for measuring the variables. The dependent variable is measured using three proxies namely:- relative advantage, compatibility and simplicity all from Rogers diffusion theory of innovation.

Results and Discussions

Table 1 of the paper present the total observation, means and standard deviations of the latent variables. The table indicates that the mean for all the variables had been slightly above 5.0, with the highest (manpower) mean of 5.856. This suggested that on average, the scores to the questions on the variables of the study were considerable higher on the scale, agreeing mostly with the questions.

Table 1: Descriptive Statistics

Variable	N	Mean	Std. Deviation
COLLABORATION	272	5.470	1.319
COMPATIBILITY	272	5.472	1.232
COORDINATION	272	5.277	1.390
CULTURE CHANGE	272	5.460	.999
INFRASTRUCTURE	272	5.159	1.529
LEGISLATION	272	5.515	1.353
MANPOWER	272	5.856	1.224
POLITICAL WILL	272	5.620	1.124
RELATIVE ADVANTAGE	272	5.675	.862
SIMPLICITY	272	5.344	1.086

Source: SPSS output 2017

Again the result from the table implies that responses regarding the importance of these variables in explaining accrual basis IPSAS implementation differs significantly across the respondents as well as the federal government ministries studied.

In order to examine/determine the relationship between the independent and dependent variables, a correlation was run and the result depicted in table 2

Table 2 reveals that all pairs of independent variables correlate positively and therefore, multicollinearity is not an issue in the study model. The result further indicates that both the endogenous and exogenous latent variables have positive correlation between themselves. This implies that these variables move in the same direction. The highest correlation is between POLWILL and MANPOW, which accounted for 0.741 significant at p? 0.01 level of significance while the correlation between COORD and COMPAT is the lowest accounting for 0.249 also significant at p? 0.01 level of significance.

Table 2: Correlations

Variable	Collabo	Compat	Coord	Culchan	Infrast	Legisl	manpow	polwill	Reladv	simplic
Collabo	1									
Compat	.282**	1								
Coord	.527**	.249**	1							
Culchan	.449**	.472**	.675**	1						
Infrast	.459**	.360**	.573**	.591**	1					
Legisl	.563**	.326**	.709**	.616**	.576**	1				
Manpow	.690**	.389**	.723**	.645**	.603**	.715**	1			
Polwill	.510**	.403**	.517**	.578**	.523**	.688**	.741**	1		
Reladv	.405**	.330**	.472**	.613**	.409**	.635**	.597**	.623**	1	
Simplic	.485**	.536**	.328**	.516**	.509**	.397**	.594**	.509**	.488**	1

** Correlation is significant at the 0.01 level (2-tailed).

The result of the reliability and validity using the Smart PLS 2.0 software package (Ringle et al., 2005) are presented in this section.

The results of the reliability and the validity using the SmartPLS 2.0 software package (Ringle et al., 2005) are presented in the following section. The composite reliability values for all the latent variables examined showed that they are all above the suggested threshold of 0.70 (Ringle et al., 2012; Henseler *et al*., 2009; Hair, Sarstedt, Hopkins & Kuppelwieser, 2014b). Specifically, as shown in Table 3.0, the values for the reflective multiple-items latent variables ranged from 0.813 to 0.949, thus, indicating higher levels of reliability (Hair *et al*., 2014b).

Following the composite reliability, the outer loadings were also examined for the indicators' reliability. The results showed that majority of the loading values exceeded the suggested threshold value of 0.70 (Ringle et al., 2012; Henseler *et al*., 2009; Hair *et al*., 2014b), while some are below the threshold of 0.7 signifying that are not significant. The loadings ranged from 0.542 to 0.938. This means that each

construct in the model has captured indicators that have much in common and they are statistically significant (Hair *et al*., 2014b). Again, when the standardized outer loadings were squared, as suggested by Hair *et al*. (2014b) the values were 0.5 and above. The square of the standardized indicator's outer loading showed how much variation in an item is explained by its construct and this variance in an item is explained, as a rule of thumb, should be at least 0.50 (Hair *et al*., 2014b). Hence, in this study, the reliability of the indicators had been assumed (Wong, 2013; Hair *et al*., 2014b). Table 3 indicates the loadings of the items in the study model.

After assessing composite reliability, is the assessment of convergent validity, whereby the Average Variance Extracted (AVE) values were examined. All the AVE values in the results exceeded the threshold value of 0.50 (Ringle et al., 2012; Henseler *et al*., 2009; Hair *et al*., 2014b). The least value was 0.502, and hence, convergent validity was established. The AVE values are also shown in Table 3below.

Item	Loadings	AVE	Composite Reliability	Cronbach's Alpha
COLLABO1	.843	.762	.905	.842
COLLABO2	.938			
COLLABO3	.833			
COMPAT2	.542	.602	.813	.679
COMPAT3	.877			
COMPAT4	.862			
COORD1	.755	.754	.939	.918
COORD2	.912			
COORD3	.926			
COORD4	.902			
COORD5	.836			
CULCHAN10	.703	.502	.875	.835
CULCHAN2	.784			
CULCHAN3	.714			
CULCHAN4	.731			
CULCHAN5	.712			
CULCHAN6	.646			
CULCHAN9	.661			
INFRAST1	.909	.788	.949	.933
INFRAST2	.903			
INFRAST3	.897			
INFRAST4	.885			
INFRAST5	.844			
LEGISL1	.723	.682	.927	.905
LEGISL2	.894			
LEGISL3	.900			
LEGISL4	.879			
LEGISL5	.790			
LEGISL6	.749			
MANPOW1	.832	.771	.910	.851
MANPOW2	.925			

MANPOW3	.874				
POLWILL1	.825	.607	.902		.869
POLWILL2	.757				
POLWILL3	.842				
POLWILL4	.777				
POLWILL5	.809				
POLWILL6	.648				
RELADV1	.741	.506	.859		.804
RELADV2	.676				
RELADV3	.719				
RELADV5	.649				
RELADV6	.670				
RELADV8	.802				
SIMPLIC1	.802	.552	.895		.861
SIMPLIC2	.812				
SIMPLIC3	.708				
SIMPLIC4	.802				
SIMPLIC5	.668				
SIMPLIC6	.819				
SIMPLIC7	.550				

Following the convergent validity establishment is the discriminant validity. The discriminant validity was assessed based on Fornell and Larcker's (1981) criterion. The results of this study showed that the square root of AVE values (values in bold face in table 4) for all constructs exceeded other construct values as they correlated with a latent variable correlation. Therefore, the discriminant validity construct wise had been established (Henseler *et al*., 2009; Hair *et al*., 2014b). Table 4 shows the results of the Fornell and Larcker's (1981) criterion for assessing discriminant validity.

Table 4: Latent Variable Correlations and square roots of Average Variance Extracted

VARIABLES	1	2	3	4	5	6	7	8	9	10
COLLABO	.873									
COMPAT	.280	.776								
COORD	.520	.272	.869							
CULCHAN	.452	.497	.668	.709						
INFRAST	.462	.392	.576	.596	.888					
LEGISL	.565	.341	.704	.625	.575	.826				
MANPOW	.690	.409	.718	.650	.608	.713	.878			
POLWILL	.509	.435	.514	.590	.526	.682	.739	.779		
RELADV	.406	.359	.474	.636	.417	.634	.602	.622	.711	
SIMPLIC	.488	.555	.333	.525	.512	.404	.602	.527	.506	.743

Note: Diagonal elements (figures in bold) are the square root of the variance (AVE) shared between the constructs and their measures. Off diagonal elements are the correlations among constructs

Source: SmartPLS report, 2017

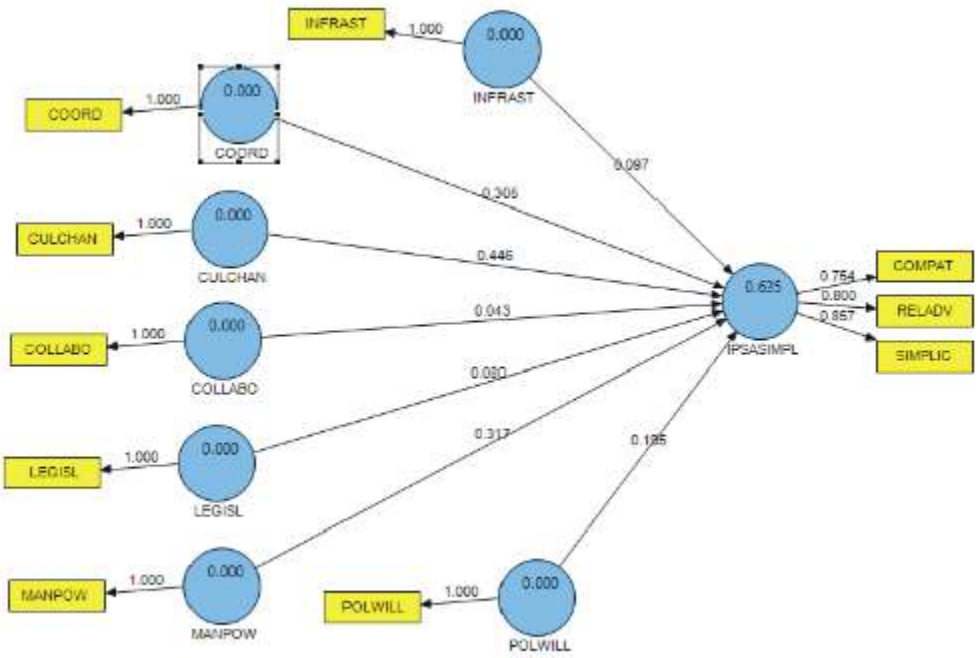

Figure 1: Measurement model

After establishing the reliability and the validity of the constructs, the structural model estimates were evaluated. The structural model (inner model) evaluation determined the predictive ability of the model. Hence, the evaluation criteria involving PLS-SEM had been the significance level of path coefficients, the coefficient of determination (R^2 values), f^2 effect sizes and predictive relevance (Q^2) (Henseler *et al*., 2009; Hair, Ringle, & Sarstedt, 2011; Ringle et al., 2012; Wong, 2013; Hair *et al*., 2014a).

Firstly, the path coefficients were estimated through bootstrapping procedure in SmartPLS 2.0 (Ringle *et al*., 2005). As suggested by Hair, Ringle & Sarstedt, (2011), Hair *et al*., (2014a), the number of bootstrapping subsamples was set at 5,000 with 272 bootstrap cases in the data set and a no sign change. The parameters were also estimated based on a path-weighting scheme (Vinzi, Trinchera, & Amato, 2010). The bootstrapping procedure was carried out to obtain standard errors to determine the significance of the coefficients and for the test of hypotheses (Hair *et al*., 2011; Hair *et al*., 2014a).

On a significance level of $p < 0.05$, the results showed that all path coefficients from the predictors to the criterion variables of POLWILL to IPSASIMPL, INFRAST to IPSASIMPL, MANPOW to IPSASIMPL, and CULCHAN to IPSASIMPL were all positively significant. While the path coefficients from COLLABO to IPSASIMPL and LEGISL to IPSASIMPL are positive but not significant. The path coefficient from COORD to IPSASIMPL, is the only path which was negative but significant relationship ($\beta = -0.305$). Table 5 presents the path coefficients, standard errors, t-values, and p-values. The validated structural model is also presented in Figures 2. The t-values are shown on the structural model.

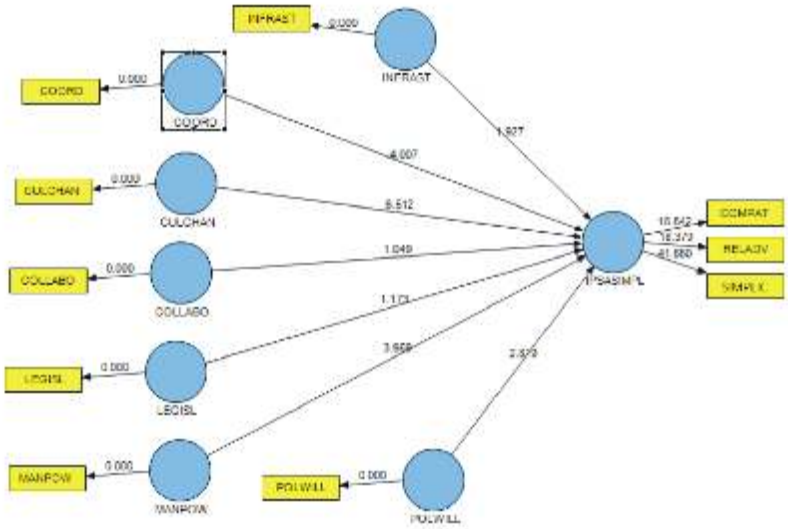

Figure 2: Structural Model

Table 5: Path Coefficients result

Hypotheses	Hypotheses Path	Path Coefficient	Standard Error	t Value	P Value
H_1	POLWILL -> IPSASIMPL	.195	.069	2.819	.003
H_2	INFRAST -> IPSASIMPL	.097	.051	1.927	.028
H_3	MANPOW -> IPSASIMPL	.317	.080	3.959	.000
H_4	COLLABO -> IPSASIMPL	.043	.041	1.049	.148
H_5	COORD -> IPSASIMPL	-.305	.076	-4.007	.000
H_6	LEGISL -> IPSASIMPL	.080	.068	1.173	.121
H_7	CULCHAN -> IPSASIMPL	.446	.068	6.512	.000

Source: Smart PLS report, 2017

After determining the significance of path coefficients, next is the examination of the coefficient of determination (R^2) of the endogenous latent variables (Henseler *et al*., 2009). Based on the rule of thumb of acceptable values of R^2, as proposed by Chin (1998), 0.19, 0.33, and 0.67 indicated weak, moderate, and strong respectively. The results obtained showed that the R^2 for the endogenous latent variable were 0.635 for IPSASIMPL. This indicated that according to Chin (1998), the coefficient of determination (R^2) in this study is strong. Overall, the R^2 values obtained showed good predictive power of the exogenous latent variables on the endogenous latent variables. In other words, the amount of variance in the endogenous constructs, explained by the exogenous constructs, had been adequate. The following table (Table 6) shows the coefficient of determination (R^2 value). Again, the overall coefficient of determination (R^2) of 63.5% implies that the exogenous constructs, provides a good explanation about the changes in the accrual basis IPSAS implementation decisions. The remaining balance of 36.5% of the changes is explained by the other factors outside the model.

Table 6: Coefficients of Determination (R^2)

Construct	R Square (R^2)
IPSASIMPL	.635

Source: Smart PLS report, 2017

In addition to determining the R^2 values of all endogenous constructs, is the f^2 effect size. The effect size of a construct that is exogenous is determined when the construct is omitted from a model to determine its impact on the endogenous construct by means of the change in the R^2 value (Hair *et al*., 2014a). The effect size values represent different levels of impact, which were 0.02, 0.15, and 0.35 that represented small, medium, and large effects of the exogenous latent variables respectively (Cohen, 1988, 1992). Hence, in this study, the exogenous construct INFRAST, COORD, CULCHAN, COLLABO, LEGISL, MANPOW, and POLWILL explained the endogenous latent variables IPSASIMPL with the effect sizes of 0.008, 0.082, 0.230, 0.000, 0.008, 0.060, and 0.038 respectively (see Table 7). These showed that the effect sizes, according to Cohen (1988, 1992), had been none, small, medium, none, none, small, and small for (infrastructure, coordination, culture change, collaboration, legislation, manpower and political will) respectively (see also Table 7). Therefore, the effect sizes of all these constructs on the endogenous construct IPSASIMPL had been small. Thus the effect size could be expressed using the following formula (Cohen, 1988, 1992):

$$\text{Effect size: } f^2 = \frac{R^2 \text{ Included} - R^2 \text{ Excluded}}{1 - R^2 \text{ Included}}$$

Table 7: f^2 Effect Sizes of the latent variables

Endogenous	Exogenous	R-squared Included	R-squared Excluded	f-squared	Effect size
IPSAS IMPLEMENTATION	INFRAST	.635	.632	.008	None
	COORD	.635	.605	.082	Small
	CULCHAN	.635	.551	.230	Medium
	COLLABO	.635	.635	.000	None
	LEGISL	.635	.632	.008	None
	MANPOW	.635	.613	.060	Small
	POLWILL	.635	.621	.038	Small

Source: Smart PLS report, 2017

Lastly, predictive relevance was also examined as an assessment of the structural model, in addition to evaluating the magnitude of the R^2 values. The predictive relevance was measured by the Stone-Geisser criterion Q^2 value, obtained using the blindfolding procedures (Geisser, 1974; Stone, 1974; Henseler *et al*., 2009; Hair *et al*., 2014a). Blindfolding is an iterative process where each data point is omitted based on a certain omission distance and this process is continued until completed and the

model has been re-estimated (Hair *et al*., 2014a). Hair *et al*., (2014a), however, suggested that the omission distance chosen (between 5 and 10) divided by the number of cases should not be an integer. In PLS-SEM, when predictive relevance is determined, it shows that the data points of indicators in reflective measurement models of endogenous constructs and endogenous single-item constructs are accurately predicted (Hair *et al*., 2014a). This procedure, as indicated by Hair *et al*., (2014a), does not apply to formative endogenous constructs. If Q^2 value is greater than zero in a structural model for a certain reflective endogenous latent variable, the path models is considered to have predictive relevance for the particular construct whereas a Q^2 measure of less than zero represents lack of predictive relevance (Chin, 2010; Hair *et al*., 2014a). Hence, Q^2 serves as a sign of quality of the structural model (Chin, 2010; Hair *et al*., 2014a).

Table 8 shows the measure of the predictive relevance of the reflective endogenous latent variables in the study model. This is represented by the Q^2 values obtained by running a blindfolding procedure with an omission distance of 7 based on 272 cases. Using the cross-validated redundancy approach, as recommended by Chin, (2010); Hair *et al*., (2014a), the endogenous construct had proven a predictive relevance as it value of Q^2 had been above zero. Specifically, the Q^2 value was 0.394 for IPSASIMPL.

Table 8: Redundancy Q^2 Value

Total	SSO	SSE	1-SSE/SSO
IPSASIMPL	816	494.18	.394

Source: Smart PLS report, 2017

Based on the results of the test of hypotheses in Table 9, the following are presented. The result of Hypothesis 1 (H1) showed that positive significant relationship existed between Political Will (POLWILL) and IPSASIMPL in the overall model as the path coefficient was positive ($\beta = 0.195$; $t = 2.819$; $p < 0.05$). With regard to H2, there was a significant positive relationship between Infrastructure (INFRAST) and IPSASIMPL ($\beta=0.097$; $t = 1.927$; $p < 0.05$). As for H3, the results showed a significant positive relationship between Manpower (MANPOW) and IPSASIMPL ($\beta=0.317$; $t = 3.959$; $p < 0.01$). Results regarding H4 showed a insignificant positive relationship collaboration (COLLABO) and IPSASIMPL ($\beta=0.043$; $t = 1,049$; $p < 0.1$). Meanwhile, for H5, there was a significant negative relationship between Coordination (COORD) and IPSASIMPL ($\beta= -0.305$; $t = -4.007$; $p < 0.01$). Likewise, results regarding H6 showed an insignificant positive relationship between legislation (LEGISL) and IPSASIMPL ($\beta=0.080$; $t = 1.173$; $p < 0.1$). With regard to H7, the results showed that there was a significant positive relationship between culture change (CULCHAN) and IPSASIMPL ($\beta=0.446$; $t = 6.512$; $p < 0.01$). Consequently, except for H4 and H6, all other hypotheses were significant. Although H5 is significant but has a negative relationship, hence the alternate hypotheses for H1, H2, H3 and H7 were accepted.

Table 9: Hypotheses Testing

Hypotheses	Hypotheses Path	Beta value	Standard Error	T Value	p Value	Decision
H1	POLWILL -> IPSASIMPL	.195	.069	2.819	.003	Rejected
H2	NFRAST -> IPSASIMPL	.097	.051	1.927	.028	Rejected

H3	MANPOW -> IPSASIMPL	.317	.080	3.959	.000	Rejected
H4	COLLABO -> IPSASIMPL	.043	.041	1.049	.148	Fail to reject
H5	COORD -> IPSASIMPL	-.305	.076	4.007	.000	Fail to reject
H6	LEGISL -> IPSASIMPL	.080	.068	1.173	.121	Fail to reject
H7	CULCHAN -> IPSASIMPL	.446	.068	6.512	.000	Rejected

*: Significant at P<0.05 Source: Smart PLS report, 2017

Having analyzed the primary data collected, the researcher has been able to observe some key issues. The findings of the study among other things include the following: This study reveals that political will is positively and significantly related with accrual basis IPSAS implementation. This finding supports the findings of Aidoo-Buameh (2014); Ouda (2008), and Hamisi (2012) who collectively reported a positive and significant correlation between political will and IPSAS implementation. But contradict the findings of Masoud (2014) who documented a negative and insignificant relationship. Again, the result of Tanjeh (2016) disagrees with the finding of the present study as well as findings of other scholars reported in this study because it revealed a negative and significant relationship between political will and acceptance of IPSAS in Cameroon. Statistically, infrastructure was found to be positively and significantly related with accrual basis IPSAS implementation decisions. This finding confirms the findings of Eriotis, Stamatiadis and Vasitiuos, (2011) which documented that the level of accrual accounting adoption was positively related to Information Technology (IT). Tanjeh (2016) support the findings of this study as well as the finding reported by Eriotis, Stamatiadis and Vasitiuos, (2011), and Joshi, Bremser and Al-Ajmi (2008). Again, manpower has a positive and significant relationship with accrual basis IPSAS implementation. This means that IPSAS implementation in Nigeria is associated with the importance of having qualified manpower. This finding concurred with the findings of Zeghal and Mhedhbi (2006), Joshi, Bremser and Al-Ajmi (2008), Masoud (2014) and Tanjeh (2016) who documented that manpower as proxied by education level was positively and significantly associated with the adoption of international accounting standards (IASs). However, the finding of this study contradicts the finding documented by Shima and Yang (2012) in a study on the factors affecting the adoption of IFRS using the same proxy (education) for the manpower. The study reveals that education was significantly and negatively related to IFRS adoption. However, Kossentini and Othman (2011) reported a negative and insignificant relationship between education and IFRS adoption in emerging economies. This result totally disagrees with the findings of current study and also disputed the findings of Zeghal and Mhedhbi (2006), Shima and Yang (2012), Masoud (2014) and Tanjeh (2016) who collectively concurred with the finding of the present study.

With regard to the finding on collaboration, prior literature had recognized collaboration as an important factor in the accrual basis IPSAS implementation in other jurisdictions of the world and lack of it can influence public sector to adhere to the international trends in accounting (Brusca, et al., 2013; Al-zubi, 2015; Adhikari & Garseth-Nesbakk, 2016), the result of this study disputed this assertion because this study reveals that collaboration is not significant despite its positive relationship with accrual basis IPSAS implementation in Nigeria. This result can further be explained that, though collaboration has a positive relationship with accrual basis implementation, but the level of collaboration does not reach the extent to which it can have impact on accrual basis IPSAS implementation in Nigeria.

The study also found that coordination between stakeholders in the implementation of accrual basis IPSAS is negatively significant. The result indicated that coordination is inversely related to accrual basis IPSAS implementation. This means that decrease in coordination will influence the IPSAS implementation process. Even though, the result of this study contradict majority of the prior literatures, but the same findings was documented by Hamisi (2012), who equally tested this variable empirically in kenya. To my own understanding, the decrease or low level of coordination reported in this study can best be explained by lack of functional coordinating office dedicated for IPSAS implementation. Additionally, lack of adequate and regular consultations as well as lack of effective coordination before and during the implementation impedes IPSAS implementation in Nigeria.

Similar to the finding on collaboration, legislation was found to be positive and but insignificantly related to accrual basis IPSAS implementation in Nigeria. This finding is similar to the finding of Shima and Yang (2012), who studied the relationship between IFRS adoption and legal system and found a positive and insignificant relationship. Contrary to the finding of this study, Tanjeh (2016), Cam-Van (2016), Kossentini and Othman (2011), and Masoud (2014) documented positive and significant relationship. The result of this study indicated that the legislation is not strong enough to influence IPSAS implementation. Additionally, there is a need to amend the current legislation to capture the requirements for IPSAS implementation.

Finally, culture change proxied by active participation or involvement of the management in the implementation of IPSAS, readiness for change to the new reporting system (IPSAS), willingness of staff to change to new way of reporting (IPSAS) and focus on the output instead of input is positive and significantly related to accrual basis IPSAS implementation in Nigeria. This finding is supported by Zeghal and Mhedhbi (2006) who documented that cultural membership was positively and significantly associated with the adoption of IAS and also Hamisi (2012), Cam-Van (2016) reported a positive and significant relationship between IPSAS implementation and management culture. On contrary, Masoud (2014) reported a negative and insignificant relationship between Culture and IFRS adoption. The result may not be surprising because the study was conducted in a different setting having different culture.

Conclusions and Recommendations

The study examined the determinants of accrual basis IPSASs implementation in Nigeria, 2017 being the year of study. The study reveals that political will and infrastructure have positive and significant impact on Accrual Basis IPSASs implementation in Nigeria. Similarly, manpower and cultural change are also found to have positive and significant impact on Accrual Basis IPSASs implementation in Nigeria. The findings highlight the importance of active participation and increased involvement of key stakeholders, importance of relevant and appropriate software and hardware, importance of skilled and qualified personnel and importance of change process from the traditional way of doing things to the modern way.

Based on the result, the study concludes that Accrual Basis IPSAS implementation in Nigeria could be facilitated when there is Political will, infrastructure, manpower and culture change affect the Accrual IPSAS implementation in Nigeria. The study also concludes that Lack of proper coordination could hinder the implementation of Accrual Basis IPSAS in Nigeria. Similarly, the study concludes that, collaboration and legislation does not affect Accrual IPSAS implementation in Nigeria, this is because

government does not consider and exploit all the benefits of Collaborating with other governments who are successful in IPSAS implementation and the current legislation does not cover the provision of IPSAS.

The study recommends for an increased involvement of executives and legislatives, active participation, and provision of adequate funds to facilitate the implementation process. The study also recommends that government should provide the additional needed skilled personnel to handle the accrual basis IPSAS implementation and consider the benefits of Collaborating with other governments who are successful in IPSAS implementation. Similarly, the study also recommends that government should provide additional efforts or be more proactive in providing the necessary and updated Infrastructure for the implementation of accrual basis IPSAS in the federal government ministries.

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Conference theme 8:

Forensic Accounting and Fraud Control

INFLUENCE OF FORENSIC ACCOUNTING IN FRAUD REDUCTION IN NIGERIA.

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Abstract

Fraudulent practices among Nigerians are major challenges facing the development of the country. The federal government has been making several efforts in tackling these dreadful menaces by setting up many anticorruption institutions to reduce cases of fraud and other activity of financial and economic crimes but the efforts seemed not to have yielded the desired results or have not been effective. This study aims at exploring the impact of forensic accounting in fraud reduction in Nigeria. Three hypotheses were formulated in line with the objectives of the study. Survey method was adopted and data were collected through the use of questionnaire. A sample of 222 was selected and data was collected from one hundred and thirty five (135) respondents from accounting firms, law firms, government ministries/agencies, anti-corruption agencies (EFCC) in Lagos state, Nigeria and were analyzed with five point Linkert scale. The three hypotheses formulated were tested using chi-square statistical techniques with aid of SPSS version 20.0. The outcome of the study shows that there is positive relationship between forensic accounting and fraud reduction in Nigeria. The study concludes that the role of forensic accountant in fraud reduction in Nigeria is vital. Based on this, the study recommended among others that the government of Nigeria should develop interest in forensic accounting and encourage the efforts of forensic accountants in the monitoring and investigation of suspected and confirmed cases of corruption.

Introduction

The incidence of frauds in modern organizations has become sophisticated and this has made traditional auditing and investigation inefficient and ineffective in the detection and prevention of the various types of frauds, confronting businesses worldwide. Onuorah and Appah (2012) argue that the level of fraud continues to increase across private and public sector organizations and across nations. Fraud is a universal problem as no nation is resistant, although developing countries and their various states suffer the most pain. Today, modern organized financial crimes have emerged. Financial crimes such as employee theft, payroll frauds, fraudulent billing systems, management theft, corporate frauds, insurance fraud, embezzlement, bribery, bankruptcy, security fraud (EFCC, 2004), among others, have taken the centre stage in the scheme of things; and on the scale of private, public and

governmental preference. Financial crimes today have grown wild, and the emergence of computer software coupled with the advent of internet facilities has compounded the problem of financial crimes.

Okunbor and Obaretin (2010) reported that the spates of corporate failures have placed greater responsibility and function on accountants to equip themselves with the skills to identify and act upon indicators of poor corporate governance, mismanagement, frauds and other wrong doings. Fraud is an activity that takes place in a social setting and has got severe consequences in the economy; corporations and individuals (Silverstone and Sheetz, 2007). Fraud does not always involve the notion of monetary gain; however it can be defined as encompassing a wide variety of corrupt, deceptive, dishonest or unethical behaviors. According to global economic crime survey of PWC (2014) 54% of respondents reported that, their companies experienced frauds in excess of $100,000 with 8% reporting fraud in excess of 5%.Sixty six percent of respondent indicated that the financial impact of economic crime on their organization remained the same or increased in their last 24 months. This indicates that fraud can impact on company's revenue just like any other business and market forces. The ability to prevent, detect and swiftly respond to fraud can be powerful cost saving tools. By implementing more robust anti-fraud controls, organization can prevent losses and increase saving and profitability.

The integration of accounting, audit and investigation skills yield the specialty known as forensic accounting (Islam, Rahman& Hossan. 2011). Forensic accounting services involves application of specialized knowledge and investigative skills possessed by forensic accountants to collect, analyse and evaluate evidential matters and to interpret and communicate the finding in the courtroom, boardroom or other legal administration forum. The service includes disputes resolution, litigation support, bankruptcy proceedings, and fraud and special investigations. Forensic accounting services utilizes the practitioner's specialized accounting, auditing, economic, tax and other business skills to perform number of consulting services. The provision of forensic accounting services requires the practitioner to serve as witness expert depending on the assignment. Disputes resolution services assist with parties with settlement of or determination of disputes. Litigation services involve pending or potential legal or regulatory proceeding before the court of law in connection with resolution of a dispute between parties. Bankruptcy support services assist debtors, creditors, and other interested parties and court with pending or potential formal legal bankruptcy proceedings. Fraud and special investigations involves investigation of known or suspected frauds or event using recognized forensic techniques (AICPA).

Forensic accounting is a rapidly growing field of accounting that describes the engagement that results from actual or anticipated dispute or litigations. Okoye and Gbegi (2013) are of the view that “Forensic” means “suitable for use in a court of law”, and it is to that standard that Forensic Accountants generally work. Forensic Accounting is an investigative style of accounting used to determine whether an individual or an organization has engaged in any illegal financial activities. Professional Forensic Accountants may work for government or public accounting firm. Although, forensic accounting has been in existence for several decades, it has evolved over time to include several types of financial information scrutiny. Forensic accounting can, therefore, be seen as an aspect of accounting that is suitable for legal review and offering the highest level of assurance (Apostolou, Hassell & Webber, 2000). Also, forensic accounting encompasses three major areas, investigation, dispute resolution and litigation support. Ojaide (2000), notes that there is an alarming increase in the number of fraud

and fraudulent activities in Nigeria, requiring the attention of forensic accounting services. The recent happening in the forensic audit of the oil sector where the present government is demanding for another forensic audit exercises to be carried out after a Nigerian audit firm has presented a report to the authority.

In recent times, series of fraud have been committed both in the public sector and private sector of the economy. These in no doubt are perpetrated under the supervision of the internal auditors of the organization. According to a recent ranking by the Transparency International (2016), Nigeria is perceived as a very corrupt nation. This ranking emanated from the avalanche of cases of frauds, corruptions and financial scandals in which many Nigerians are suspected to be involved. These fraudulent practices are suspected to be perpetrated by highly skilled fraudsters, employing sophisticated methods thus requiring highly skilled and versatile accountants to unravel the fraudulent schemes. As a result of fraudulent practices in Nigeria, several billions of naira or dollars as the case may be have been lost by both domestic and foreign investors to fraudsters, fraudulent account officers (private sector) and corrupt civil servants (public sector) thereby leading to a decrease in the level of available capital investment in Nigeria. This has resulted in creating bad image to the credibility of the nation and brought about negative consequences on economic growth and development (Atibaba, 2013).

Similarly, despite the establishment of anticorruption agencies, cases of corrupt practices and fraudulent activities both in private and public sectors in the country appear to be on the increase. It seems difficult for the anticorruption agencies to successfully prosecute many of the alleged cases f fraud involving billions of naira by government functionaries, contractors, as well as private individuals and organizations. Before the establishment of the Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission (ICPC), successive governments had been handling cases of corruption by setting up military tribunals, banks and miscellaneous offences tribunals, Okibo panel as well as many other adhoc bodies. None of the efforts seems to have yielded results (Owolabi, Dada, Olaoye, 2013). The Obasanjo administration set up the EFCC and ICPC as the institutions meant to be on standby basis. There are seemingly, inadequate competent professionals to handle cases of fraud s stated by (Owolabi, Dada and Olaoye(2013) and the judicial system is slow leading to a delay in the prosecution process. The recent development in electronic (e) banking, e-business has led to e-fraud, e-corruption and e-financial scandals and it is obvious that he Traditional or Conventional Accountant may not be able to meet up with the level of sophistication of fraud.

In the light of the above this study therefore focuses on the relevance of forensic accounting in the face of increasing fraudulent practices in Nigeria. The main objective of this study is to assess whether forensic accounting helps in the effective reduction and control of fraudulent practices in Nigeria. The specific objectives include the following;

- To assess the effect of forensic accounting in the provision of litigation support services in Nigerian courts.
- To ascertain the effectiveness of forensic accounting in detecting, preventing and curbing fraud in both the private and public sectors in Nigeria
- To find out how forensic accounting can provide professional services for effective prosecution of cases by relevant anti-corruption agencies.

The hypothesis of the study seeks to find out if there is significant relationship between forensic accounting and fraud reduction in Nigeria. It will also try to find out if the practice of forensic accounting has had any significant impact in providing legal support services and if the practice of forensic accounting has aided in the prosecution of cases by anti-corruption agencies.

Literature Review

Concept of Forensic Accounting

The term "forensic accounting was coined by Peloubet in 1946, he said, forensic accounting is the application of accounting knowledge and investigative skills to identify and resolve legal issues. It is the science of using accounting as a tool to identify and develop proof of money flow. These tools and/or techniques, skills and knowledge can be invaluable for fraud and forensic accounting investigators." Forensic accounting is the integration of accounting, auditing and investigative skills Dada, Owolabi & Okwu,(2013), Zysman, (2004). Dhar and Sarkar (2010) define forensic accounting as the application of accounting concepts and techniques to legal problems. It demands reporting, where accountability of the fraud is established and the report is considered as evidence in the court of law or in administrative proceedings. According to the Association of Certified Fraud Examiners (ACFE), forensic accounting is the use of skills in potential or real civil or criminal disputes, including generally accepted accounting and auditing principles; establishing losses or profit, income, property or damage, estimations of internal controls, frauds and others that involve inclusion of accounting expertise into the legal system. Okoye and Gbegi, (2013) agrees that forensic accounting also called investigative accounting or fraud audit is a merger of forensic science and accounting. Forensic science according to Crumbley (2003) "may be defined as application of the laws of nature to the laws of man." He refers to forensic scientists as examiners and interpreters of evidence and facts in legal cases that also requires expert opinions regarding their findings in court of law. The science in question here is accounting science, meaning that the examination and interpretation will be of economic information. Joshi (2003) further sees forensic accounting as the application of specialized knowledge and specified skill to stumble upon the evidence of economic translations while Degboro and Olofinsola (2007) in their view noted that forensic investigation is about the determination and establishment of fact in support of legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits.

In the view of Howard and Sheetz (2006), forensic accounting is the process of interpreting, summarizing and presenting complex financial issues clearly, succinctly and factually often in a court of law as an expert. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation; Okunbor and Obaretin, (2010). Forensic accounting is a discipline that has its own models and methodologies of investigative procedures that search for assurance, attestation and advisory perspective to produce legal evidence. A forensic investigation may be grounded in accounting, medicine, engineering or some other discipline. Forensic audit is an examination of evidence regarding an assertion to determine its correspondence to established criteria carried out in a manner suitable to the court.

Gray (2008) believes that those qualified to handle forensic investigation are forensic accountants which are a combination of an auditor and private investigators. Knowledge and skills include investigative skills, research, law, quantitative methods, finance, auditing, accounting and law enforcement officer insights. A forensic accountant's primary duty is to analyze, interpret, summarize

and present complex financial and business-related issues in a manner that is both readily understandable by the layman

Forensic Accounting Services

Forensic accounting is application of accounting skills and knowledge in circumstances that have legal consequences. There are many circumstances that have legal consequences in which accountancy might be required and the most well-known is investigation of alleged fraudulent activities. Forensic accounting is the whole process of carrying forensic investigation, including preparing an expert report or witness and potentially acting as an expert witness in a legal proceeding. Proper understanding of effective fraud and forensic techniques will help a professional forensic accountant in identifying illegal activities and discovering and preserving evidence Houk et al (2006).Hence it is important to understand that the role of forensic accountants is differentiated from that of regular auditors. It is well understood that the role of regular auditor is to determine compliance following specific audit standards and hence probably consider the possibility of fraud.Forensic accounting relates to deterring, detecting and investigating frauds in financial frauds in financial statement (Kristic, 2009).Horward and Sheetz (2006) define it as process of interpreting, summarizing, and presenting complex financial issues clearly, succinctly and factually often in court of law as an expert.

Basic Skills of a Forensic Accountant

There are numerous opinions on the skills a forensic accountant should have. Harris and Brown (2000)while investigating the qualities of a forensic accountant, identifies specialized skills and abilities that should be possessed by experts of their nature. They discovered that a forensic accountant should be conversant with civil and criminal law. Also, they stressed the need for understanding of court room procedures and expectations, investigative skills, creative thinking as well as clear and precise communication skills.

According to Grippo and Ibex (2003), the most important skills of a forensic accountant arise from experience in accounting, internal controls, auditing, taxation management, interpersonal relationships, business operations and communication. A set of competencies required by a forensic accountant have been identified by DiGabriele (2009). These skills include deductive analytical ability, creative thinking skill, and unstructured problem solving competence, investigative flexibility, and analytical proficiency including oral communication ability, written communication ability, specific legal knowledge and good composure.

In a study conducted by Davis, Farrell and Ogilby (2010), on the features and skills of a forensic accountant; the views of attorneys, academics and CPAs were sought on the basic skills that a forensic accountant should possess. The results arrived at showed that a forensic accountant should be analytical, detailed – oriented, ethical, responsive, insightful, and persistent and skeptic.

Ghosh and Banerjee (2011) identified three fold- approaches of skills required by a forensic accountant to include the base, middle and top layer. The base layer comprises mainly accounting knowledge. The middle layer has to do with knowledge in the fields of auditing, internal controls, risk assessment and fraud detection. While at the top layer a strong knowledge of the legal environment is required including a strong communication skill. Based on their research, a forensic accountant is expected to have competence in a broad spectrum of disciplines including accounting, law, auditing, criminology, and information technology and communication skills. Knowledge and skills required in

forensic accounting include the following: Investigative skills, research, law, quantitative methods, finance, auditing, accounting, and law enforcement officer insights Hopwood, Leiner and Young,(2012).
Hence, a forensic accountant must have deep analytical ability, develop critical thinking, knowledge and skills in organizational behaviour and applied psychology.

Concept of Legal Support Services
Legal support has proven to be a leading provider of litigation services; it's the only litigation support company that provides court reporting, record retrieval, and litigation and trial services to major insurance companies, corporations and law firms nationwide. For many attorneys, retaining the services of forensic accountants has become an integral part of resolving their clients' legal disputes, either before or during litigation. This need for forensic accountants in litigation matters is as a result of financial issues that require specialized knowledge in multiple financial disciplines that a forensic accountant possesses.
Attorneys can use forensic accountants to assist in translating complex financial issues into a more understandable manner. Frequently, these financial issues are a key factor in the ultimate outcome of the lawsuit. In today's computerized society, the attorneys' deployment of forensic accountants to inquire, identify, investigate, test, examine, analyze and interpret financial documents and data is required more than ever before. With the forensic accountant's acumen in the financial arena, and sleuth mentality, this brand of accountant has been compared to Sherlock Holmes, the fictional based detective famous for his astute logical reasoning and adept forensic science skills. Similarly, the forensic accountant is proficient at investigating, identifying and analyzing financial information in conjunction with determining the people associated with the case, in an effort to follow the money. Ultimately, the financial forensic results could never hidden assets, identify unreported income, determine lost profits, or aid the attorney in whatever specific financial issues the case requires.

Some types of litigation cases where the forensic accountants can be of assistance includes shareholder/partner disputes, matrimonial dissolutions, breach of contract, lost profits and damage calculations, white collar criminal investigations, breach of fiduciary duty, estate litigation and in bankruptcy arena. The timing of when the forensic accountant is hired can play a vital role in the outcome of the case. Hiring the forensic accountant as early as possible allows the forensic accountant to assist the attorney in a variety of ways, including making a preliminary determination as to the merits of the litigation.

Due to the unique circumstances of each case, the forensic accountants' roles can differ from one assignment to another, and may even change as a case advances trough litigation process. There are many different facets within each litigation case where an attorney can benefit from the services of a forensic accountant, and these can be divided into four general phases:

i. Foundational i.e. provides assistance in the case development and discovery stages, and assist in defining the financial framework of the case. Assess the quality of the documents to determine what might be relevant;
ii. Interpersonal i.e. conducts interviews to aid in the planning and execution of case data collection, and perform background research on the people and entities relevant to the matter;
iii. Data collection and analysis i.e. accumulate the data, and marshal the necessary analytical

tasks to either support or refute the legal theories presented. If requested, assist in any hearings, conferences and settlement negotiations;

iv. Expert report and trial i.e. aggregates the forensic accountants' entire conclusion during the assignment, followed by the submission of an expert report, and possibly testify at deposition or trial. If requested by the attorney, the forensic accountant can critique the opposing experts report.

This is only an abbreviated list of assignments that the forensic accountant can perform. In addition, each of these tasks can be expanded to encompass a greater role for the forensic accountant. As an example, when providing assistance in the discovery phase, the forensic accountant could collaborate with the attorney to determine the appropriate universe of data required for the specific engagement. Thereafter, the forensic accountant would continuously evaluate and interpret the documents that were received from the opposing party, along with their relevance and reliability. In data collection and analysis phase of the case, the forensic accountant would investigate the financial documents received, perform research, and apply financial forensic tools and techniques such as trending, benchmarking and ratio analysis. Depending on the case requirements, the forensic accountant may deploy digital analysis techniques by using data mining software to test for anomalies by examining case specific digit patterns and other relevant characteristics.

Litigation attorneys can often attain dramatic leverage at negotiating table and in the courtroom by being able to present quantifiable data in clear cogent terms. A case that is substantiated by indisputable testimony will most often be received favourably. A skilled forensic accountant in the litigation arena can act as powerful support to the retaining attorney by helping the attorney to present or defend claims.

Concept of Fraud

Scholars vary significantly in their expressions about fraud. The cause is sometimes confused with the effect of fraud. Defining fraud is as difficult as identifying it. Fraud is defined by EFCC (2004:46) as ". . . the non-violent criminal and illicit activity committed with objective of earning wealth illegally either individually or in a group or organized manner thereby violating existing legislation governing the economic activities of government and its administration . . ." Nwaze (2012) defined fraud as a predetermined as well as planned tricky process or device usually undertaken by a person or group of persons with the sole aim of cheating another person or organization to gain ill-gotten advantage which would not have accrued in the absence of such deceptive procedure.

Okafor (2004) added that fraud embraces all the multifarious means which human ingenuity can devise, which are resorted to by an individual to get advantage over another in false representation. No definite and invariable rule can be laid down as a general proposition in defining fraud as it includes surprise, trick, cunning and unfair ways by which another is cheated fraudulently. Ojaide (2000) argued that fraud is a human endeavor, involving deception, purposeful intent, intensity of desire, risk of apprehension, violation of trust, and rationalization. It is therefore important to understand the psychological factors that might influence the behavior of fraud perpetrators. The rationale for drawing on behavioral science built on evident from the intuition that one needs to think like a crook to catch a crook. Karwai (2002), Ajie and Ezi (2000) are of the view of fraud in organizations vary widely in nature, character and method of operation in general. Fraud may be classified into two broad ways: nature of fraudsters and method employed in carrying out the fraud. On the basis of the nature of the fraudsters,

fraud may be categorized into three groups, namely; internal, external and mixed frauds. Internal fraud relates to those committed by members of staff and directors of the organizations while external fraud is committed by persons not connected with the organization and mixed fraud involves outsiders colluding with the staff and directors of the organization. Karwai (2002) reported that the identification of the causes of fraud is very difficult. He stated that modern day organizations frauds usually involve a complex web of conspiracy

Forensic Accounting and Fraud Prevention

Fraud normally manifest itself through symptoms as it is hard to observe the actual fraudulent activity .The symptoms may not indicate that a fraud has been committed as it may be as a result of human errors. Fraudsters sometimes hide frauds in these human made errors hence making it difficult for forensic accountant to detect them (Albert, 2005). Poor corporate governance and accounting failures have been quoted as some of recipe for frauds. Company officials with the same interest may commit fraud because of lack of well implanted corporate governance policy (Ramaswammy,2005).The auditor performs his duty in ensuring true and fair reporting is observed in order to safeguard the interest of all stake holders. He does not have an absolute duty to unearth frauds and criminal activities which may have been perpetrated by fraudsters in a company. The auditor may only use the skills of a forensic accountant in case he has a reason to suspect that frauds have been committed in an organization. When the top management do not play an active role in fraud prevention, internal controls may not be the best solution for fraud detection and prevention. New methods for prevention and detection of fraud therefore have been devised which involve the use of forensic accountants (Enofe & Atube, 2013).

During the audit planning process, audit tests have been modified by forensic accountants where the risk of fraud by management has been observed to be high. When forensic accountant have been involved in risk management, better results have been obtained (Okoye & Gbegi, 2003).Forensic accountants can be used to detect more frauds than ordinary auditors. Some more research conducted revealed that proactive data analysis using computer based techniques could detect frauds which could have remained in financial reports for many years (Boritz, Kotchetova & Robinson, 2008).
Fraud detection involves the identification of actual or potential fraud in an organization. It relies upon the implementation of appropriate systems and process to spot the early warning signs of fraud. Fraud detection involves proactive risk assessment and reactive to fraud reports. It also includes manual spot audit and enhanced automated data mining. Detection is characterized by action and activities intended to identify and locate fraud prior to, during and subsequent to the completion of fraudulent activities. To detect is to uncover or reveal the existence of the fact of something hidden or obscured. Fraud detection should form part of an organization overall anti-fraud strategy covering prevention, detection and investigation (Webster, 1997).

Fraud deterrent is the removal of the casual enabling factors of frauds. It is based on the premise that fraud is not random but occurs if there exit the right conditions for it to occur. Fraud deterrent is based on improvement of organization procedures as the main best defense against fraud. Successful deterrence is the stopping of fraud before it happen. To deter is defined as to inhabit or discourage through fear or to prevent an action by fear of consequences Webster, (1997).
Some Reported Cases of Fraud in Nigeria

Name of Accused	Unit	Nature of Crime	Amount Involved
Tony Anenih	Former Minister of Work	Payment for Contract not Executed	N525 million
Rosemary Usifo	First City Monument Bank	Fraud	N30 million
Francis Atuche Charles Ojo	Former MD Bank PHB Former MD Spring Bank	Fraud Fraud	N125 billion
Olu Ogunbanbo	Oil Subsidy	Fraud	N979.6 million
Sinatu Ojikutu	Former Deputy Governor Lagos State	Fraud	N130 million
Okechukwu Chukwulozie	Former NAICOM Boss	Fraud	N10.4 million
Jonah Jang	Governor of Plateau State	Misappropriation of SURE-P Fund	N5 billion
Akingbola Erasmus	Former MD Defunct Intercontinental Bank	Fraud	N47.1 billion
Nigerian Embassy in the United States	Sale of Properties	Misappropriation of proceeds	$27 million
Stella Oduah	Former Minister of Aviation	Unauthorized Purchase of Armored cars	N225 million
Ojezani Allison-Madueke	Minister of Petroleum	Chartered Aircrafts	N10 billion
Jimoh Enesi	Former Chairman Adari LG, Kogi Stae	Money Laundering	N7.3 million
Oanjuma Goje	Former Governor of Gombe State	Diversion of government refund	N5.7 billion
	National Poverty Eradication Programme (NAPEP)	Fraud	N12.2 billion
Albert Nude, Danlandin Garba, Nasir Shehin	Sterling Bank	Fraud	N146.7 million
Atiku Abubarkar Kigo Uzoma Cyril	Police Pension Fund	Fraud	N33.2 billion
Cecilia Ibru	Former MD Oceanic Bank	Fraud	N191 billion
Danasebe Ibrahim	Union Bank	Fraud	N2.05 billion
Sule Lamido	Governor of Jigawa State	Money Laundering	N10.4 billion

Source: *www.thecitizenng.com/financialcrime*

Challenges of a Forensic Accounting

With the increase in financial accounting fraud in the current economic scenario experienced, financial accounting fraud detection has become an emerging issue of great importance for academic, research and industries. The failure of internal auditing system of the organizations in identifying the accounting frauds has led to use of specialized procedures to detect financial accounting fraud, collective known as forensic accounting (Sharma and Panigrahi 2012). As cited by (Modugu, and Anyaduba, 2013). Though financial fraud in Nigeria has witnessed highly publicized cases especially in the banking system, Enyi (2009) undertook a study to offer suggestions using real case problem on how to apply

forensic accounting in investigating variances and suspected fraudulent activities in manufacturing processes and thus suggests that the application of forensic accounting applies to all scenes where fraud is a possibility.

Okoye and Akenbor (2009) commenting on the application of forensic accounting in developing economies like Nigeria, notes that forensic accounting is faced with so many bottlenecks. These includes inability to operate more independently and effectively, lack of technical capabilities and inability of gathering information that is admissible in a court of law, less focus on offering service quality, conflicting regulatory codes and standards, lack of harmonization and unification of all the existing sectoral corporate governance codes applicable in Nigeria (CBN, SEC, and PENCOM Codes).

Crumbly (2001), Grippo and Ibex (2003) added that the challenges confronting the application of forensic accounting is such that it lack the admissibility, of evidence in compliance with the laws of evidence which is crucial to successful prosecutions of criminal and civil claims. Also, the globalization of the economy and the fact that a fraudster can be based anywhere in the world has led to the problem of inter jurisdiction.

Degboro and Olofinsola (2007) note that an important challenge to the application of forensic accounting in financial fraud control and management in Nigeria is that the law is not always up to date with the latest advancements in technology. (Modugu, and Anyaduba, 2013) concur that forensic accounting is seen as an expensive service that only big organizations can afford. Thus, most organization prefers to settle the issue outside the court to avoid the expensive cost and the risk of bad and negative publicity on their corporate image. Furthermore, forensic accounting is a new trend particularly in developing economies. Hence, professional accountants with adequate skill and technical know-how on forensic issues are hardly available.

Empirical Review

Various researches have been conducted on the impact of forensic accounting on fraud detection and deterrent in organization. The research confirms that there is appositive correlation between forensic accounting and prevention of frauds.

Islam, (2011) conducted a research in Bangladesh on forensic accounting profession and corruption reduction in Bangladesh. He sought to find out whether forensic accounting skills could be used as a tool to curtail frauds and corruption in Bangladesh. Out of his sample of chartered accountants, 94.14% confirmed that they had used the skills of forensic accounting to detect frauds.

Eyesi and Ezuwore (2014) conducted a research on the impact of forensic accounting on corporate governances. This was a theoretical research conducted on secondary data .The conclusion of the research was that, financial auditor is not obliged to detect fraud during their financial audits, the responsibility of internal controls rest with management and hence management has sought the skills of forensic accountant to safe guard the internal control system. The forensic accountants have done this by incorporation of computer software in data processing and in the computer information system to detect frauds and errors. This has help management improve accountability to the all stake holders. They also found that forensic accountant assist audit committee to carry on oversight functions by providing better tools to evaluate the quality of normal financial statements produced by external auditors. The research found that forensic auditors have used fraud detection tools pro-actively unlike the financial auditors who use traditional tools which are reactive to fraud detections.

Gbegi (2013) carried out a study on the involvement of forensic accountants in planning and management of fraud risk detection procedures. The study revealed that forensic accountants effectively modify the extent and nature and audit test when the risk of management fraud is high. Forensic accountants propose unique procedures that are not proposed by auditor when the risk of management fraud is high. Forensic accountants can enhance the effectiveness of an audit plan when the risk of management fraud is high and by involving them, the risk fraud assessment process leads to better results rather than just consulting them.

Modugu (2013) pointed out that fraud has become real and prevalent in the contemporary business environment. His study found that there is significant agreement among stakeholders on the effectiveness of forensic accounting in fraud control, improving financial reporting and internal controls. He noted that forensic accountants can provide significant assistants in preventing, investigating and resolving such issues. He recommended for the formalization and specialization of the profession by the National Association of Accountants in Nigeria. Locally there has also been research conducted on the subject and results tend to confirm the positive correlations between forensic accountings services and reductions of frauds as indicated by below researcher.

Madumere and Onumah, (2013) examined the effect of forensic accounting on corporate fraud and performance outcome in the Nigerian manufacturing sector. Using a match sample of 306 manufacturing firms registered with the Manufacturing Association of Nigeria (MAN), three hypotheses proposed and tested and the findings revealed that corporate fraud is on the increase in this sector of the economy, and the reason is that most managers want to be independent at the expense of their employers. That most managers establish firms that supply goods to their company at very high prices thereby increasing cost of production.

Aduwo, (2016) conceptually reviewed the impact of forensic accounting toward utilizing professional judgments, accounting skills, auditing and law procedures to fight the dreaded disease of corporate liquidation and the paper concluded that forensic auditing can go a long way to prevent financial scandals in corporate organizations.

In the current empirical study, Modugu and Anyaduba (2013) examined forensic accounting and financial fraud in Nigeria. The study employed survey design in a sample size of 143 consisting of accountants, management staff, practicing auditors and stakeholders. The authors employed binomial test for data analysis and found that there is significance agreement amongst stakeholder on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality.
Onuorah and Ebimobowei (2011) employed survey design to examine the effect of forensic accounting services in fraud detection in Nigeria banks by the use of Augmented Dickey- fuller, ordinary least square and Granger Causality test. The result revealed that the application of forensic accounting services affect the level of fraudulent activities of banks.

Adegbie and Fakile (2012) employed Chi- square and statistics package for social science to empirically evaluate forensic accounting as antidote to economic and financial crime in Nigeria. They tested four hypotheses. The study revealed that forensic accounting is a financial strategy to curb and resolve economic and financial crimes in Nigerian economy.
Bressler (2011) studied the perception of attorney and judges in the court system as to what might enhance understanding of the role of forensic accountants in fraud investigation. The researcher

employed conceptual analysis and found that forensic accountants must be well trained in the rules of evidence, financial data, accounting information system, and software and communication skills.

Enofe, Utomwen and Danjuma (2015) examine the role of forensic accounting in curbing financial crimes. The study adopts a survey research design. The population of the study comprises of staffs of selected banks. Primary data was used for the purpose of this research. This research work employed the use of structured questionnaire in eliciting the required data needed to test the formulated hypotheses. Regression analysis was utilized as the method of data analysis and the results will be used in testing the hypotheses specified in the study. The study reveals that there is need for forensic accountants in the Nigerian banking system; Forensic accounting is an effective tool for addressing financial crimes in the banking.
Imoniana, Antunesand Formigoni(2013) aimed at analyzing the characteristics of forensic accounting services performed by accounting firms in Brazil, using an exploratory approach. Their findings conclude that the idea that frauds have been least detected by auditors begins to gain shape as auditors are more adequately trained to detect frauds instead of emphasizing the traditional segregation of duties and safeguard of assets.

Many researchers have attempted to examine the effect of forensic auditing on fraud detection, for example, Madumere and Onumah (2013) revealed that corporate fraud is on the increase in this sector of the economy, and the reason is that most managers want to be independent at the expense of their employers. Aduwo (2016) concluded that forensic auditing can go a long way to influence financial scandals in corporate organization. Modugu and Anyaduba (2013) found that there is significance agreement amongst stakeholder on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality. Okunbor and Obaretin (2010) showed that the application of forensic accounting services by corporate organization in Nigeria is not effective in determine fraudulent activities. Onuorah and Ebimobowei (2011) revealed that the application of forensic accounting services affect the level of fraudulent activities of banks. Adegbie and Fakile (2012) revealed that forensic accounting is a financial strategy to curb and resolve economic and financial crimes in Nigerian economy. Okoye and Gbegi (2013) authors found that forensic accountants effectively modify the extent and nature of audit test when the risk of management fraud is high. Bressler (2011) found that forensic accountants must be well trained in the rules of evidence, financial data, accounting information system, and software and communication skills.

Enofe, Utomwen and Danjuma (2015) reveals that there is a need for forensic accountants in the Nigerian banking system, Forensic accounting is an effective tool for addressing financial crimes in the banking system and finally that Conventional accounting techniques are not effective in curbing financial crimes. Imoniana,Antunesand Formigoni (2013) conclude that the idea that frauds have been least detected by auditors begins to gain shape as auditors are more adequately trained to detect frauds instead of emphasizing the traditional segregation of duties and safeguard of assets. Most of these studies have explored forensic accounting to an extent but there is need to examine the extent of forensic auditor in combating fraudulent activities in order to impact on corporate governance of Nigerian corporate organizations. Other, instance of corporate financial fraud could be drawn from recent bank failure in Nigeria where management has fraudulently given loans without board approval and yet such bank annual report has been unqualified. From the above it could be said that the external auditors have continued to certify fraudulent financial statement as unqualified audit report thus, leads

to detriment of investors and most times corporate collapse and economic crisis.

Theoretical Underpinning

This work was guided by Cressy Fraud triangle theory which analyses the personal characteristic of a fraudster in relation to fraud committed in the organization. Cressy (1953) hypothesized three criteria for criminal violation of trust. These included non-sharable financial problem, knowledge of working of a specific enterprise and opportunity to violate trust, and ability to adjust oneself perception such that violating this trust does not constitute to criminal behavior in one mind. The theory came up with what has been termed as fraud Triangle. It consists of elements which are perceived pressure, presence of an opportunity and aftermath rationale of the fraud act. Perceived pressure from non-sharable financial need creates a motive for fraud. Individual may be facing financial or other personal problems such as gambling, drug abuse, alcoholic or extreme medical bills. He could also be leaving an expensive life style which is not sustainable with one's income agreed could also be a motivator for fraud.

Opportunity is ability to commit fraud. Fraudsters commit frauds with belief that their activities will not be detected. Opportunities are created by weak internal controls, poor management oversight and through use of one position and authority. Opportunities to commit fraud may occur if there is a failure to establish adequate procedures to detect fraudulent activities. Of the three elements of the fraud triangle, opportunity is the only controllable element by an organization. According to the fraud triangle, the threat of likely detection is one of the most powerful weapons in fraud prevention because it eliminates the fraudster perceived opportunity (ACFE, 2012).

Rationalization is crucial component in most frauds. Rationalization involves a person reconciling his/her behavior with a common notion of decency and trust. It is easier for those people who are generally dishonest to rationalize fraud than those people with high moral standard. Common rationalization includes making up for being underpaid or replacing bonus that was deserved but not received, he may convince himself that he is just borrowing the money from a company and will return in one day. Others believe since the company is treating its employee badly there is no harm in stealing the money.

The Fraud Triangle theory provides an efficient conceptual model that has broadly served as an aid to the fraud examiners in understanding the antecedents to fraud (ACFE, 2009). Research in the area of fraud has indicated that, there existed conditions of fraud triangle within companies where fraud schemes have been perpetrated. Fraud examiners have used the fraud triangle as a standard method since the 1950s to understand fraudsters' motivations. (Bell and Carcello, 2000,& Hogan et al. 2008). Lasalle (2007) demonstrated that the use of fraud triangle could lead to improved risk assessment.

Research Method

For the purpose of this research, survey design has been employed in order to answer the research questions and test the hypotheses formulated. Since it is a survey design that needs people's opinion, it was chosen for easy accessibility in order to administer questionnaires to the respondents. This research will cover Lagos State, Nigeria.

The target population would be law firms, accounting firms, government parastatals, anticorruption agencies in Lagos State, Nigeria. Hussey and Hussey (1997) and Robson (1993) agree that there is no ideal sample size. They state that the sample size depends on the discipline the level of confidence expected in the answers and anticipated response rate. Therefore, the population size considered for

this study is 500 respondents drawn from the staff of law firms, Accounting firms, government parastatals and anticorruption agencies. The population is focused on the staff of this firms that have knowledge of what forensic accounting is all about. In order to gain the advantage of an in-depth study and effective coverage, samples are drawn using random sampling. Taro Yamanei's formula is used in determining the sample size.

Using Taro Yamanei's formula,

$$n= N/1+N(e)^2$$

where n= sample size

N= population

e= margin of error (0.05 on the basis of 95% confidence level)

therefore, $n= 500/1+500(0.05)^2$

$n= 500/2.25$

$n= 222$

Using a population of approximately 500 Nigerians with an error of 5%, a sample size of 222 is considered adequate as computed above.

Two hundred and two questionnaires were distributed equally among the staff of five selected agencies chosen as detailed in the table below. Out of the 222 sent out, only 135 representing 61% of the total sample were returned as shown in the table below. Five point linkert scale was adopted in structuring the question from strongly agree to strongly disagree.

Table 1. Distribution of Respondents
Source: Field Survey 2018

Categories of the Respondent	No. Distributed	No. Returned
Law Firms	45	28
Accounting Firms	40	27
Economic and Financial Crimes Commission	52	30
Government Agencies	48	29
Independent and Corrupt Practices Commission	37	21
Total	222	135

Validation of Instrument

The questionnaire was pre-tested in Economic and financial crimes Commission which is one of the organizations sampled and is validated with information and experiences gathered from the pre-testing of the questionnaire before they were finally administered. The researcher interviewed and discussed with selected respondents to elicit further information based on their responses to the questionnaire.

Data Analysis and Discussion of Results

The data obtained from respondents and the research questions were analyzed and presented inform of frequencies, percentages, tables, charts and graph while the research hypotheses were tested using statistical package for social science (SPSS version 20.0), the chi-square statistical technique was used. The essence of this test is to validate or disapprove the hypotheses. Data was collected from the responses of accountants in the firm, lawyers, workers in the anti-corruption agencies, workers in the government parastatals in Lagos state.

Data Analysis and Presentation

ESSENTIAL BIODATA

Frequency Table

Table 2: Educational Qualification of respondents

		Frequency	Percent
Vaild	Phd	19	14.1
	M.Sc/MBA	49	36.3
	HND/B.Sc	59	43.7
	HND/NCE	8	5.9
	Total	135	100.0

Source: Field Survey 2018

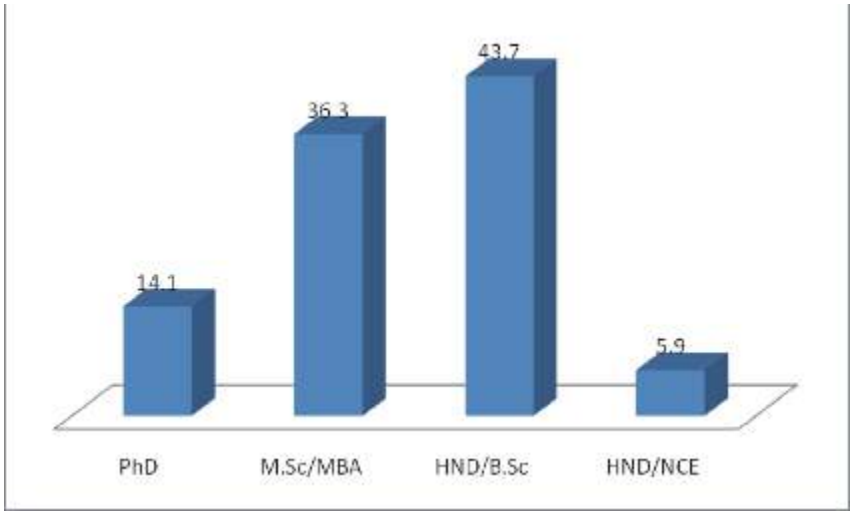

Table 2 reveals that 14.1% of the respondents have PhD, 36.3% of the respondents have M.Sc/MBA, 43.7% of the respondents have HND/B.Sc and 5.9% of the respondents have HND/NCE.

Table 3: Categorization of respondents according to places of work

		Frequency	Percent
Vaild	Law firms	39	28.9
	Accounting firm	51	37.8
	EFCC Workers	25	18.5
	Government ministres/Agencies	20	14.8
	Total	135	100.0

Source: Field Survey 2018

Table 3 reveals that 28.9% of the respondents were Lawyers, 37.8% of the respondents were Accountants, 18.5% of the respondents were Anti-corruption worker and 14.8% of the respondents were Government workers.

Analysis of Section B (Fraud Prevention and Detection)

Question 1

Table 4: Forensic accounting is effective in detecting and preventing fraud in Nigeria.

	Frequency	Percentage
Strongly Agree	98	72.60
Agree	33	24.44
Undecided	1	0.74
Disagree	2	1.48
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (4) shows the responses of respondents if forensic accounting is effective in detecting and preventing fraud in Nigeria, 98(72.60%) of the respondents chose strongly agree, 33 (24.44%) chose agree, 1 (0.74%) chose undecided, 2 (1.48%) disagreed and 1 (0.74%) strongly disagreed. Therefore, majority of the respondents strongly agreed that forensic accounting is effective in detecting and preventing fraud in Nigeria.

Question 2

Table 5: The service of forensic accountants has helped in the reduction of fraud and corruption in the country.

	Frequency	Percentage
Strongly Agree	40	29.60
Agree	85	63.00
Undecided	6	4.44
Disagree	3	2.22
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (5) shows that 40(29.60%) of the respondents strongly agreed, 85(63.00%) of the respondents agreed, 6(4.44%) of the respondents chose undecided, 3(2.22%) of the respondents disagreed and 1 (0.74%) of the respondents strongly disagreed. Therefore, majority of the respondents agreed that the service of forensic accountants has helped in the reduction of fraud and corruption in Nigeria.

Question 3

Table 6: Fraud policies are implemented and enforced consistently and fairly in my organization.

	Frequency	Percentage
Strongly Agree	35	25.90
Agree	49	36.30
Undecided	29	21.50
Disagree	21	15.56
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (6) shows that 35(25.90%) of the respondents strongly agreed, 49(36.30%) of the respondents agreed, 29(21.50%) of the respondents chose undecided, 21(15.56%) of the respondents disagreed and 1(0.74) of the respondents strongly disagreed. This therefore means that majority of the respondents agreed that fraud policies are implemented and enforced consistently and fairly in the organization.

Question 4

Table 7: Anti-fraud controls are consistently monitored and tested as part of the internal audit function.

	Frequency	Percentage
Strongly Agree	29	21.50
Agree	44	32.59
Undecided	36	26.66
Disagree	24	17.77
Strongly Disagree	2	1.48
Total	135	100

Source: Field Survey 2018

The above table (7) shows that 29(21.50%) of the respondents strongly agreed, 44(32.59%) of the respondents agreed, 36(26.66%) of the respondents undecided, 24(17.77%) of the respondents disagreed and 2(1.48%) of the respondents strongly disagreed. Therefore, majority of the respondents agreed that anti-fraud controls are consistently monitored and tested as part of the internal audit function.

Question 5

Table 8: Employees of the organization know how to report fraud.

	Frequency	Percentage
Strongly Agree	9	6.67
Agree	21	15.56
Undecided	13	9.63
Disagree	84	62.22
Strongly Disagree	8	5.92
Total	135	100

Source: Field Survey 2018

The table above (8) shows 9(6.67%) of the respondents strongly agreed, 21(15.56%) of the respondents agreed, 13(9.63%) of the respondents undecided, 84(62.22%) of the respondents disagreed and 8(5.92%) of the respondents strongly disagreed. Therefore, majority of the respondents disagreed that employees of the organization know how to report fraud.

Analysis of Section C (Litigation Support Services)

To what extent do you support the following attributes as the way litigation services by forensic accountants bolster/strengthen a fraud case proceeding in a court of law?

Table 10: Proper calculation of complex and disputed business values.

	Frequency	Percentage
Strongly Agree	71	52.60
Agree	60	44.44
Undecided	2	1.48
Disagree	2	1.48
Strongly Disagree	0	0
Total	135	100

Source: Field Survey 2018

The table above (10) shows that 71(52.60%) of the respondents strongly agree, 60(44.44%) of the respondents agree, 2(1.48%) of the respondents undecided, 2(1.48%) of the respondents disagree and none of the respondents chose strongly agreed. This therefore means that proper calculation of complex and disputed values strengthens a fraud case proceeding in a court of law by a forensic accountant.

Question 7

Table 11: Records examination and reconstruction of financial statement for correct consequential claims.

	Frequency	Percentage
Strongly Agree	58	42.97
Agree	70	51.85
Undecided	6	4.44
Disagree	1	0.74
Strongly Disagree	0	0
Total	135	100

Source: Field Survey 2018

The above table (11) shows that 58(42.97%) of the respondents strongly agree, 70(51.58%) of the respondents agree, 6(4.44%) of the respondents chose undecided, 1(0.74%) of the respondent

disagreed and none of the respondents strongly disagreed. This therefore means that majority of the respondents agree that records examination and reconstruction of financial statement for correct consequential claims can strengthen a fraud case proceeding in a court of law by a forensic accountant.

Question 8

Table 12: Analyzing damages payable to clients by the defense as revealed through forensic accounting during litigation.

	Frequency	Percentage
Strongly Agree	36	26.67
Agree	75	55.56
Undecided	15	11.11
Disagree	8	5.92
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (12) shows that 36(26.67%) of the respondents strongly agreed, 75(55.56%) of the respondents agreed, 15(11.11%) of the respondents undecided, 8(5.92%) of the respondents disagreed and 1(0.74%) of the respondent strongly disagreed. Therefore, majority of the respondents strongly agree that analyzing damages payable to clients by the defense as revealed through forensic accounting during litigation strengthen a fraud case proceeding in a court of law by a forensic accountant.

Question 9

Table 13: Preparation and presentation of expert opinion during the court case proceeding.

	Frequency	Percentage
Strongly Agree	62	45.93
Agree	64	47.41
Undecided	4	2.96

Disagree	4	2.96
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (13) shows that 62(45.93%) of the respondents strongly agreed, 64(47.41%) of the respondents agree, 4(2.96%) of the respondents undecided, 4(2.96%) of the respondents disagree and 1(0.74%) of the respondent strongly disagree. Therefore, preparation and presentation of expert opinion during the court case proceeding can strengthen a fraud case proceeding in a court of law by a forensic accountant.

Question 10

Table 14: Discovery, interrogatory preparation and request for production of evidence in court of law.

	Frequency	Percentage
Strongly Agree	44	32.59
Agree	77	57.04
Undecided	10	7.41
Disagree	3	2.22
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (14) shows that 44(32.59%) of the respondents strongly agreed, 77(57.04%) of the respondents agreed, 10(7.41%) of the respondents undecided, 3(2.22%) of the respondents disagreed and 1(0.74%) of the respondent strongly disagreed. This means that majority of the respondents agreed that discovery, interrogatory preparation and request for production of evidence in court of law bolster/strengthen a fraud case proceeding in a court of law by the forensic accountant.

Analysis of Section D (Prosecution of Cases)

Question 11

Table 15: The advent of anti-corruption agencies has been able to reduce the perceived level of corruption in Nigeria.

	Frequency	Percentage
Strongly Agree	73	54.07
Agree	54	40
Undecided	5	3.71
Disagree	2	1.48
Strongly Disagree	1	0.74
Total	135	100

Source: Field Survey 2018

The above table (15) shows that 73(54.07%) of the respondents strongly agreed, 54(40%) of the respondents agreed, 5(3.71%) of the respondents undecided, 2(1.48%) of the respondents disagreed, and 1(0.74%) of the respondents strongly disagreed. This means that majority of the respondents strongly agreed that the advent of anti-corruption agencies has been able to reduce the perceived level of corruption in Nigeria.

Question 12

Table 16: Cases that have been won by the anticorruption agencies in Nigeria are as a result of the application of forensic accounting.

	Frequency	Percentage
Strongly Agree	28	20.74
Agree	55	40.74
Undecided	29	21.48
Disagree	21	15.56
Strongly Disagree	2	1.48
Total	135	100

Source: Field Survey 2018

The above table (16) shows that 28(20.74%) of the respondents strongly agreed, 55(40.74%) of the

respondents agreed, 29(21.48%) of the respondents undecided, 21(15.56%) of the respondents disagreed and 2(1.48%) of the respondents strongly disagreed. This therefore means that majority of the respondents agree that cases that have been won by the anticorruption agencies in Nigeria are as a result of the application of forensic accounting.

Question 13

Table 17: Lost cases are as a result of not using the expertise of a forensic accountant.

	Frequency	Percentage
Strongly Agree	31	22.96
Agree	35	25.93
Undecided	27	20
Disagree	38	28.15
Strongly Disagree	4	2.96
Total	135	100

Source: Field Survey 2018

The table above (17) shows that 31(22.96%) of the respondents strongly agree, 35(25.93%) of the respondents agreed, 27(20%) of the respondents chose undecided, 38(28.18%) of the respondents disagreed and 4(2.96%) of the respondents strongly disagreed. This means that majority of the respondents disagree that lost cases are as a result of not using the expertise of a forensic accountant.

Question 14

Table 18: Using the expertise of a forensic accountant can help resolve pending cases.

	Frequency	Percentage
Strongly Agree	31	22.96
Agree	88	65.20
Undecided	6	4.44
Disagree	7	5.18
Strongly Disagree	3	2.22
Total	135	100

Source: Field Survey 2018

The table 18 above shows that 31(22.96%) of the respondents strongly agree, 88(65.20%) of the respondents agree, 6(4.44%) of the respondents of the respondents undecided, 7(5.18%) of the respondents disagree and 3(2.22%) of the respondents strongly disagreed. This means that majority of the respondents agree that using the expertise of a forensic accountant can help resolve pending cases.

Testing the Hypotheses

Table 19 is used to test for hypothesis 1, table 20 is used to test for hypothesis 2 while table 21 is used to test for hypothesis 3.

Parameters for Testing the Hypotheses

- Statement of hypothesis, null and alternative.
- Level of significance, $\alpha = 0.05$.
- Decision rule: Reject the null hypothesis (H_0), if the P-value < 0.05.
- Test statistics: Chi-square

$$X^2 = S\frac{(O-E)^2}{E}$$

Where O is the observed frequency and E is the expected frequency, with (n-1) degrees of freedom of (r-1)(c-1), where n is the number of observation, r and c are the numbers of rows and columns respectively.

- Decision and conclusion

Hypothesis 1

H_0: There is no significant relationship between forensic accountants and fraud reduction in Nigeria.

H_1: There is a significant relationship between forensic accountants and fraud reduction in Nigeria.

Table 19

O	E	O-E	$(O-EO)^2$	$(O-E)^2/E$
1	27	-26	676	25.0370
4	27	-23	529	19.5926
5	27	-22	484	17.9259
84	27	57	3249	120.3333
41	27	14	196	7.2593
		Chi-Square Calculated		190.1481
		P-value		0.00000
		Degrees of Freedom		4

Source: SPSS 20.0

The P-Value is 0.000 which is significant at $p \leq 0.05$

Decision: Reject the null hypothesis (H_0), since P-value (0.000) is ≤ 0.05

Conclusion: The analysis shows that there is a significant relationship between forensic accountants and fraud reduction in Nigeria. Therefore, the alternative hypothesis is accepted.

Hypothesis 2

H_0: The practice of forensic accounting does not have any significant impact in providing legal support services.

H_1: The practice of forensic accounting has a significant impact in providing legal support services.

Table 20

O	E	O-E	$(O-EO)^2$	$(O-E)^2/E$
3	27	-24.0	576	21.33333
6	27	-21.0	441	16.33333
5	27	-22.0	484	17.92593
91	27	64.0	4096	151.7037
30	27	3.0	9	0.333333
		Chi-Square Calculated		207.6296
		P-value		0.00000
		Degrees of Freedom		4

Source: SPSS 20.0

The P-Value is 0.000 which is significant at $p \leq 0.05$

Decision: Reject the null hypothesis (H_0), since P-value (0.000) is ≤ 0.05

Conclusion: The analysis shows that there is a significant relationship between forensic accounting and providing legal support services. Therefore, the alternative hypothesis is accepted.

Hypothesis 3

H_0: Forensic accounting has not aided in the prosecution of cases by anticorruption agencies.

H_1: Forensic accounting has aided in the prosecution of cases by anticorruption agencies.

Table 21

O	E	O-E	$(O-EO)^2$	$(O-E)^2/E$
2	27	-25.0	625	23.14815
21	27	-6.0	36	1.333333
29	27	2.0	4	0.148148
54	27	27.0	729	27
29	27	2.0	4	0.148148
		Chi-Square Calculated		51.7778
P-value	0.00000			
Degrees of Freedom	4			

Source: SPSS 20.0

The P-Value is 0.000 which is significant at $p \leq 0.05$

Decision: Reject the null hypothesis (H_0), since P-value (0.000) is ≤ 0.05

Conclusion: The analysis shows that there is a significant relationship between forensic accounting and prosecution of cases by anticorruption agencies. Therefore, the alternative hypothesis is accepted

Summary of findings

The primary aim of this research work is to examine the impact of forensic accounting in fraud reduction in Nigeria. From the result of the analysis of the data in chapter four using the chi-square technique, the following findings were obtained.

1. There is a significant relationship between forensic accountants and fraud reduction in Nigeria.
2. Forensic accounting has a significant impact in providing legal support services in Nigeria.
3. Forensic accounting significantly has aided in the prosecution of cases by anticorruption agencies.

Conclusion

The study therefore concludes that the role of forensic accountant in fraud reduction in Nigeria is vital. Forensic accountants help lawyers, courts and regulatory bodies through application of accounting principles, auditing and investigative procedures in solving certain legal problems. This is because forensic accountants possess skills and experience in accounting, auditing, taxation business operations, management and internal controls. It should be emphasized that whether in the business world or the department of the anticorruption agencies in Nigeria, the ultimate responsibility for discouraging and detecting fraud practices rests with the management. Fraud prevention or reduction therefore is a major aspect of daily business activities which should be performed through engagement of forensic accountants.

Recommendations

Since there is a general belief that no nation can grow when corruption is seen as normal way of life, there is therefore, urgent need to tackle the endemic corruptible tendencies in our companies and politics so that the nation's economy can develop like that of other nations. Based on the findings of this study, the following recommendations will help reduce fraud in Nigeria.

1. The various agencies fighting corruption in Nigeria will need to engage the services of forensic accountant to compliment efforts of other professionals in reducing fraudulent activities and installing fraud proof internal control system in corporate organizations.
2. The government of Nigeria should develop interest in forensic accounting and encourage the efforts of forensic accountants in the monitoring and investigating of suspected and confirmed cases of corruption. Practicing accountants in the country should work towards specialization and possibly establishing firms for forensic accounting practice only.
3. The academia should emphasize skill development in the field of forensic accounting so that students at an early stage would become familiar with it.
4. Professional bodies such as The Institute of Chartered Accountants of Nigeria (ICAN) should ensure they strengthen the services of forensic accounting institutions and the utilization of their services as a way of providing checks to those who have the intention to commit fraud must be emphasized.
5. Corporate organizations should devote time and resources to the research and development of new forensic techniques, not only to develop solutions to existing problems, but also to recognize emerging problems and find realistic solutions.
6. Management of corporate organizations should test controls over a greater period of time, since this provides more evidence of the effectiveness of controls than testing over a shorter period of time. Further, testing performance closer to the date of management's assessment provides more realistic evidence than testing performance in earlier part of the year.

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CORRUPTION IN NIGERIAN PARASTATALS AS AN IMPEDIMENT TO SOCIO-ECONOMIC DEVELOPMENT: THE CASE OF AJAOKUTA STEEL

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Abstract

The purpose of this study is to examine why Ajaokuta Steel Company Limited which was established in 1979 has not produced steel three decades after. Ajaokuta Steel was substantially completed in the 1990s but subsequently progressed no further. The aim of establishing Ajaokuta Steel Company was to take the lead of industrialising, developing, and taking Nigeria and Africa from poverty and unemployment. Questionnaire, interviews, and documents were used to gather data. The interviews from the case site and stakeholders were analysed from the interview transcript and data from the questionnaires were analysed using test statistics. The use of several data collecting methods was to achieve triangulation. The results of the interviews, documents and questionnaire indicated a lack of political will, international and local politics, corruption, military interventions in politics, the location of Ajaokuta Steel, patronage, ineffectiveness of anti-corruption agencies and the practice of abandonment of projects, as reasons why Ajaokuta Steel has not been fully completed. Theoretical framework based on neopatrimonialism was used to guide the researcher in the empirical work and in the study. This is because there is no known use of neopatrimonialism as a theory with parastatal in Nigeria known to the author. The originality of this study also lies with the opportunity of gaining access to interview the staff of ASCL which others found it difficult to undertake. This is a huge breakthrough as that is rare in Africa where there is a huge public sector investment and that investment is moribund.

Keywords: Neopatrimonialism, Political Will, Industrialising, Triangulation and Corruption.

Introduction

Many African countries established parastatals immediately after they obtained independence (Etukudo, 1997), ostensibly consistent with the vision of external agencies to see socio-economic development in these countries (see UNDP, 1997). Parastatals also known as State Owned Enterprises (SOEs) are established ostensibly to provide social goods and services for collective and public use rather than for private gain (Ezzamel and Willmott, 1993). They are managed by the Chief Executives appointed by the government on behalf of the people (Mayston, 1993). African parastatals are to provide goods and services to the citizens of their countries (Adeyemo and Salami, 2008).While

some are established essentially to make profits, others are established to provide essential services at a minimum cost to their citizens. They are separated from the regular bureaucratic ministry to enable them enjoy independence, take quick decisions and compete with their counterparts in the private sector (Babaita, 2001; Mwaura, 2007).

Studies have shown, however, that commercial parastatals have failed to make profits but continued to draw resources from public funds. These studies have highlighted that: parastatals have disregarded the views of relevant stakeholders; government has dictated pricing policies to control inflation thereby distorting the market; governing board members have been mainly failed politicians; parastatals are bedevilled with inappropriate performance measurement and reward systems making them unattractive to ambitious professionals; parastatals suffer from a lack of management independence; and the decision-making process follows bureaucratic procedures which are slow and complex (Etukudo, 1997; Mwaura, 2007; Needle, 2004; Ugorji,1995).

The period of military rule in Nigeria witnessed a massive neglect of a well-contrived State Owned Enterprises (SOEs). For instance, about 11,866 parastatals including Ajaokuta Steel Company Limited (ASCL) established by the Nigerian government between the period of independence and 1999 were abandoned by the Federal Government of Nigeria (FGN) (El-Rufai, 2012). For instance ASCL was abandoned when President Shehu Shagari left the office in December 1983 by the military-led government of General Muhammadu Buhari. Also Bakre and Lauwo (2016) report that over $10 billion was borrowed and invested in SOEs between the period of independence in 1960 and 1999 resulting in over $20 billion foreign debts for Nigerian taxpayers. Revenues from oil and gas were directed to the servicing of the debts. The debt burden led to the abandonment of SOEs and sales of some of them at giveaway prices to cronies (Bakre and Lauwo, 2016).

The aim of this study is to conduct an in-depth study on a single case, exploring ASCL's failure to contribute to socio-economic development. ASCL was established in 1979, and certified 98% completed in the 1990s but has still not been fully completed to start the production of steel. Much publicity has been given to an ASCL issue on the pages of Nigerian daily newspapers and official reports which have carried captions such as: “World Bank cautions Nigeria on outmoded steel mill” (Botha, 2002);“Ajaokuta: The story of a deadly conspiracy” (Samuel, 2003);“Mega Fraud at Ajaokuta” (Melah, 2007); “Ajaokuta: When a challenge defies a nation” (Ezeobi, 2008); “Massive Looting of equipment and property of Ajaokuta Steel Company Limited and National Iron Ore Mining Company, Itakpe” (House of Representatives, 2009); “Nigeria: Why Ajaokuta Steel must be completed” (Inabo, 2010); “We can fix Ajaokuta Steel, NIOMCO with N650m” (Ofikhenua, 2010); and “Ajaokuta, the 31-yr jinxed company” (Alao, 2010). The above captions suggested there was a particularly serious and pertinent case to explore more in-depth into ASCL's case.

Most literature on governance of parastatals in Africa (Etukudo, 1997; Mwaura, 2007; Urgoji, 1995) attribute corruption, inefficiency, and lack of profit as the reasons for SOEs' non-performance and recommend denationalisation of parastatals. They ignored the benefits of SOEs to the general public (Uddin and Hopper, 2003). This paper argues that instead of denationalising, appointments into SOEs should be on somebody's integrity, faithfulness and honesty based on his or her track records. This is because both the private sector and public sector are disposed to corruption (Anwar and Sam, 2006; Klitgaard, 1997; Ugorji, 1995; Wanyama et al., 2009). Privatisation cannot cure corruption (Fitzsimons,

2009). Moreover, difficulty in having access to SOEs in Africa makes governance in parastatals to be under researched (see Agbiboa, 2012; Etukudo, 1997). The theory of neopatrimonialism is used to explain the reason why there is socio-economic underdevelopment and political problems in developing nations (Roth, 1968).

The remainder of this paper is organised into nine sections. Section two gives more contextual insight into the case of ASCL. Section three elaborates the theoretical framework while sections four and five examine corruption and socio-economic development respectively. Section six discusses the research methods. Sections seven and eight present and discuss the empirical findings respectively. Section nine provides the conclusions of the study.

The Ajaokuta Steel Company Limited (ASCL) Case

Steel is the key to industrialisation, economic development and the foundation of human advancement of any nation. Steel company quickens economic, social and political growth; enhances national income earnings; bring important infrastructure and wealth to the rural areas and the per capita consumption of steel is a major index of national prosperity (Federal Republic of Nigeria, 2008). Per capita consumption of steel is one of the parameters for measuring development of a country (Mohammed, 2002a). A nation's military, economic, political powers and technological development are measured by its output and per-capita consumption of steel.

The plan to establish a steel industry in Nigeria started in 1958 before independence (Mohammed, 2002a; Okafor, 2007). However, Western experts back in the 1960s advised Nigeria to concentrate on agriculture (Agbu, 2007; Mohammed, 2002a) because of the high cost of technology and the accompanying infrastructural facilities; lack of skilled people to start a full-scale steel industry; and lack of local market for steel products (Agbu, 2007). However, Nigeria's ostensible quest for development and well-being of her people led to her inviting Soviet experts in 1967 to help establish an Integrated Steel Company at Ajaokuta leading to the feasibility study in 1970 by Soviet steel experts (Agbu, 2007). This decision was taken by the military-led government of General Yakubu Jack Gowon (in power from 1966-1975).

Nigeria Steel Development Authority (NSDA) was established on the recommendation of the Soviet steel experts in 1971 to plan, construct and operate the steel plants; carry out geological surveys, metallurgical research, study the market, and undertake training of staff overseas (Agbu, 2007; Federal Republic of Nigeria, 2008; Mohammed, 2002a). Under the military government of General Olusegun Obasanjo, NSDA was dissolved by National Steel Council Decree No. 60 of 18 September 1979. It was this dissolution that gave birth to Ajaokuta Steel Company Limited (ASCL), to be supervised by the Ministry of Mines and Steel Development.

Ajaokuta Steel is an industrial giant meant to take the lead of industrialising, developing, and taking Nigeria and Africa from poverty and unemployment. Ajaokuta Steel Company Limited (ASCL) is located at Ajaokuta, in Kogi State, Nigeria. ASCL was established in 1979 by the Federal Government of Nigeria (FGN) to earn foreign exchange, stimulate economic growth and to provide materials for infrastructural development, technology acquisition, as well as employment generation and training of labour, income distribution and regional development (Miachi, 2001).

ASCL has 17 major units which include: Sinter Plant, Coke Oven & By-Product Plant, Iron Making Plant (Blast furnace), Steel Making Plant, Billet Mill, Light Section Mill, Wire Rod Mill, Medium Section & Structural Mill, Thermal Power Plant, Forge & Fabrication Shop, Machines and Tools Shop, Foundry Shop, Power Equipment Repair Shop, Rubberising Shop, Lime Plant, Refractory Plant, and Oxygen Plant unit (NATE, 2009). Some of these units were 100% completed but Coke Oven & By-Product Plant is 89. 91% completed; Iron Making Plant (Blast furnace) is 99% completed; Steel Making Plant is 99% completed; Lime Plant is 98% completed; Refractory Plant is 98% completed; and Oxygen Plant unit is 98% completed (NATE, 2009).

ASCL was arranged to be completed in three phases. The first phase production capacity was 1.3 million tonnes annually to produce long steel products for construction industry. The second phase was to produce 2.6 million tonnes annually meant for the production of flat steel products for manufacturing industry. The third phase was 5.2 million tonnes annually for the production of both long and flat of steel products (Agbu, 2007; Mohammed, 2002a).

However, ASCL which was certified by experts to be 98% completed in the 1990s (ASCL website, NATE, 2009) has not started the production of steel. The assessment of the state of readiness of ASCL carried out by the builder (Tyazhpromexport [TPE]) of ASCL in 2000 gave an estimated amount of US $460 million as the money needed to complete, rehabilitate, and commission the first phase of the steel plant (Agbu, 2007). In 2010, the former Minister of Mines and Steel Development, Mrs Alison Madueke, put the missing infrastructures to complete ASCL to include: completion of a rail line from Ajaokuta to Warri, dredging of the River Niger, linking of the Dolomite (Osara) and Limestone (Jakura) mines by rail, dredging and lowering of the Escravos bar (Warri), and the completion of the super-concentrate plant and other auxiliary units (Madueke, 2010). A steel company like ASCL cannot, however, start production of steel until all the units are 100% completed and the missing infrastructures are put in place (Okoroanyanwu, 2008). The uncompleted units and the missing infrastructures represent the remaining 2% as put by experts (NATE, 2009) to start production of steel at ASCL.

The first phase of 1.3m tonnes production capacity of steel per annum was halted in late 1983 when Shehu Shagari was ousted by General Muhammadu Buhari and ASCL was temporarily abandoned. The first phase again almost stopped completely in the mid-90s due to political instability (shifts of military government), interference by the government and poor public services (Mohammed, 2002a, 2002b). ASCL was given in concession to Solgas Energy Limited (SEL) on 13 October 2003 (under a civilian government) in order to rehabilitate complete, commission and operate the Steel Plant and recoup its investment within a period of 10 years, with the concession renewable for another 10 years (Agbu, 2007). SEL could not secure the funds required to reactivate and complete ASCL resulting in the termination of the contract in August 2004 (Agbu, 2007). On 13th August 2004 the FGN, under the same civilian government, entered into another agreement with Global Infrastructure Holdings Limited (GIHL) for the reactivation, completion and operation of the ASCL (Agbu, 2007; Mohammed, 2008). The concession agreement was terminated by the FGN under a new civilian government in April 2008 due to poor performance and failure by GIHL to comply with the major provisions of the agreement (Mohammed, 2008). Following this termination, the FGN approved the constitution of an Interim Management Committee (IMC). The IMC was dissolved and a sole administrator appointed for ASCL under a further new civilian government on 14 November 2012 (Ugeh, 2012).

Neopatimonialism provides for substantively critical framework for analysing the condition of ASCL. The next section discusses neopatrimonialism as the theoretical framework of this study.

The theoretical framework: a critical working of neopatrimonialism

If one wants to carry out a research, one should ask these questions: what do I know about what I want to study? What appropriate theory[1] is there to guide me (Slevin and Basford1999, in Sinclair, 2007)? From the foregoing, for one to appreciate what is happening in ASCL as illustrative of impediments to socio-economic development through parastatals in Nigeria, we suggest that a critical working of the theory of neopatrimonialism will be appropriate. The theory of neopatrimonialism relates to under-development and provides for a substantively critical framework for analysing the condition of ASCL.
Neopatrimonialism is a hybrid word. *Neo-* here denotes *legal-rational bureaucratic authority* in relation to patrimonialism (Erdmann and Engel, 2007). *Legal-rational bureaucratic authority* is obedience not to a person but to an office as spelt out in the rules and other procedures governing an organisation (Wren and Bedeian, 2009). Weber called this *bureaucracy* and described it as:

> *a management approach based on formal organisational structure with set rules and regulations that relies on specialization of labour, an authority hierarchy, and rigid promotion and selection criteria …an embodiment of efficiency, precision, speed, unambiguity, continuity, unity, and strict subordination* (Ivancevich et al., 1994 p.49).

Patrimonialism is where loyalty is owed to those in authority and the exercise of public authority is to serve the personal pleasure of those in authority (Erdmann and Engel, 2007; Ikpe, 2000). Patrimonialism encompasses two dimensions (Erdmann and Engel, 2007; Roth, 1968): *Traditional authority* which means authority that comes from tradition and custom based on hereditary succession to the throne and *Personal authority* which means loyalty based on material incentives and rewards. Under patrimonialism, the ruler is the owner of the citizens and whatever they own (Bovens, 2007; Dubnick, 2002). So there is no difference between the public and private realms as political and state offices are regarded as family fiefdoms operating through patron-client networks (Ikpe, 2000; Johnston, 2015). Patrimonialism is defined as:

> *a social and political order where the patrons secure the loyalty and support of the clients by bestowing benefits to them from own or state resources* (Nawaz, 2008 p.2*).*

The joining together of neo and patrimonialism gives rise to neopatrimonialism. The hallmark of African regimes is neopatrimonialism where leaders lead by personal discretion rather than following the rule of law or ideas where people have respect for persons more than the office he/she occupies; and leaders occupy offices to acquire personal wealth and status rather than performance (Bratton and Van de Walle, 1994; Wren and Bedeian, 2009). Thus, neopatrimonialism can explain why there is under-development, economic, and socio-political problems facing a society (Roth, 1968; Erdmann and Engel, 2007). Nawaz (2008) defines neopatrimonialism as:

> *a system of governance where the formal legal-rational state apparatus co-exists and is supplanted by an informal patrimonial system of governance* (p.2)*.*

Erdmann and Engel (2007) maintain that neopatrimonialism makes the patrimonial authority to penetrate the legal-rational bureaucratic authority and "twists its logic, functions and output" (p.105). It is a threat to the society leading to underdevelopment.
Clapham (1985) defines neopatrimonialism as:

A form of organisation in which relationships of a broadly patrimonial type pervade a political and administrative system which is formally constructed on rational-legal lines and officials hold positions in bureaucratic organisations with powers which are formally defined but exercise those powers so far as they can, as a form not of public service but of private property (p.48).

Neopatrimonialism has the following characteristics: (i) *Clientelism:* This is a relationship that results in give and take of public resources between the *big man* and *small man* for their personal benefits (Le vine, 1980); (ii) *Patronage* is a relationship that results in the distribution of favours to groups by leaders (Erdmann and Engel, 2007); (iii) *Presidentialism* is delegating only trivial decision-making functions by leaders to subordinates while they keep important ones to themselves (Bratton and van de Walle, 1997); (iv) *Nepotism* means giving appointments and promotions to those who the leaders have relationship, or are familiar, with (Erdmann and Engel 2007); (v) *Prebendalism* is when leaders take their political offices as inheritance and use personal discretion in decision making (Ikpe, 2000); (vi) *Corruption* is the misuse of authority given to someone for personal gain (Dike (2005); and (vii)

Ethnicism is being loyal to one's ethnic group than one's country (Agbiboa, 2012).
The decision to use the theory of neopatrimonialism as lens to capture why there is stagnancy in Nigeria's socio-economic development is as a result of Transparency International's (TI) constant rating of Nigeria as one of the most corrupt countries of the world (see TI from 2010 - 2016). Another reason why neopatrimonialism is used for the present study is because of the saying that Nigeria and indeed Africa is very rich in both human and natural resources but most of her citizens are living in abject poverty (Hope, 2005; Lawal, 2007; Uneke, 2010).

According to some commentators, African development, governance, and accountability are threatened and affected by neopatrimonialist supremacy (Akokpari, 2004; Erdmann and Engel, 2007). Neopatrimonialism creates fiscal crises thereby making development difficult and also creates personal loyalty leading to undue favour to some people (Bratton and Van de Walle, 1994).The transfer of state resources to supporters due to personal loyalty leaves opponents in poverty thereby leading to societal crises and preventing honest people from climbing to power. This affects the socio-economic development of a country (Bratton and Van de Walle, 1994; Nawaz, 2008). Neopatrimonialism provides limited accountability, destroys democratic accountability mechanisms, monopolises government power, government in power controls the judiciary, limits access to resources and prevents the State from collecting her full revenue from taxes. This inability of the state to collect her full revenue is so because the appointment of revenue officers is based on patronage to make them accountable to their patrons (Nawaz, 2008; Soest et al., 2011). Neopatrimonialism makes leaders run offices as family fiefdoms and makes it difficult for leaders to maintain proper books of accounts that will enhance accountability (Johnston, 2015). Neopatrimonialism makes the president to be above the law enjoying immunity and controls the state resources as if they were his own properties by jettisoning the state budget. Moreover, during the military regime there will be bold and large scale corruption as the constitution is suspended. They rule by force (decrees), promote ethnicism and patron/client relationship, oppress opponents, disregard human rights, gag the press and do not give accounts of their stewardship to the taxpayers (Ikpe, 2000). The emphasis of neopatrimonialism on leader's personal interest in governance is important as well as the focus on corruption on the analysis of ASCL.

Corruption

These features of neopatrimonialism can all be seen in terms of 'corruption' in a more generic sense. Corruption, from the Latin 'corrumpere' meaning to destroy or adulterate (Grossi and Pianezzi, 2016), is described as diverting what belongs to others for personal ends (Shleifer and Vishny, 1993). It is carried out variously: bribery, extortion, fraud, embezzlement, nepotism (Dike, 2005; Grossi and Pianezzi, 2016; Uneke, 2010) and can manifest incronyism, misappropriation of funds, procurement kickbacks (Myint, 2000; TI, 2010; Zarb, 2005). It can be perpetrated through foreign exchange malpractices including currency counterfeiting, theft of intellectual property, piracy, dumping of toxic wastes and prohibited goods, deception, money laundering, illegal arms deals, smuggling, human trafficking, child labour, illegal oil bunkering, illegal payments, narcotic drugs, illegal mining, tax evasion, rigging of elections and fraudulent business deals (Ribadu, 2006; Smith, 2007). Organisations get involved in corruption for various reasons, including to keep higher prices, sustain a market for out-dated products and continue in competitive fields (Sikka and Lehman, 2015). Corruption's effect is considered similar however it is perpetrated. It is a departure from the usual norm involving taking over collective possessions as if personally owned (Neu et al., 2015).

Klitgaard (1997) and Transparency International [TI] (2010) describe corruption as misusing entrusted power for personal advantage. Corruption is a global problem and a signal that the political, social, economic and legal systems of a country are weak (Global Organisation of Parliamentarians Against Corruption [GOPAC], 2005; Grossi and Pianezzi, 2016). Corruption is not a native of any country, race and society but rears its ugly head in religious societies, public sector, private sector, NGOs, and international organisations (Dike, 2005; Klitgaard, 1997; Ribadu, 2009). Corruption is not only prevalent in developing countries but also common in the developed world (Neu et al., 2015; Shleifer and Vishny, 1993), e.g. the Asian financial crisis of 1997-1998 (Anwar and Sam, 2006), the Maxwell scandal in the UK (Melville, 2007; Solomon, 2010) and Enron, WorldCom and Global Crossing in the US (Yang, 2006). In Africa, for some, corruption continues because predominant African culture sanctions, condones and encourages it (e.g. Agbiboa, 2012). The African continent is rich in agricultural, mineral and human resources but often experiences corruption and neopatrimonial rule so that corruption is often understood to be the main factor of its poverty (Hope, 2005; Lawal, 2007; Shleifer and Vishny, 1993; Uneke, 2010). Poverty is a challenge affecting all races but the gap between the poor and the rich in Nigeria is very wide and many trace it to corruption (see Ali-Akpajiak and Pyke, 2003).

Corruption may be classified as follows. In the first place the corruption involving a huge sum of money is called grand corruption. This involves those politicians occupying elective offices and their accomplices removing huge sums of public money from the state treasury (GOPAC, 2005; Dike, 2005). The causes of grand corruption are covetousness, desire to remain in office, campaign financing, desire to favour friends to win their loyalty and contributions to constituencies electing them (Myint, 2000). The second class of corruption is bureaucratic corruption. Bureaucratic corruption involves inducing the bureaucrat to stimulate him/her to subdue the rules and regulations for personal gain (Dike, 2005; Everett et al., 2007; Lawal and Tobi, 2006; Shah and Schacter, 2004). Another class of corruption is called electoral corruption which involves the buying of votes; forcing people to vote for a particular candidate not accepted by the people; snatching of ballot papers and boxes at gun point and judicial decision in favour of a candidate not accepted by the majority of the people (Dike, 2005). The last class of corruption is state capture/influence peddling: whereby the private sector captures

State actors (legislative, executive and judiciary) for its own purpose (Shah and Schacter, 2004). Multinationals and other contractors are prone to this form of corruption to win contracts from the government, a practice which negatively affects the socio-economic development of especially the developing world (see Klitgaard, 1997; The Corner House, 2000).

Corruption is dangerous to any society as it affects its socio-economic development. It involves using the power of one's position to convert communal wealth into one's personal assets (Lehman and Thorne, 2015). It makes the poor person poorer and the rich richer thus leading to underdevelopment (De Maria, 2009; Englebert and Tull, 2008). It keeps nations poor thereby affecting their socio-economic development (Johnston, 2015).
For Kale (2001), corruption:
threatens the rule of law, democracy and human rights; undermine good governance, fairness and social justice; distorts competition, hinders economic development and endangers the stability of democratic institutions and the moral foundations of society (p.28).

Corruption makes one entrusted with power and authority misuse these (Dike, 2005); endangers national security, quickens international illegality and discourages foreign investment (Leiken, 1996); twists merit standards, leads to higher public procurement but lowers infrastructure quality (Everett et al., 2007); hinders national development through those having offshore accounts and redirecting attention from productive economic activities (Sturges, 2008). It leads to discouragement and loss of professionalism by honest civil servants. Corruption perpetrated by those going into politics to acquire wealth engenders lack of trust in government on the part of international communities and honest civil servants. Some corrupt politicians are more interested in government spending that brings huge bribes. They increase project costs and re-award contracts two or more times (Uneke, 2010). This leads to increased distrust, rivalries, suspicion, selfishness and discouragement of collective action (GOPAC, 2005; Shleifer and Vishny, 1993; Uneke, 2010). Corruption leads to loss of governance, cosmetic accountability, unequal income, loss of competition and retards socio-economic growth (Grossi and Pianezzi, 2016). While African countries continue to borrow money for socio-economic development and keep on repaying debts, the money is being laundered back to the developed world by those in positions of authority (Uneke, 2010).

Socio-economic development
Socio-economic development here means positive increase in the standard of living of people. It may be social, economic, political, cultural, and psychological advancement of a society. A developed society then means a society where poverty, unemployment, and inequality are reduced to the barest minimum. Ighodalo (2012) describes development as empowering people to make choices, making people to participate in decisions that affect them, and to serve as the agent of change. Development is not 'Manna' [2] but got through great human efforts (Hyden, 1994 in Ighodalo, 2012). Development is to ensure that the natural resources are properly extracted and not allowed to deteriorate (see Ighodalo, 2012). Development cannot be attained in a country where there is corruption, disaster, or war.
Social development means enhancement in infrastructural facilities (good roads, rails, and housing); good health care delivery system (availability of hospitals, clinics, doctors, and drugs); and good educational system (availability of well-equipped schools, teachers, lecturers, free or affordable education) (Todaro and Smith, 2003).

Economic development means the upgrade of goods and services of the productive sector of a country (Todaro and Smith, 2003). They further state that economic development is the improvement in the quality and quantity of goods and services delivered to an ordinary man. Todaro and Smith (2003) describe economic development as a means of generating and sustaining an annual increase of a country's Gross National Product (GNP). It is the change involving the advancement of people's welfare and capability in a country.

Socio-economic development is the joining together of social and economic development. The signs of socio-economic development are satisfaction of basic needs (food, clothing, and housing), enhancement of the level of employment, GDP, improvement in the levels of education and quality of life (life expectancy), increase in national self-determination by making countries to be less dependent on others, meeting the needs of the present without jeopardising the needs of the future generations, accountable government and respect for human rights, increased freedom, and participating in the decisions that affect one's life (see Ijere, 2014).

Since independence, Nigeria has often been under military rule [3], which commentators suggest has particularly served as an impediment generally to socio-economic development. For instance, commentators point to the highly militarised political system, breakdown in the rule of law, corruption, pervasive rent-seeking, weak institutional capacity for economic policy management and co-ordination, lack of accountability, inappropriate and indiscriminate allocation of funds, spending on non-productive ventures and the channelling of revenues (e.g. from oil) to military and inappropriate uses (African Peer Review Mechanism [APRM] 2009, p. 47; Bamgboye, 2014). This leads us to research methods.

Research methods

To have first-hand knowledge of what one is investigating, one has to be actively involved in the activity of what is being investigated (Burrell and Morgan, 1979). The current study used:

(i) O*bservation*-In the case site, for instance, the researcher observed administrative staff attending to their paper work while production managers sat idle in their offices. The researcher interviewed some of the idle workers.

(ii) *Semi-structured interview*-Interviews were recorded on a voice recorder, transcribed, highlighted, presented and analysed based on the issues that emerged out of the interviews.

As the case of ASCL is sensitive, data were collected in accordance to opportunities presented and therefore interview was conducted two times. The two interviews cover the same issue and they were jointly analysed. In practice, this meant collection of data in two phases. The first visit was in December 2010 to March 2011. Sixteen people were interviewed in all. Thirteen stakeholders who are Chief Executives Officers (CEO) of parastatals who are not staff of ASCL but know much about parastatals and three ASCL management staff were interviewed. Each interview lasted for forty-five minutes and was recorded after permission was sought from the interviewee. The second visit was in December 2011 to February 2012. Seventeen people were interviewed in the second phase. Ten stakeholders and seven ASCL management staff were interviewed. In total, thirty-three people were interviewed and their voices recorded using a digital recorder after their opinions were sought. The recorded interviews were transcribed and the results written up. There were also informal discussions with several people that were not recorded. This is because some people did not want their voices to be

heard and declined to complete questionnaires. The breakdown of those interviewed is as shown in table 6.1 below.

Table 6.1 List of Interviewees (first and second phases)

Interviewees affiliations	No. of interviewees in the first phase of interviews (December, 2010 March 2011).	No. of interviewees in the second phase of interviews (December 2011 February 2012).	Total
Journalist	2	1	3
Civil servant	5	2	7
Human right activist	-	1	1
Legal practitioner	-	1	1
Politician	1	1	2
Political commentator, analyst and academic	1	-	1
Representative of UNDP, World Bank and non-governmental Organisation	-	1	1
Chamber of Commerce (DG)	1	-	1
Nigeria Labour Congress (NLC)	-	1	1
Academic	3	2	5
ASCL Management Staff	3	7	10
Total	16	17	33

The interview schedule for the first phase of interviews has three parts. The first section of the schedule is directed to politicians from Kogi State where ASCL is sited. The second section questions are directed to other stakeholders (taxpayers/public) [4] and the third section questions are directed to the management of ASCL.

The interview schedule for the second has two parts: the first part deals with other stakeholders (taxpayers/public). This part of the interview is divided into five themes which are: (a) Governance and Accountability in Nigeria; (b) Governing Board of Parastatal organisations; (c) Stakeholders; (d) Perspective on governance and neopatrimonialism; (e) Ajaokuta Steel Complex. The second part of the interview schedule is meant for the management and staff of ASCL. This part is broken down into four themes: governance and accountability in ASCL, governing board of ASCL, privatisation and the

ASCL stakeholders. The interview was brought to an end with the following question for both parts - other stakeholders (taxpayers/public) and management and staff of ASCL: "what do you think should be done to bring the needed change?"

(iii) *Questionnaire Survey* -The questionnaire recipients are ASCL management and staff, politicians, lawyers, medical doctors, civil servants, Ajaokuta community, academics, labour unions, managing director of a private company, journalists and human rights activists who know much about parastatals and ASCL. The use of questionnaire for this study is the need to be anonymous in order to hide the identity of interviewees, protect their jobs and personality. Some respondents who completed questionnaires did not complete the demographic aspect of the questionnaire. Fifty-one questionnaires were given out but fifty were returned. This represents about 98%. Questionnaires were also given to those persons who did not want to be interviewed but were important to this study. The breakdown of the questionnaire distributed is as shown in table 6.2 below.

Table 6.2 Respondents of the questionnaire.

Respondent	Number
ASCL Management and Staff	18
Academic	8
Journalist	4
Civil servant	12
Managing Director of a private company	1
Politician	1
Lawyer	1
Human right activist	1
Labour union member	2
Traditional ruler	1
Other	1
Total	50

The questions in the questionnaire are grouped into A to L. Groups A to C deal with the demographic aspect. Groups D to J use 5 point Likert scale: 1: Strongly agree; 2: Agree; 3: Undecided; 4: Disagree; 5: Strongly disagree. Question K asks the respondents to comment what they think could be done to bring the needed change and Question L is: any other comment(s)? The questionnaire was piloted among PhD students. All errors were corrected before its distribution to the stakeholders and management of ASCL.

(iv) *Analysis of documents* -The following documents were collected from ASCL for this study: letters sent from the Ministry of Iron and Steel Development to ASCL, documents relating to government policies and pronouncements on ASCL. Others are parliamentary debates on ASCL, ASCL progress reports, ASCL accounting statements, ASCL CEO's presentations to the governing board, Memorandum and Articles of Association of ASCL, internal and external documents, and labour union's documents as regards ASCL. Other documents used for the purpose of this study are newspaper reports and ASCL's website. These documents back up interviews and questionnaire to build up validity.

Mixed methods of research was adopted in order to gain the advantages of qualitative and quantitative methods of research and to support in-depth and triangulated research. To confirm research findings, several methods and sources of data can be used (Bryman and Bell, 2007; Collis and Hussey, 2014; Johnson and Christensen, 2012). This is done to reinforce confidence or credibility of research findings. The disadvantage of one method is dislodged by another method's advantage. For example, those who refused to be interviewed were more disposed to complete the questionnaire. The use of theoretical framework in this study, analysis of documents, questionnaire, and interviews confirm that triangulations have been reached. We shall now turn to empirical research findings.

Empirical research findings

For the purpose of analysis the interviewees were coded as follows. The 13 *stakeholders* interviewed in the first phase of interviews are coded as follows: AA1, AA2, AA3, AA4, AA5, AA6, AA7, AA8, AA9, AA10, AA11, AA12, and AA13. In the second phase of interviews, 10 *stakeholders* were interviewed and are coded as follows: AB1, AB2, AB3, AB4, AB5, AB6, AB7, AB8, AB9, and AB10.

Again, the management of ASCL interviewed were coded as follows: the three *management staff* interviewed in the first phase are coded as: MA1, MA2, and MA3. The seven *management staff* interviewed in the second phase are coded as: MB1, MB2, MB3, MB4, MB5, MB6, and MB7.

Questionnaires were given to people who declined to be interviewed but agreed to complete the questionnaires. Fifty-one questionnaires were given out but only fifty were returned; the response rate is 98 per cent. The returned questionnaires were grouped into three according to the careers and status of the respondents. The first group is the staff of Ajaokuta Steel Company limited (18 respondents representing 36%) and given the name - Group ASCL. The second group is academics and journalists (8 + 4 = 12 respondents respectively representing 24%) and given the name - Group ACAJO. The third group is made up of civil servants (12), managing director of a private company (1), politician (1), lawyer (1), human rights activist (1), labour union (2), traditional ruler (1) and other (1) = (20 respondents representing 40%) and given the name - Group CISOT. The grouping is similar to the recent study by Falgi (2009) and Wanyama (2006).

Data obtained from the questionnaires were analysed using Statistical Package for Social Sciences (SPSS). The statements in the questionnaire were on a 5 point Likert-scale. All tests and decisions in this study were based on 95% confidence level. The themes that emerged out of interviews and questionnaires administered form the basis of analysis and conclusions.

Table 7.1Ajaokuta Steel Complex and Neopatrimonialism

Statements	No	Overall Mean	SD	Group Means			K-W P-value	M-W P-values		
				ASCL	ACAJO	CISOT		ASCL-ACAJO	ASCL-CISOT	ACAJO-CISOT
Sa- Ajaokuta Steel was established to promote industrialisation, economic development and to provide employment for Nigerians and beyond.	49	1.12	0.39	1.12	1.00	1.20	0.17	0.40	0.26	0.10
Sb- Ajaokuta Steel is not completed because thegovernment is not willing to complete it.	49	2.02	1.18	1.82	2.17	2.10	0.86	0.58	1.00	0.65
Sc- Government is not willing to commit more money to the multi-billion dollar Ajaokuta Steel Complex because the money will not be used for its intended purpose.	48	2.44	1.33	2.12	2.25	2.80	0.30	0.86	0.14	0.30
Sd- The Russian technology is an out-dated technology.	48	3.48	1.29	3.94	2.92	3.45	0.14	0.06	0.18	0.38
Se The following factors affect Scio-economic development of Nigeria: Se(I)- Ethnicity	47	1.57	0.80	1.50	1.33	1.79	0.31	0.28	0.55	0.15
Se(ii) -Corruption	48	1.12	0.39	1.00	1.00	1.32	0.02*	1.00	0.02*	0.06
Se(iii) -Patronage	47	1.96	0.98	2.37	1.25	2.05	0.01*	0.00*	0.31	0.02*
Sf- Nigeria has adequate structure to bring fraudsters, money launderers and other economic and financial crimes offenders to justice.	50	2.34	1.27	2.94	1.92	2.05	0.02*	0.02*	0.02*	0.63

Note: Table 7.1 shows the results of questionnaires received from respondents. It reveals the statements made and the number that responded, overall mean, the number of respondents that agreed and disagreed to the statement, group means, Kruskal – Wallis (KW) p. value and Mann-Whitney (MW) p. values tests conducted. The table shows the mean responses to the statements at various levels: 1=strongly agree; 2 = agree; 3= neutral; 4 = disagree and 5= strongly disagree. A * indicates significance at the 5% level.

Highlights of research findings

Steel, a life blood of a nation. According to interviewee MB1, ASCL was established to produce steel; serve as the bed rock of Nigerian industrialization and economic development; and to provide jobs and revenue for the country. Similarly, interviewee MA1 posited that steel is a life blood of a nation and a country without steel is just like a human being without blood. Interviewee MB2 argued that a steel company generates employment; steel products are used to produce military weapons; steel products are used for building bridges, rail tracks and houses. Other benefits of steel products are economic competitiveness, national security; and it is the backbone of bridges, skyscrapers, railroads, automobiles and appliances (Umunnakwe, 2009).

Table 7.1 (Sa) supports the views of the interviewees that ASCL was established to promote industrialisation, economic development and provide employment for Nigerians and beyond. Group ASCL revealed the mean of 1.12, group CISOT 1.20, and group ACAJO 1.00. Group ACAJO expressed the highest agreement that ASCL was established to promote industrialisation, development, and provide employment to Nigerians and beyond.

Lack of Political Will. Some interviewees argued that ASCL which was substantially completed in the 1990s has not been fully completed because, according to interviewee MA1, the priority is not there; interviewee MA2, lack of political will; and interviewee MA3 said lack of political will, international and local politics. Interviewee MA1 maintained that ASCL will be completed if FGN takes it as a priority and decides to fund it because it did borrow any money from anywhere to complete the project up to 98%. “Is it because of the remaining 2% that FGN will take loan?” Interviewee MA1 asked. Interviewee AA1 remarked that for ASCL to be completed there must be political will, patriotic zeal, and commitment on the part of the government because excess revenue from the crude oil can take care of that.

Statement Sb in table 7.1 reveals that Group ASCL's mean equals 1.82; group ACAJO's mean equals 2.17; and group CISOT's mean equals 2.10. These mean that all the groups supported the statement with Group ASCL expressing the highest agreement that the FGN can complete ASCL if it wills. However, some respondents argued that, it is not that government is not willing to complete ASCL but when money is budgeted and released, the money will not be used for the purpose intended. This means that the money will be misappropriated. This is the statement Sc with the overall mean of 2.44.

ASCL technology, an out-dated technology. Interviewee AA12 said the Soviet agreed to build Integrated Steel Company for Nigeria because they were looking for a place to dump their obsolete equipment. Some of the interviewees are of the opinion that it may be that the technology paid for may not be the one supplied. Other interviewees such as interviewee AB10 posited that the machines are obsolete, ought to be upgraded, and we don't need such gigantic or massive technology. In 1990, according to interviewee AA1, Japanese experts were invited to assess the viability of ASCL. The Japanese experts suggested that the company should be dismantled for it to be revived. In 2001, Hacht Associates was invited through a privatisation agency to assess the workability of ASCL but reported that Ajaokuta was not worth it and that ASCL should be turned to a power generating plant (Ayorinde, 2012). In addition, the World Bank Chief, Nicholas Stern, in July 2002 said, Soviet-era (1970s) technology is a drain on a nation's resources (Botha, 2002). In the same vein, the United Kingdom Department For International Development (DFID) evaluated the economic viability of ASCL as marginal (Chukwu, 2013).

However, interviewees MA2 and MA3 argued that Russian technology is a rugged technology and there is no way the USSR technology can be converted into USA technology after it has been substantially completed. The problem with ASCL, according to interviewees MA2 and MA3 may be because it is a Russian technology and not western technology. The USSR technology, according to MA1 and MA2, was used to produce iron rods and wires by GIHL between 2004 and 2008 in the completed rolling units. In 2009, Nigerian Association of Technologists in Engineering (NATE) noted that technology, if it cannot meet the need of that time can be modified to suit the need of the moment and not totally jettisoned as some may suggest.

Table 7.1 (statement Sd) reveals that majority of the respondents disagreed with the statement that ASCL technology is an out-dated technology. The overall mean equals 3.48, Group ASCL's mean = 3.94, and group CISOT's mean = 3.45. While Groups ASCL and CISOT narrowly expressed disagreement with the statement, Group ACAJO (2.92) narrowly supported the statement.

International and Local politics. Interviewee AA1 stated that the world powers like USA and other European countries will not like any other products to compete with theirs in African markets. But interviewee AA13 asked "were there no international conspiracies before the company was 98% completed?" Interviewee AA6 however, argued that what is needed is a strong political will and patriotism because competition exists in all areas of human life both locally and internationally.

The feud between Western bloc and Eastern bloc was also cited by some interviewees as the reason why ASCL was not completed. This, according to the interviewees, may be the reasons why many European countries and western agencies are describing ASCL technology as drains on resources and its economic viability as minimal. On the other hand, the former Soviet Ambassador to Nigeria, Vladimir Snegirev, in 1983 declared that:

> *we agreed to build this project for your country at a time when no other country in the world wanted to" (*Alli-Ballogun, 1988 p.623).

This statement suggests that ASCL is experiencing a challenging time.

The condition of ASCL on the other hand as mentioned by the interviewees is prompted by local politics. This is because those importing steel products are afraid of being thrown out of business. All these are contributory factors working against the completion of ASCL.

Military interventions in politics. Military regimes in Nigeria, according to interviewee AA13, are responsible for ASCL problems as they do not give representation to any people. Interviewee AA13 maintains that various military regimes made ASCL a conduit pipe through which resources allocated to ASCL in the budget are siphoned. For example, a dedicated and special account amounting to $12.4 billion being the excess revenue from the crude oil sold during the Gulf War in 1991 with the Central Bank of Nigeria (CBN) depleted to $200 million in June 1994 (Agbiboa, 2012; Apter 2005). The fund, according to Agbiboa (2012) and Apter (2005) was meant for three major special development projects which are the Shiroro Hydro-Electricity project, ASCL and National Iron Ore Mining Company (NIOMCO), Itakpe. The account and its content were discovered when the FGN set up a panel headed by Dr. Pius Okigbo in 1994 to investigate the activities of the CBN and to recommend measures for the re-organisation of the apex bank (Nnochiri, 2012; Tsa, 2012). General Ibrahim Babangida, however, said that the $12.4 billion meant for the completion of ASCL and two others was not stolen but used for regenerative investment and critical infrastructure such as building of Abuja City and Lagos Third Mainland Bridge (Daniel, 2015).

Moreover, General Sani Abacha, according to scholars, fronted a debt buy-back involving ASCL in 1996, by withdrawing the sum of $2.5 billion from the Central Bank of Nigeria (CBN) meant to settle the debt owed the Tiazhpromexport of Russia for building ASCL. He negotiated with the Russians for a debt buy-back in which he gave $500 million to the builders of ASCL and took $2 billion (Administrator, 2011; Agubamah, 2009; BBC NEWS, 1998; Daniel and Freeman, 2007; Obadina, 1999; Oyediran, 1998). These actions by the military affected the completion of ASCL.

Location of ASCL. ASCL was located at Ajaokuta after feasibility studies were carried out by the Russian steel experts (Agbu, 2007; Mohammed, 2002a). Interviewee AA5 posited that all the relevant natural resources for the siting of a steel industry are available in Kogi State.
However, Agbu (2007) argues that ASCL was located at Ajaokuta by political permutation of politicians. For this reason, interviewees AA1, AA2, AA3, AA5, AA7, AA8, AB1, AB2, AB3, AB6, AB7, AB9 and AB10 considered the location of ASCL as one of the reasons for its non-completion.
Dissolution of Nigeria Steel Development Authority (NSDA). NSDA was established in 1971 on the advice of the Russian steel experts that built ASCL (Federal Republic of Nigeria, 2008). However, NSDA was dissolved in 1979 and the Ministry of Mines and Steel Development became ASCL's supervisory Ministry (Mohammed, 2002a). After the transfer of ASCL to the ministry:

> *a lot of activities were then haphazardly embarked upon; lots of inflated subsidiary projects were being simultaneously chased* (Mohammed 2002a, p.1).

Ethnicity. Table 7.1 (Se{i}) revealed that ethnicity affects socio-economic development. The overall mean is 1.57 and the group means equal ASCL = 1.50; ACAJO = 1.33; and CISOT = 1.79. This reveals that ethnicity affects socio-economic development. In Nigeria, even political parties are formed along ethnic/geo-political zones.

Corruption. Statement Se (ii) in table 7.1 examined corruption as one of the characteristics of neopatrimonialism. The overall mean of 1.12 and the group means (group ASCL= 1.00; group ACAJO= 1.00; group CISOT= 1.32) reveals that there is corruption in Nigeria. KW p.value and MW p.values are significantly different. Groups ASCL and CISOT are significantly different. Groups ASCL and ACAJO have higher agreement than group CISOT to the presence of corruption in parastatals in Nigeria. Interviewee MB4 argued that corruption is the enemy that is withholding the completion of ASCL and said it is the greed of technocrats who are not patriotic. He further contended that corruption was exhibited while drafting the concessional agreement with Global Infrastructure Holdings Limited (GIHL) that made no provision for the input of the office of Attorney-General of the Federation (AGF). Interviewees AA1, AA2, AA6, and AB1 pointed out that the process of concessioning ASCL to GIHL is fraudulent and GIHL manifested that fraud through the cannibalisation and vandalization of plants and equipment, and lack of maintenance of equipment.

The Pohang Steel Company Limited (POSCO) of India which is the 10th largest steel company in the world today is said to be state owned, have similar design, and took off almost at the same period with ASCL but ASCL is yet to be completed (Okafor, 2007). This is linked to corruption. Dr Mohammed Sanusi who is the secretary-general of African Iron and Steel Association (AISA) remarked that the cost of the first phase of ASCL which was originally put at $1.5 billion has now gulped about $6 billion and yet to be completed. He remarked that a contract that is supposed to cost the government five million naira will be corruptly tripled to fifteen million naira in Nigeria (Kadiri, 2012).

Patronage. The examination of table 7.1 (Se{iii}) revealed that patronage [5] affects socio-economic development of a country and it is one of the characteristics of neopatrimonialism. The overall means is 1.96 meaning that patronage affects a country's development.

Ineffectiveness of anti-corruption agencies. Table 7.1 (Sh) shows that there are enough structure in Nigeria to deal with frauds, corruption, money launderers and other economic and financial crimes offenders. In Nigeria, there are structures like Economic and Financial Crimes Commission (EFCC), Code of Conduct Bureau (CCB), and Independent Corrupt Practices and other related offences Commission (ICPC) to deal with corruptions and other fraudulent practices. ACAJO is of the opinion that anti-corruption agencies in Nigeria are capable of tracking down financial and economic crimes offenders. ASCL (2.94) and CISOT (2.05) are of the opinion that the performances of the above agencies are below expectation.

Discussion of findings

This study investigated corruption in Nigeria with an in-depth examination of ASCL. Neopatrimonialism was used to guide the researcher into knowing what is happening in ASCL and this guided the particular application of the methods. Neopatrimonialism as noted earlier is when a leader converts what belongs to the people into his personal properties and takes the office he occupies as a personal inheritance and owes no accountability to anyone (Ikpe, 2000). The major findings of this study are highlighted and discussed below.

First, *lack of political will.* This means that the leader has no interest in completing a project embarked upon by his/her predecessors but may want to re-locate the same project to his/her own ethnic place of origin. This action takes place when the leader according to the interviewees has the intention of relocating the project to the area he hails from and to re-award the contract to friends, relations, classmates and political associates. Ethnicism and nepotism are characteristics of neopatrimonialism. This is consistent with other findings that people in government are loyal to their ethnic place of origin since Nigeria's independence in 1960 (Agbiboa, 2012; Akinola, 1988; Salawu and Hassan, 2011). Lack of political will is traced to the politicians' self-interest in seeking what is the best for themselves, families, friends and ethnic groups (Balko, 2013; Urgoji, 1995). Mohammed and Yusuf (2004) argue that Nigerian leaders' political will can only be stimulated if they place their love on their country above themselves, families, friends and ethnic groups.

Second, the staff of ASCL and other stakeholders interviewed were of the view that ASCL was not completed because it *was not located* in the region of one of the major tribes in Nigeria. They argued that the locational issue was the key factor and not the feasibility of the site. Agbu (2007) argued that Ajaokuta is a feasible site. Agbu (2007) earlier agreed with Mohammed (2002a) that Ajaokuta was a feasible location for the steel as recommended by the Russian experts that undertook the feasibility study and that the needed raw materials are available in Ajaokuta (Agbu, 2007; Oyeyinka and Adeloye, 1988). Since independence in 1960, those in leadership positions are interested in siting public projects in the areas where they come from (Agbiboa, 2012). *Ethnic preferencing* is one of the characteristics of neopatrimonialism. It is where a leader prefers to take a parastatal to notwithstanding the suitability of the environment and the availability of the needed raw materials for the industry (Agbiboa, 2012; Akinola, 1988; Iyoha, 2008; Salawu and Hassan, 2011).

Third, ASCL was labelled *out-dated technology* because the western countries advised Nigeria to concentrate on agriculture when Nigeria approached western experts in 1958 for the establishment of a steel company (Agbu, 2007; Mohammed, 2002a). However, interviewees argued that Global Infrastructure Holdings Limited (GIHL) turned out iron rods and wires from the completed rolling mill units during GIHL's period in ASCL. Majority of the interviewees and technology experts argued that technology cannot be wholly jettisoned but modified to meet the need of the moment. The reason for saying ASCL technology is an out-dated technology could be to flood African countries with their steel products and to possibly advocate for another steel company to be built for Nigeria instead of ASCL. When people impose their personal interest on people for their personal gain, it is neopatrimonialism. Other interviewees are of the views that the technology that Nigeria paid for was short-changed as it is supplied out-dated technology. This is done for personal gain. It is corruption which is in line with the argument of Sikka and Lehman (2015).

Fourth, *military interventions in Nigerian politics* have affected the completion of ASCL. Various amounts set aside for the completion of ASCL were either removed out-rightly or misappropriated by the military without accountability. This is prebendalism (a characteristic of neopatrimonialism) where a leader takes his political office as inheritance and use personal discretion in decision making (Ikpe, 2000). Military regimes give no room for criticisms and accountability (Brinkerhoff and Goldsmith, 2002).

Fifth, another factor considered by interviewees to be the reason why ASCL has not been completed is *corruption*. Interviewees argued that the concessional agreement between FGN and GIHL was done without the input of the Attorney-General of the Federation. This is considered to be fraudulent and with the intention to evade accountability. Where a decision is taken secretly without people's involvement, it is neopatrimonialism (Brinkerhoff and Goldsmith, 2002). This is in agreement with the previous studies which maintain that ASCL is in its present condition because of inflated contracts and ministerial mishandling (Alli-balogun, 1988; Kadiri, 2012; Mohammed, 2002a).

Sixth, *the dissolution of Nigeria Steel Development Authority (NSDA)* was considered to be another reason why ASCL has not been completed. The action by politicians to make the Ministry of Mines and Steel Development the supervisory ministry of ASCL may on the face of it suggest that they intended to interfere in ASCL's activities and to neopatrimonialise ASCL. This will make the ministry to take over the decision making on ASCL thereby side-lining the steel professionals in NSDA. The NSDA was established on the advice of Soviet experts. In Singapore, a similar independent body, Temasek Holdings Limited (THL) was set up for parastatals, which controls and directs them, and gives account to Singapore people (Anwar and Sam, 2006).

Seventh, *the inconsistency in government policies* by neglecting projects initiated by the previous government, ASCL has been greatly affected. This is done in order to start a similar project elsewhere so as to have advantages of awarding a new contract with its kickbacks. It shows lack of respect for continuity (Okafor, 2007). This is neopatrimonialism where a leader awards contract to people who are his relations, friends and political associates (Balko, 2013; Urgoji, 1995).

Eighth, *Ineffectiveness of anti-corruption agencies*. The Independent Corrupt Practices and other related offences Commission (ICPC) and the Economic and Financial Crimes Commission (EFCC)

are the two major anti-corruption agencies in Nigeria. They have the functions of curbing bribery and corruption, fighting economic and financial crimes; investigating, preventing and prosecuting those that are corrupt (EFCC Act 2004; ICPC Act 2000; Sec.46; Iyoha and Oyerinde, 2010). These agencies have defects: weak in implementing the anti-corruption laws. The courts are weak and the agencies teach offenders how to escape the anti-corruption laws. Corruption offenders hire senior lawyers to evade justices in law courts. The executive arm of government interferes in the operation of the agencies by setting free their favourites. The agencies are poorly funded and they are under staffed. There is no protection for whistle blowers and no special court is available to try accused persons. These weaknesses are affecting EFFC and ICPC in performing their functions effectively. Respondents and interviewees suggested a special court for the EFCC as a remedy to some of these anomalies.

Government interference and impunity have made some offenders to go scot-free. This is in line with Goldsmith (2007) who states that government gives preferential treatments to some people and make them to go without being punished. This action by the government makes the work of EFFC and ICPC difficult. Government interference in the work of EFFC and ICPC can be argued to be *patron-client* relationship.

Due to foregoing, especially given the perception of sabotage and mischief, African governments advised by the World Bank (Ariyo and Jerome, 1999) subsequently followed a trend from the developed world by "hollowing out" [6] parastatals (Rhodes, 1997 p.53). It is also because of the lack of good governance and accountability in the public sector that has prompted the World Bank to encourage countries to privatize parastatals, introduce budgetary discipline, decentralise administration, encourage market competition and make greater use of non-governmental organisations to achieve efficiency in the public service (Rhodes, 1997).

Most developing countries are beginning to follow this step, especially as it is required by the World Bank and other lending agencies as a condition for loans and aids (Uddin and Hopper, 2003). Nigeria promulgated the Nigerian Privatisation and Commercialisation Decree No. 25 of 1988 and subscribed to the view that business should be left in the hands of professional people (Ahunwan, 2002).

Conclusion

This paper analysed corruption in Nigeria using ASCL as a case. The central question is: "why has ASCL experienced serious delays in steel production over the period since 1979 to date?" The following emerged as the reasons why ASCL has not been completed based on the documents consulted, interviews conducted and the questionnaires administered: (i) lack of political will; (ii) ASCL technology, is an out-dated technology; (iii) international and local politics; (iv) military interventions in politics; (v) corruption; (vi) location of ASCL; (vii) dissolution of NSDA; (viii) inconsistency in government policies. The theory of neopatrimonialism has been used as a search light to discover what ASCL is experiencing. Neopatrimonialism is based on the principles that people in authority convert public resources for personal use.

The industrialisation of a country depends on its access to iron and steel. From the foregoing, it is recommended that: Leaders should exercise political will and courage to complete ASCL. Leaders should be consistent in their policies and monitor their implementation. Government is a continuum and therefore a new government should continue with the projects initiated and embarked upon by the

previous government. The military should face their constitutional duties. Political offices should be made less attractive to Nigerians; ASCL, if not privatised, should have a supervising agency other than the Ministry of Mines and Steel Development to avoid interference. Leaders should avoid sentiment and ethnicity. A special court should be established for the EFFC and ICPC to enable them prosecute economic crime offenders to hasten unbiased justice.

The decision to limit the study to ASCL without comparing it with a similar organisation is a limitation of this research. The circumstances surrounding ASCL necessitate a holistic and an in-depth study to unearth the reasons for stoppage of work for over two decades ago. Also the limitation of non-comparison with similar organisation is due to time factor, lack of resources, and difficulty in gaining access to parastatals. With the foregoing shortcomings of case study, to generalise the findings of this study may not be appropriate.

This study contributes to the literature on corruption in Nigeria. The theoretical framework of this study relates to developing countries. It is most suitable to the case under investigation.

Further research may look at two or more cases. The theory of neopatrimonialism could be used to compare ASCL with other parastatals or private steel companies in Nigeria. The researcher can also investigate in-depth into the international communities' connections with ASCL's case and international agencies suggestions concerning ASCL.

Notes

1. A theory gives new insights and broadens one's understanding of a phenomenon (Anfara and Mertz, 2006).
2. Miraculous food – something obtained without effort (Collins Dictionary and Thesaurus, 2000).
3. In all the Nigerian military ruled for 29 years up to 1999 from 1966: Nnamdi Azikiwe (Governor-General) and Tafawa Balewa (Prime Minister) 1960-63; Tafawa Balewa (Prime Minister) and Nnamdi Azikiwe (Ceremonial President) 1963-1966; Gen. Aguiyi Ironsi(Military) Jan. 1966-July 1966; General Yakubu Jack Gowon (Military) 1966-1975; Gen. Murtala Muhammed (Military) 1975-1976; Gen. Olusegun Obasanjo (Military) 1976-1979;AlhajiShehu Shagari (Civilian) 1979-1983; Gen. Muhammadu Buhari (Military) 1983-1985; Gen. Ibrahim Babangida (Military) 1985-1993; Earnest Shonekan (undemocratic civilian-no voting-installed by the military) August 1993-Nov. 1993; Gen Sani Abacha (Military) 1993-1998; Gen. Abdulsalami Abubakar (Military), 1998-1999;Chief Olusegun Obasanjo (Civilian) 1999-2007;Alhaji Musa Yar'Adua (Civilian) 2007-2010;GoodluckEbele Jonathan (Civilian) 2010-2015; Muhammadu Buhari (Civilian) 2015-To date.
4. The taxpayers/public in this case are the civil servants, journalists, lawyers, academics, doctors, and others within sights into parastatals.
5. Patronage is also one of the characteristics of neopatrimonialism which means politically motivated distribution of favours to ethnic groups by a leader (Erdmann and Engel, 2007).
6. Introducing private sector management principles into the public sector or privatising parastatals (Rhodes, 1997).

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COMBATING FINANCIAL CRIMES: THE ROLE OF ACCOUNTANTS AND EXTERNAL AUDITORS
(A Study of First Bank of Nigeria Plc)

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Abstract

Financial crimes are on the increase in the financial sector despite the deployment of modern evolving technologies. This has created a need for the anatomy of financial crimes in the banking sector as this study focused on the role of accountants and external auditors in combating financial crimes in the financial sector. First Bank of Nigeria Plc was selected as a case study. The data collection technique used for this study is questionnaire. The respondents are made up of management staff, accountants and compliance officers of First Bank of Nigeria Plc. Data was analyzed through the use of simple percentages, tables, and Pearson Correlation Coefficient statistical method was employed for testing the hypotheses. The findings of this work revealed that accountants and external auditors play indispensable roles in fraud detection. Also, the existence of fraud in the organization is due to poor management oversight, ineffective internal control system and corruption. Based on these findings, it is recommended that First Bank of Nigeria Plc should ensure continuous policy and strategy reinvention aimed at effective and efficient management. Management should continually engage the services of qualified and experienced external auditors and put in place an effective internal control system, continuously enhanced to deliver on purpose. Finally, education, proper enlightenment and above all self-discipline are recommended to step down the level of financial crimes in the financial institutions in Nigeria.

Keywords: audit, detection, financial crimes, financial statements, fraud

Introduction

The accounting profession in Nigeria has caught the media's attention following financial scandals in some of the Nigerian banks which included the former Intercontinental Bank, Oceanic Bank, Afribank, and Bank PHB among others as reported by Waziri (2009). There seems presently to be a misconception that auditors' duties are largely the detecting of fraud.

The role of the auditor has not been well defined from inception. In the nineteenth century, auditors claimed fraud detection as an audit objective. In Re: London and General Bank (No. 2) [1895] 2 Ch. 673, Lindley stated that it was the auditor's duty to report to shareholders all dishonest acts which had occurred and which affected the propriety of the contents of the financial statements (Porter, 1997). However, the learned judge also argued that the auditor could not be expected to uncover all fraud

committed within the company, since the auditor was not an insurer or guarantor, but was expected to conduct the audit with reasonable skill and care in the circumstances.

By the 1930s, it became generally recognized that the principal audit objective was the verification of accounts (Vanasco, 1998). The profession took the position that fraud detection was management's responsibility since management had a responsibility to implement appropriate internal control systems to prevent fraud in their organizations.

This was as a result of the increase in size and volume of companies' transactions that made it virtually impossible for the auditor to examine all transactions (Porter, 1997). Auditors used sampling and testing procedures, which offered only reasonable assurance of the contents of financial statements.
By 1960s, there was widespread criticism from the press and the general public of the profession's denial of responsibility for detecting fraud (Morrison, 1970, cited in Porter, 1997). The author also argued that the press and general public considered an audit useless if it was not designed to uncover major frauds (Morrison, 1970, cited in Porter, 1997). Despite the criticism, auditors continued to minimize the importance of their role in detecting fraud and continued to stress that it is the role of management.

By publicly disclaiming responsibility for detection of fraud, external auditors wished to avoid or minimize legal liability in order to protect them from legal claims holding them responsible for fraud (Humphrey, Moizer & Turley, 1993; Vanasco, 1998). From the 1980s, as a result of technology, the complexity and volume of fraud have posed severe problems for the corporate world. However, Porter (1997) argued that, although case law has determined that in some circumstances auditors have a duty to detect fraud, the courts have attempted to maintain that duty within reasonable limits.

Financial crimes represent any non-violent offence or fraud, committed by or against an individual or organization which results in a financial loss. When such a crime contains the involvement of a financial institution, the crime is referred to as a financial sector crime. According to Okoye (2013), fraud can be characterized by the following elements: (i) Intent to commit a wrongful act or to achieve a purpose inconsistent with law or public policy; (ii) Disguise of (purpose): falsifications and misrepresentations employed to accomplish the purpose; (iii) Reliance by the offender on the ignorance or carelessness of the victim (s); (iv) Concealment of the violation. In their survey of most-senior financial crime practitioners across the globe, Deloitte (2014) concluded that financial crimes have become a stay-awake issue for corporate directors and C-suite executives at banks and other financial institutions around the world, with the imperative difficulty in quantifying the costs of financial crime — which can include direct losses, fines for non-compliance, and reputational damage to organizations.

Therefore, the main objective of this study is to determine the role of accountants and external auditors in financial crime detection, to address the expectation gap in fraud detection, to prove how availability of proper financial records and effective internal control system will assist in financial crime detection and identify tools used by external auditors in combating such financial crimes.

Hypotheses

For this paper, the following null hypotheses were formulated and they seek to answer some of the

research questions which will be later tested by the use of Pearson Correlation Coefficient statistical tool.

Ho1: There is no significant relationship between the role of the accountants and financial crime detection in the financial statements of First Bank of Nigeria Plc.

Ho2: There is no significant relationship between the role of the external auditors and activity of internal auditor and internal control department as it relates to financial crimes detection.

Ho3: There is no significant relationship between the qualification and experience of external auditors and financial crimes detection in banks.

Literature Review

Concept of Audit

The roles and performance of external auditors in financial crimes detection in any organization are principally based on the concepts of auditing. Tandon, Sudharsanam, and Sundharabahu (2006) defined audit to mean a critical and intelligent examination of facts-financial and otherwise, to give in the form of certificate or report, an attestation, an expert opinion or an expert advice. This definition viewed audit beyond the examination of financial statements only but also includes non-financial events of an organization and goes further to portray explicitly that the exercise is carried out by one who is a professional as in terms of being a chartered accountant. In another definition, the concept is viewed as a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users (Messier, 2003). Also, the Institute of Chartered Accountants of Nigeria [ICAN](2009), cited in Egbunike, Egbunike & Okafor (2017) defined auditing "as a systematic process of objectively obtaining and evaluating evidence in respect of certain assertions about economic actions and events, to ascertain the degree of correspondence between those assertions and established criteria and reporting the results to interested parties". This shows that audit is both an investigative and reporting process.

However, the most widely accepted definition of audit is that provided by the International Auditing Guidelines (IAGs) issued by the International Federation of Accountants Committee (IFAC) cited in Dandago (2002). Audit according to the guidelines is an independent examination of, and the expression of an opinion, on the financial statements of an enterprise, by an appointed auditor, in accordance with his terms of engagement and the observance of statutory regulation and professional requirements.

Thus, we see an audit an evaluation of a person, organization, system, process, enterprise, project or product to ascertain compliance to set rules and standards and reporting thereon to aid effective business decision making. This entails that audit and audit report has an intrinsic function of enhancing the confidence of decision makers on the audited financial statements.

Other concepts of Audit include the following:

Auditors Independence: Independence is the keystone upon which the respect and dignity of a profession is based. Independence implies that the judgment of a person is not subordinate to the wishes or directions of another person who might have engaged him to his own self interest. This goes to underscore the opinion of Okoli, A.O (2014) cited in Egbunike, Egbunike and Okafor (2017) that

independence refers to the quality of being free from influence, persuasion or bias, the absence of which will greatly impair the value of the audit service and the audit report.

True And Fair: The phrase "true and fair" in the auditor's report signifies that the auditor is required to express his opinion as to whether the state of affairs and the rest of the entity as ascertained by him in the course of his truly and fairly represented in the accounts under audit.

Audit Evidence: This refers to information used by the auditor in arriving at the conclusions on which the auditor's opinion is based. This will include information contained in the accounting records underlying the financial statements and other information obtained for the purpose of the audit.

Concept of Fraud and Crime Detection

Financial Crimes is one of the besetting evils of our time. While less dramatic than crimes of violence like murder or rape, financial crimes and fraud can inflict significant damage at individual, organizational and national levels.

Fraud is a concept that seems to have an obvious meaning until we try to define it. As fraud exists in many different guises, it is necessary to carefully define what it is and to tailor policies and initiatives accordingly. Developing a definition of fraud and crimes is an early step of a prevention program. In order to be involved in the protection function, people at all levels of an organization must be knowledgeable about fraud.

Ladan (2005) in Okoye and Gbegi (2013) defines financial crime as a conduct or a malpractice or a criminal act, which is detrimental to the interest or development or well being of the financial sector of the economy, which are prohibited and are punishable by the laws of the nation. According to Okoye, Maimako, Jugu, and Jat, (2017), fraud is a generic category of criminal conduct that involve the use of dishonest or deceitful means in order to obtain some unjust advantage or gain over another.

Financial crimes manifest in different formats which include the following:

Cheque kiting: Cheque kiting involves a system which by when a cheque is deposited to a bank account, the money is made available immediately even though it is not removed from the account on which the cheque is drawn until the cheque actually clears.

Forgery and Altered Cheques: Fraudsters have altered cheques to change the name (in order to deposit cheques intended for payment to someone else) or the amount on the face of cheques. Simple alterations such as changing N100.00 into N10,000 is among the commonest of the category.

Accounting fraud: In order to hide serious financial problems, some businesses have been known to use fraudulent bookkeeping practices to overstate sales and income, inflate the worth of the company's assets, or state a profit when the company is operating at a loss. These tampered records are then used to seek investment in the company's bond or security issues or to make fraudulent loan applications in a final attempt to obtain more money to delay the inevitable collapse of an unprofitable or mismanaged firm. Examples of accounting frauds include the cases of Enron and WorldCom and Ocala Funding. These companies "cooked the books" in order to appear as though they had profits each quarter, when in fact they were deeply in debt.

Fraudulent Loans: One way to remove money from a bank is to take out a loan, a practice bankers would be more than willing to encourage if they know that the money will be repaid in full with interest. A fraudulent loan, however, is one in which the borrower is a business entity controlled by a dishonest

bank officer or an accomplice; the "borrower" then declares bankruptcy or vanishes and the money is gone. The borrower may even be a non-existent entity and the loan merely an artifice to conceal a theft of a large sum of money from the bank.

Booster Cheques: A booster cheque is a fraudulent or bad cheque used to make a payment to a credit card account in order to "bust out" or raise the amount of available credit on otherwise-legitimate credit cards. The amount of the cheque is credited to the card account by the bank as soon as the payment is made, even though the cheque has not yet cleared. Before the bad cheque is discovered, the perpetrator goes on a spending spree or obtains cash advances until the newly-"raised" available limit on the card is reached before the original cheque is bounced.

Bankruptcy fraud: This is a situation in which businesses or individuals conceal their assets, falsely claim bankruptcy, mislead creditors and file multiple bankruptcy claims.

Bribery: This is a crime which involves the use of money, favor or other valueables is promised to, given to, or taken from an individual or corporation in an attempt to sway his or its views, opinions, or decisions.

Embezzlement: This occurs when an individual who has been entrusted with funds steals them for his own personal benefit.

Identity fraud: This involves the theft of another person's personal information which can be used to opening accounts, withdraw funds, and obtain loans or committing other serious crimes.

Insider trading: This involves the use confidential information to reap profits or avoid losses on the stock market.

Securities fraud: This involves the intentional deception of investors in order to obtain financially benefits by the perpetrator. Various methods of manipulations and misrepresentations can constitute securities fraud.

Trade secret fraud: This involves the theft of a confidential plan, formula, idea or collection of information that could benefit an individual or business organization.

Effective Auditing and Fraud Detection

External auditors have an integral role to play in the fight against fraud and allied malpractices in First bank of Nigeria Plc. By virtue of duty, the external auditors are supposed to serve as watchmen on behalf of management, shareholders, depositors and the entire society in the organization by planning and executing their audit assignments in a manner that leaves no material fraud, error and any other irregularity undetected and reporting same via the audit report to concerned parties for necessary action and decisions.

According to Dick, Morse and Zingales (2008), external auditors have a significant role to play in the detection and prevention of fraud because they are not only agents of the shareholders but their access to internal and external information makes them efficient monitors. Lorsase (2004) notes that

when fraud occurs in the work place, the question that is always asked is "where are the accountants and auditors?" This clearly shows the level of responsibility and confidence the society bestow on auditors in financial crimes and fraud detection and prevention in organizations. The detection and prevention of crimes and fraud in the banking industry should therefore be considered by auditors of banks as one of their most important duties whether explicitly or implicitly stated in the statutory requirements.

According to Koholga (2010), the external auditor's crucial role rest in the critical review of the internal control systems in operation in the banks to ensure their continued applicability and relevance in detecting and preventing fraud. An effective and functional internal control system is an indication that the system is devoid of malpractices. The auditor, through his reviews, should be able to dictate areas in which management themselves override controls.

Though the task of uncovering management fraud may be a difficult one since they are in a position to override internal controls and can conceal any misstatement, Deshmukh, Karim and Siegel (1998) postulates that auditing can detect management fraud. The evaluation of established internal control system in terms of its effectiveness and applicability and reporting appropriately on the weaknesses, making recommendations on how to overcome the identified weaknesses is an important input of the professional auditor in sanitizing banks of fraud and other malpractices. In their submission, Deloitte (2014) identified that the threat of financial crime runs the gamut of financial fraud and abuse such as money laundering, bribery and cybercrime, which eventually has become too broad to be handled by established divisions or departments of the financial institutions.

It is necessary for external auditors to embark on reviews of the system to be satisfied that an effective system of internal check capable of forestalling crimes and fraud is in existence and is operating satisfactorily. Where it is discovered that existing internal controls systems are defective and cannot sufficiently prevent the commission of frauds, the auditor should suggest a better system that may be adequate and which is clear and practicable to strengthen the system against fraud. Though in the conduct of audit, the external auditor may have to rely on the internal auditor's work, the degree of reliance as stated by Dandago (2002) should strictly be based upon the organization, qualifications and effectiveness of the internal audit department of the bank. Reliance should be placed in a situation where he satisfies himself among others that, the internal auditor is independent of the chief financial executive, free from operating responsibilities, and reports directly to the chief executive officer; there is a favourable ratio of qualified to unqualified staff in the internal audit unit, headed by a professional; work done is evidenced by well-prepared working papers as appropriate, dated and initiated, detailing items selected for tests; and that management follow up and considers internal audit recommendations. Reliance without due consideration to these factors will definitely mislead the auditor which may give rise to undetected financial crimes.
The increased use of analytical reviews like ratio analysis by the external auditors can substantially bring to limelight accounting anomalies large enough to be investigated which may uncover fraud.

Theoretical Review

Dimension of theories on auditors' role

There are several different theories that may explain the role of an auditor in fraud detection and prevention. Some of them are well known in research and some of them are more based on

perceptions. Four audit theories according to Hayes. Dassen, Schilder and Wallage (2005) are discussed below:

The policeman theory: The policeman theory presents the idea that it is the responsibility of the auditor to discover and prevent fraud in the course of his work. This is what obtained during the early 20th century. With more recent developments in the field of business, the main focus of auditors has been shifted to providing reasonable assurance on the quality and fairness of the financial statements. However, the detection of fraud is still been advocated as the auditor's responsibility, and typically after events where financial statement frauds have been revealed, the pressure increases on increasing the responsibilities of auditors in detecting fraud.

The lending credibility theory: The lending credibility theory holds that the primary function of audit is to add credibility to the financial statements. The service that the auditors are selling to the clients is credibility. When financial statements are audited by the auditors, the statements are seen to contain elements that increase the users' confidence in the figures contained in the financial statements. The users of these statements benefits from the increased credibility lent by the audit process, in the form of enhanced quality of investment decisions taken on the basis of credible and reliable financial information.

The theory of inspired confidence: This is also known as theory of rational expectations (Limperg, 1932). The theory of inspired confidence addresses both the demand and the supply for audit services. The demand for audit services arises as a direct consequence of the participation of other interested parties in the company. These parties, also known as third parties, demand accountability from the management in return for their investments in the company. Accountability simply entails making available to users, reports of all vital information related to and/or that is capable of explaining all events (financial activities inclusive) that transpired in a company within a given period of time. (Nwoye, Abiahu, Obiorah & Ekesiobi, 2017). This implies that for a financial statement to meet this expectation and satisfy the endless desires of investors towards understanding the true productive status of their investment in a company, high quality financial information must be given commendable consideration.

The demand for accountability is usually satisfied by making periodic financial information and reports available to the interested parties. However, the information provided by the management may be tilted with management biased, and with no direct means of monitoring the activities of the company, the other interested parties in the company may rely on audit for the required assurance of the reliability of these financial information. With regard to the supply of audit assurance, Limperg (1932) suggests that the auditor should always strive to meet the public expectations.

Agency theory: The agency theory suggests that the auditor is appointed in the interests of both the third parties as well as the management. (Watts & Zimmerman, 1986). A company is seen as a network of individuals with mutual beneficial contracting obligations. These are different groups of individuals (suppliers, bankers, customers, employees etc.) who make some kind of contributions to the company for a certain benefit. Management's role is therefore, to coordinate these groups and contracts so as to optimize their benefits. As such, management is seen as an agent in these relationships which tries to gain contributions from principals (bankers, shareholders, employees etc).

The most prominent and widely used audit theory is the agency theory. Therefore we anchor our discussions in this paper on the agency theory.

Empirical Studies

Many scholars presented fraud detection successively in different views. According to Koholga (2010) the external auditor's crucial role rest in the critical review of the internal control system in operation in the banks to ensure their continued applicability and relevance in detecting fraud. An effective and functional internal control system is an indication that the system is devoid of malpractices. The auditor, through his reviews, should be able to dictate areas in which management themselves override controls. To reduce fraud and manage the risks proactively, it is important for organizations to identify the factors leading to fraudulent behaviour by understanding who are the fraudsters, when and why frauds are committed.

Various theories have attempted to explain the causes of fraud and the two most cited theories are the Fraud Triangle Theory of Cressey (1950) and Fraud Diamond Theory of Wolfe and Hermanson (2004). Both of them identify the elements that lead perpetrators to commit fraud. According to Okoye and Gbegi (2013), the casual factors that should be removed to deter fraud are best described as fraud triangle. The fraud triangle theory explains that there are three factors that are present in every situation of fraud. (a) Motive (or pressure) – the need for committing fraud; (b) Rationalization – the mindset of the fraudsters that justifies their intent to commit fraud; and (c) Opportunity- the situation that favours the occurrence of fraud (usually when internal controls are weak or nonexistent). (Okoye & Gbegi, 2013).

Wolfe and Hermanson, 2004 developed the Fraud Diamond Model from Fraud Triangle because they believed that the fraud diamond offers better view of the factors leading to fraud than the fraud triangle. The primary contribution of fraud diamond is that the capabilities to commit fraud are explicitly considered in the assessment of fraud risk (Onodi, Okoye & Egbunike, 2017).

Methodology and Data Analysis

The paper employed tables, simple percentage and ratio analysis method in analyzing data collected. Besides, out of sixty-six (66) questionnaires distributed fifty (50) were returned, therefore the data analysis was conducted based on the 50 questionnaires returned from the field.

The use of Pearson Correlation Statistical tools will be applied for testing data relating to hypothesis.

Pearson Correlation Coefficient (r) is given as:

$$r = \frac{n\sum xy - (\sum x \sum y)/n}{\sqrt{\{[\sum x^2 - (\sum x)^2/n]\ [\sum y^2 - (\sum y)^2/n]\}}}$$

Where:

N = number of pairs scores

$\sum xy$ = sum of the products of pairs scores

$\sum y$ = sum of the scores

$\sum x^2$ = sum of square x scores

$\sum y^2$ = sum of square of y scores

Testing of Hypotheses

I. Ho: There is no significant relationship between the role of the accountants and financial crime detection in the financial statements of First Bank of Nigeria Plc

X	Y	X^2	Y^2	XY
4	33	16	1089	132
3	10	9	100	30
2	5	4	25	10
1	2	1	4	2
$\Sigma x = 10$	$\Sigma y = 50$	$\Sigma x^2 = 30$	$\Sigma y^2 = 1150$	$\Sigma xy^2 = 170$

Pearson's Correlation Coefficient (r) is given as:

$$\frac{\Sigma xy - (\Sigma x \Sigma y)/n}{\sqrt{\{\Sigma x^2 - (\Sigma x)^2/n]\ [\Sigma y^2 - (\Sigma y)^2/n]\}}}$$

$$\frac{170 - (10 \times 50)/4}{\sqrt{\{30 - 10^2/4]\ [1150 - (50^2/4]\}}}$$

$$\frac{174 - 125}{\sqrt{5 \times 525]}}$$

= 45/51.24

r = 0.90

2. Ho: There is no significant relationship between the role of the external auditors and activity of internal auditor and internal control department as it relates to financial crimes detection.

X	Y	X^2	Y^2	XY
4	35	16	1225	140
3	10	9	100	30
2	4	4	16	8
1	1	1	1	1
$\Sigma x = 10$	$\Sigma y = 50$	$\Sigma x^2 = 30$	$\Sigma y^2 = 1150$	$\Sigma xy^2 = 170$

Pearson's Correlation Coefficient (r) is given as:

$$\frac{\Sigma xy - (\Sigma x \Sigma y)/n}{\sqrt{\{\Sigma x^2 - (\Sigma x)^2/n]\ [\Sigma y^2 - (\Sigma y)^2/n]\}}}$$

$$\frac{170 - (10 \times 50)/4}{\sqrt{\{30 - 10^2/4]\ [1150 - (50^2/4]\}}}$$

$$\frac{170 - 125}{\sqrt{5 \times 525]}}$$

= 45/51.24
r = 0.88

3. Ho: There is no significant relationship between the qualification and experience of external auditors and financial crimes detection in banks.

X	Y	X^2	Y^2	XY
4	35	16	1225	140
3	10	9	100	30
2	4	4	16	8
1	1	1	1	1
$\Sigma x = 10$	$\Sigma y = 50$	$\Sigma x^2 = 30$	$\Sigma y^2 = 1342$	$\Sigma xy^2 = 179$

Pearson's Correlation Coefficient (r) is given as:

$$\frac{\Sigma xy - (\Sigma x \Sigma y)/n}{\sqrt{\{\Sigma x^2 - (\Sigma x)^2/n]\ [\Sigma y^2 - (\Sigma y)^2/n]\}}}$$

$$\frac{179 - (10 \times 50)/4}{\sqrt{\{30 - 10^2/4]\ [1342 - (50^2/4]\}}}$$

$$\frac{179 - 125}{\sqrt{[5 \times 525]}}$$

= 54/59.87
r = 0.90

Result Interpretation and Discussion

As shown above, the Pearson's correlation coefficient (r) technique was used to test for reliability and validity of data collected and analysed. The Pearson's correlation coefficient (r) tests the strength of the association between two variables (X and Y) - the Yes and the No from the respondents. By mathematical calculation as done above and as related to finding, the coefficient value can range between -1.00 and 1.00. If the coefficient value is in the negative range, then the relationship between the variables is negatively correlated and should be rejected. If the coefficient value is in the positive range as shown above in all cases tested, that means the relationship between the variables is positively correlated and therefore such relationship by the rule of the Pearson's correlation coefficient (r) is acceptable.

As regards the measuring of the linear dependence between two variables - the strength and the score (X and Y) shown in table 4.7 – 4.13 and tested the three (3) hypotheses by calculation using Pearson correlation coefficient (r), it shows that values are in the positive range that means that the relationship between the two variables are positively correlated.

Conclusion and Recommendation

Based on the findings, it was therefore concluded that although First bank of Nigeria Plc produced and published financial statements and also engaged services of external auditors, there are still cases of

fraud due to poor management, non-engagement of the services of external auditors poor internal control systems and corruption generally. It is therefore the role of external auditors to detect fraud in the financial statements of First bank of Nigeria Plc and also that the qualification and experience of auditors play a major role in fraud detection in this organization.

We therefore recommended that First bank of Nigeria Plc should ensure that their policies and strategies aimed at effective management. Also that the management should continually engage the services of qualified and experienced external auditors which will not only put in place an effective internal control system but which will equally enhance it. Finally, education, proper enlightenment and self-discipline are recommended among all stakeholders in the bank to step down the level of fraud not only in First Bank of Nigeria Plc but in other banks globally.

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LEGISLATION AS FORENSIC ACCOUNTING TOOL FOR FRAUD PREVENTION AND DETECTION IN PUBLIC SECTOR IN SOUTHWEST NIGERIA

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Abstract

The problem of fraud is of global concern. The rate at which it is perpetrated in Nigerian public sector is more worrisome. This research work was carried out on legislation as a forensic accounting tool for fraud prevention and detection in the public sector in Nigeria taking public universities in Southwest Nigeria as case study. The study assessed the applicability of legislation as forensic accounting tool for fraud prevention and detection in public universities in Southwest, Nigeria. The study adopted a survey research design. The population of the study consisted of 500 staff members of 12 public universities in Southwest Nigeria, EFCC, ICPC and the Police Anti-Corruption Unit. A population of 500 was used with a response rate of 92.4%. The data were analyzed with descriptive and inferential statistics using SPSS version 21. The questionnaires which contained mainly close-ended questions were validated through face, content and construct validity. The reliability of the instruments was established by conducting a pilot study on 50 staff members of Public Universities and Anti-graft Agencies in Southwestern, Nigeria. Its reliability coefficient was established, using Cronbach coefficient Alpha of 0.920 which confirmed the reliability of the analysis which is greater than the global standard of 0.7 coefficient. The findings of the study revealed the overall effect showed an F-Statistics of 77.818 and p-value of 0.000 which is statistically significant at $p < 0.05$. The study therefore concluded that legislation is statistically significant for fraud prevention and detection in public sector in Nigeria. The study recommended that forensic accounting should be introduced into the public sector by the government as a matter of policy and legislation should be enforced in both the public sector and all other sectors in Nigeria. Officials in the public sector should embrace integrity, objectivity, fairness and accountability as a moral duty to reduce the level of fraud.

Keywords: Fraud, Forensic Accounting, Legislation, Public Sector, Fraud Prevention and Detection.

Introduction

The incidence of fraud continues to increase across private and public sector organizations and nations. Fraud is a universal problem as no nation is immuned from its menace. Although Developing countries and their various states suffer the most pain. Fraud is the deliberate misrepresentation of the financial condition of an enterprise, by intentionally misstating or omitting amounts or disclosures in the

financial statements so as to deceiveend -users. The wide spread of fraud in public sector has made traditional auditing and investigation inefficient and ineffective in detecting fraud which had caused a lot havoc in public sector organization. The failure of auditors to prevent, detect, and reduce modern frauds like white collar crimes such as security fraud, embezzlement, bankruptcies, inflation of contract award, money laundering and other financial crimes in the public sector have put pressure on professional accountant and legal practitioners to find better ways of curbing frauds in public sector (Owojori&Asaolu, 2009; Amake&Ikhatua, 2016). It has now become pertinent to introduce legislation as forensic accounting tool for fraud prevention and detection in the public sector.

Forensic Accounting is an indispensable practice in fraud detection and prevention. Okoye and Gbegi (2013) state that it is an investigative style of accounting used to determine whether an individual or an organization has engaged in any illegal financial activities. According to the Association Of Certified Fraud Examiners (ACFE), forensic accounting is the use of skills in potential or real civil or criminal disputes, including generally accepted accounting and auditing principles; establishing losses or profit, income, property or damage, estimation of internal controls, frauds and others that involve inclusion of accounting expertise into the legal system. Okoye and Gbegi, (2013) agree that forensic accounting also called investigating accounting or frauds audit is a merger of forensic science and accounting. Forensic Accounting as a field in accounting has a vital role to play in the protection of Nigeria's Public Sector against financial and economic fraud. Detection and prevention of financial and economic fraud through the application of forensic accounting service will improve the image of Nigeria's public sector.

Fraud has been described to be a severe problem of concern globally, and thus a major concern for developing nations (Effiong, 2013; Okoye&Gbegi, 2013; Owolabi, Dada &Olaoye, 2013). It is so endemic that frauds are gradually have assumed a normal way of life in both public and private sectors, from the presidential cabinets, down to the political officers, to the ward councillors, from managing directors of companies, through middle management cadre and to lower managers. Individuals perpetrate fraud according to the capacity of their offices (Okoye, et al. 2013; Owolabi, et al. 2013). Skousen and Wright (2008) opine that forensic accounting may be one of the most effective and efficient ways to reduce and prevent fraudulent activities as it is concerned with the evidentiary nature of accounting data, and also a practical field concerned with accounting fraud and forensic auditing compliance, due diligence and risk assessment; detection of financial misrepresentation and financial fraud.Fraud Prevention entails creating environments in which people are discouraged from committing fraud, although it is still possible. Fraud Detention refers to the process of discovering the presence or existence of fraud. This can be accomplished through the use of well-designed internal controls, supervision, monitoring and the active search for evidence of potential fraud. The problem of fraud is of global concern and the rate at which it is perpetrated in Nigerian Public Sector especially in public universities is becoming more alarming.

According to Section 7(1) and (2) of the constitution of the Republic of South African 1996, it enshrines the rights of the people and affirm the democratic values of human dignity, equality and freedom. The constitution states that the government must respect, protect, promote and fulfil the rights of its people. Despite this preservation of rights in the constitution, one of the biggest challenges that the South African public sector faces is the risk of fraud and related irregular acts. The risk of fraud is pervasive in the public sector as in most organizations and such acts undermine not only the rights of the people

and democratic and ethical values but also the government's efforts to deliver quality services to its people. The public finance management Act 1 of 1996 of South African Constitution recognizes an internal audit function in the public sectors with its skills and knowledge of applicable legislation as a critical governance tools for preventing and detecting fraud in South Africa.

Also, Zamzami, Nusa and Timor (2015) argue that in 2012 in Indonesia the state of individual finance and accountability agency and the House of Representatives officially accepted the reports of audit results by the supreme audit agency covering corruption cases that hit 16 state universities in Indonesia. The agency finds some indications of fraud in the budget preparation done by the Ministry of National Education, Nazumdin's company and several legislations. Zanzami, et al. (2015) argue that from the fraud cases established, the role of internal auditors at university is obligatory to ensure that the accountability of financial reporting is well kept and to reinforce the internal control as a way to prevent fraud and to safeguard the university's assets. In terms of prevention and detecting fraud, the role of internal audits is crucial, therefore, effective methods are deemed necessary to prevent and detect fraud and to set solid steps to crack down fraud. Possible techniques for prevention and detection fraud are operational audits, internal control reviews, cash reviews etc.

Lewis (2011) that in the UK, there is legislation protecting whistle-blowers, this is known as Public Interest Disclosure Act (PIDA). Other countries also have legislation protecting whistle-blowers, for example this is covered by Sarbanes-Oxley Act of 2002 in the US. Legal redress should be a last resort and organisations should strive for a culture that actively encourages people to speak up and challenge inappropriate behaviour. The use of a whistle-blower hotline, which was mandated for use by the US Sarbanes-Oxley Act of 2002 (Lewis, 2011), is one of the more effective measures organizations can implement as part of their fraud risk assessment program. Various surveys indicate that anonymous tips received through hotlines or by other methods are the most likely means of detecting fraud (Zhang, Pany & Reckers, 2013).

Recently in Nigeria, series of fraud have been committed both in public sector and private sector of the economy. These in no doubt are perpetrated under the supervision of the internal auditors of organizations. According to a recent ranking by the Transparency International (TI) (2016), Nigeria is believed to have ranked 1st, 2nd, 3rd, most corrupt nation of the world. This ranking emanated from the avalanche of case of fraud, corruption and financial scandals in which many Nigerians are suspected to be involved. These fraudulent practices are suspected to be perpetrated by highly skilled fraudsters, cybercrime perpetrators who employed sophisticated methods thus requiring highly skilled and versatile accountants to unravel the fraudulent schemes. As a result of several fraudulent activities in Nigeria, several billions of naira or dollars as the case may be have been lost by both domestic and foreign investors to fraudsters, fraudulent account officers (private sectors) and corrupt civil servants (public sectors) thereby leading to a decrease in the level of available capital investment in Nigeria. This has resulted in creating bad image to the credibility of the nation and brought about negative consequences on economic growth and development (Atibaba, 2013).

Similarly, despite the establishment of anti-graft agencies, cases of corrupt practices and fraudulent activities both in private and public sectors in the country appears to be on the increase. It seems difficult for the anti-corruption agencies to successfully prosecute many of the alleged cases of fraud involving billions of naira by government functionaries, contractors, as well as private individuals and

organization. Before the establishment of the Economic and Financial Crime Commission (EFCC) and Independent Corrupt Practices Commission (ICPC), successive government had been handling cases of corruption by setting up military tribunals, banks and miscellaneous offences tribunals, Okigbo panel as well as many other adhoc bodies. None of the efforts seems to have yielded results (Owolabi, Dada, Olaoye, 2013). The Obasanjoadministration set up the EFCC and ICPC as the institutions meant to be on standby basis. There are seemingly, inadequate competent professionals to handle cases of fraud stated by (Owolabi, Dada, and Olaoye (2013) and the judicial system is slow leading to a delay in the prosecution process. The recent development in electronic e-banking, e-business has led to e-fraud, e-corruption and e-financial scandal and it is obvious that the traditional or conventional Accountant may not be able to meet up with the level of sophistication of fraud.

Ajibade (2017) opined that a major legislation against fraud in Nigeria is the EFCC Act 2002, the Economic and Financial Crime Commission (EFCC) as the overarching body designated with the primary responsibility of investigating and prosecuting economic crimes including financial crimes and bringing perpetrators of such crimes within the ambit of the law. Another major legislation against corruption is Corrupt Practices and Other Related Offences Act 2004 (ICPC Act 2004). The act generally prohibits the various perceived acts of corrupt practices arising from interaction or transactions involving public/ government offences and the general public or private individuals. Money laundering prohibition Act 2004 is directed at tracing, finding, freezing and forfeiting among other things money and properties that have been acquired through illegal or prohibited means. In recent times there has been focus of these anti-graft agencies on public Universities in Nigeria (Azubuike, 2017; Makinde, 2015; Onyeji, 2017).Despite the numerous forensic accounting tools put in place to curb fraud, the alarming rate of fraud in the public sector is a major concern to stakeholders. Against the backdrop of the increase in incidence of fraud across public sector organizations and across nations, this study is set to examine the extent to which the use of appropriate legislation as forensic accounting tools influence fraud prevention and detection in public universities in South Western Nigeria.

Many studies have been conducted on forensic accounting and fraud prevention and detection in both developed and developing economies. Such studies include Skousen& Wright 2008; Lewis 2011; Adegbie&Fakile 2012; Okoye&Gbegi 2013; Adewale 2014: Zamzami, Nusa & Timor 2015; Makinde 2015; Ofoegbu&Alonge 2016; Ajibade 2017; Adegbite 2018 etc. However, in recent times there has been a focus of anti-graft agencies on public universities in Nigeria (Makinde, 2015; Azubuike, 2017; Onyeji, 2017).However, all these studies fail to adequately explore legislation as forensic accounting tool for fraud prevention and detection in public universities in Nigeria. It is the humble attempt of this study to fill this gap. Hence, it is pertinent to examine the extent to which the use of appropriate legislation as forensic tool influences fraud prevention and detention in public universities in South Western Nigeria.

The objective of the study is to examine the extent to which the use of appropriate legislation as forensic tool influences fraud prevention and detention in public universities in South Western Nigeria. Apart from the above introductory section, the rest of this study has been divided into three sections. In section two, we discuss the literature review of the study. Section three discusses the methodology of carrying out this study and results. The study is concluded in section four.

Literature Review on Forensic Accounting As A Tool For Fraud Prevention And Detention

The literature is replete with studies on the impact of forensic accounting on fraud prevention and detention in an organization.

Degboro and Olofinsola (2007) in their view noted that forensic investigating is about the determination and establishment of facts in support of legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits. Okunbor and Obaretin, (2010) opined that forensic accounting is a discipline that has its own models and methodologies of investigate procedures that search for assurance, attestation and advisory perspective to produce legal evidence. A forensic investigation may be grounded in accounting, medicine, engineering, or some other discipline. Forensic audit is an examination of evidence regarding an assertion to determine its correspondence to establish criteria carried out in a manner suitable to the court.

Grey (2008) believes that those qualified to handle forensic investigation are forensic accountant which are a combination of an auditor and private investigators. Knowledge and skills including investigating skills, research, law, quantitative method, finance, auditing, analyse, interpret, summarize and present complex financial and business-related issues in a manner that is both readily understandable by the layman. Fraud normally manifest itself through symptoms as it is hard to observe the actual fraudulent activity. The symptoms may not indicate that fraud has been committed as it may be as a result of human errors. Fraudsters sometimes hide frauds in these human made errors hence making it difficult for forensic accountant to detect them (Albert, 2005). Poor corporate governance and accounting failures have been quoted as some of recipe for frauds. Company officials with the same interestmay commit fraud because of lack of well implanted corporate governance policy (Ramaswammy, 2005). The auditor performs his duty in ensuring true and fair reporting is observed in order to safe guard the interest of all stake holders, he does not have an absolute duty to unearth frauds and criminal activities which may have been perpetrated by fraudster in a company. The auditor may only use the skills of a forensic accountant in case he has a reason to suspect that fraud have been committed in an organization. When the top management do not play an active role in fraud prevention, internal controls may not be the best solution for fraud prevention and detection. New methods for prevention and detection of fraud therefore have been devised which involves the use of forensic accountants (Enofe, Atube, 2013).

Fraud detection involves the identification of actual or potential fraud in an organization. It relies upon the implementation of appropriate systems and processes to spot the early warning signs of fraud. Fraud detection involves proactive risks assessment and reactive to fraud reports. It also includes manual spot audit and enhanced automated data mining. Detection is characterised by action and activities intended to identify and locate fraud prior to, during and subsequent to the completion of fraudulent activities. To detect is to uncover or reveal the existence of the fact of something hidden or obscured. Fraud detection should form part of an organization overall anti-fraud strategy covering prevention, detection and investigation (Webster 1997).Fraud deterrent is the removal of the casual enabling factors of fraud. It is based on the premise that fraud is not random but occurs if there exit the right conditions for it to occur. Fraud deterrent is based on improvement of organization procedure as the main best defence against fraud. Successfully deterrence is the stoppage of fraud before it

happens. To deter is explained as to inhibit or discourage through fear or to prevent an action by fear of consequences (Webster 1997).

Onuorah and Fakile (2012) employed chi-square and statistics package for social science to empirically evaluate forensic accounting as antidote to the economy and financial crime Nigeria. They tested four hypothesis. The study revealed that forensic accounting is a financial strategy to curb and resolve economic and financial crimes in Nigeria economy.Islam, (2011) conducted a research in Bangladesh on forensic accounting profession and corruption reduction in Bangladesh. He sought to find out whether forensic accounting skills could be used as a tool to curtail frauds and corruption in Bangladesh. Out of his sample of chartered accountants, 94.14% confirmed that they had used the skill of forensic accounting to detect frauds.Gbebi (2013) carried out a study on the involvement of forensic accounting in planning and management of fraud risk detection procedures. The study revealed that forensic accountant effectively modifies the extent and nature and audit test when the risk of management fraud is high. Forensic accountants can enhance the effectiveness of an audit plan when the risk of management fraud is high and by involving them, the risk fraud assessment process leads to better result rather than just consulting them.
Modugu (2013) pointed out that fraud has become real and prevalent in the contemporary business environment. His study found out that there is significant agreement between stake holders on the effectiveness of forensic accounting in fraud control, improving financial reporting and internal controls. He noted that forensic accountant can provide significant assistance in preventing, investigating and resolving such issues. He recommended for the formalization and specialization of the profession by the national association of accountants in Nigeria. Locally there has also been research conducted on the subject and results tend to confirm the positive correlations between forensic accounting services and reduction of frauds as indicated by below researchers.Modugu and Anyaduba (2013) examined forensic accounting and financial fraud in Nigeria. The study employed survey designs in a sample size of 143 consisting of accountants, management staff, practising auditors, and stakeholders. The authors employed binomial test for data analysis and found that there is significance agreement between stakeholders on effectiveness of forensic accounting in fraud control, financial reporting and internal control quality.

Eyesi and Ezuwore (2014) conducted a research on the impact of forensic accounting on corporate governances. This was a theoretical research conducted on secondary data. The conclusion of the research was that, financial auditor is not obliged to detect fraud during their financial audits, the responsibility of internal control rest with management and hence management has sought the skills of forensic accounting to safe guard the internal control system. The forensic accountant has done this by incorporation of computer software in data processing and in the computer information system to detect fraud and errors. This has helped management improve accountability to the all stake holders. They also found that forensic accountant assist audit committee to carry on oversight functions by providing better tools to evaluate the quality of normal financial statement produced by external auditors. The research found that forensic auditors have used fraud detection tools pro-actively unlike the financial auditors who use traditional tools which are reactive to fraud detection.

Enofe, Utomwen and Danjuma (2015) examined the role of forensic accounting in curbing financial crimes. The study adopts a survey research design. The population of the study comprises of staffs of selected banks. Primary data was used for the purpose of this research. The study employed the use of

structured questionnaire in eliciting the required data needed to test the formulated hypothesis. Regression analysis was utilized as the method of data analysis and the results was used in testing the hypothesis specified. The study reveals that there is need for forensic accountant in the Nigeria banking system; forensic accounting is an effective tool for addressing financial crimes in the banking.Aduwo (2016) conceptually reviewed the impact of forensic accounting towards utilized professional judgement, accounting skills, auditing and law procedures to fight the dreaded disease of corporate liquidation and the paper concluded that forensic auditing can go a long way to prevent financial scandals in corporate organizations.

This study will be anchored on Punishment-Deterrence theory of punitive damages which states that since fraudsters deprive the people of infrastructure, tough and stringent legislation should cut up with them. Damages should be awarded which serve as deterrent to others.

Methodology

The study was conducted in South-Western Nigeria, the economic life wire of the Nigerian state. This region contributes enormously to Nigeria public sector. Survey research designwas adopted in this study since the sample element and the variables that were being studied were simply being observed as they were without making any attempt to control or manipulate them. Primary data were sourced through the self-administration of structured questionnaire to 500 of 12 Public Universities in South Western, Nigeria and 3 Antigrant Agents (EFCC, ICPC & Police Anticorruption Unit). The population of the study comprises 500 Staff members of 12 Public Universities in South Western, Nigeria and 3 Antigrant Agents (EFCC, ICPC & Police Anticorruption Unit). The study decides to use the whole population since the population was not too large and the desire to meet the objective of the study and to obtain the opinion of all the sampled population. Dependent variable was proxied as fraud prevention and detention while independent variable legislations was proxied as 1999 Nigerian Constitution;Finance Act 1958; Employee Declaration of Assets Act 1990; Criminal Code Act (CAP 38) 2000; Economic and Financial Crime Commission (EFCC) Act 2002; Corrupt Practices and Other Related Offences (ICPC) Act 2004; Money Laundering Prohibition Act 2004; Fiscal Responsibility Act 2007; Financial Regulation 2009.

Model Specification

The model as specified can be expressed as follows:

$FP, FD = f(LG)$ ..... *equation (1)*

$FP, FD = b_0 + b_1 PL_i b_2 DL_i + e_i$ .....*equation (2)*

Where

FP= Fraud Prevention

FD = Fraud Detection

LG = Legislation

PL = Prevention Legislation

DL = Detective Legislation

e = Error term

Table 1: Multiple Regression Analysis on the Effect of the independent variables on Legislation.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	1.295	213		6.087	.000
	Preventive Legislation	475	062	.388	7.707	.000
	Detective Legislation	189	048	.200	3.984	.000
	R Squared	0.276				
	Adjusted R Squared	0.272				
	F- Statistics	77.818				
	Sig. of F-statistics	0.000				
a. Dependent Variable: Legislation						

Source: *Field Survey 2019.*

The questionnaires which contained mainly close ended questions was validated through face, content and construct validity. The reliability of the instruments was established by conducting a pilot study on 50 staff members of Public Universities and Anti-grant Agencies in South Western, Nigeria. Its reliability coefficient was established using Cronbach coefficient Alpha of 0.920 confirmed the reliability of the analysis which greater than the global standard of 0.7 coefficient.

Data Analysis And Interpretations Of Result

Response rate of all the research questions that above 70% of the respondent agreed with the research question with average mean of 3.7 and standard deviation of each variable was below one (1) scale unit. This result shows that there is a closed dispersion between the mean and standard deviation. This shows that legislation as forensic accounting tool can serve as a tool to prevent and detect fraud.

The hypothesis, which is stated in null form, is tested at 5% level of significance

H_0: Legislation as forensic accounting tool has no significant influence on fraud prevention and detection in public universities in South-West Nigeria.

$FP, FD = \beta_0 + \beta_1 PL_i \beta_2 DL_i + e_i$ .....*equation (3)*

$FP, FD = 1.295 + 0.4575PL_i + 0.189DL_i + e_i$ .....*equation (4)*

From the analysis of the result and the model specification, the coefficient of PL is showing a positive of 0.475 which means one percentage increase in PL will lead to 45% increase in Fraud Prevention and Fraud Detection. Also, the coefficient of DL is showing a positive of 0.189 which means one percentage increase in DL will lead to 18.9% increase in Fraud Prevention and Fraud Detection. The Adjusted R2 is 27.2% which shows the composition of PL and DL on Fraud Prevention and Fraud Detection. The balance of 72.8% is explained by factors outside this study. At a significant level of 0.05, the F-Statistic is 77.818 and the P-value of the F-Statistic is 0.000 which is less than 0.05 adopted level of significant. Therefore, the study reject the null hypothesis and accept the alternative hypothesis which means that Legislation, as forensic accounting tool, has significant influence on fraud prevention and detection in public universities in South Western, Nigeria. These findings are in tandem with the findings of Pan

Seow, Suwandy and Gray (2011) which asserted that institutional structure such as Legislation hold institutional trust and plays significant role in fraud prevention and detection.

Furthermore, the 1999 constitution of the Federal Republic of Nigeria is one of the legal frameworks that regulates the receipts and payment of public funds, also supported the findings. Some specific sections of the constitutions are: establishment of the consolidated revenue fund (CRF); authorization of expenditure from the CRF; authorization of expenditure in default of appropriations.; establishment of the contingencies fund; remuneration of statutory officers; comprehensive list of statutory officers; audit of public account; declaration of assets and liabilities and oaths of office; establishment of the federation accounts; allocation of other revenue; and federal grants-in-aid of state revenue. In addition to the submissions in support of our findings on Legislation, Enofe, Ekpulu and Ajala (2015) submitted that Nigerian financial regulations are powerful control tools used in the public sector fund management. The financial regulations are the accounting manual of the three tiers of government (Federal, State and Local Government) designed to guide the management of public funds. These regulations ensure good accountability, prevention and early detection of frauds and other financial malpractices. The rules deal with the procedures to be adopted for the receipts and disbursement of public funds and how to ensure accountability.

These findings disagree with the findings of Howell (2017) which analyse three cases involving major invoice fraud for purpose of identifying misalignment in legislative, governance and workplace practices around risk management. The analysis identified that all the case study entities were compliant with the relevant fraud related legislation and guidelines despite being victims of fraudulent acts perpetuated over extended periods of time, which shows that legislative compliance alone is not sufficient to inhibit fraud. The findings of this study are supported by the theory upon which the study is anchored (Punishment – Deterrence theory of punitive damages). Zipursky (2005) argued that the design of damages in the theory are the indemnities recoverable by the injured parties from the parties who has caused the injuries is an effective legislation which make actors to be careful about other parties when putting forth their actions. Therefore, Legislation as forensic accounting tool has significant impact on Fraud prevention and fraud detection in South Western, Nigeria.

Conclusion and Recommendations

The study concluded that legislation is significant for fraud prevention and detection in public sector in South Western, Nigeria. Legislation that will strengthen the fraud prevention and detection in public sector should be enforced by appropriate authorities. The study revealed that the use of appropriate Legislation, as forensic accounting tool, influence fraud prevention and detection in public universities; which is a part of Public Sector; in Nigeria. Enforcement of appropriate Legislation such as Nigerian 1999 Constitution, Fiscal Responsibility Act 2007, finance Act 1958, procurement Act 2007, Employee Declaration of Assets Act 1990, Criminal Code Act 2004, Money Laundering Act 1995 and other Legislation that deter fraud should be explored by Nigerian Public Sector.

Forensic accounting should be introduced into the public sector by the government as a matter of policy and legislation should be enforced in the public sector and in all other sectors in Nigeria. Officials in the public sector should embrace integrity, objectivity, fairness, accountability as a moral duty to reduce the level of fraud. This study contributed to the body of knowledge on the use of appropriate

legislation as forensic accounting tool for fraud prevention and detection in Public Universities in Nigeria.

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IMPROVING THE INTERNAL CONTROL MECHANISMS OF LISTED DEPOSIT MONEY BANKS IN NIGERIA THROUGH THE APPLICATION OF FORENSIC ACCOUNTING

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Abstract

The paper is an exploratory study on improving the internal control mechanisms of listed Deposit Money Banks in Nigeria through the application of forensic accounting. A survey was conducted through the administration of a questionnaire to a sample of 230 respondents which was composed of some members of the staff of the listed DMBs, the Big-4 Audit firms, the Nigeria Deposit Insurance Corporation (NDIC), the Economic and Financial Crimes Commission (EFCC) and some Forensic Accountants in public/consultancy practice. The study employed descriptive statistics and bivariate regression analysis to analyze the data. The hypothesis tested showed that the forensic accounting application could significantly improve the internal control mechanisms of the institutions. The study, therefore, recommended the immediate creation of forensic accounting units/departments in the DMBs under the control and supervision of the Boards' Audit Committees composed of persons knowledgeable in the concept of forensic accounting. The study furtherrecommended that the listed DMBs in Nigeria should improve on certain key functions of internal control such as segregation of duties, proper supervision of employees, improve on infrastructure (work environment, equipment and security systems), proper training and re-training of staff and adequate compensation of employment package to deter the chances of employee fraud and malpractices. The overall implication of the findings is that forensic accounting application in the listed DMBs is possible and necessary to complement the existing practice of internal audit/inspection to further strengthen the internal control of the organizations.

Key words: Forensic accounting application, internal control mechanisms, listed DMBs

Introduction

An internal control system is a mechanism or process through which the management structures of an organization can be viewed to provide assurance that the entity operates effectively and efficiently. This means that, the accounting, financial reporting structures and other operating systems comply with laid down laws, principles and regulations. Thus, the main purpose of effective internal controls is to provide the structure where separate duties are handled by employees through segregation of duties to ensure a robust system of checks and balances. In a broad sense, internal control involves everything that controls risks to an entity, whether financial or otherwise. In a nutshell, it involves

reliability of financial reporting, timely feedback process on operational structures or strategic goals within the confines of various laws, regulations and standard requirements.

The banking sector has witnessed an increase in scrutiny due to heightened cases of fraud, corporate scandals and collapses, arising from unethical financial reporting, questionable corporate governance issuesand internal control challenges (Luke, 2013; Ozili,2015) . As a result of these, the traditional ways of monitoring corporate financial activities in particular are subjected to further scrutiny as regards their capabilities to rise up to the spate of corporate debacles, among which is poor internal control issue.This development is not limited to the banking sector alone or to Nigeria as a nation in particular or to any environment; it is a global phenomenon with no exception to sector, industry or national boundaries (CFS, 2010; Akindele, 2013; Enofe et al. 2015).

In the history of banking in Nigeria, several efforts, through law and administrative measures, have been introduced to improve internal control mechanisms of the sector, but the situation seems to defy the means (Centre for Forensic Studies in Nigeria, 2010; Modugu and Ayanduba, 2013).The main objective of this study is to explore the applicability of forensic accounting in the listed Deposit Money Banks (DMBs) in Nigeria as to whether the practice can curb the internal control challenges which contribute immensely to the level of fraud and malpractices in the banking sector. Fraud and corporate malpractices are endemic and systemic, societal ills that have a devastating impact on the fortunes of an economy and thus are a source of concern to organizations in particular and to a nation in general. Wells (2007) described fraud as 'a serious, costly and growing epidemic for business and government'.

Fraud and other forms of misconduct in banks are becoming more common and sophisticated and require effective means of response through preventive measures and analytical skills to investigate where they have already defied controls. The challenges of the sector raise serious questions as to whether the existing systems in the DMBs are effective in caging the developments. This brings into consideration the full application of forensic accounting as an antidote. A part from utilizing the traditional investigative techniques, forensic accounting application can also use financial/forensic analytics, computer/digital forensics, data mining and ratio analysis. These tools/techniques of forensic accounting can be used for prevention, deterrence, mitigation, investigation and documenting evidentiary materials for the prosecution of fraud and other forms of misconduct in organizations as well as tools for policy analysis and improving internal control structures, thus capable of taming the challenges of any sector.Forensic accounting is an emerging field that has gained prominence in response to the spate of financial scandals and monumental corporate collapses, which cascaded the business environment in the early 2000s (Bhasin, 2007).

Forensic accounting, which is an integration of accounting, auditing and investigative skills, is a practice to assist in legal matters regarding pending or anticipated litigation. It provides an accounting analysis that is suitable to the court, which forms the basis for discussion, debate and ultimately dispute resolution by investigating and analyzing on the evidence of economic transactions and reporting on same as contained within the accounting system of an organization. Thus, forensic accounting involves the practice of the collection and rigorous analysis of data for litigation and expert support (Rezaee, 2003; 2004) suitable to a court of law or dispute resolution (Zysman, 2004) with sufficient and reliable evidence (Jaenieke, 1997; Gray & Mousalli, 2006). Forensic accounting application is not only limited to issues related to fraud and other financial malpractices that are

determined by courts of law (Bhasin 2013); but include: designing and enforcing prevention, the mitigation and detection of fraud and corporate misconduct through well designed and customized systems and procedures that take into account the peculiar nature of the organization and its environment (industry).

Forensic accounting application provides the avenue for the regular monitoring of performance. Its practice also creates and supports a strong ethical environment by ensuring ethical conduct by example. Through the provision of its investigative and evidentiary reports, it ensures the punishment of wrong doers and corrective measures are taken where lapses in internal control are identified (CFS, 2010; Bhasin 2013; Modugu&Ayanduba, 2013).

Forensic accounting application helps in risk management and the reduction of risks (financial or otherwise) by use of customized design of accounting and internal control systems that involve elaborate inquiry, investigation and monitoring (Bologna, 1996). It could identify errors easily, stop leakages and reverse operational vagaries and deviant transactions before they crystallize into fraud (Modugu&Ayandugba, 2013). It can play a great role in coordinating an organization's strategies of cohesive policy by reconstructing lost or tempered documents through the use of its tools and techniques, thus ensuring firms remain responsible to their stakeholders in matters of corporate governance and maintain internal controls that safeguard assets and reduce corporate malfeasance. Thus, it can be employed, as well, in uncovering and stopping wastes, leakages and weaknesses in internal controls, especially management biases (override and circumvention of controls) in organizations. Thus forensic accounting can be applied in a variety of situations.

The key challenges faced by the banking sector center around the issues of the rising trends of fraud/forgeries, internal control challenges and corporate malpractices. Substantive literature suggests that fraud is the biggest challenge faced by the business world. In fact, fraud is the bane of the often cited cases of major corporate financial scandals and collapses in the opinion of Howard &Sheez (2006);Bhasin (2010); Ramaswamy (2010) and Wells (2013). Actually, a major reason to the collapse and demise of several banks in Nigeria are related to the quantum of fraud, which breeds rapidly in a situation where there are weak/poor internal controls (CBN Report, 2009; Ogunleye, 2010; Owolabi, 2010).

Although fraud and fraudulent practices are globally endemic, the studies by Adefila, Kasum and Olaniyi, (2006) and Domzalki and Gladrey (2009) found that there is an inverse relationship between performance and fraud. Some authors (Crumbly, 2003; Coenen, 2005; Bhasin 2007; Buckstein 2013) are of the view that forensic accounting is not an entirely new field in solving corporate fraudulent practices; it is an emerging one that holds tremendous prospects in a variety of settings to resolve key challenges. Even though it has received scholarly attention worldwide, studies in Nigeria, relating to the banking sector, have mainly focused on some aspect of the practice with none specifically conducted to explore the applicability of forensic accounting practice in improving the internal control mechanisms of listed DMBs in Nigeria; thus a gap filled by this study.

Drawing from the above issues, the study aimed to address and answer whether application of forensic accounting in the listed DMBs is capable of improving their internal control mechanisms by identifying weakness areas of the banks in Nigeria?

The primary objective of this study is to explore the applicability of forensic accounting in listed DMBs in Nigeria if it is capable of improving their internal control of institutions by identifying areas of weaknesses of the banks. Emanating from the research problem and objective of the study, the following hypothesis is formulated in the null form was tested: The application of forensic accounting in the listed DMBs in Nigeria may not significantly improve the internal control mechanisms of the institutions.

Literature Review

Forensic accounting is a branch of accounting and accounting being a social science plays significant roles not only as a device for the market economic system but also serves as the language of business through which it communicates financial meanings and activities to various interested parties for their economic decisions. As a prelude to the literature review, the conceptual of forensic accounting, is looked at. The section also covers some empirical studies that were conducted in relation to the matter under investigation and the theoretical framework that guided the study.

Concept of Forensic Accounting

The word “forensic” has its genesis and derives its meaning from the Latin word 'forensis', which means “before the forum” (Andrews nd). Collins (2005) defined forensic as 'belonging to, used in, suitable to courts of judicature or to public debate or discussion. It is the use of science or technology to investigate and establish facts in criminal or civil court of law… the art or study of formal debate or argumentation.'In the taxonomy of accounting literature, forensic accounting has no single definition. Its definition is changing to reflect its need, demand and changing response. Bhasin (2007), citing Bologna and Lindquist (1994) defined it as “the application of financial skills, and an investigative mentality to unresolved issues conducted within the context of the rules of evidence. As an emerging discipline, it encompasses financial expertise, fraud knowledge and a sound knowledge and understanding of business reality and the working of legal system.” The American Institute of Certified Public Accountants (AICPA's) Forensic and Litigation Services Committee (1987)defined it as, “forensic accounting may involve the application of special skills in accounting, auditing, finance, quantitative methods, the law and research. It also requires investigative skills to collect, analyze and evaluate financial evidence, as well as the ability to interpret and communicate findings. Forensic accounting encompasses litigation support, investigation and dispute resolution, and therefore, is the intersection between accounting, investigation and the law.”

Joshi (2003) defined forensic accounting as the application of specialized knowledge and specific skills to stumble up on evidence relating to economic transactions. To Crumbly (2003), it is a merger of forensic science and accounting. Forensic science here means the application of the laws of nature to the laws of man. He, further, explained that forensic scientists examine and interpret evidence and facts in legal cases and also offer expert opinion (expert witnessing) with regards to their findings in a court of law; where the examination and interpretation, here, is of economic information investigated by the forensic accountant, is presented.

Litvak (2007) opined that the plethora of accounting failures, which were done through creative accounting just like in the case of Enron and others, often cited in the literature, have subjected the accounting and auditing professions to unpleasant publicity. Bhasin (2007) and Huber (2012) asserted that as the professions (accounting and auditing) struggle to tighten loopholes and government

agencies all over the world try to build safeguards through corporate governance structures, forensic accountants have been helping individuals and corporations in rebuilding confidence. Ozkul and Pamutkcu (2012) and Huber (2012) averred that the growing prominence of forensic accounting has resulted in its wide acceptance and practice in countries like USA, Canada, Australia and U.K. Accordingly, Keskin&Ozturk (2013) were of the same opinion asHao (2012) in the belief that the role forensic accounting can play in changing the context of internal control and financial reporting is very promising, especially in businesses that are high transaction-based (like banks).

In the opinion of Ozkul&Patmatcu (2007), forensic accounting involves analyzing, examining and using audit investigative techniques plus questioning in such a way as to establish the veracity or otherwise of an alleged misdeed, which may eventually end up in court. Raezee (2008) opined that even though forensic accounting has been in existence and proved its worth during the World War II, it was not until the 1980s that formalized procedures of its practice took place when major academic studies were published. Raezee (2008) further averred that forensic accounting utilizes 'the Fraud Triangle' theory to identify weaknesses in the firm and whether (possible/suspicious) fraudulent activities exit.

The American Institute of Certified Public Accountants (AICPA) in 2004 in its AICPA Forensic and Litigation report stated that the definition of forensic accounting was 'unclear'. However, extant literature on the topic (Hoechberg, 2000; Dorrell, 2000; Bologna, 2000; Telpner andMostek, 2002; Coppolla, 2006) is in agreement that forensic accounting is generally used for the legal system or any adversarial context with litigation and investigative accounting as the two main branches (Crumbly, 2005; Coppolla, 2006).To Lakshmi (2015), forensic accounting utilizes accounting, auditing and investigative skills to carry-out an examination of a firm's financial records, which ultimately results in providing an accounting analysis that is suitable to a court of jurisdiction.

Modern-day forensic accounting employs financial knowledge and skills of mainstream accounting in addition to investigative techniques to resolve matters that can be legally defensible within the law of evidence. Arokiasamy and Cristal-Lee (2009) have a broader view of forensic accounting, which they considered as the application of accounting, auditing and investigative tools carried out to review (suspicious) fraudulent transactions with the purpose of documenting same, which includes electronic systems. It also involves a comprehensive review of organizational internal control system, operational and manual procedures with the aim of identifying weaknesses for immediate correction.

To decipher from these definitions, from the auditor's perspective, forensic accounting involves applying auditing methods, techniques and procedures to resolve legal issues. From a litigation or an attorney's perspective, forensic accounting involves gathering, interpreting, summarizing and presenting in a clear, factual and succinct manner evidence acceptable/admissible to court, which the forensic accountant may present as an expert witness (Howard and Sheetz, 2006; Dhar and Sarkar, 2010). From the perspective of a fraud investigator/examiner, it is the application of investigative and analytical skills to resolve financial/economic issues that meet the standards expected of a court of law (Hopwood et al., 2008).

Thus, the metrics of forensic accounting definitions is a collection of quality statements of accounting academics and practitioners, alike. However, there is a general consensus on the matter that forensic

accounting does not only provide accounting analysis for legal matters and dispute resolution alone; it can be applied in a variety of settings, including review of internal controls, processes and procedural/operational setups, identify leakages and wastes, personnel auditing and general overhauling of organizational management, including corporate governance structures (Litvak, 2007; Bhasin, 2007, 2013). Thus, it is a multidisciplinary, multi-dimensional field.

Review of Empirical Studies

Forensic accounting, interchangeably called and referred to as forensic auditing, forensic investigation, investigative accounting, forensic analytics, financial forensics and other similar connotations in the literature, has received a lot of scholarly attention worldwide. Significant research has been conducted on the concept of forensic accounting in general and to the Nigerian banking sector in particular with a lot of emphasis on banking fraud. This section reviews some empirical studies conducted related to the matter under investigation.

Gross (2014) conducted a study to establish if forensic accounting could prevent corporate fraud in the Nigeria business environment, the findings of the study showed that the level of corporate fraud is dependent on the forensic accounting practice in place. Lakshmi (2015) conducted a study in India to determine the significance of forensic accounting application on fraud examination in relation to the state of corporate governance in place. The study found that forensic accounting application was effective in uncovering financial fraud in businesses, especially embezzlement, internal theft, pay offs and kickback and skimming and poor internal control system.

The study by Modugu and Ayaduba (2013) empirically established that there was significant agreement amongst stakeholders on the effectiveness of forensic accounting in improving the quality of financial reporting, the status of corporate governance and internal control quality in Nigeria firms, including banks. Thus, the findings indicate that there was significant effectiveness in the quality of financial reports, corporate governance structures and internal control mechanisms when forensic accounting is in place.

Ajie and Ezi (2000) established that corporate fraud varies widely in the nature, character and method of operation in general, which is further replicated by the study of Karwai (2002) that found that major corporate challenges can only be solved by the application of forensic accounting. Enyi (2009) conducted a study using a real case problem in manufacturing processes to investigate variances and suspected fraudulent activities. The major findings of the study, which employed survey method, suggested that forensic accounting application was successful in taming the problems associated with variances, internal control challenges and other fraudulent activities in the sampled firms.

In Iraq, Alabdullah et al. (2014) sought to establish the impact of using forensic accounting application in reducing financial corruption. The findings showed that there was significant relationship between the application of forensic accounting methods and reducing the level of financial corruption in Iraq.

Based on the general belief that 'poor' internal control and weak corporate governance are the leading factors in poor performance, manipulated financial reports and unhappy stakeholders, led Bhasin (2013) to conduct a study on corporate governance and forensic accountants' role in global regulatory action scenario. The study used proxies, such as the design of corporate governance in place, the role

of financial reporting system in corporate governance, the effect of governance on employee and managerial behavior and the efficacy of internal control systems. The descriptive analysis of the study showed that involving forensic accountants in the governance committee did not only enable significant contributions in good corporate governance of the organizations but also enhanced fraud prevention and investigation, created positive work environment, the establishment of better lines of communication, vigilant oversight functions and better internal control systems.

John (2013) conducted a study on the role of forensic accountants and corporate fraud reduction and found that the application of forensic accounting could instill fraud proof internal control systems in organizations.Adeyemo (2012) conducted a study using descriptive research approach to determine the nature, causes, effects and remedy for bank fraud in Nigeria, using forensic accounting as an antidote. In the same vain, Idolor (2010) conducted a study on bank frauds in Nigeria, espousing the underlying causes, effects and possible remedies. The major conclusion of the study is that almost all the respondents viewed lack of personal ethnics, greed and weak corporate governance structures and poor internal control systems as the major causes of management fraud.Chi-chi andEbimobowei (2012) investigated whether forensic accounting could be effective in the detection of frauds in banks. The findings showed that forensic accounting application has a positive effect in curving the level of frauds in banks.

Islam, et al. (2011), in Bangladesh established as a result of their study, that the application of forensic accounting had effectively worked and was a reliable tool in fraud detection and improving internal control in every corporate setting and concluded by recommending its institutionalization in the whole of Bangladesh as the tool of detection and combating fraud and corruption in all ramifications.

Tomitope (2014) conducted an explanatory study on the effect of forensic accounting on the financial performance of commercial banks in Nigeria. The main conclusion of the study indicated that forensic investigation and forensic litigation were statistically significant in explaining changes in the financial performance of commercial banks. The conclusion and recommendation of the study was that: forensic accounting information has a significant effect on improving the internal control of banks and the financial performance of the institutions.

Ramaswamy (2005) conducted a study to establish the major causes of financial statement fraud. Utilizing a descriptive/deductive reasoning approach, the main conclusion of the study established that, poor corporate governance and accounting failure were some of the reasons why fraud cases happened. This is because certain individual or group of individuals with the same interest, including management, plan and execute fraudulent practices. In addition to this, some top level management who do not, follow policies of the firm provide lee-way for the perpetration of corporate fraud. Some of such fraud may even be engineered, by the top management, such as financial statement manipulation to achieve a selfish end. And all this can be curtailed through the application of forensic accounting which continuously reviews and scrutinizes the financial and non-financial procedures of the organization.

The theories that are appealing and have underpinning relevance to this study is a combination of the Stakeholder Theory and the Fraud Diamond Theory. The Stakeholder Theory outlines how management of an organizational setup can satisfy the various interests of stakeholders in a business.

The theory rests its arguments on the grounds that the firm/organization is a social entity and, therefore, is responsible and accountable to numerous interested parties not only the owners or those directly involved in its affairs. This proposition, is premised on the belief that organizational management and business ethics address morals and values in managing an organization based on the principle that employees, suppliers, creditors, financiers, trade unions, governmental agencies and the general public are all interested in its affairs; as such, the decisions, objectives and operational guidelines of the firm/organization have to be both resource-based and market-based approaches to satisfy the interests of all the stakeholders.

Extending this philosophy (theoretical framework) to the conceptual framework of forensic accounting application justifies using it because the concept of forensic accounting aims at: Minimizing, frauds, wastes, leakages and major errors; improving the quality of financial statements, thus improve the decision making; improving internal control mechanisms by a continuous review and authentication of transactions and procedures; enhancing good corporate governance by ensuring compliance with organizational rules and regulations; and providing reliable and admissible reports to support litigation or administrative reviews which in the end take cognizance of the interests of all the stakeholders and, therefore, of underpinning relevance and guide to this study.

Wolf and Hermanson (2004) developed the theory of the fraud diamond, which is an extension of Cressey's fraud triangle by the inclusion (addition of capabilities) as the fourth variable. According to Wolf and Hermanson (2004), capabilities is the key to the commitment of fraud because even if all the other factors (motive/incentive/pressure, opportunity, rationalization/justification) are available, the fraudster must have the confidence (which they equate with capability) to commit the fraud.

Methodology

The study is an exploratory one which Burns & Groove (2001) defined as a research conducted to gain new insights, discover new ideas and for increasing knowledge of the phenomenon. The underlying premise of adopting this research design is based on the fact that it is best suited in investigating a problem/phenomenon that has not been clearly studied; but it is now anticipated to establish priorities, develop operational definitions and improve on the research approach. A cross-sectional survey research design was adopted, which employed a self-administered questionnaire to target respondents drawn from a sampled population as the source of primary data generation.

The population comprised of the following 5 categories of respondents. These are: The 15 DMBs quoted on the floor of the Nigeria Stock Exchange (NSE) as at 31st December 2017, the 'big 4' audit firms that have forensic accounting departments, the investigative units of the EFCC in Abuja and Lagos, the departments of NDIC (finance/accounts, internal audit, compliance and inspection/supervision) and some forensic accountants in public practice/consultancy.The category of DMBs had 4 departments which included internal audit, inspection, compliance and financial control. The population is comprised of staff in the cadre of Asst. Manager, Deputy Manager, Manager, Senior Manager, Principal Manager, Asst. General Manager, Deputy Gen. Manager and General Managers.The second category of the study population are the big four professional audit firms that have forensic accounting departments, with staff strength in the rank of Assistant Audit Manager, Audit Manager, Audit Senior and Junior Partners. The investigative arm of the Economic and Financial Crimes Commission (E.F.C.C.) also forms part of the list of the population (respondents) of this study.

The operations/investigative units in the 2 offices of E.F.C.C. that form part of the population of the study have senior officers of the rank of Asst. Detective/Operative officers, Detective/Investigation Officers, Senior Detective/Investigation Officers and Unit Directors.The fourth category that makes up the population of the study are members of staff of the following departments of NDIC, which have staff strength of the rank of Assistant Manager, Deputy Manager, Manager, Senior Manager, Principal Manager, Asst. Director, Deputy Director and Directors (as HODs).The 20 firms of Forensic Accountants in public practice offering consultancy services as at 31st December, 2017, forms the 5th category of the study population.The choice of these categories was based on the belief that all the members of the population were assumed to be in a good position to respond to the research instrument and thus considered appropriate and reliable to respond to the questionnaire.

The DBMs are certainly the focal point of the study and this makes them an essential part of the population. All the 'big 4' audit firms have forensic accounting departments and most of the DMBs are being audited by this category. They were, therefore, considered to be a source of generating useful data regarding the phenomena under study.The anti-graft agency (EFCC) is considered by the researcher as a source of vital data, since it gets involved, by law, and institutes charges in matters that border on the prosecution of bank fraud cases. The NDIC is part of the supervisory/regulatory arm of government and the selected departments that made the population handle the Corporation's functions of monitoring, internal audit, bank examination, inspection /surveillance and fidelity insurance cover of the DMBs and, therefore, considered to be a source of valuable data on the phenomena. The Forensic Accounting firms would provide additional impetus to the study.

Given the foregoing, the total population of the study is as follows based on the census of the 5 categories: DMBs 485, the Big-4 Audit Firms 30, NDIC 30, EFCC15 and forensic accounting practitioners, 10 population total= 570. The respondents from all the 5 categories (especially the DMBs' category) were considered as persons occupying high positions with busy schedules. In order not to have poor response rate, it was viewed by the researcher that all members in the categories could meaningfully respond to the research instrument, and the convenience method was used to arrive at the following sample size. Any 3 officers within the cadre described earlier, based on convenience/availability of personnel in each of the 15 listed DMBs' 4 departments as follows:

Internal audit department	15x3= 45,
Inspection department	15x3= 45,
Compliance department	15x3= 45,
Finance/Accounts dept.	15x3=45

Total Sample size for DMB's category is 180.

The sample or respondents from the Big-4 audit firms' category were any 3 members of staff, as earlier described, in each forensic accounting department of the 4 firms. The sample or respondents from EFCC were the 3 most senior personnel in the investigative/detective/operations units of the agency's offices in Abuja and Lagos. Any 3 members of staff of NDIC's respective departments that made the category's population made the sample. As for the forensic accountants offering consultancy services, the whole 10 firms in existence at 31st December, 2017, were taken as the category's sample due to the small size, with 2 respondents from each.

The decision to use a convenience sampling method for the categories was based on the assumption that they were in the class that might have a good idea of what forensic accounting entailed and the phenomenon under investigation in particular (Effiong, 2013). Additionally, they belonged to the middle management (engine room) of these organizations, who form part and may have a say in the decision making process of the organizations (Raezee, 2003). Furthermore, it was considered more appropriate in this situation where the respondents were persons with busy schedules (to avoid poor response rate).

Primary source of data collection was survey method, which employed a self-administered questionnaire to target respondents, totaling 230. The respondents were drawn as provided for in the preceding sub-section. The questionnaire was designed to elicit the views and perceptions of the respondents in relation to significant issues and to answer questions on matters pertaining to the phenomena under investigation. The data generated from the responses was analyzed to answer the research question and test the relevant hypothesis formulated. Each question/statement in the questionnaire (apart from Section 1, which was exclusively related to the respondent's bio-data) was linked to the background of the study or to either statement of the problem or the research question/research objective. Apart from Section 1 and issues 1-3 in Section 2, all the statements/questions in the questionnaire were drawn on summated (5-point Likert scale) designed to elicit the degree of intensity in the respondents' views and/or perceptions on each statement or question raised.

Reliability Test of the Instrument

To establish the internal consistency of all the items in the questionnaire, a reliability test using Chronbach's alpha was conducted on the questions/statements. The result gave an alpha coefficient of 0.989 (Appendix 3), which means, there is stability and consistency of the items in the research instrument and further confirms non-bias(error free) of items and their consistent measurement (Tariq, 2009). To test the hypothesis, the section relating to the applicability of forensic accounting in DMBs was regressed against the section on improving the quality of internal control mechanisms.

Thus:

$IQICM = \beta o + \beta 1AFA + \alpha$

Where:

IQICM = improving the quality of internal control mechanisms

AFA = application of forensic accounting

$Bo - \beta 1$ = are the regression model coefficients (parameters) and

α = error term as the stochastic error term

In summary, therefore, the tools/techniques employed to analyze the generated data composed of:

a) Descriptive statistics

b) Bivariate regression analysis to test the study hypothesis

Presentation, Analysis and Interpretation of Data

The questions and statements contained in the instrument sought to elicit their perceptions and views relating to the key issues of the study, specifically the variables of the study in addition to their bio-data (demographic information).A part from the category of DMBs, all the other categories responded by timely filling correctly and returning the copies of the questionnaire within the space of early response

time allotted by the researcher, which is an indication of the level of enthusiasm exhibited in the study topic by these groups of stakeholders. A total number of 230 copies of the questionnaire were administered, out of which 194 (84%) were correctly filled and returned within the period granted for early response between administration and collection of the instrument.

Descriptive Statistics

Responses on the Extent of Respondents' Knowledge of Forensic Accounting toassess its Applicability

The overall position (item 1of questionnaire) shows that majority (130 or 67%) of the 194 respondents were very familiar with the concept of forensic accounting, while 36 or 19% had a fair knowledge and 12 and 10 average and slight knowledge of it, respectively. This is a clear indication of the fact that most could meaningfully express their views and perceptions on the matter under study. In respect of the question whether they currently apply forensic accounting in their organizations (item 2), only the Big-4, EFCC and members of the IFAN answered in the affirmative with 100% confirmation, while only 7 (58%) of NDIC affirmed 'Yes'. As for those from DMBs, 92%, i.e. 132 of the 144 confirmed none existence of forensic accounting application in their organizations. The findings show that full application of forensic accounting does not exist in the DMBs.

It is also evident from (item 4) that 143 or 73% of the 194 total respondents strongly agreed that forensic accounting is an all-encompassing package, which is applicable through a detailed review of all the activities of organizations and, therefore, can be applied in Nigeria. 36 or 19% agreed with the statement and 15 remained undecided while none either disagreed or strongly disagreed with it. Majority (161 or 83% i.e. items5 and 6), unanimously believed DMBs play strategic and pivotal role in the economy and the key challenges faced by the DMBs center around rising trend of fraud and fraudulent practices, with 114 or 59% and 40 or 21% of the total 194 strongly agreed and agreed to those statements, respectively. For these reasons, full scale forensic accounting is vital in the sector. Item7 also shows that 148 or 76% from the five categories strongly agreed that the challenges of the sector have resulted in poor performance, low viability and often the distress of Nigerian DMBs. 37 or 19% of the total 194 agreed with the statement, while 5 and 4 remained undecided and disagreed, respectively. The overall assessment of the findings to this section further suggests a positive chance of the applicability of forensic accounting in the listed DMBs in Nigeria. Item 3 is in respect of the component/tools of forensic accounting being used by the organizations of the respondents.

The Applicability of Forensic Accounting

The views and perceptions of the respondents from the five categories in (items 8-10) suggest, there is unanimous consensus that forensic accounting can both be fully applied as a 'complement' and run concurrently with the existing internal audit/inspection in Nigerian DMBs. This is because 174 or 90% and 134 or 70% of the total 194 strongly agreed to both assertions respectively; while 8% and19% agreed, only 5 and13 of all were undecided. It further indicates and fortifies the perception that forensic accounting can be applied in listed the DMBs, as it is more elaborate and reliable than internal audit/inspection-a confirmation by 65% or 126 out of 194 who strongly agreed, 14% agreed 13% undecided; while only 5% and 3% respectively disagreed and strongly disagreed to this view all the institutions agreed with the statements that forensic accounting can be fully applied in the listed DMBs in Nigeria as a 'complement' to existing practice because all the responses from the five categories have the mean score of greater than the cut-off point of 3.0. The standard deviations of the responses

for each of the five categories indicate that the institutions are not widely dispersed on the applicability of full forensic accounting as a complement to existing practice. Going by the analysis and interpretation above, it finally reveals that the institutions under consideration support both statements that forensic accounting can be fully applied in the listed DMBs as a 'complement' and run concurrently with the existing practice of internal audit/inspection is possible.

Improving the Internal Control Mechanisms of the listed DMBs in Nigeria

Items 11-16 summarize the responses of all categories of participants in the study survey relating to the statement of the ability of forensic accounting application to improve the internal control mechanisms of organizations (DMBs). 157 or 81% of the 194 participants in the survey strongly agreed that through the detailed review that forensic accounting application is conducted, it can identify loopholes, wastes, inadequacies, leakages and inefficiencies in the operations of organizations. 26 or 13% agreed with this statement, while 3 were undecided and 4 respondents each, disagreed and strongly disagreed, respectively.

The perception of the majority is that forensic accounting application can easily identify and recommend the measures that can arrest major errors, leakages, wastes, corporate malfeasance and management over-ride and any factors that undermine the internal control of organizations. This view is strongly agreed by 141 or 73% of all the survey participants with 32 or 16% agreed, while 17 or 9% were neutral 4 or 2% of disagreed. Furthermore, there is the view that apart from checkmating frauds and other forms of misconducts, participants were asked to express whether forensic accounting application can improve corporate governance in organizations by ensuring proper conduct of affairs. This view was strongly agreed by majority (131 or 68%), agreed by 29 or 15%, undecided by 16 or 8% and disagreed by 17 or 9%, while 4 or 2% of the total 194 strongly disagreed. In addition to the above position, 66 or 34% and 47 or 24% of all the participants strongly agreed and agreed, respectively that in the past measures through law and administrative means have not helped much to curve the challenges faced by the DMBs. For this reason, majority (154 or 79%) strongly agreed that it is time for both managements of DMBs and the regulatory authorities to consider and implement full scale application of forensic accounting as a solution to the multitude of challenges faced by the sector. Even though 27 or 14% were undecided, none either disagreed or strongly disagreed with the statement- an indication of acceptance by majority of participants. All the institutions agreed with the statementsabout improving the internal control mechanisms of the listed DMBs based on the application of forensic accounting because the responses by all the categories have mean score of greater than the cut-off point of 3.0.This reveals that all the institutions under consideration support improving the internal control mechanisms of the DMBs.

Regression Result on the Application of Forensic Accounting on Improving the Internal Control Mechanisms of listed DMBs in Nigeria

To test the hypothesis, answer the research question and achieve the objective of the study, section 2 (items 8-10 of the questionnaire), that is, the applicability of forensic accounting in the DMBs, was regressed against the section (items 11-16), that is, improving the internal control mechanisms of the DMBs. The regression results show the value of R2 as 0.893, which is the multiple coefficient of determination of the model, which gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variable. Hence, it signifies that approximately 89% of total variation in improving the internal control mechanisms of the DMBs can be caused by the

application of forensic accounting. Furthermore the results show the F-Value of 1597.490 and its P-Value is 0.000, which means that the model is fit. Additionally, the regression indicates that the application of forensic accounting has a positive impact on improving the internal control mechanisms of Nigerian DMBs given the impact is statistically significant at 5% with P-Value of 0.000. This implies that as the application of forensic accounting increases, improving the internal control mechanisms of the DMBs also increases. Thus, the null hypothesis is rejected and the alternative hypothesis, which states that the application of forensic accounting in listed DMBs in Nigeria may significantly improve the internal control mechanisms of the DMBs, is accepted. This finding fills the void identified in the extant literature as regards to lack of empirical evidence that specifically support the fact that forensic accounting application could improve the internal control systems of organizations.

Discussion of Findings

In testing the study hypothesis,that is the application of forensic accounting in the listed DMBs in Nigeria may not significantly improve the internal control mechanism of the DMBs, the model IQICM = Bo +BiAFA + a, was tested. This involved, regressing items 8-10, that is, the applicability of forensic accounting in the DMBs against the items in section 3 of the questionnaire that is, improving the quality of internal control mechanisms. The outcome of the finding proves that as the full application of forensic accounting increases 'improving' the internal control mechanisms of the DMBs also increases.

With this finding the null hypothesis is rejected and the alternative hypothesis, which states that the application of forensic accounting in listed DMBs may significantly improve the internal control mechanisms of the DMBs and, therefore, identify the weakness areas in the banks, is accepted. This finding is consistent with those of Modugu&Ayaduba (2013) whose study empirically established that the use of forensic accounting in Nigerian firms (including banks) improves the quality of financial reporting, corporate governance and internal control. Also, Tomitope (2014) established that the resultant effect of application of forensic accounting in commercial banks is improvement in internal control and performance of the banks.

To fortify this finding, the descriptive statistics shows that all the respondents from different categories agreed with the statements, because the mean scores were higher than the 3.0 cut-off point, providing the interpretation that the respondents unanimously agreed that the application of forensic accounting in the DMBs may improve the internal control mechanisms of the banks. However, to determine if there was variation between the responses from the different categories, the Kruskal-Wallis Test was performed and its result presented in Table 4.28 posted KW = 15.344 and P-Value of 0.004, which means there is no significant difference among the responses of the respondents cut-across all the 5 categories regarding improving the internal control mechanisms of the DMBs through the application of forensic accounting.

Conclusion and Recommendations

Conclusion

Based on the evidence established from the analysis of the data generated, it can be concluded that forensic accounting could improve the internal control mechanisms of Listed DMBs in Nigeria by identifying areas of weakness, which could be prone to loopholes, wastes, inefficiencies, major errors, corporate malfeasance and management override. Through detailed review of systems and

procedures, therefore, forensic accounting application can provide effective recommendation for improvement in the internal control systems of the DMBs. The overall implication of the findings of the study provide evidence that full scale forensic accounting application in the DMBs in Nigeria is possible and necessary to complement the existing financial and other control functions currently existing in the banking sector.

Recommendations

On the basis of the findings of the study, it is proffered that DMBs in Nigeria, should immediately institute/create forensic accounting units/departments to 'complement' the existing functions of internal audit/inspection, strictly with authority and power to carry out forensic accounting application functions of continuous review and monitoring of the daily operations, transactions and events (including non- financial activities) given the efficacy of the practice. In order to avoid complicity and conflict of duties, the reports and recommendations of the unit/department should be addressed to the Audit Committees of the organizations' boards, which have powers to oversee the operational functions and implementation of such. In order to achieve this the forensic accounting units/departments should be equipped with well trained and experienced personnel with knowledge in forensic accounting application. The units/departments need to also be equipped with up to date standard gadgets and necessary forensic accounting soft-ware as obtainable in most developed countries and some developing one like India, Malaysia and South Africa. Additionally, the personnel of the unit/department should be re-trained and exposed to the current developments in forensic accounting application techniques and software.

Furthermore, the audit committees of the boards of the DMBs should be composed of knowledgeable people in the concept of forensic accounting, so that they can guide and provide impetus to the forensic accounting functions. The committees should ensure the forensic accounting unit/department gets fully involved in external audit functions to fortify the exercise, in addition to regular review of the internal control systems of the DMBs.Related to the foregoing, Professional accounting (audit) firms should include forensic accountants when designing audit plans and also include them in the audit teams for more qualitative delivery of assignments. This will further boost confidence in the audit reports.The listed DMBs in Nigeria should improve on certain key internal control functions such as segregation of duties, proper supervision of employees, improve on infrastructure (work environment, equipment and security systems), proper training and retraining of staff and adequate compensation of employment package to deter the chances of employee fraud and malpractices.

Areas of Further Research

An exploratory study on a phenomenon of this nature is bound to expose areas that require further research. One particular area is to investigate if ultimately forensic accounting should 'replace' or be a 'supplement' to the existing practice of internal audit/inspection given the evidence established in the literature of its efficacy that it is more elaborate and reliable than the existing system of internal audit/inspection/financial audit.

Secondly, though this study's scope was limited to evidence sought through the banking sector (specifically the DMBs), it can be laudable to consider other sectors to investigate the effect or applicability there as well. Furthermore, though a recommendation was made by this study for immediate and full scale application of forensic accounting in all sectors, another area that requires

further research is in investigating how to arrest the internal and external factors that exist in organizations that may have influence on the level of frauds and other forms of mal- practices in the organizations. This aspect borders on and may require inter-disciplinary research on the socio-psychological aspect of forensic accounting application.

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APPENDICES

Table on Distribution of Questionnaire and Response Rate

S/N	Category of Respondent (Sample)	Administered		Returned		Unreturned	
		No.	%	No.	%	No.	%
1.	15 DMBs (3 copies for each of the 4 selected departments)	180	78.3	144	80	36	20
2.	The Big 4 Audit Firms (3 copies for each Forensic Accounting Dept.)	12	5.2	12	100	0	0
3.	NDIC (3 copies for each of the 4 selected departments of the Corporation)	12	5.2	12	100	0	0
4	EFCC (3 copies for each of its 2 offices in Lagos and Abuja)	6	2.6	6	100	0	0
5	10 firms (2 copies for each of the FA firms in practice)	20	8.7	20	100	0	0
	Total	230	100	194	84.3	36	15.7

Source: Generated by the Researcher from Questionnaire Response; Field Survey, 2017

Statistics on Gender, Position/Rank, Age Bracket, Educational Qualification and Working Experience

	Statements		DMBs		BIG-4		NDIC		EFFC		IFAN		TOTAL	
			No.	%	No	%	No	%	No	%	No	%	No	%
1.	Gender	Male	78	54	8	67	6	50	4	67	14	70	110	57
		Female	66	46	4	33	6	50	2	33	6	30	84	43
2.	Position/ Rank	Senior	138	96	12	100	12	100	6	100	20	100	188	97
		Junior	6	4	-	-	-	-	-	-	-	-	6	3
3.	Educational Qualification	Bachelor's Degree	49	34	2	17	3	25	3	50	10	50	67	35
		Master's Degree	87	60	8	66	8	67	2	33	8	40	113	58
		Doctorate degree	8	6	2	17	1	8	1	17	1	5	13	7
		Professional Qualification	-	-	-	-	-	-	-	-	1	5	1	-
4.	Age Bracket	20-30 years	19	12	-	-	-	-	-	-	2	10	21	11
		31-40 years	54	38	-	-	1	8	6	100	6	30	67	35
		41-50 years	60	42	7	58	4	34	-	-	5	25	76	39
		Above 50 years	11	8	5	42	7	58	-	-	7	35	30	15
5.	Working Experience	1-5 years	18	12.5	-	-	1	8	-	-	2	10	21	11
		6-10 years	33	23	2	17	-	-	5	83	3	15	43	22
		11-15 years	39	27	4	33	2	17	1	17	5	25	51	26
		16 and above	54	37.5	6	50	9	75	-	-	10	50	79	41

Source: Generated by the Researcher from Questionnaire Responses, 2017

ANALYSIS OF QUESTIONNAIRES

Statistics on the Extent of Respondent's Knowledge of Forensic Accounting and whether his/her organization uses Forensic Accounting

	Statements		DMBs		BIG-4		NDIC		EFFC		IFAN		TOTAL	
			No.	%	No	%	No	%	No	%	No	%	No	%
1.	Familiarity with the concept of forensic accounting	a. Very well	98	68	11	92	3	25	3	50	15	75	130	67
		b. Fairly well	22	15	1	8	5	42	3	50	5	25	36	19
		c. on average	16	11	-	-	2	-	-	-	-	17	18	9
		d. Slightly	8	6	-	-	2	-	-	-	-	16	10	5
		e. Not at all	-	-	-	-	-	-	-	-	-	-	-	-
2.	Do you apply forensic accounting in your organization	a. Yes	12	8	12	100	7	58	6	100	20	100	57	29
		b. No	132	92	-	-	5	42	-	-	-	-	137	71
3.	If yes, what component/tool is being used by your organization?	a. Financial forensics	6	50	12	100					10	50		
		b. Computer forensics	6	50	12	100					10	50		
		c. Data mining	-	-	2	17	-	-	-	-	1	8	3	-
		d. Ratio Analysis	-	-	12	100	-	-	-	-	-	-	12	-
		e. Other(s)	-	-	2	17	-	-	-	-	-	-	-	-
4.	FA which involves detailed review of activities can be applied in Nigeria?	Strongly agreed (5)	114	79	11	92	3	25	3	50	12	60	143	73
		Agreed (4)	18	13	1	8	8	67	3	50	6	30	36	19
		Neutral/undecided (3)	12	8	-	-	1	8	-	-	2	10	15	8
		Disagreed (2)	-	-	-	-	-	-	-	-	-	-	-	-
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-
5.	DMBs play a strategic and pivotal role in the economy as such need full application of FA?	Strongly agreed (5)	120	83	8	67	12	100	3	50	12	100	161	83
		Agreed (4)	24	17	4	33	-	-	3	50	-	-	33	17
		Neutral/undecided (3)	-	-	-	-	-	-	-	-	-	-	-	-
		Disagreed (2)	-	-	-	-	-	-	-	-	-	-	-	-
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-
6.	The key challenges faced by listed DMBs in Nigeria are rising trend of frauds and fraudulent practices	Strongly agreed (5)	84	58	9	75	5	42	6	100	10	50	114	59
		Agreed (4)	22	15	3	25	7	58	-	-	8	40	40	21
		Neutral/undecided (3)	30	20	-	-	-	-	-	-	2	10	32	16
		Disagreed (2)	8	7	-	-	-	-	-	-	-	-	8	4
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-
7	The challenges have resulted in poor performance, low viability and often resulted in distress	Strongly agreed (5)	126	88	7	58	1	8	4	67	10	50	148	76
		Agreed (4)	12	8	5	42	8	67	2	33	10	50	37	19
		Neutral/undecided (3)	4	3	-	-	1	8	-	-	-	-	5	3
		Disagreed (2)	2	1	-	-	2	17	-	-	-	-	4	2
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-

Source:Generated by the Researcher using from Questionnaire Response, 2017

Applicability of Full Forensic Accounting as a Complement to Existing Practice

	Statements		DMBs		BIG-4		NDIC		EFFC		IFAN		TOTAL	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	
8.	FA can be fully applied in listed DMBs in Nigeria	Strongly agreed (5)	134	93	8	67	6	50	6	100	20	100	174	90
		Agreed (4)	6	4	4	33	5	42	-	-	-	-	15	8
		Neutral/undecided (3)	4	3	-	-	1	8	-	-	-	-	5	2
		Disagreed (2)	-	-	-	-	-	-	-	-	-	-	-	-
		Strongly Disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-
9.	The application of FA can be run as a complement and concurrently with existing internal audit/inspection	Strongly agreed (5)	102	71	10	84	6	50	4	67	12	67	134	70
		Agreed (4)	20	15	1	8	6	50	2	33	8	33	37	19
		Neutral/undecided (3)	12	8	1	8	-	-	-	-	-	-	13	7
		Disagreed (2)	5	3	-	-	-	-	-	-	-	-	5	2
		Strongly disagreed (1)	5	3	-	-	-	-	-	-	-	-	5	2
10.	FA application is more elaborate and reliable than internal audit/inspection?	Strongly agreed (5)	92	64	9	75	6	50	5	83	14	70	126	65
		Agreed (4)	16	11	2	17	2	17	1	17	6	30	27	14
		Neutral/undecided (3)	20	14	1	8	4	33	-	-	-	-	25	13
		Disagreed (2)	10	7	-	-	-	-	-	-	-	-	10	5
		Strongly disagreed (1)	6	4	-	-	-	-	-	-	-	-	6	3

Source: Generated by the Researcher from Questionnaire Response, 2017

Improving the Internal Control Mechanisms of listed DMBs in Nigeria

	Statements		DMBs		BIG-4		NDIC		EFFC		IFAN		TOTAL	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
11.	The existence of some factors, give rise to frauds and fraudulent practices in organizations?	Strongly agreed (5)	96	67	9	75	7	58	-	-	-	-	112	58
		Agreed (4)	22	15	3	25	3	25	4	67	10	50	42	22
		Neutral/undecided (3)	14	10	-	-	2	17	2	33	7	35	25	13
		Disagreed (2)	5	3	-	-	-	-	-	-	3	15	8	4
		Strongly disagreed (1)	7	5	-	-	-	-	-	-	-	-	7	3
12.	FA can identify loopholes, wastes inefficiencies and inadequacies in organizations (DMBs)?	Strongly agreed (5)	117	81	7	58	10	83	5	83	18	90	157	81
		Agreed (4)	16	11	5	42	2	17	1	17	2	10	26	13
		Neutral/undecided (3)	3	2	-	-	-	-	-	-	-	-	3	2
		Disagreed (2)	4	3	-	-	-	-	-	-	-	-	4	2
		Strongly disagreed (1)	4	3	-	-	-	-	-	-	-	-	4	2
13	The application of FA can easily identify and recommend effective measures to	Strongly agreed (5)	121	84	8	67	12	10	-	-	-	-	141	73
		Agreed (4)	15	10	3	25	-	-	2	33	12	60	32	16

	improve the internal controls of organizations (DMBs)	Neutral/undecided (3)	7	5	1	8	-	-	3	50	6	30	17	9
		Disagreed (2)	1	1	-	-	-	-	1	17	2	10	4	2
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-
14.	FA can improve corporate governance by ensuring proper conduct of affairs?	Strongly agreed (5)	106	74	8	67	5	42	-	-	12	60	131	68
		Agreed (4)	12	8	3	25	4	33	4	67	6	30	29	15
		Neutral/undecided (3)	11	7	1	8	-	-	2	33	2	10	16	8
		Disagreed (2)	8	6	-	-	2	17	-	-	-	-	10	5
		Strongly disagreed (1)	7	5	-	-	1	8	-	-	-	-	8	4
15.	In the past, measures through law and administrative means have not helped much to curve the challenges faced by the DMBs?	Strongly agreed (5)	42	29	7	59	4	33	3	50	10	50	66	34
		Agreed (4)	36	25	3	25	3	25	-	-	5	25	47	24
		Neutral/undecided (3)	28	19	1	8	2	17	3	50	5	25	39	20
		Disagreed (2)	16	11			3	25	-	-	-	-	19	10
		Strongly disagreed (1)	22	15	1	8	-	-	-	-	-	-	23	12
16.	Managements of DMBs and the regulatory should implement full scale application of FA as solution to the challenges of the sector?	Strongly agreed (5)	122	85	8	67	6	50	3	50	15	75	154	79
		Agreed (4)	10	7	3	25	6	50	3	50	5	25	27	14
		Neutral/undecided (3)	12	8	1	8	-	-	-	-	-	-	13	7
		Disagreed (2)	-	-	-	-	-	-	-	-	-	-	-	-
		Strongly disagreed (1)	-	-	-	-	-	-	-	-	-	-	-	-

Source: Generated by the Researcher from Questionnaire Response, 2017

TABLES OF VARIOUS ANALYSES CONTAINED IN THE STUDY

ANOVA & Regression & Reliability Test
Kruskal-Wallis Test

Ranks

	Category	N	Mean Rank
Application of Forensic Accounting	DMB	144	7.56
	BIG 4	12	03.13
	NDIC	12	9.79
	EFCC	6	03.83
	IFAN	20	02.45
	Total	194	

Test Statistics[a,b]

	Application of Forensic Accounting
Chi-Square	2.062
Of	4
Asymp. Sig.	.724

a. Kruskal Wallis Test
b. Grouping Variable: Category

Kruskal-Wallis Test
Ranks

	Category	N	Mean Rank
Improving Internal Control Mechanism	DMB	144	02.80
	BIG 4	12	17.75
	NDIC	12	95.08
	EFCC	6	47.92
	IFAN	20	63.55
	Total	194	

Test Statistics[a,b]

	Improving Internal Control Mechanism
Chi-Square	15.344
Of	4
Asymp. Sig.	.004

a. Kruskal Wallis Test
b. Grouping Variable: Category

Kruskal-Wallis Test

Ranks

	Category	N	Mean Rank
Internal and External Factors Affecting Fraud	DMB	144	107.22
	BIG 4	12	62.54
	NDIC	12	53.54
	EFCC	6	42.25
	IFAN	20	91.48
	Total	194	

Test Statistics[a,b]

	Internal and External Factors Affecting Fraud
Chi-Square	27.009
Of	4
Asymp. Sig.	.000

a. Kruskal Wallis Test

b. Grouping Variable: Category

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	945[a]	893	.892	.27160	893	597.490	1	192	.000

a. Predictors: (Constant), Application of Forensic Accounting

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig
1	Regression	117.838	1	117.838	1597.490	00[b]
	Residual	14.163	192	.074		
	Total	132.001	193			

a. Dependent Variable: Improving Internal Control

b. Predictors: (Constant), Application of Forensic Accounting

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.377	.120		-3.132	.002
	Apptn	1 041	026	945	39 96	000

a. Dependent Variable: proving Internal Control

Reliability Statistics

Cronbach's Alpha	N of Item
.989	40

Cronbach's Alpha Reliability/Validity Test

Descriptive Statistics

	N Statistic	Skewness Statistic	Std. Srror
Applicability of forensic accounting	194	-2.056	.175
Improving the internal control mechanisms	194	-1.729	.175
Valid N (listwise)	194		

EFFECT OF CREATIVE ACCOUNTING ON AUDIT RISK AND AUDIT FAILURE IN NIGERIA: THE AUDITOR'S PERSPECTIVE.

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Abstract

The study examined the effect of creative accounting on audit risk and audit failure amongst practicing auditors in the South-eastern geopolitical zone of Nigeria. The study employed survey research design using Chi-square to analyze data from questionnaires issued to 115 respondents among 4 audit firm from the geo-political zone in November 2018. Findings from the study revealed that creative accounting has a significant effect on audit risk while, creative accounting has no significant effect on audit failure. Hence, based on the results obtained from this study it is recommended that, Auditors should ensure that detail attention is given to the detection of creative accounting practice by managers during the course of audit practice and auditors must make sure that they adhere strictly to the rules of the GAAP during practice in order to avoid failure of audit.

Keywords: Creative Accounting, Audit Risk and Audit Failure.

Introduction

To understand the reasons behind creative accounting we must first look at what leads to creative accounting? (Yan, 2003). The answer to this question lies in the conflicts of interest among different stakeholders of s business (Sanusi & Izedonmi, 2014). While, managing shareholders' interest is to pay less tax and dividends, Investor-shareholders are interested in getting more dividends and capital gains. On the other hand, country's tax authorities are interested in collecting more and more taxes. Again, employees put their interest in better salaries and higher profit share. In the face of all this conflicting interest of various stakeholders, creative accounting puts one group or two to advantageous position at the expense of others. In an attempt to conceptualise creative accounting, Mulford and Comiskey (2002); Van der Poll, (2004) were of the opinion that management use book entries as strategic tools to manipulate the financial statements which informs the practice of creative

accounting and this, in the long run, may mislead the firm's stakeholders to the advantage of the managers.

As stated in Mathew and Perere (1996) creative accounting increases the risk faced by auditors in the course of an audit. The word creative in connection with accounting is often thought of as a dirty word with negative connotations (*Fizza&Qaisar 2015*). From a creativity point of view, it may have positive effects if it enhances the development of accounting practice. However, when creative accounting techniques are used by a company, audit risk increases and may consequently result in investment loss if such company fails (Lei, 2009). External auditors are statutorily expected to conduct audit exercises on organizations and give an independent opinion on their financial statements. Such opinion gives the users of the financial statements some level of confidence that the accounts give a true and fair view of the financial position of the firm. In spite of such opinion, corporate failures have been witnessed and material misstatements have been discovered after audit (Iwu-Egwuonwu, 2011). This indeed is a problem posed by creative accounting.
Several authors such as Sundi, Chen and Hua (2006); Mulford and Comiskey (2002);*Gabar, (2015)* and Van der Poll, (2004) have tried to investigate the concept of creative accounting and the various techniques used by management to manipulate financial statements. However in their studies, the impact of creative accounting practices on the audit of financial statements and the consequent effect on audit failure has not been up to date with events in Nigeria. Thus, this study seeks to examine effect of creative accounting practice on audit risk and audit failure in Nigeria. The specific objectives of this study includes to:

i. determine the effect of creative accounting practice on audit risk in Nigeria.
ii. ascertain the effect of creative accounting practice on audit failure in Nigeria.

Literature Review

Concept of Creative Accounting

Creative Accounting as defined by Naser, (1992) is the transformation of financial accounting figures from what they actually are to what the management desires by taking advantage of the existing accounting rules and standards or ignoring some or all of them. Other notable words used by previous authors to describe creative accounting includes; manipulative accounting, fraudulent accounting, income smoothing, earnings management, earnings smoothing, financial engineering, window dressing and cosmetic accounting. Also, creative accounting involves both income statement and balance sheet manipulations (Stolowy, 2000).

In spite of the fact that the concept of creative accounting is frequently used in business literature, there is no definition that is generally accepted but several authors like, Griffith (1986); Michael (1998) and Zhan (2009) consider creative accounting as an assembly of techniques, options and freedom room left by accounting regulations, without moving away from laws or accounting requirements, allowing the managers to change the financial result or the financial statements' face.
Balaciu et.al (2009) identified six main areas considered as the major sources of incentives for and areas of creative accounting practices. They stated out these incentive areas as: flexibility in regulation, a lack of regulation, a scope for management that assumed some targets for the future, the timing of some transactions, the use of artificial transactions, and finally, the reclassification and presentation of financials. In their studies they proved that even in highly regulated countries such as USA the accounting environment afford, a great deal of flexibility.

Creative Accounting and Audit Risk

Porter et al. (2003) defined audit risk as the risk that arises when auditors give an inappropriate opinion on financial statements. In their study they identified two forms of audit risk which are: the risk that occurs when the auditor expresses a qualified opinion (say something is missing) on financial statements that are not materially misstated and the risk that the auditor may express an unqualified (clean) opinion on financial statements that are materially misstated. The International Auditing and Assurance Standards Board (IAASB) Glossary of Terms defines audit risk as the risk that the auditor expresses an inappropriate audit opinion when the financial statements are materially misstated.

Porter et al., (2003) further stated that, in order to reduce audit risk to desired level, auditors must plan the nature, timing and extent of audit procedures carefully. When planning an audit, auditors must consider the likelihood of error in the light of inherent risk and the system of internal control in order to determine the extent of work required to satisfy themselves that the risk of error in the financial statements is sufficiently low (Okoye & Alao, 2008).

Creative Accounting and Audit Failure

Zhou et.al (2006) in their Study on American Audit Failure, defined audit failure as a situation whereby a Certified Public Accountant (CPA) makes an error audit opinion for unfaithful financial statements as a result of non-conformity to audit standard. A properly done audit does not guarantee zero distortions in the financial reports but makes sure that, serious distortions are unlikely to occur. Thus, audit failure cannot occur unless there is serious auditors' error or misjudgement (Tackett et al., 2004). Not just that, poor audit planning and audit quality may also lead to audit failure where the auditors fail to exercise professional scepticism and material misstatements championed by creative accounting practices which goes unnoticed.

In today's multifaceted and multidisciplinary economic environment, management of organization places more and more emphasis on increasing results with fewer resources through evaluation of the economy, efficiency, and effectiveness of the organization's operations (Reider, 2007). While the audit provides an after-the-fact opinion that financial statements present a fair view of company affairs, no guarantee is made to conclude that company operations are conducted in the most economical, efficient, and effective manner(Allen, Hermanson, Kozloski & Ramsay, 2006).

Theoretical Framework

This study is anchored on the signaling theory but the agency theory which is a relevant theory to the study of creative accounting is discussed as well.

*The signaling theory: S*ignaling refers to a situation where one party conveys information to another party. Scott et al., (2009) define signal as an action taken by a high-type manager that would not be rational if that manager was low type. Scott et al. (2009) suggest that creative accounting may be used for signaling as managers will try to smooth the financial statement in the manner it will transmit the desired information to the other stakeholders of the firm. More specifically, the authors stated that creative accounting is used to reveal persistent earnings power which is interpreted as a signal since earnings reversal can make it very costly for a low-type manager to manipulate and report higher earnings that can be maintained.

The agency theory: As propounded by Jensen & Meckling (1976) is *the separation of ownership and control*. This includes that the owner (the principal) engages the manager (the agent) to perform

services on behalf of her and delegates decision making authority to the agent but in same regards both stakeholder's views and interest are not the same. The agency theory helps to analyze the relationship between the principal and the agent. It analyses contracts designed to motivate a rational agent to act on behalf of a principal when her interests could otherwise conflict with those of the principal (Scott et al, 2009). As a result of the conflicting interest, the owners (shareholders) engage the services of a third party (Auditor), who is independent to serve as a watch dog and to protect the interest of the owners (Zhang, 2009).

Empirical Literature

Most researchers have examined different aspects of creative accounting and earnings smoothing as well as the issues of audit risk and failure. Some of these studies are reviewed below:

Allam, Adel and Sameh *(2013)* Investigated the relationship between audit quality on performance, which includes earnings smoothing, operating and stock performance. The study sampled 106 firms from the financial sector listed in the Amman Stock Exchange Market with a total of 212 observations during the 2008-2009 sample years. The results showed that the audit quality has an impact on earnings smoothing and stock performance. It does not have an effect on operating performance.

Teitel and Machuga (2010) carried out a similar study and found out that firms that hire high quality auditors have greater improvements in earnings quality after implementation of the Best Corporate Practices Code in Mexico than firms that hire low quality auditors. In Mexico, they believe that hiring high quality auditors may be a private contractual mechanism replacing their weak regulatory environment.

However, Lei (2009) carried out a study about creative accounting and audit risk and observed that when creative accounting techniques are used by companies in China, audit risk is increased and may consequently result in investment loss if such company fails. This is in line with observation to the Enron case in the United States, which the failure of the firm was traced to creative accounting practices which was unnoticed or might have been completely ignored by their auditors during the audit.

Ahmed (2017) studied the impact of creative accounting ethics techniques on the reliability of financial reporting from auditors and academics point of view. He collected data through a well-structured questionnaire is designed and distributed it to a randomly chosen sample of certified auditors and accounting instructors in some universities in Saudi Arabia. He analysed his data using descriptive and inferential statistics. His results, deduced that creative accounting techniques used by management negatively affect the reliability of financial reporting. Also, that the statutory auditor plays an important role in promoting creative accounting practice in such way that positively affect the reliability of financial reporting.

Methodology

This study adopts survey research design and Questionnaires were administered in order to collect data for analysis using descriptive statistics such as tables to aid data presentation and but for inference purpose, Chi-square and T tests were considered for conducting test of hypotheses 1 & 2. The data were collected from four big auditing firms in south eastern Nigerian States in 2018viz Ben

Ekedebe and Associates, Tom Omeagwa and Associates, S. C Ugbonta and Associates and Ben Ngirigwa and Associates.
To this end, both open and close ended questionnaire were carefully prepared and administered to all selected respondents to complete those question contain in the questionnaire.

The instrument for data collection is a structured questionnaire with 20 questions designed to enable detection and seek the ideas of the auditors on the effect of creative accounting on audit risk and failure. 163 questionnaires formed the population of the study but using Taro Yamane we got 115 as our sample size. The questionnaire is designed in a Likert summation manner which will is scaled thus:

Strongly agree (SA)	4
Agree (A)	3
Disagree (DA)	2
Strongly Disagree (SD)	1
Undecided (UD)	0

The questionnaires were administered directly to the respondents who are practicing Auditors.
Thus, the questionnaire will be administered in this category:

Result Presentation and Analysis

POSITION	FREQUENCY	PERCENTAGE
Ben Ekedebe& Associates	28	24.3
Tom Omeagwa& Associates	28	24.3
S. C Ugbonta& Associates	30	26.1
Ben Ngirigwa& Associates	29	25.2
TOTAL	115	100

In this section, relevant descriptive statistics analysis required to characterize the nomenclature of the respondent as well as responses to research questions. Inferential statistics that are also required for informing the researchers' decision as to whether to reject or accept the stated hypotheses is also conducted and analyzed. Two Hypotheses were specified in this study. This section presents the results of the Chi-square and the Cramer's V for goodness of fit test.

Descriptive Analysis of Respondent Bio Data

From the data gotten. It is revealed that the various respondents in all the audit firms within the South

Table 4.1: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean
AGE	115	27.00	25.00	52.00	36.1739
NYS	115	28.00	2.00	30.00	10.7913
Valid N (listwise)	115				

Eastern zone of Nigeria has age range of 27 years. Among the Auditors, the least age is 25 while, the maximum age of the auditors working is 52 years. For the Number of Years in Service (NYS) the result of the data collated revealed the range NYS as 28. The Minimum NYS among the Auditors with the audit firms is 2 years while the maximum NYS is 30.
On an average, the mean age of all the auditors (Respondent) is 36.1739 while, the mean NYS for the

auditors is 10.7913. This average shows the overall Age and level of experience the respondent as a whole possesses. With an Average NYS of 10.7913, the data reveals that the Auditors sampled have enough working experience needed to give a sound opinion on the topic under review by the study.

Analysis of Responses

Table 4.2 Post Hoc Analysis (Cross tabulation) on the Impact of Creative accounting on Audit Risk

From the responses obtained in the table above. 1.7% of the respondent Disagreed while, 30.4%

Table 4 2: Crosstab

			Audit Risk					Total
			No Respond	Disagreed	Strongly Disagreed	Agreed	Strongly Agreed	
Creative Accounting	Disagreed	Count	0	0	2	0	0	2
		Expected Count	.2	.2	.9	.5	.3	2.0
		% within Creative Accounting	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
		% within Audit Risk	0.0%	0.0%	3.8%	0.0%	0.0%	1.7%
		% of Total	0.0%	0.0%	1.7%	0.0%	0.0%	1.7%
		Residual	-.2	-.2	1.1	-.5	-.3	
		Std. Residual	-.4	-.4	1.2	-.7	-.5	
	Strongly Disagreed	Count	1	1	8	13	12	35
		Expected Count	2.7	3.0	15.8	8.8	4.6	35.0
		% within Creative Accounting	2.9%	2.9%	22.9%	37.1%	34.3%	100.0%
		% within Audit Risk	11.1%	10.0%	15.4%	44.8%	80.0%	30.4%
		% of Total	0.9%	0.9%	7.0%	11.3%	10.4%	30.4%
		Residual	-1.7	-2.0	-7.8	4.2	7.4	
		Std. Residual	-1.1	-1.2	-2.0	1.4	3.5	
	Agreed	Count	3	4	21	13	3	44
		Expected Count	3.4	3.8	19.9	11.1	5.7	44.0
		% within Creative Accounting	6.8%	9.1%	47.7%	29.5%	6.8%	100.0%
		% within Audit Risk	33.3%	40.0%	40.4%	44.8%	20.0%	38.3%
		% of Total	2.6%	3.5%	18.3%	11.3%	2.6%	38.3%
		Residual	-.4	.2	1.1	1.9	-2.7	
		Std. Residual	-.2	.1	.2	.6	-1.1	
	Strongly Agreed	Count	5	5	21	3	0	34
		Expected Count	2.7	3.0	15.4	8.6	4.4	34.0
		% within Creative Accounting	14.7%	14.7%	61.8%	8.8%	0.0%	100.0%
		% within Audit Risk	55.6%	50.0%	40.4%	10.3%	0.0%	29.6%
		% of Total	4.3%	4.3%	18.3%	2.6%	0.0%	29.6%
		Residual	2.3	2.0	5.6	-5.6	-4.4	
		Std. Residual	1.4	1.2	1.4	-1.9	-2.1	
Total		Count	9	10	52	29	15	115
		Expected Count	9.0	10.0	52.0	29.0	15.0	115.0

	Residual	2.3	2.0	5.6	-5.6	-4.4	
	Std. Residual	1.4	1.2	1.4	-1.9	-2.1	
Total	Count	9	10	52	29	15	115
	Expected Count	9.0	10.0	52.0	29.0	15.0	115.0
	% within Creative Accounting	7.8%	8.7%	45.2%	25.2%	13.0%	100.0%
	% within Audit Risk	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	7 8%	8 7%	45 2%	25 2%	13 0%	100 0%

strongly disagreed that creative accounting does not have an impact on Audit risk. Also 38.3% agreed while, 29.6% strongly agreed that the practice of creative accounting has a significant impact on audit risk.

Test of Hypothesis I

Ho_1: Creative accounting practice does not have positive and significant impact on audit risk.

Table 4 3: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.198[a]	12	.000
Likelihood Ratio	41.663	12	.000
Linear-by-Linear Association	23.375	1	.000
N of Valid Cases	115		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .16.

The Chi Square was used to test hypothesis one. This type of test statistics becomes appealing for this study as ordinal data measured with Likert-scale make up the data for the hypothesis.
Meanwhile, responses bordering on respondents' indecision (undecided) were not considered. The data were therefore categorized into four scales (5-1). The aim of the resultant category is to prepare the data in the required form for the test, since there is the need to compare whether there is a significant independence and/or difference between those who agreed and those who do not.
The Table 4.3 above presents test result on the impact of creative accounting practice on audit risk. Chi square test of independence was run to determine whether there is a significant relationship between creative accounting practice and audit risk among the sampled respondents.

Decision Rule

From the analysis above, there is a statistically significant relationship between creative accounting practice and audit risk (= 38.198, p = 0.000). The Pearson's Chi- Square value of 38.198 is greater than the table value of 9.49 and the significant level of 0.000 is less than the accepted significant level of 0.05. Therefore, the null hypothesis is rejected while the alternate hypothesis is accepted, implying that creative accounting practice has positive and significant impact on audit risk.
From the responses obtained from the table above. 3.1% of the respondent Disagreed while, 29.0%

Table 4.4 Post Hoc Analysis (Cross tabulation) on the Impact of Creative accounting on Audit Failure

Table 4.4: Crosstab

			Audit Failure				Total
			Disagree	Strongly Disagreed	Agreed	Strongly Agreed	
Creative Accounting	Disagreed	Count	0	2	0	0	2
		Expected Count	6	9	3	.1	2.0
		% within Creat Accounting	0.0%	00.0%	0.0%	0.0%	100.0%
		% within Audit Failure	0.0%	3.8%	0.0%	0.0%	3.17%
		% of Total	0.0%	.7%	0.0%	0.0%	3.1%
		Residual	-.6	.1	.3	-.1	
		Std. Residual	-.8	.1	.6	-.4	
	Strongly Disagreed	Count	7	7	10	1	35
		Expected Coun	11.0	6.1	5.5	2.4	35.0
		% within Creat Accounting	20.0%	48.6%	28.6%	2.9%	100.0%
		% within Audit Failure	19.4%	32.1%	55.6%	12.5%	29.0%
		% of Total	6.1%	4.8%	8.7%	0.9%	29.0%
		Residual	-4.0	9	4.5	-1.4	
		Std. Residual	-1.2	2	1.9	-.9	
	Agreed	Count	17	9	6	2	44
		Expected Coun	13.8	20.3	6.9	3.1	44.0
		% within Creat Accounting	38.6%	43.2%	13.6%	4.5%	100.0%
		% within Audit Failure	47.2%	35.8%	33.3%	25.0%	28.3%
		% of Total	14.8%	6.5%	5.2%	1.7%	28.3%
		Residual	3.2	1.3	.9	-1.1	
		Std. Residual	9	.3	.3	-.6	
	Strongly Agreed	Count	12	5	2	5	34
		Expected Coun	10.6	5.7	5.3	2.4	34.0
		% within Creat Accounting	35.3%	44.1%	5.9%	14.7%	100.0%
		% within Audit Failure	33.3%	28.3%	11.1%	62.5%	39.6%
		% of Total	10.4%	3.0%	1.7%	4.3%	39.6%
		Residual	1.4	.7	3.3	2.6	
		Std. Residual	4	.2	1.4	1.7	
Total		Count	36	53	18	8	115
		Expected Coun	36.0	53.0	18.0	8.0	115.0

Total	% within Creative Accounting	31.3%	46.1%	15.7%	7.0%	100.0%
	% within Audit Failure	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	31.3%	46.1%	15.7%	7.0%	100 0%

strongly disagreed that creative accounting does not have an impact on Audit failure. Also 28.3% agreed while, 39.6% strongly agreed that the practice of creative accounting has a significant impact on audit failure.

Test of Hypothesis Two

Ho_2: Creative accounting practice does not have positive and significant impact on audit failure.

The Chi Square was used to test our hypothesis two. This type of test statistics becomes appealing for

Table 4 5: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.921[a]	9	.093
Likelihood Ratio	15.332	9	.082
Linear-by-Linear Association	.447	1	.504
N of Valid Cases	115		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .14.

this study as ordinal data measured with Likert-scale make up the data for the hypothesis.

The Table 4.5 above presents test result on the impact of creative accounting practice on audit failure. Chi square test of independence was run to determine whether there is a significant relationship between creative accounting practice and audit failure among the sampled respondents.

Decision Rule

From the analysis above, there is no statistically significant relationship between creative accounting practice and audit failure (= 14.921, p = 0.093). The Pearson's Chi- Square value of 14.921 is greater than the table value of 9.49 but the level of significance is 0.093 which is above the accepted level of significance (0.05). Therefore, the null hypothesis is accepted while the alternate hypothesis is rejected, implying that creative accounting practice has positive but insignificant effect on audit failure.

Discussion of Results

In line with the first specific objective which was set to determine the impact of creative accounting practice on audit risk. The results this study indicate that creative accounting practice has a positive and significant impact on audit risk. Our findings is consistent with the works of Lei (2009) who found that when creative accounting techniques are used by a company, audit risk increases and may consequently result in investment loss if such company fails.

Also, the second specific objective which was set to ascertain the impact of creative accounting practice on audit failure. Results revealed that creative accounting has a positive but insignificant impact on audit failure. A high audit risk will consequently result in investment loss if such company fails. Audit failure is said to have occurred when there is a serious distortion of the financial statements which is not reflected in the audit report, and the auditor has made a serious error in the conduct of the

audit (Arens, et al 2002) This assertion our findings is consistent with the works of Zhou and Liu (2006), in the Study of American Audit Failure, who found that auditors may unknowingly fail to appropriate his or her opinion on financial statements that are materiality misstated.

Conclusion and Recommendations

From the findings of this study, it is concluded that creative accounting has a significant effect on audit risk but has no significant effect on audit failure.

Auditors should ensure that detail attention is given to the detection of creative accounting practice by managers during the course of audit practice and auditors must make sure that the adhere strictly to the rules of the GAAP during practice in order to avoid failure of audit.

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Appendix I
List of Unused Tables

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	576	.000
	Cramer's V	333	.000
N of Valid Cases		115	

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

Symmetric Measures

		Value	Approx Sig
Nominal by Nominal	Phi	.360	.093
	Cramer's V	.208	.093
N of Valid Cases		115	

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

EFFECT OF EARNINGS MANAGEMENT ON DIVIDEND POLICY OF QUOTED DIVERSIFIED COMPANIES IN NIGERIA

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Abstract

Earnings management is an accounting process that managers adopt to manipulate the earnings of the company through accounting choices and discretionary accruals. Existing literature suggests that different dividend policy have different impact on earnings management. The findings from prior studies provide confliction and contradicting results regarding the relationship between earnings management and dividend policy. This study therefore examines the effect of earnings management on dividend policy of quoted diversified companies in Nigeria. The study adopts correlation research design. The population of the study is the six (6) Diversified Firms listed on the Nigerian Stock Exchange as at 31st December 2017. The study took a census approach of all the six (6) Listed Diversified Firms over the period of the study. Panel regression technique was employed in analyzing the panel data obtained from audited annual reports and accounts of the sampled firms for the period 2008-2017. The results revealed that earnings management has significant negative effect on dividend policy of quoted diversified companies in Nigeria. In line with the finding, the study recommends that investors whose primary motive is dividend should focus their investment more on quoted diversified firms as their earnings is free from earnings manipulation.

Keywords: Earnings Management, Discretionary Accruals, Dividend Policy

Introduction

Stakeholders use financial statement which provide information about the financial activities of an entity for major decision making. One of the fundamental variables of financial statement that stakeholders and regulators use for effective and efficient decision making is the reported earnings numbers. Reported earnings particularly the “accounting earnings” indicate firm's direction, reduces information asymmetry and ensures efficient capital allocation. This is achievable only if the managers did not alter the financial statement. The prevalence of corporate scandals that are related to earnings management practices has raised concerns and remain a contemporary issues to researchers, regulators and investors in the 21stcentury and during the last two decades in particular. Following this

scenario, a critical look at dividends, as a reward to investors cannot be exaggerated as dividends are paid out of reported earnings.

Dividend policy is a policy that determines the amount of earnings to be distributed to investors in form of dividend and the amount to retain for business growth. Dividend policy is more imperative for the companies because it decide how much funds retained by the firm for investment and how much fund give to the investor as a dividend (Ross, Westerfield, & Jaffe, 2002). More over the dividend policy tells about the firm performance to the shareholder. The cost of capital is influenced by the future cash flows and future potential dividends determined by the firm investment (Foong, Zakaria, & Tan, 2007).Dividend policy is the regulations and guidelines that a company uses to decide to make dividend payments to shareholders (Nissim&Ziv, 2001). The dividend policy decisions of firms are the primary element of corporate policy.

Earnings management is considered an unfavorable behaviours of companies which can affect not only their credibility and reputation but also their stock performance. Bello (2011) argues that earnings management in whatever form is misrepresentation of true fact and figures of accounts that erode shareholder's confidence on the reported companies financials. Moreover, Yero (2012) posits that, management report managed earnings to manipulate information asymmetry and misguide ill-equipped users.Based on literature review, earnings management also affects dividend policy of companies (Ali Shah Yuan& Zafar, 2010; Kazemi,Rostami&Ghorbani, 2014).That is, as companies attempt to manipulate their accountingnumbers, for some reasons such as attracting investors, satisfying shareholders and creditors and etc., their reported earnings do not reflect their real performance and also the ability to pay dividends. Company uses earnings management to increase its reported earnings number to attract investors, leading to an increase in stock price.Regrettably, earnings management will lead to the greater accrual component of earnings, causing this component to grow faster than the cash flow component of earnings. As a result, dividend payment is unlikely to grow despite the increase in reported earnings and stock price.

Most of the previous studies on interaction between earnings management and dividend policy were conducted in the industrialized Western and Asian countries (Savov , 2006 Syed, Hui &Nousheen2010; Cormi, Akbar&Tahira, 2012;Farhan, Neha&Muhammad 2017, Wen, Lilian, Nataliya & Bohui 2017). In contrast, only few studies have so far been conducted in Nigeria (Augustine, 2014 Idris, Ajide & Aderemi 2014;Hussaini&Jamila 2015). Similarly, most of the related studies concentrated on quoted non-financial firms in Nigeria. As a result, their findings appeared too generic and not sector specific. Furthermore, most of the studies conducted. More so, most of the studies conducted in this area made use of ordinary least square and Tobit regression techniques.These techniques are deficient in terms of reflecting time variant and specific characteristic issues. Therefore, this study employs more robust regression technique (GLS multiple regression technique) to take care of the deficiencies in the OLS and Tobit regression techniques of analysis. Likewise, most of the studies used Jones (1991), Modified Jones (1995) in segregating discretionary and non-discretionary accruals. Most of the studies on this aspect used models of discretionary accruals. Although these models are deficient in not recognizing performance in the non-discretionary portion of accruals, which may influence total accrual, thereby leading to wrong conclusion (Kothari, Leone & Wasley; 2005). Therefore, this study covered the gap byusing Kothari et al. 2005 performance adjusted discretionary accrual model.

Nigerian diversified companies are important sector of the economy that engage in entirely different businesses that fall under one corporate group, usually involving a parent company and many subsidiaries. They are often multi-industry and most times, large and multinational. They are made up of different seemingly unrelated businesses, cutting across number of economic subsectors such as consumer goods, oil and gas, banking and so forth. The diversified companies of the Nigerian economy, where previous studies have not sufficiently emphasized on. The listed diversified companies are of interest, since it has been argued that diversified companies are more likely to managed earning and more precisely through revenue and expenses manipulations and changing in accounting estimates as they impact on the timing and amount of reported earnings.

Therefore, this presents an interesting case for examining the effect of earnings management and dividend policy of quoted diversified companies in Nigeria.
To achieve the objective of the study, the following null hypothesis is raised to guide the study:
H0: Earnings management has no significant effect on dividend policy of quoted diversified companies in Nigeria.

The findings from this research have policy implications for regulators, shareholders and researchers. For instance, recently, regulators have attempted to improve financial reporting quality by strengthening corporate financial structures. On the other hand, investors and shareholder activists also call for reducing fraudulent reporting in order to enhance firm value. Hence, the findings from this study are an effort towards factors affecting fraudulent financial reporting in terms of earnings management. Also, researchers can benefit from the outcome of this research since it contributes to the body existing literatures by providing an empirical evidence on the relationship between earnings management and dividend policy of quoted diversified companies in Nigeria.

The remainder of the paper is divided into four sections. Section 2 reviews previous literatures on the relationship between earnings management and dividend policy. It also discusses the measurement of earnings management through the estimation of discretionary accruals. Section 3 outlines the research method used to test the hypotheses. Section 4 reports the present study's results and data analysis. Section 5 deals with conclusion and recommendations from the study outcome.

Literature Review

Related literature on earnings management and dividend policy are reviewed and the theoretical framework for the study is presented. Specifically, attention is focused on the relationship between earnings management and dividend policy.

Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some shareholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healy & Wahlen, 1999). Earnings management is therefore the opportunistic behaviour of managers with regard to the financial reporting of the firms under their watch. It represents a purposeful intervention in the external reporting process with the intent of obtaining some private gains (Schipper, 1989). To Gulzar and Wang (2011), Earnings Management unlike fraud involves selection of accounting procedure and estimates that conform to Generally Accepted Accounting Principle (GAAP). It occurs within the bound of accepted accounting procedure. This kind

of Earnings Management that is consistent with Generally Accepted Accounting Principle (GAAP) is not regarded as fraudulent financial reporting. Although, there is fear that management may cross border from the true Earnings Management to fraud. However, once it can be determined that, the management manipulated earnings with the intention of deceiving the perception of investors is regarded as unethical and fraudulent act by many analysts.

Accounting accrual items have attracted much attention as a measure of earning management. The performance matched discretionary accruals model is calculated by incorporating return on assets (ROA) into the Modified Jones model. Original Jones and Modified Jones models are used in situations where firm performance is extreme.They give two reasons for the occurrence of these Type I errors. Firstly, the nondiscretionary accruals could be correlated to firm performance. Hence, the null hypothesis is falsely rejected because of correlated measurement error in the proxy for discretionary accruals. Secondly, Earnings Management could be caused by other factors that are correlated to firm performance. In this case, Earnings Management is correctly detected; however, the cause of it remains unknown. Hence, a factor could be chosen that does not cause Earnings Management, but is correlated with firm performance; leading to a misspecification of the tests. Kothari, et al. (2005) argues that their approach provides additional controls when firm performance is extreme.

Additionally, the results of their study show a preference for the standard Jones model compared to the Modified Jones model under the performance matching approach. They find that the Modified Jones model will spuriously find Earnings Management under performance matching on the basis of ROA. Thus, bias is not eliminated from the Modified Jones model in low sales growth samples, under performance matching on the basis of ROA. Contrarily, bias is found to be eliminated from the Original Jones.

Dividend policy of the company shows that to what degree a company will retain its earnings for future investments and to what extent it announces its earnings as a dividend (Goshen, 1995). Retained earnings are the amount of financing which a company can use without facing competition from other companies in the capital market. Dividend policy depicts the degree to which a company can avoid the investigation of shareholders in the capital markets. Some of the inept managers try to avoid their performance analysis by announcing fewer dividends, thereby escaping from the external competition.

According to section 370 subsection (1) of CAMA, a company may in the annual general meeting, declare dividend only on the recommendation of the Directors. The Company may from time to time pay to the members such interim dividends as appear to the directors to be justified by the profits of the company. According to sub-section (3), the general meetings shall have power to decrease the amount of dividend recommended by the directors, but shall have no power to increase the amount recommended. While sub-section (5) stated that, subject to the provisions of these act, dividend shall be payable only out of the distributable earnings of the company. With this much increased emphasis over significance of earnings for a firm, it is no wonder if company management takes vital interest in the manner their earnings are reported. An increase in earnings depicts the increase in overall value of a company and vice versa (Lev, 1989). Particularly to conceal the losses of a company, earnings are managed to show beneficial situation (Hayn, 1995). This presents the idea of earnings management that is use of accounting choices to amend reported earnings for the sake of managers' benefits.

Empirical Review

Earnings management is desirable to maintain the dividend payout ratio of the firm as it is considered an indicator of future growth outlooks of a firm in market (Miller & Rock, 1985; Ambarish, Kose & Joseph 1987). Also dividends are given significance because they are believed to tackle the agency problems rising between corporate insiders and outsiders (Gomes, 1998; Zwiebel, 1996).As much the reported earnings of a firm are, as much the dividend expected by the shareholders and therefore an overall increase in share value. Nonetheless, if dividend payment becomes a drawback for managers, they might manage to show reduced earnings number. To support this observation, previous studies of the relationship between earnings management and dividend policy have revealed inconclusive findings.

Using a pooled data of 55 Chinese listed companies and 120 Pakistani listed companies. during the period 2001 to 2007, Syed, Hui and Nousheen (2010) examined the association between earnings management and dividend policy. The Ordinary Least Square (OLS) method was used to estimate the model. The regression result showed that earnings management is a strong feature influencing dividend payout of firms. Implying that earnings management has a positive effect of dividend policy. This study is deficient on the basis of the OLS technique it employed and again the outcome of the study may not be applicable to Nigerian environment.

Akbar and Tahira (2012) investigated the influence of earnings management and dividend policy using a sample of 23 companies is based on cross sectional. in Pakistani listed companies between period from 2005 -2009. The study employed multiple regression model in testing the hypothesis. The study found that earnings management has a negative significant influence on the dividend payout ratio. The findings of the study may not be the same if conducted in Nigeria, owing to the absolute disparity of environment and the nature of the diversified firms in Nigeria.

In another study, Farhan, Neha and Muhammad (2014) investigated the effect of earnings management on dividend policy for a period 2006- 2016 in Pakistan. The study tested the hypothesis developed using panel regression model under the assumption that intercepts vary for each firm and the slope coefficients are constant across firms. The outcome indicates a negative relationship between earnings management and dividend policy. The outcome of the study may not be applicable in Nigeria considering the environment which the companies operates.

Ajide and Aderemi (2014) studied the relationship between earnings management of dividend policy of quoted non-financial firms in Nigeria for the period of 2012. The regression result revealed a negative insignificant relationship and impact of earnings management and dividend policy. The richness of the result may be reduced as a result of taking just one year into consideration. Idris, Hussaini and Jamila (2015)examined the impact of earnings management on dividend policy of listed non-financial companies in Nigeria for the period of 2014. The study used cross-sectional data of 86 out of 129 listed non-financial companies. Correlational and descriptive research design are adopted by using secondary source of data. Tobit regression is employed as technique of data analysis. The outcome reveals that earnings management has no significant impact on dividend policy of listed non-financial companies in Nigeria. The result of this study is not robustowing to the fact it covered only one year (2014) and the sample selection technique is not clear. The result may be more robust if more years are included and a better sampling technique is employed.

Control Variables

In this study, profitability and firm size were used as control variables to control for the effects of earnings management on dividend policy. These are variables often used by many researchers when determining the impact of dividend policy

Profitability:

Profitability is a significant explanatory variable of dividend payout ratio. Scores of studies have shown over time that the more profitable a firm is, the more it's likely to give out a reasonable proportion of its earnings as dividend. A firms that is making losses will not be able to settle its obligations, and the issue of dividend will not arise except if the firm has made enough profit in the past which can be used for satisfying such contemporary needs. Mohammed and Mohammed (2012), found a positive relationship between profitability and dividend policy. Also Turki and Ahmed (2013) documented a positive and significant relationship between profitability and dividend policy. Furthermore Faruk, Rashel and Akterujjaman (2013), Maniagi, Ondiek, Musiega, Maokomba and Egessa (2013) found a positive and significant effect of profitability on dividend policy.

Firm Size

The size of firm plays a crucial role in the quantum of dividend to be paid to investors. The expectation is that, considering the largeness of a firm, it is assumed that it must have exhausted all its potentialities within and through diversification which is associated with stability of cash flow, economies of scale and less failure in some areas. In line with the above assertion, larger firms will have enough cash at their disposal from which dividend can be paid. Adelegan (2000), Alkuwari (2009), AL- Shubiri (2011), Kangarlouei, Motavassel, Azizi and Farahani, (2012), Rufus and Soyoye (2014) established a positive relationship between firm size and dividend policy.

Theoretical Framework

Agency Theory

The idea of agency theory provides us with the assumption that dividend payment become there as on of creating conflicts between the managers and shareholders of the firms because the motive of managers is to retain resources instead of paying dividends to the shareholder and on the other hand, shareholders prefer dividend instead of retain earning. An agency conflict is derived from the separation of ownership and control. For instance, firms where shareholders? rights are severely restricted are likely to suffer higher agency costs because managers are better able to exploit the weak shareholder rights and place their own personal benefits ahead of shareholders interests. The importance of monitoring was reemphasized by Allen, Bernardo and Welch. (2000), noted that investors prefer to own shares of firms making regular payments, and this class of investors are more prone to frequent monitoring than small shareholders. According to the point of view of shareholder if amount of dividend is not provided to the shareholder, probably it must have been used by managers for personal use instead of investing in profitable projects. Agency theory explains the possibility for managers to manage earnings; managers may produce a bias financial report without the opportunity of others to see through it. The agency theory of dividends posits that dividend payments can be used as a mechanism to alleviate agency problems (Rozeff, 1982), Easterbrook, 1984, and Jensen et al., 1992, as cited in Al-Malkawi (2008).

Signaling Theory

The signaling theory proposes that dividend policy can be used as a device to communicate information about a firm 's future prospects to investors. Signaling theory explains how information asymmetry can be reduced when the more informed party communicates their private knowledge to the less informed party (Morris 1987). The quality of the signal and the reduction in information asymmetry as a result of financial reporting depends on the informativeness of the financial statements, which in turn depends upon the basis of their preparation. However, earnings management is the purposeful intervention in the preparation and presentation of financial reports, hence, create information asymmetry by sending poor quality signal to the markets. The present imentunderlying this argument is based on the information irregularity between managers and outside investors, where managers have private information about the current and future fortunes of the firm that is not available to outsiders. Dividend policy under this model is therefore relevant (Al-Kuwari, 2009). John and William (1985); Miller and Rock (1985) argued that information asymmetries between firms and outside shareholders may induce a signaling role for dividends. They show that dividend payments communicate private information in a fully revealing manner. The most important element in their theory is that firms have to pay out funds regularly. An announcement of dividends increase is taken as good news and accordingly the share price reacts favorably, and vice-versa.

Methodology

Correlational research design and ex-post facto design were adopted for this study. The population of the study is limited to diversified firms listed on the Nigerian Stock Exchange as at 31st December, 2017. The number of diversified companies listed as at 31st December, 2017 on the Nigerian Stock Exchange (NSE) and shown in Fact book are six, namely as below:

Table 3.1 List of Quoted Diversified Companies in Nigeria.

S/N	Company Name
1	Chellarams PLC
2	John Holt PLC
3	A.G Leventis (Nigeria) PLC
4	SCOA Nigeria PLC
5	Transnational Corporation of Nigeria PLC
6	UAC of Nigeria PLC

Source: Extracted from the Nigeria Stock of Exchange, 2017

The explanation for choosing diversified firms is premised on the fact that, it is still an area with paucity of studies. Six firms were used as sample of the study and as such census approach was employed as sampling technique. This is because these firms have available and complete set of financial statements for the periods under study. The study used secondary sources of data; this is due to the fact that; the models of the study require the use of quantitative data. Panel regression technique of data analysis was used. This is because the study uses data that has both cross sectional and time series characteristics.

Models Specification

Consistent with Kothari et al., (2005), the performance Adjusted Current Discretionary Accrual (PACDA) is used as follows:

$$\frac{ACCR_{it}}{TA_{it-1}} = a_0 + a_1\left(\frac{1}{TA_{it-1}}\right) + a_2\left(\frac{DREV_{it} - DAR_{it}}{TA_{it-1}}\right) + a_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + a_3 ROA_{it} + e_{it} \qquad (1)$$

Where;
ACCR it: Accruals for firm i in year t,
TAit: Total assets for firm ia t end year t-1,
? REVit: Revenues in year t less revenues in year t-1 for firm I, ? ARit: Changes in accounts receivable,
PPEit : Gross Property, Plant, and Equipment;Property for firm i at end year t,
ROAit: Return On Assets,
εit: Error term for firm j in year t.
The measure of discretionary accruals (DAcc) is the residual of equation (1), It is the difference between actual total accruals (ACCR) deflated by total assets (TAit) and normal accruals estimated by the fitted values of equation (1). The measure of actual total accruals (ACCR) is the difference between net income before extraordinary items and operating cash flows from the statement of cash flows.

$$DAcc = \frac{ACCR_{it}}{TA_{it-1}} - \left[a_0 + a_1\left(\frac{1}{TA_{it-1}}\right) + a_2\left(\frac{DREV_{it} - DAR_{it}}{TA_{it-1}}\right) + a_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + a_4 ROA_{it}\right]$$

The residuals from this industry-year specific regression model are used to determined earnings management.
Following the estimation of the earnings management from model 1, the model of the study from which the hypothesis of the study is tested is as follows;
$DPR = \beta 0 + \beta_1 EM_{it} + \beta_2 PROF_{it} + \beta_3 FZ_{it} + \varepsilon it$ ……iii
Where;
DPR= Dividend Payout Ratio
EM = Earnings Management
Control Variable
PROF=Profitability
FZ= Firm Size
Variables Measurement

Variables	Measurement	
DPR	Dividend Payout	This is measured as ratio of yearly dividend to net income
EM	Earnings Management	Earnings management measured by discretionary accrual as residual of accrual model of Kothari et al (2005). TAit = 0 + 1? REVit/ Ait1+ 2PPEit/Ait-1 + 3ROAit-1 + μit
PROF	Return on Asset	Profit after tax divided total asset
FZ	Firm Size	Natural log of total assets

Results and Discussion

In this section results are presented and discussed in the light of the research findings. First, a set of descriptive statistics are presented, then followed by the regression results.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
DPR	.1002232	.1704768	0	.7877036
EM	.0299307	.144092	-.2523	.543322
ROA	.045978	.1495068	-.3412175	.8086438
FS	6.329979	1.251812	3.684397	8.266156

Source: Output of data analysis using Stata 13

Table .1 presents the descriptive statistics of the data collected from a sample of 6 listed diversified companies for the period of 10 years leading to the 60 firm-year observations in the analysis. The mean of the dividend payout ratio is .1002232 with a standard deviation of .1704768. Implying that the average dividend payout ratio for the sample firms over the study period is 10 kobo. This showed that dividend payout ratio of Nigerian quoted diversified companies deviated from its mean slightly. Certain firms made loses in certain financial years and could not pay dividends for those years that is why we have a minimum payout ratio of 0.00K and the highest dividend enjoyed by shareholders is .78 kobo.

Table 1 further shows the extent of earnings management in the sample firms with a mean of 0299307 (0.02%)and standard deviation of 144092 (0.14%).The value of standard deviation signifies that the dispersion of the data from the mean value from both sides is wide, implying that there is a significant variation regarding earnings management of listed diversified companies in Nigeria for the period of study. Moreover, the table 1 shows a minimum value of -.2523 which is close to zero and a maximum of .543322. This shows that the minimum percentage of earnings management of the sampled firms is -.25% (which is less than 1%).

The control variable profitability was measured by the ratio of net profit after tax to total assets, and has the mean value of .045978 (0.04%) and standard deviation value of .1495068 (0.14%).The standard deviation of the sampled firms for profitability was higher than the mean and this could be explained by the losses suffered by some of the sampled firms. The profitability shows a minimum and maximum of -.3412175 (-.34) and .8086438 (.80%) respectively. The second control variable is firm size proxies by natural logarithms of total assets. It has a mean of 6.329979 with standard deviation of 1.251812 and the range is from a minimum of 3.684397 to a maximum of 8.266156. Implying a significant difference across the sample of Nigerian quoted diversified companies in Nigeria. This could be attributed by the variation in sizes of quoted diversified companies in Nigeria.

Table 2: Correlation Matrix Table

Variable	DPR	EM	ROA	FS
DPR	1.0000			
EM	0.1286	1.0000		
ROA	-0.0767	0.0812	1.0000	
FS	0.3682	0.2885	0.0364	1.0000

Source: Output of data analysis using stata 13

From Table 2, it can be observed that there is positive relationship between dividend policy and earnings management of quoted diversified companies in Nigeria with a coefficient of 0.1286. Additionally, the control variable (ROA) has a negative relationship of -0.0767 with dividend policy of

listed diversified companies in Nigeria. This indicates there are inverse relationships between dividend policy and return on asset, while dividend policy is positively correlated with firm size of the Firms with a correlation coefficient of 0.3682.

Robustness Test

In order to improve the validity of the statistical inference, and to avoid making wrong inferences, some robustness tests were conducted. For the purpose of the study, panel regression was used; as such, various options of panel regression were run. These include OLS regression, GLS regression, random effect GLS regression, fixed effect (within) regression and Hausman specification test. However, the most robust of all is fixed effect regression.

Variable	VIF	1/VIF
EM	1.10	0.911784
ROA	1.09	0.916620
FS	1.01	0.993218
Mean VIF	1.06	

Source: Output of data analysis using stata 13

Based on the evidence presented in Table 3, it can be concluded that there is no Multicollinearity problem. This is because the VIF values for all the variables are less than 10 and the tolerance values for all the variables are greater than 0.10. The mean VIF is 1.06.

Table 4: Heteroskedasticity Test

Ho: Constant variance	0.69
Prob> chi2	0.4050

Source: Output of data analysis using stata 13

Heteroscedasticity arises when the error terms along the regression are not equal. Heteroscedatiscitywas tested using Breusch Pagan's test. Based on the results, it can be concluded that there is no problem of heteroscedasticity as the chi square is 0.69 which is insignificant, implying that there is absence of heteroscedasticity.

Table 5: Hausman Test

chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)=	23.59
Prob>chi2 =	0.0003

Source: Output of data analysis using stata 13

Hausman specification test produced chi-square value of 23.59, which is significant. This implies that each entity has its own individual characteristics, as such, do not allow entity's error term and constant to be correlated with other firm's characteristics On this basis, result for fixed effect test was used for analysis.

Table 6: Summary of Regression Result

	Coefficient	Z-value	P-value
EM	-.0533773	-2.42	0.019
ROA	.0819497	3.89	0.000
FS	.0496327	1.45	0.147
R-sq	0.1444		
Wald chi2	24.88		
Prob> chi2	0.000		

Source: Output of data analysis using stata 13

In table 6 it can be observed that the R2 is 0.1444 which means that 14.44% of variation in dividend payout of quoted diversified companies in Nigeria is explained jointly by the independent and control variables captured in the model. It can be said that, earnings management, profitability and firm size have combined predictive power of 14% in impacting on dividend policy of quoted diversified companies in Nigeria. The wald-chi2 is 24.88 which is significant at 5%. This is indicative of the fitness of the model. Moreover, based on this we can conclude that earnings management have significant effect on dividend policy of quoted diversified companies in Nigeria

Table 6 indicates that earnings management has a significant negative effect on the Dividend policy of quoted diversified companies in Nigeria, from the coefficient of -0.53 with t-value of -2.42, which is statistically significant at 5%level of significance (p-value of 0.019). This means that earnings management has a negative relationship with dividend policy of quoted diversified companies in Nigeria. That is, one percent increase in earnings management will change dividend payout by-.05%. Based on our results one can say that earnings in quoted diversified companies are not managed to declare the dividends payout. On basis of this result the study reject the null hypothesis which stated thatearnings management has no significant effect on dividend policy of quoted diversified companies in Nigeria.This finding is consistent with the findings of the following studies;Akbar and Tahira (2012), Farhan, Neha and Muhammad (2014), Ajide and Aderemi (2014), Idris, Hussaini and Jamila (2015).

The control variable profitability was measured using profit after tax/total asset and the result of the regression in table 6 above revealed that profitability of Nigerian quoted diversified companies has a positive coefficient value of .0819497 which is significant at 0.000 The finding indicated that the profitability of the firm is positively and significantly influencing dividend payout of diversified companies in Nigeria. This shows that profitability and dividend payout of the firms moves in the same direction; that is the higher the profit earned by the firm, the higher the dividend declared by the firms to its shareholders. This positive impact ofprofitability on dividend payout of the firm implies that for every 1% increase in profitability, the dividend payout will be increased by 8 kobo. The finding is in tandem with those reported by; Mohammed and Mohammed (2012), Turki and Ahmed (2013), Faruk, Rashel and Akterujjaman(2013), Maniagi, Ondiek, Musiega, Maokomba and Egessa (2013).

The second control variable indicated that firm size is positively and insignificantly influencing the dividend payout of Nigeria quoted diversified companies in Nigeria. This connotes that firm size and the dividend payout ratio of quoted. Larger firms may have utilized all its potentialities, are less risky and they have a better position in the market and can raise more funds as compared to the smaller ones and as such, they will be willing to give higher dividend. This finding is consistent with the findings

of the following studies; Adelegan (2000), Alkuwari (2009), AL- Shubiri (2011), Kangarlouei, Motavassel, Azizi and Farahani, (2012), Rufus and Soyoye (2014).

Conclusion and Recommendations

Agency theory demands that managers should act in a manner that is consistent with the value maximization objective of the firm. Nevertheless, in practice, the positions that they hold triggers information asymmetry which prompts the managers to pursue their own interest at the expense ofthe firms that they manage. One of the policies through which managers seek selfish gains is through the manipulation of accounting choices within the regulatory framework. In this study, it has been revealed that earnings management is found to have no influence on dividend payout ratio. Due to lower average discretionary accruals. The study concluded that earnings management significantly and negatively influencing dividend policy of quoted diversified companies in Nigeria for the period of study. It means that the practices of earnings management are not only for the sake of dividend avoidance, but there can be several other reasons for this manipulation. In line with the finding, the study recommends that investors whose primary motive is dividend should focus their investment more on quoted diversified firms as their earnings is free from earnings manipulation.

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Conference theme 9:

Issues in Financial Reporting Regulation, Standards and Currency Regulations

VALUE RELEVANCE OF FAIR VALUE FINANCIAL INSTRUMENTS MEASUREMENT HIERARCHY OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The study investigated the value relevance of fair value measurement hierarchy disclosure of listed DMBs in Nigeria. Given that fair value accounting has been a subject of concern following the mandatory adoption of IFRS particularly in most of developing economies which have illiquid market for financial instruments. The study used a sample of fourteen DMBs in Nigeria that published their audited annual financial report between 2012 and 2016. The data collected were subjected to descriptive analysis, correlation analysis and a multiple regression analysis to explore possible effects of fair value measurements on market price per share. The results established that fair value measurements hierarchy is overall value relevance as it enhanced the market confidence. Specifically, level one and level two fair value measurements which is based on unadjusted observable market input was found to have positive significant influence on the share price of quoted DMBs in Nigeria. On the other hand, result reveals a negative and significant relationship between level three fair value assets and share price. Therefore, it is recommended that regulatory authorities such as Financial Reporting Council of Nigeria (FRCN) and Security and Exchange Commission (SEC) should ensure active and efficient market for financial instruments so as to maximise the use of observable market input and minimize the use of unobservable input in fair value estimates.

Keywords: Fair value measurements hierarchy, Level one, Level two, Level three, IFRS, Share prices, Nigerian DMBs.

Introduction

The main purpose of financial reporting is to enable investors and analyst to assess investment risk and making informed business decisions. Markets use a firm's accounting information to assess investment risk. Reporting fair value adjustments in income is expected to increase transparency and to render income that is closely aligned with underlying economic activity. As such, the introduction of fair value accounting is expected to substantially increase the value relevant of information contents of

financial statement and this to a large extent will enable investors to rely on the contents of financial statements to make accurate investments decision. Fair valuation results in financial statements that are more informative, higher quality and provide more relevant accounting figures.(Barth, Landsman & Lang, 2008). However, another common line of argument among regulators and academics indicates that certain implementation issues that arise when a fair value accounting is adopted can make the company's businesses appear more volatile than they actually are, which essentially affect the stock prices (Goncharov 2015). Consequently, the key issue in the fair value debate is whether fair value accounting is relevant for investment decisions as well as market reaction to fair value measurements.

In recent times much emphasis has been placed on the significance of fair value accounting following the adoption of IFRS standards. IFRS Standards which are usually regarded as principle-based system was established to ensure a high degree of transparency of financial statements and to enhance the usefulness of financial reporting. An important attribute of IFRS is the shift from historical cost to fair value based measurements of certain assets and liabilities.

Fair-value accounting involves reporting assets and liabilities on the balance sheet at fair value and recognizing changes in fair value as gains and losses in the income statement. It is regarded as mark-to-market accounting when market prices are used to determine fair value and mark-to-model when valuation techniques are used to estimate the fair value (Laux&Leuz, 2010). Generally, IFRS required companies to measure and report on an ongoing bases, certain assets/liabilities (generally financial instruments) at estimates of the prices they would receive if they were to sell the assets or would pay to settle the liabilities (IFRS 13). It primarily applies to financial instruments(financial assets and liabilities), however, three major groups of non-financial assets-property, plant, equipment (IAS 16) investment property (IAS 40) and intangible assets (IAS 38) – also subject to fair value measurement.

Fair value accounting has continuously received widespread attention and gained momentum both locally and internationally and has become a subject of serious concern among regulators, policy makers, investment analysts and academic researchers. Undoubtedly fair value based estimate proved to be more relevance for economic decision, however, the reliability of its measurement has always been a source of concern and it has been argued in the literature that fair value accounting lack reliability and consequently reduce its value relevance (Bosch, 2012). In order to address the contending issues of reliability of fair value measurement, IASB came up with IFRS 13 which set out a single framework for measuring fair value and specify the disclosure about fair value measurement. Consequently, entities applying IFRS now must have to disclose financial instruments measured at fair value based on a three-level hierarchy.

According to IFRS 13, companies are expected to disclose the inputs used in measuring the fair value of financial instruments. In order to achieve this, the standard defines a three level measurement hierarchy. The levels of this fair value hierarchy are based on the quality of the input factors used in the measurement process and these levels of measurements are categorized as level one, level two and level three fair value hierarchies. Much emphasis and consideration is given to quoted prices in active markets(unadjusted observable inputs) which is level one hierarchy. Levels two involves some adjustments on observable inputs from quoted prices of comparable items in active markets, identical items in inactive markets or other market-related information. While the level three involves the use of

unobservable (firm generated) inputs in fair value measurements. The fair value measurement which is based on inputs factors of hierarchy one is sometimes regarded as mark-to-market because it is based on observable markets information and required no adjustment, while fair value measurement based on level two and three is classified as mark-to-model because it involves some adjustments on observable inputs as well as the use of unobservable inputs in fair value measurement, thus the reliability of fair value measurement is expected to decrease with decreasing measurement level. Therefore, in order to ensure more reliability in fair value measurement, IFRS 13 requires the maximum use of observable inputs while minimising unobservable inputs to conditions where active market information is not reasonably available (IFRS 13:87-89).

The proponents of fair value accounting are of the opinion that fair value measurement enhance market confidence and possess relevance for decision making as it represents present economic reality. Thus it is capable of providing relevance information about future performance measures (Dechow,Mayers& Shakespeare 2010). On the other hand, opponents argue that accounting estimates based on fair values are more volatile and can reduce the ability of financial institutions to withstand against financial shocks and are less reliable especially when markets are inactive and valuation techniques have to be used to measure fair value (Enria et al. 2004).

The value relevance of fair value disclosure has been widely discussed in the literature particularly in the light of developed countries such as European Union and United State of America. Several attempts have been made to provide empirical evidence regarding the value relevance of fair value disclosure. Prior literature (such as Siekkinen, 2016;Goh, Ng & Yong, 2015; Bosch, 2012; Song, Thomas & Yi, 2010; Kolev, 2008; Goh, Ng & Yong, 2009) argued that fair value accounting are overall value relevance and have incremental explanatory power when compared with the historical cost bases, however the reliability of fair value estimate as always been a subject of controversy among analysts and investors, particularly the mark-to-model fair value estimates which is based on unobservable market information and firm's internally generated inputs. Thus fair value based on valuation technique might not be a reliable measure of the true fair value. Studies have documented the possibility of managerial discretion to manipulate fair value estimates as well as intrinsic management error in the estimation process (Barth, Beaver, & Landsman, 2001). Furthermore, the information asymmetry which exists between investors and management denied the investors the opportunity to verify the accuracy and reasonableness of fair value disclosure, especially for level 3 financial instruments disclosure (Siekkinen, 2016). Again, the adverse selection which resulted from information asymmetry between the investors and management may to a large extent lower the relevance of fair value disclosure.

Fundamentally, IFRS comes with a lot of changes in way and manner the information contained in the company's financial statement are reported especially with regards to the disclosure requirements for financial instruments, however, available markets for financial instruments (especially debt instruments) are inactive in most of the developing countries such as Nigeria and this has generated serious controversies regarding the relevance of fair value estimates. Absence of active markets has led to situation where valuation models are applied and which increase the possibility of inherent measurement error in the estimates or management induced error.

Furthermore, the fair value hierarchy for financial instruments has been examined in a value relevance research setting by prior studies especially in the developed markets (Siekkinen, 2016;Goh, Ng & Yong, 2015; Bosch, 2012; Song, Thomas & Yi, 2010; Kolev, 2008; Goh, Ng & Yong, 2009) using the modified ohlson model. In addition, with the exception of Siekkinen 2016 who examines the effect of IFRS 13 fair value measurement based on European context, almost all other studies focused on the value relevance of fair value assets reported under SFAS 157. However, this study will extend the extant studies by examining for the first time, the value relevance of IFRS 13 fair value hierarchy based on the financial data of Nigerian deposit money banks. In addition, most of the prior studies on value relevance of fair value hierarchy cover a very short period using quarterly data (e.gGoh et al. 2009; Song et al. 2010), this study will focus on longer period by using the financial data of Nigerian banks from 2012 to 2016.

The main objective of this study is to examine the value relevance of fair value financial instruments measurement hierarchy of listed deposit money banks in Nigeria. The specific objectives are to:

i. Ascertain extent to which level one fair value financial assets measurements disclosure affect the share prices of listed deposit money banks in Nigeria.
ii. Examine the extent to which level two fair value financial assets measurements disclosure affect the share prices of listed deposit money banks in Nigeria.
iii. Ascertain the extent to which level three fair value financial assets measurements disclosure affect the share prices of listed deposit money banks in Nigeria.

Hence, on the bases of the objective of the study, the hypothesis tested is stated as follows:

H_{01} Level one fair value financial assets measurements disclosures have no significant effect on share prices of listed deposit money banks in Nigeria.

Ho_2level two fair value financial assets measurements disclosures have no significant effect the share prices of listed deposit money banks in Nigeria.

H_{03}level three fair value financial assets measurements disclosures have no significant effect the share prices of listed deposit money banks in Nigeria.

As all the listed firms in Nigeria are mandated to comply with IFRS starting from 1st January, 2012, the study will cover 2012-2016. This period is considered because fair value accounting became prominent following the adoption of IFRS in Nigeria. The study focus on the listed deposit money banks in Nigeria. This is based on the ground that significant part of banks' financial statements consists of financial instruments which are required to be measured at fair value.

The study will benefits investors, financial analysts and other foreign investors in knowing the usefulness and value relevance of new fair value measurement hierarchy disclosure introduced by IFRS and its effects on their decision-making process.

The remaining part of this paper is divided into the review of empirical literature, theoretical framework, methodology, model specification, results and discussion, conclusion and recommendations, and a list references.

Literature Review and Theoretical Framework

Value relevance has been widely defined in the prior literature in so many ways. For instance, Barth, Beaver and Landsman (2001), defined value relevance as a measure of how well accounting numbers/amounts reflect a firm's underlying economics regardless of potential sources of differences in accounting quality as reflected in other quality metrics. Similarly, Kargin (2013) argues that

accounting numbers as contained in the financial statement are value relevant to its users only if they faithfully represent what they purport to represent.

In the framework of accounting standard setting, a value relevance study is usually regarded as an operationalized test of the fundamental qualitative characteristics of useful accounting information, that is, relevance and faithfully represents the phenomenal it purports to represent. A value relevance study examine whether particular accounting amounts reflect information that is used by investors in valuing firms' equity (Barth, Beaver, and Landsman, 2001). Consequently, the value relevance of fair value and determinants for such value relevance are of great interest to accounting standard setters, as well as users and suppliers of accounting information.

Fair value in Accounting Standards has been a subject of concern following the emergence of IFRS standards. Prior to the adoption of IFRS, International Generally Accepted Accounting Principles (IGAAP) defined Fair value of an asset as the amount for which that asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.
The adoption of IFRS has brought about some modification in the definition of fair value in a logical and comprehensive manner. IASB conceptualizes fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e. it is an exit price). Thus, IASB definition clearly emphasizes that fair value is essentially a market-based measurement, not an entity-specific measurement. Moreover, the new definition of fair value explicitly focuses more on an orderly transaction and the measurement date.

In line with IFRS 13 entities are now required the entities to classify their financial instruments measured at fair values according to this input hierarchy. There are three levels of inputs and these are Level 1 which is the quoted market prices of identical financial instruments; Level 2, the inputs based on observable market data and Level 3 which the inputs not based on observable market data.

The value relevance of fair value hierarchy disclosure has been widely discussed in the literature particularly in the light of developed countries. Several attempts have been made to provide empirical evidence regarding the relevance of fair value accounting for finanacial instruments. Prior literature (such as Siekkinen, 2016;Goh, Ng & Yong, 2015; Bosch, 2012; Song, Thomas & Yi, 2010; Kolev, 2008; Goh, Ng & Yong, 2009) argued that fair value accounting are overall value relevance and have incremental explanatory power when compared with the historical cost bases. In particular, Song et al (2008) examine the value relevance of FAS 157 fair value hierarchy information and the impact of corporate governance mechanisms taking into the consideration quarterly data of U.S banking firms in 2008. The finding indicates that the value relevance of Level 1 and Level 2 fair values is greater than the value relevance of Level 3 fair values. In addition, taking the strength of corporate governance into account, the study found that the value relevance of Level 3 fair value is greater for firms with strong corporate governance. In a similar study, Bosch (2012) examines the value relevance of the fair value hierarchy based on the financial data of European banks. The result of this study indicate that investors perceive the reliability of level 3 fair value as significantly lower the reliability of level 1 and level 2 fair value. This suggests that the investors only doubt the reliability of fair values whose inputs are based on discretionary assumptions.

In a similar study, Kolev (2009) in his work "do Investors Perceive Marking-to-Model as Marking-to-Myth? Early Evidence from FAS 157 Disclosure" evaluates the concern that fair value estimates for assets and liabilities not traded in active markets (i.e mark-to-model) are too unreliable to be used in financial reporting using disclosure mandated by Statement of Financial Accounting Standards (FAS) 157 "Fair Value Measurements". Using a sample of large financial institutions for the first and second quarters of 2008, the results indicate a significant positive association between stock prices and fair values of net assets measured using unadjusted market prices (Level 1), other observable inputs (Level 2), and significant unobservable inputs (Level 3). Further, the estimated coefficients on the mark-to-model estimates (Levels 2 and 3) are consistently lower than those on the mark-to-market fair values (Level 1), however, the difference is significant only for Level 3 net assets. In addition, the study suggests that the valuation gap is more pronounced for firms with lower equity capital and fewer financial experts on the Audit Committee, as well as for companies that develop their mark-to-model estimates internally.

Goh et al. (2015) investigate market pricing of banks fair value assets reported under SFAS 157 since 2008 financial crises using a quarterly data from 2008 to 2011. Their study analyse how investors differentially price mark-to-model and mark-to-market assets relative to the fair value estimates as reported by banks. They found that level that Level 3 fair value estimates are typically priced lower than Level 1 and Level 2 fair value estimates between 2008 and 2011. However, the difference between the pricing of the different estimates reduces over time, suggesting that as market conditions stabilize in the aftermath of the 2008 financial crisis, the reliability concerns about Level 3 estimates has been reduced to a large extent.

Song (2014) empirically investigates the effects of market volatility on the value relevance of fair values. Using the modified Ohlson model (1995) and a sample of U.S. financial companies for the period of 2008 to 2013 the finding from the study indicates that market volatility negatively affects value relevance of fair values. Specifically, market-based fair values, that is, Level 1 fair values and fair values estimated based on observable market inputs (Level 2 fair values) are priced significantly lower when market volatility is high. In contrast, pricing of fair values estimated based on unobservable non-market inputs (Level 3 fair values) is not affected by market volatility. This implies that fair values are priced at a significant discount when market volatility is high and this is because investors understand the effects of market volatility on fair values and price them accordingly. Similarly, Arouri, Bellalah, Ben Hamida, and Nguyen (2012), analyse the relevance of fair value accounting for financial instruments, using French listed companies, the study find that volatility of fair value income does not significantly affect stock price and price volatility, and thus has no risk-relevant information.

Signalling theory is used to underpin this study as it explains the responsiveness of investors to market information. The theory became prominent following the work of Spence (1973) on examination of signaling in job market and that of Ross' (1977) study of managerial incentives (Brian, Trevis, Duane & Christopher,2011). Specifically, Spence (1973) assents that; the theory is basically focused on bridging the information asymmetry which exists between the sender and the receiver of the information. This is achievable by having one party send the signal that will reveal relevant information which will be interpreted and utilized by the receiver in relevant decision making. (Brian, Trevis, Duane & Christopher,2011). Financial instrument's fair value signals the information to market on the

reliability and quality of the information as contained in the statements of financial position so as to guide the investors in making appropriate investment decision.

Methodology

This study employed correlation research design. This is concerned with the collection of data for the purpose of describing and analyzing the impact fair value accounting on earnings management of quoted deposit money banks in Nigeria. The data for this study were obtained mainly from secondary sources which were extracted from the audited annual reports and accounts of quoted DMBs in Nigeria from 2012 to 2016. The study population consist of all the fifteen Deposit Money Banks listed on the Nigerian Stock Exchange as at 31st December, 2012 and remain listed up till 2016.Using census approach, all the fourteen listed Deposit Money Banks in Nigeria as at 31st December, 2016 were used for the analysis due to availability of their annual reports and accounts needed for the extraction of the data. In analyzing the data for this study, a multiple regression technique and descriptive statistics was used.

To test the value relevance of fair value hierarchy, we estimate the association between share prices and fair values of assets and liabilities per share using a modified Ohlson (1995) model, which has been extensively employed in the literature (Siekkinen, 2016; Goh et al. 2015; Bosch, 2012; Song et al. 2010). First the book value of equity is divided into book value of assets and book value of liabilities. Thereafter, the book value of assets and book value of liabilities were segregated into non-fair value assets and liabilities and lastly, fair value assets and liabilities were partitioned into Level 1, Level 2 and Level 3 assets and liabilities respectively. The study uses the number of outstanding shares as a deflator to mitigate scale effects (Barth and Clinch (2009). Hence, all variables are on a per share basis. Due to the low frequency of fair value liability reporting in our sample, the study combine level 2 and 3 fair value liability. Multiple regression models with an error term (?) is specified in econometric form as shown below:

$$MPS_{it} = \beta_0 + \beta_1 FVA1_{it} + \beta_2 FVA2_{it} + \beta_3 FVA3_{it} + \beta_4 NFVA_{it} + \beta_5 FVL1_{it} + \beta_6 FVL2\&3_{it} + \beta_7 NFVL_{it} + \beta_8 EPS_{it} + {}^{eit}$$

Where

MVE = Market price per share
FVA1 = Fair value level one financial assets
FVA2 = Fair value level two financial assets
FVA3 = Fair value level three financial assets
NFAV = Non- Fair value financial assets
FVL1 = Fair value level 1 financial liabilities
FVL1&2 = Fair value level 1&2 financial liabilities
NFVL = Non-Fair value liabilities
EPS = Earnings per share
e = error term

Variable Measurement

VARIABLES	PROXY	VARIABLE MEASUREMENTS	SOURCE
Market price per share	MPS	Share prices - 3 months after the publication of the audited annual accounts	Oyerinde (2011)
Level one fair value financial assets	L1FVFA	Level one financialassets divided by the number of outstanding shares	Siekkinen, (2016)
Level two fair value financial assets	L2FVFA	Level two financialassets divided by the number of outstanding shares	Song et al. (2010)
Level three fair value financial assets	L3FVFA	Level three financial assets divided by the number of outstanding shares	Goh et al. (2015)
Level one fair value financial liabilities	L1FVFL	Level one financialliabilities divided by the number of outstanding shares	Song et al. (2010)
Level 2&3 fair value financial liabilities	L2&3FVFL	Level 2&3fair value financialliabilities divided by the number of outstanding shares	Song et al. (2010)
Non fair value financialassets	NFVFA	Non fair value financial assets divided by the number of outstanding shares	Goh et al. (2015)
Non fair value financialliabilities	NFVFL	Non fair value financial liabilities divided by the number of outstanding shares	Bosch, (2012)
Earnings Per Share Share	EPS	Profit for the year divided by the number of outstanding shares	Song et al. (2010)

Results and Discussions

In this section, the study results are presented and discussed. A set of descriptive statistics are first presented, followed by the correlation analyses and then the regression result.

Table 1: Summary of Descriptive Statistics.

Variables	Observations	Min	Max	Mean	Std. Dev
MPS	70	0.5	31.61	8.323	8.442
FVA1	70	0	0.291	0.065	0.073
FVA2	70	0	0.269	0.032	0.061
FVA3	70	0	0.021	0.004	0.006
NFVA	70	0	1.712	0.499	0.362
FVL1	70	0	0.037	0.002	0.006
FVL2&3	70	0	0.068	0.006	0.016
NFVL	70	0.002	2.495	0.562	0.570
EPS	70	-0.39	4.31	1.178	1.095

Source: Output of summary statistics obtained from Stata

The results in Table 1.above provide some insight into the nature of quoted deposit money banks that reported their financial in line with IFRS 13 financial instrument hierachy disclosure for the period 2012 to 2016. It shows the mean (average), standard deviation (degree of dispersion), the maximum and minimum for each of the variable. It reveals average MPS of N8.3 within the sample period with a standard deviation of 8.44. The minimum is 50k while the maximum is N31.61. Average fair value level one asset is approximately 0.7%, the standard deviation is 0.07 and range between 0.0 and 0.291. Fair value level two asset has a mean of 0.032 and the standard deviation is 0.003 and the minimum and maximum are 0.0 and 0.027 respectively. The mean value of fair value level three is about 0.004. The minimum is 0.0 while the maximum is 0.021. This means that very low proportion of bank's financial assets is classified under level one, two and three fair value measurement. Furthermore, non fair value assets averages 0.499, with a minimum value of 0.001 and maximum of about 1.712. Also, fair value level one liabilities has an average of 0.002 and range between 0 and 0.037. Also fair value level2&3 liabilities has an average of 0.006 and range between 0 and 0.068. Further, the non fairvalue liability averages 0.562 with a standard deviation of 0.570. Lastly, earnings per share has an average of 1.178 with a standard deviation of 1.095, the minimum value of earnings is -0.39 while the maximum is 4.31. It is imperative to observe that the averages of the variables do not differ substantially from their respective standard deviation which means that the data are not skewed and are fit to produce a reliable result.

Table 2: Correlation Matrix Table

VARIABLES	MPS	FVA1	FVA2	FVA3	NFVA	FVL1	FVL2&3	NFVL	EPS
MPS	1								
FVA1	0.369***	1							
FVA2	-0.035	-0.000	1						
FVA3	-0.003	-0.329***	-0.132	1					
NFVA	-0.070	0.485***	-0.158	0.303*	1				
FVL1	0.273**	0.269**	0.336*	-0.146	-0.137	1			
FVL2&3	0.199*	0.195	0.801	-0.132	-0.086	0.523**	1		
NFVL	-0.245**	0.215*	-0.225	0.117	0.348**	-0.069	-0.052	1	
EPS	0.58***	0.176	-0.146	0.265*	0.157	-0.198	-0.194	-0217*	1

***Correlation is significant at the 0.01 level (2-tailed)
**Correlation is significant at the 0.05 level (2-tailed)
Source: Output of Correlation Matrix obtained from Stata 13.

Correlation matrix shows the relationship between explanatory variables and explained variable and also the relationship among the individual variables themselves. The results from Pearson correlation indicates a strong association between MPS and all the explanatory variables used in the study. Amongst the independent variables, the relationship was a very weak one as expected which may not pose any multicollinearity problem. Gujarati (2004) opines that correlation above 0.8 between variables is a concern as it indicates excessive correlation.

The tolerance values and the variance inflation factor are important measure of assessing multicolinearity between the independent variables in a study. The results indicate that variance inflation factor were consistently smaller than 10 indicating absence of multicolinearity problem. This shows the suitability of the study model been fit with all the explanatory variables used in the study. Further, the tolerance values were consistently smaller than 1.00, therefore, substantiating the fact

that there is absence of multiconearity problem between the explained and the explanatory variables. See appendices for stata output.

Table 3: Regression Result.

Variables	Coefficient	t-value	p-value
Constant	5.57	3.88	0.009
FVA1	0.35	-2.71	0.000
FVA2	0.79	-5.25	0.038
FVA3	-0.22	-2.12	0.035
NFVA	-0.55	2.07	0.043
FVL1	0.16	4.14	0.000
FVL2&3	0.35	-2.20	0.031
NFVL	-0.24	6.33	0.000
EPS	0.48	4.16	0.000
R^2	0.71		
F-Stat.	36.72		
F-Sig.	0.0000		

Source: Extracted from STATA output

From the result in table 3 above, it can be observed that the R-squared which is the multiple coefficient of determination is 0.71. This implies that about 71% of the total variation in MPS of listed deposit money banks in Nigeria is jointly and strongly explained by all the explanatory variables included in the model of the study, while the remaining 29% was caused by factors not captured in the model. The F-statistic is 36.72 which is significance at one percent, shows that the model of the study is fit and all the explanatory variables were properly selected, combined and used. The results from this finding therefore provides substantial evidence that fair value measurement disclosure hierarchy is value relevance and therefore provide empirical evidence to reject the hypothesis which states that fair value financial instruments measurement hierarchy disclosure have no significant effect on the value relevance of accounting information.

From the results, level one fair value assets was found to be positively and significantly influencing market price of DMBs with a coefficient of 0.35 and t-value of 2.71 which is significant at 1%. This suggests that a N1 increases in level one fair value measurement results in about N35 increase in market value. Furthermore, the positive association between market value per share and level one fair value measurement implies that as more financial assets of banks are fair value using the observable market input the higher the possibility that investors will repose more confidence and consequently lead to an increase in the share price DMBs in Nigeria. Also, level one fair value liabilities was found to be positively and significantly influencing the share price of DMBs with a coefficient of 0.16 and t-value of 2.07 which is significant at 5%. This suggests that an approximately N1 increases in level one fair value liabilities results in about N16 increase in market value. The result is not surprising \because level one and level two fair value measurement is adjudged to be more transparent and based on the observable market information; consequently the tendency that investor will place higher value on

such information would be significantly increased. This finding is consistent with prior literature on fair value measurement such as Siekkinen (2016); Goh, Li, Ng & Yong, (2015); Song et al (2010) among others, who provide empirical evidence that fair value accounting are overall value relevance and improves the transparency in the financial statements, enhances earnings quality and reduced the level of earnings management. In particular, level one fair value measurements enhance market confidence and improves the quality of accounting information.

Further, the results from table 3 revealed a negative and significant association between level two fair value assets and share prices with a coefficient of 0.79 and a t-value of -5.25 which is significant at 1%. This suggests that an approximately N1 increases in level two fair value assets results in about N79 increase in market value. Also, the results revealed a negative and significant association between level three fair value assets and share prices with a coefficient of -0.22 and a t-value of -2.12 which is significant at 5%. This implying that level three fair value assets negatively and significantly influencing share price of Nigerian DMBs. The expectation is that more level three fair value measurements will lead a rise in earnings management practices because they are based on adjusted unobservable firm-generated inputs which provides manager more flexibility in managing the valuation of level three financial instruments and as such, investors place less weight on level three fair value assets relative to level one. However, it is worthy to state that this negative on market value per share may be as a result of the fact that there absence of active and efficient markets for financial instruments couple with weak regulatory environment and this to a large extent resulted in a situation where valuation models are applied which increase the possibility of inherent measurement error or management induced error in fair value estimates. Consequently, the coefficient of level three fair value measurements might not be representative or even biased. The finding is consistent with the study conducted by Bosch (2012) who argues that investors only doubt the reliability of fair values whose inputs are based on discretionary assumptions.

The results also indicate that non-fair value assets and liabilities have negative and significant effect on share price of DMBs in Nigeria with a coefficient of -0.55 and -0.24 respectively. Furthermore, the results reveals a positive and significant relationship between earnings per share (EPS) and share prices of DMBs in Nigeria with a coefficient of 0.485 and a t-value of 6.33 which is significant at 1% level. This means that earnings per share (EPS) has a positive significant relationship and a strong statistical influence on the share prices of DMBs in Nigeria. The positive relationship implies that a unit (1 kobo) change in EPS will result to approximately 49 kobo changes in market price per share. In all, it can be observed that market value of equity is more extensively driven by book value and earnings.

Conclusion

In this study, an attempt was made to examine the value of fair value measurement hierarchy disclosure of listed deposit money banks in Nigeria. The empirical research of this study is based on the sample of 14 DMBs for the financial year 2012 to 2016. Using multiple regression model, this study provides strong evidence that fair value measurement hierarchy are overall value relevance as it strongly explained the systematic variation in share prices of DMBs in Nigeria. Specifically, the study provides evidence that level one fair value measurements hierarchy for financial assets and liabilities have positive significant influence on the share prices of quoted DMBs. This implies that more transparent inputs of level one fair value measurement disclosure increase market confidence and improve the quality of information contents of financial statements. The result also reveals level three

fair value measurements disclosures which based on adjusted unobservable input have negative significant influence on the share prices of quoted DMBs. The results further indicate a negative and significant association between non-fair value assets and liabilities and share prices of DMBs in Nigeria. Furthermore, the results reveals a positive and significant relationship between earnings per share (EPS) and share prices of DMBs in Nigeria. On the basis of the above findings, it is therefore recommends that, it is recommended that regulatory authorities such as Financial Reporting Council of Nigeria (FRCN) and Security and Exchange Commission (SEC) should ensure active and efficient market for financial instruments so as to maximise the use of observable market input and minimize the use of unobservable input in fair value estimates.

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Appendix

```
. xtset id year
       panel variable:  id (unbalanced)
        time variable:  year, 2012 to 2016, but with a gap
                delta:  1 unit

. summarize mps lev1a lev2a lev3a nfva lev1lib lev23lib nfvl eps
```

Variable	Obs	Mean	Std. Dev.	Min	Max
mps	70	8.322857	8.441904	.5	31.61
lev1a	70	.0654143	.0733535	0	.291
lev2a	70	.0320857	.0608037	0	.269
lev3a	70	.0042571	.0059968	0	.021
nfva	70	.4985	.3619596	.001	1.712
lev1lib	70	.0015143	.0064375	0	.037
lev23lib	70	.0058	.0145349	0	.068
nfvl	70	.5616	.5702768	.002	2.495
eps	70	1.178271	1.095395	-.39	4.31

```
. pwcorr mps lev1a lev2a lev3a nfva lev1lib lev23lib nfvl eps, star (0.5) sig
```

	mps	lev1a	lev2a	lev3a	nfva	lev1lib	lev23lib
mps	1.0000						
lev1a	0.3696*	1.0000					
	0.0016						
lev2a	-0.0346	-0.0004	1.0000				
	0.7761	0.9975					
lev3a	-0.0003	0.3295*	-0.1316*	1.0000			
	0.9978	0.0053	0.2776				
nfva	-0.0703	0.4851*	-0.1579*	0.3026*	1.0000		
	0.5631	0.0000	0.1917	0.0109			
lev1lib	0.2733*	0.2699*	0.3362*	-0.1458*	-0.1365*	1.0000	
	0.0221	0.0238	0.0044	0.2286	0.2597		
lev23lib	0.1992*	0.1958*	0.8099*	-0.1319*	-0.0858*	0.5231*	1.0000
	0.0983	0.1042	0.0000	0.2763	0.4799	0.0000	
nfvl	-0.2449*	0.2149*	-0.2252*	0.1171*	0.3477*	-0.0689	-0.0525
	0.0410	0.0740	0.0609	0.3342	0.0032	0.5710	0.6658
eps	0.5822*	0.1769*	-0.1461*	0.2645*	0.1571*	-0.1983*	-0.1936*
	0.0000	0.1430	0.2273	0.0269	0.1941	0.0998	0.1083

	nfvl	eps
nfvl	1.0000	
eps	-0.2172*	1.0000
	0.0709	

```
. regress mps lev1a lev2a lev3a nfva lev1lib lev23lib nfvl eps

      Source |       SS       df       MS              Number of obs =      70
-------------+------------------------------           F(  8,    61) =   18.79
       Model |  3497.93002     8  437.241253           Prob > F      =  0.0000
    Residual |  1419.40644    61   23.268958           R-squared     =  0.7113
-------------+------------------------------           Adj R-squared =  0.6735
       Total |  4917.33646    69  71.2657458           Root MSE      =  4.8238

------------------------------------------------------------------------------
         mps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       lev1a |   35.04205   10.71757     3.27   0.002     13.61095    56.47315
       lev2a |  -79.86068   17.84406    -4.48   0.000    -115.5421   -44.17928
       lev3a |  -216.5888   108.7567    -1.99   0.051    -434.0613    .8837424
        nfva |  -5.486783   2.019895    -2.72   0.009    -9.525812   -1.447754
     lev1lib |   160.3618   115.7241     1.39   0.171    -71.04287    391.7664
    lev23lib |   356.8417   81.06763     4.40   0.000      194.737    518.9465
        nfvl |   -2.40721   1.202102    -2.00   0.050    -4.810962   -.0034582
         eps |   4.853893   .6043266     8.03   0.000     3.645467    6.062319
       _cons |   5.570374   1.407759     3.96   0.000     2.755387    8.385362
------------------------------------------------------------------------------

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of mps

         chi2(1)      =     6.74
         Prob > chi2  =   0.0094
```

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
    lev23lib |      4.12    0.242889
       lev2a |      3.49    0.286471
       lev1a |      1.83    0.545624
     lev1lib |      1.65    0.607633
        nfva |      1.59    0.630885
        nfvl |      1.39    0.717586
         eps |      1.30    0.769561
       lev3a |      1.26    0.792817
-------------+----------------------
    Mean VIF |      2.08

. xtreg mps lev1a lev2a lev3a nfva lev1lib lev23lib nfvl eps, fe

Fixed-effects (within) regression               Number of obs      =        70
Group variable: id                              Number of groups   =        15

R-sq:  within  = 0.3242                         Obs per group: min =         2
       between = 0.0003                                        avg =       4.7
       overall = 0.0093                                        max =         5

                                                F(8,47)            =      2.82
corr(u_i, Xb)  = -0.3652                        Prob > F           =    0.0122

------------------------------------------------------------------------------
         mps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        lev1a |   -21.1167   13.97823    -1.51   0.138    -49.23726    7.003867
        lev2a |  -89.82848   26.73935    -3.36   0.002    -143.6211   -36.03584
        lev3a |  -289.2045   115.7734    -2.50   0.016    -522.1106   -56.29841
         nfva |   2.394254   3.498698     0.68   0.497    -4.644218    9.432726
      lev1lib |  -10.85072   87.28968    -0.12   0.902    -186.4549    164.7535
     lev23lib |   228.1487   83.03782     2.75   0.008     61.09814    395.1992
         nfvl |   .4256168   1.926131     0.22   0.826     -3.44926    4.300494
          eps |   .3802887   .9454246     0.40   0.689     -1.52166    2.282238
        _cons |   10.63011    1.75482     6.06   0.000     7.099867    14.16035
-------------+----------------------------------------------------------------
      sigma_u |  8.6232799
      sigma_e |  3.2711501
          rho |  .87420351   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(14, 47) =      6.12                 Prob > F = 0.0000

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                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |       fe           re         Difference          S.E.
-------------+----------------------------------------------------------------
       lev1a |   -21.1167     29.78617       -50.90287        8.608176
       lev2a |  -89.82848    -76.88384       -12.94464        17.76031
       lev3a |  -289.2045    -247.3241        -41.8804         10.4109
        nfva |   2.394254    -4.760563        7.154817          2.6527
     lev1lib |  -10.85072     138.5291       -149.3798               .
    lev23lib |   228.1487     328.9921       -100.8434               .
        nfvl |   .4256168    -2.698616        3.124233        1.394031
         eps |   .3802887     4.430662       -4.050373        .6654901
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B)
```

```
. xtreg mps lev1a lev2a lev3a nfva lev1lib lev23lib nfvl eps, re

Random-effects GLS regression                   Number of obs      =        70
Group variable: id                              Number of groups   =        15

R-sq:  within  = 0.0784                         Obs per group: min =         2
       between = 0.8908                                        avg =       4.7
       overall = 0.7074                                        max =         5

                                                Wald chi2(8)       =     92.71
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000
```

mps	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lev1a	29.78617	11.01318	2.70	0.007	8.200734	51.37161
lev2a	-76.88384	19.9891	-3.85	0.000	-116.0618	-37.70593
lev3a	-247.3241	115.3044	-2.14	0.032	-473.3165	-21.33167
nfva	-4.760563	2.281243	-2.09	0.037	-9.231717	-.2894083
lev1lib	138.5291	110.1893	1.26	0.209	-77.438	354.4962
lev23lib	328.9921	83.37364	3.95	0.000	165.5828	492.4014
nfvl	-2.698616	1.329158	-2.03	0.042	-5.303717	-.0935147
eps	4.430662	.6715285	6.60	0.000	3.11449	5.746834
_cons	6.368347	1.583367	4.02	0.000	3.265005	9.471688
sigma_u	1.2997212					
sigma_e	3.2711501					
rho	.13634514	(fraction of variance due to u_i)				

```
. est store re
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COMPARISON OF IAS 1- PRESENTATION OF FINANCIAL STATEMENTS: THE US, GERMAN AND NIGERIAN GAAPS

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Abstract

Financial statements are prepared and presented for external users by many enterprises around the world. The study adopted exploratory research and information obtained from secondary sources. This paper provides an overview of the historical and current development and requirements of the IAS 1 'Presentation of Financial Statements'. We explain and critically evaluated the theoretical background of the standard and give a link to the conceptual framework. Furthermore, we discuss and appraise the alternative treatments of the standard to US-GAAP, German Commercial Code (HGB) and Nigerian GAAP. The study found that financial statements presented in compliance with IFRS are transparent, understandable, and comparable across borders. National authorities set financial statements frameworks that differ from IAS 1 requirement. The study recommends a fair presentation of financial information to enable users to make informed economic decisions.

Keywords: IAS 1, Financial Statements, US-GAAP, German Commercial Code (HGB) and Nigerian GAAP

Introduction

IAS 1, Presentation of Financial Statements sets out the general requirements for the preparation and presentation of financial statements. “IAS 1 applies to all general-purpose financial statements prepared and presented in accordance with International Financial Reporting Standards (IFRS)” (IASPLUS, 2019, p.1). Financial statements are prepared and presented for external users by many enterprises around the world (Wiley, 2014).

IAS 1 prescribe the structure, format, and contents of financial statements. The fundamental concepts such as materiality, going concern, and accrual basis of accounting. The standard specified the treatment of aggregation and offsetting; classification of current and non-current assets and liabilities; classification of expenses by nature and function; comparative information and disclosures.

The Objective of Study

The objective of the study is to compare the presentation of financial statements under the IFRS, US GAAP, German GAAP, and Nigeria GAAP to assist users in understanding, analyzing and interpreting financial information to make informed economic decisions across borders.

This paper gives an overview of IAS 1, comparison of IAS 1, Presentation of Financial Statements with the US-GAAP, German Commercial Code (HGB) and Nigerian GAAPs. The current and future developments of IAS 1.

The objective of IAS 1

The IAS 1 prescribes the general purpose and basis of all financial statements prepared and presented under IFRS (Deloitte, 2014). IAS 1 represents not a standard itself rather than setting out the underlying concepts of preparation and presentation of financial statements for external users. It provides common ground rules from national and international standard setters to financial statement preparers, users, and auditors (Friedrich, Friedrich, Spector, & Bridgeman, 2011).

The primary objective of the standard is to ensure comparability with financial statements to other entities under the same accounting principles as well as with financial statements from previous periods of the same entity (Wiley, 2014) under a going concern basis (KPMG, 2014). Going concern and the entity's intention and capability to continue in operation for the foreseeable future reflects one of the underlying assumptions that are applied when preparing financial statements (Friedrich, Friedrich, Spector, & Bridgeman, 2011).

IAS 1 ensures the general purpose of financial statements is to provide information about an entity's financial position, financial performance, and cash flows. Along with other information that entities disclose in their notes, this information should assist users of financial statements in predicting the entity's future performance and support decision making process of users (Deloitte, 2014).

Stakeholders and shareholders need that information to assess the entities' resources, potential claims against the entity, and the efficiency and effectiveness of its management in discharging their responsibilities (Friedrich, Friedrich, Spector, & Bridgeman, 2011).

IAS 1 determines the fundamental qualitative characteristics of useful financial information as relevant and faithfully represented (Friedrich, Friedrich, Spector, & Bridgeman, 2011). The usefulness of financial information can be enhanced when preparers put efforts to ensure comparability, verifiability, timeliness, and understandability (Friedrich, Friedrich, Spector, & Bridgeman, 2011). To achieve this objective, IAS 1 outlines the cumulative presentation requirements of financial statements and provides the guideline for their structure and minimum content (Deloitte, 2014)

Overview of the development of IAS 1

The IAS 1 '*Presentation of Financial Statements'* is dating back to 1974 with the first exposure draft E-1 about disclosure of accounting policies in March 1974 issued in January 1975 as IAS 1 '*Disclosure of Accounting Policies*', an operative for periods beginning on or after 1 January 1975 (Deloitte, 2014).

The IAS 1 presented the basis for the upcoming standards released as it prescribes the presentation basis and general purpose of financial statements (Wiley, 2014). In the following years, IAS 1 influenced standards such as IAS 5 and IAS 13 due to the impacts of changes in business environments (Deloitte, 2014). The standard was not revised until 1989 as the IASB saw a need for further development. In 1996, the International Accounting Standard Committee (IASC) released an exposure draft under the symbol E53 which calls for an overall requirement that financial statements should present fairly the financial position, performance and cash flows of enterprises (Journal of Accountancy, 1996).

The exposure draft placed a stronger emphasis on fair value presentation compared to previous releases publication and contained procedures in case of misleading financial statements (Evans,

2003). E53 highlighted gains and losses not required on the income statement, particularly those arising from revaluations and deferred exchange differences (Journal of Accountancy, 1996).

The IASC issued the final originally standard in 1997, suspended three other standards on disclosure and presentation requirements and represented the first comprehensive accounting standard that deals with the presentation of financial standards (Deloitte, 2014). The IASB adopted the standard in 2003 and made further adjustments.

The exposure draft "Proposed Improvements to International Accounting Standards' in May 2002, offered more explicit guidance on fair value measurement and gained notably support by international organizations such as the International Organization of Security Commissions (IOSCO) and European Union" (Evans, 2003, p.1). Besides, convergence projects from the IASB and the FASB strengthened the IAS's role in international accounting (Evans, 2003).

Between 2005 and 2007, the IASB introduces new requirements to improve disclosed information in regards to financial instruments on entities' financial statements (IASB, 2005). IAS 1 requires information about the significance of financial instruments for firms' financial position and performance and information about the extent to which the entity is exposed to risks arising from financial instruments. Furthermore, the revised IAS 1 requires to disclose a management assessment about their objectives, policies and processes to manage those risks (IASB, 2005).

In September 2007, the IASB issued the last comprehensive revision of the IAS 1 '*Presentation of Financial Statements*' for effective annual periods beginning on or after 1 January 2009 (Deloitte, 2014). The most significant change of IAS 1 reflected the introduction of new terminologies, such as the terminology change from 'balance sheet' to 'statement of financial position,' 'income statement' to 'statement of comprehensive income' (Deloitte, 2014). Besides several minor amendments to the standard, no substantial alternation made after that.

These amendments were made beginning in 2008 with an adjustment of disclosure requirements for *puttable financial instruments and* classification of derivatives (Deloitte, 2014). Further classification amendments introduced in 2009 as firms' liabilities classified as current for effective for annual periods beginning on or after 1 January 2010 (Deloitte, 2014).

We can observe that all annual improvement cycles from 2007 to 2011 have impacted IAS 1 as it reflects the sets out overall current requirements for the presentation of financial statements, guidelines for their structure and the minimum requirement for their content (Wiley, 2014).

The latest exposure draft regarding the '*presentation of items of other comprehensive income (OCI)'* was introduced and amended by the IASB in 2010 for annual periods beginning on or after 1 July 2012 (Deloitte, 2014). The historical background and issue of this amendment were that IFRS standards do not distinguish between different items in OCI and the difference in the presentation of OCI between IFRS and US-GAAP (IASB, 2011). The new IAS 1 content requires entities to group items presented in the OCI on the consistent basis of classification and improved consistency and clarification in the presentation of those items (IASB, 2011). This amendment was part of joint work between IASB and FASB and aligned accounting principles for the presentation of items in OCI (IASB, 2011).

As part of IASB's overall disclosure initiative, the IASB' latest amendment in 2014 was made related to disclosure requirements and represented the latest cumulative content of IAS 1 and is valid for annual periods beginning on or after 1 January 2016 (Deloitte, 2014). The content of this amendment will further discussed in the 'current development' and 'outlook' section of this paper.

Requirements and Content of IAS 1

IAS 1 requires financial statements to give a fair presentation of the financial position, financial performance and cash flows of an entity which is consistent with the objectives of financial statements under framework; fair presentation achieved by complying with IASs/IFRSs and the requirements of the conceptual framework documents of the International Accounting Standards Board (IASB, 2015). IAS 1 requires material items to be separately identified and presented in the financial statements (an item is considered material in terms of nature or size if its omission or misstatement influences the decision of the user) similar items are aggregated and reported under one heading (PWC, 2010).

Management of an entity prepares financial statements on going concern basis, meaning that the business will continue to operate into foreseeable future with no intention of curtailing its activities significantly; if it does, then it prepares financial statements on a liquidation basis. IAS 1 requires compliance with IAS/IFRS and full disclose noncompliance included in notes to the account (Deloitte, 2010). Management commentary provides users with the historical explanations of the figures presented in financials, though it is not a mandatory requirement under IFRS (Deloitte, 2014); Barbu, Dumontier, Feleaga & Feleaga (2014) clamors for international reporting grid considering the environmental on businesses.

Standard setters' tradeoff between historical cost accounting (HCA) and Fair value accounting (FVA) both US GAAP and IFRS accounting for financial instruments using fair values, ongoing better debate on HCA and FVA as to which method gives more equitable presentation; standard setters promote the use of FVA; IAS 1 requires fair presentation of financial position & performance, and cash flows (Evans, 2003). Fair value accounting will make accounting information more relevant; though FVA comes under attack for financial crises in 2008, several types of research prove that it was due to regulatory failures and not fair values.
Okafor & Ogiede (2013) found out that financial statements prepared under FVA pose more challenge than those developed under HCA, in Nigeria based on sample questionnaire and survey of auditors' report.

Components of financial statements

A set of financial statements shall consist of a statement of financial position (Assets, liabilities, and equities). Statement of profit or loss (income, including gains and expenses, including losses). Statement of changes in equity (all modifications and movements on equity). Statement of cash flow (summary of cash inflows and outflows under IAS 7) and notes (showing significant accounting policies and other explanatory notes). The financial statement should indicate whether it is for single or group of entities and stated in reporting currency and the level of rounding up used (Deloitte, 2014).

Statement of financial position

The statement of financial position gives the snapshot of an entity's affair showing assets, liabilities,

equities, and reserve at the reporting date. IAS 1 classifies assets as current and non-current; current if it is settled within 12 months or fall within the normal operating cycle and any other assets outside this requirement is termed non- current assets. Liabilities classified as current and non-current. IAS 1 revised mandates that a statement of financial position at the start of the earliest comparative where retrospective adjustment occurs or reclassification of the item (ICAEW, 2015).

Statement of profit or loss and other comprehensive income

This statement shows the financial performance of the entity for a given period, whether it made a profit or incurred a loss. IAS 1 is flexible on how comprehensive income statement as a single statement of comprehensive income or two statements comprising of the income statement and other comprehensive income. There two ways expenses are analyzed either by nature or by function, and the company is free to adopt any of the two approaches when presenting expenses (Deloitte, 2014).

Statement of changes in equity

IAS 1 requires that the statement of changes in equity incorporate total comprehensive income for the period, clearly showing separately the amounts belonging to owners and the non-controlling interest (NCI) summary and all movements on equity and reserves for the period (IASCF, 2012).

Statement of cash flow for the period

A unanimous saying that revenue is vanity; profit is sanity, while cash is a reality. The statements of cash flow show significant cash inflows and outflows for a given period. IAS 7: statement of cash flow categorizes activities into three, operating, investing and financing activities and reconciliation statement at the reporting date (Deloitte, 2014).

Notes

Notes present the information about the basis of preparing the financial statements and disclose information that is required by IFRS (ICAEW, 2015). Notes to the financial statements provide the detailed and specific information disclosures, on accounting policies, underlying management assumptions about the future outlook and uncertainties about the business activities in the business environment (Deloitte, 2015). The essence of the notes is to enhance the understandability of the financial statements; notes structured in such a way that full cross-referencing between individual reports provided.

Other requirements

Here we will look at IFRS for SMEs as it relates to IAS 1 only for this project, and some IFRICs as it relates to IAS 1 discussed.

Large corporations are expected to apply and comply with full IFRS in the preparation of financial statements. In 2009 IASB issued IFRS for Small and Medium-Sized Entities (SMEs) with a view of reducing the detailed requirements of full IFRS to flexible and straightforward standards that will reduce the cost of preparing financial statements for SMEs (KPMG, 2010).

IFRS for SMEs in the preparation of financial statements are allowed to combine comprehensive income and changes in equities; thus, the financial report will contain:

- Profit or loss
- Payment of dividends

- Correction of prior period errors
- Changes in accounting policies (KPMG, 2010)

IAS 1 does not allow the exception of presenting a statement of changes in equity. While IAS 1 requires all the components of financial statements stated as in 3.1 components of financial statements above refer.

SMEs exempted from presenting a statement of financial position at the earliest comparative period while IAS 1 mandates that statement of financial position of the most initial comparative period be disclosed (KPMG, 2010). Under IFRS for SMEs, it recognizes both research and development cost as expenses. While under full IFRS research cost is expensed, and development cost capitalized when specific criteria met under IAS 23 borrowing costs (KPMG, 2010).

It is worth noting that there is no specific period of transition to IFRS for SMEs, it depends on the national laws; for example, all SMEs in Nigeria is expected to the full adopt IFRS for SMEs with effect from 1 January 2014 based on the road map for adopting IFRS and IPSAS in Nigeria (FRC, 2015).

IFRIC: 17 Disclosure of Non-assets to owners require that dividend recognized immediately appropriate authority authorizes such no longer relying on the discretion of the entity as the usual practice. The differences are arising from dividend payment and the carrying value of the assets distributed in the profit or loss (ICAEW, 2015).

IFRIC 19: equity instrument measured at fair value in a situation where fair value cannot be measured with reliability then the fair extinguished and written off to profit or loss; this to avoid overstating profit (ICAEW, 2015).

Current Developments

The financial reporting keeps evolving due to the dynamic nature of the business environment and globalization to this end, existing international accounting standards updated regularly by standard setters (IASB) and new ones emerge. The chairman of IASB, Hans Hoogervorst, presents new mission statement "…. develop IFRS that brings transparency, accountability, and efficiency to financial markets around the world…" (Hoogervorst, 2015, p.1). The materiality project commenced in 2012 under the IASB's Disclosure Initiative; A Draft Practice Statement on Materiality was released 28 October 2015; in September 2017, the Finalized Practice Statement: Making Materiality Statement published along with Exposure Daft ED/2017/16: Definition of Materiality (Proposed Amendments to IAS 1 & IAS 8).

"Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity." (IASPLUS, 2018, p.3)

The amendment to IAS on the definition of materiality is valid for the annual reporting period beginning on or after 1 January 2020, earlier application is allowed. Also, the exposure draft of proposed amendments to IAS 1: Presentation of financial statements, seeking to clarify the classification of liabilities as current and non – current; the Board expect to receive comments on the ED on or before

10 June 2015. The word “unconditional” in par 69 (d) is to be deleted and the word “discretion” to be replaced by the word “right” in par 73 of the standard (Deloitte, 2015).

In May 2013 financial reporting disclosure to give guidance on educational materiality or materiality, that materiality consideration should be considered for all parts of the financial statements and not mere aggregating amounts or non-inclusion of immaterial items; and to narrow the scope of IAS 1 by changing the wordings of judgment used by the preparers of financial report (IASPLUS, 2015).

In recent times, IAS 1: Presentation of financial statements was at various times amended to incorporate current developments. In Sept. 2007, IAS 1 reversed by IASB, the modified IAS 1 expunged traditional 'balance sheet' to the statement of financial position, and other statements too were renamed (Deloitte, 2015). In April 2009, Amendment by improvements to IFRS 2009 classified liabilities as of the current that meets the criteria of recognition according to IAS 1 (IASPLUS, 2015).

The IASB and the US Financial Accounting Standards Board (FASB) since 2002 have been working on a joint project to achieve convergence of US GAAP to IFRS; G 20 leaders' support this initiative and the US drawn a road map towards harmonization of US GAAP to a single set of high global standards. In 2013 IASB and FASB released a high-level update and timelines on the remaining convergence projects (IASB, 2015). More than 150 countries now adopt or permit the use of IFRS (IASB, 2019). This development geared towards the achievement of IASB's objectives.

IAS 1 in comparison with national financial reporting frameworks

Comparison with US-GAAP

The question is to what degree the IASB new convergence process has aligned the IAS 1 principles of 'presentation of financial statements' with principles of US-GAAP since we would assume that principles of the very first standards harmonized.

We observed that the general objectives of both frameworks do not differ substantially as both are aiming to provide a fair presentation of financial statements (KPMG, 2014). The IASB has achieved its primary objective to establish a general form of financial reporting that gives comparability and transparency (Ramos, 2011). Shamrock (2012) argues that both frameworks are measuring the success or failure of an entity which is easier to understand for users regardless of language or culture.

When comparing the general form and components of financial statements according to IFRS and US-GAAP, we can observe significant differences (KPMG, 2014) whereas the basis of preparation differs slightly (KPMG, 2014). According to both frameworks, financial statements prepared on a going concern basis (KPMG, 2014). However, US-GAAP does not provide specific guidance regarding the assessment of going concern and required disclosures, but does provide requirements for the measurement, recognition, and disclosures if liquidation is imminent (KPMG, 2014).

Regarding the layout and structure of financial statement components such as balance sheet and income statement, there are no cumulative requirements given by the FASB on how to prepare balance sheets and income statements by US-GAAP besides some detailed specifications for SEC-listed companies (EY, 2011).

Accordingly, IAS 1 does not prescribe a general structure and layout of financial statement components but are less prescriptive than the US regulation requirements (EY, 2011). Also, IAS 1 provides more specific guidance than US-GAAP in regards to the presentation of financial statements and the classification of minimum items to be included (EY, 2011). We can find a particular layout and classification differences related to long-term debt and deferred tax assets and liabilities. Besides some conceptual differences between IAS 1 and its US-GAAP related standards, both aim to present a company's financial position fairly.

Comparison with the German Commercial Code (HGB)

As HGB is known for its prudence compared to international reporting frameworks such as IFRS and US-GAAP, we would expect the HGB differs substantially from IFRS.

As a first approach, we can begin to answer the question by comparing the general objectives of both frameworks. The IFRS aims to provide information for stakeholders and shareholders, whereas HGB strives to protect creditors and maintain capital. According to §§ 265ff. HGB, an annual financial statement should convey an accurate and fair presentation of the entity's assets, financial position, and results (PWC, 2010). Thus, we can observe that the underlying concepts of both frameworks are differing substantially regarding their objective.

The German content and scope of IAS 1 widely spread over the whole national accounting framework that is deemed as sophisticated but lacks efficiency somehow. In regards to a comparison of the general form and components of financial statements as outlined in IAS 1, the degree of mandatory disclosure under HGB is depending on particular criteria thresholds such as total assets, revenue, and headcount. The general structure of single entity financial statement comprises the main components balance sheet, income statement and supplementary notes, and, above specific threshold criteria, management report, statement of cash flows and statement of changes in equity (PWC, 2010). Thresholds like this do not exist for IFRS besides appropriate recommendations and separate principles for small and medium-sized companies (SME).

In comparison to the financial statements' components outlined in IAS 1, the German legislative and institutional authorities set a fixed financial statement frame for balance sheet and income statement based on particular rules issued by the German legislative or standards and recommendation set by national accounting bodies.

In contrary, IAS 1 does not require a mandatory layout of the balance sheet and income statement rather than to include line items, headings, and subtotals on the face of the financial statement component to present the entity's financial position fairly (Deloitte, 2014).

We can observe similarities to IAS 1 since the going concern assumption reflects a fundamental requirement of German accounting and reporting for which external auditors give an opinion.

Comparison with Nigerian GAAP

Financial Reporting Council of Nigeria was established to develop and monitor accounting standards; the standards issued are mainly from IAS/IFRS with little local content; multinational corporations are unwilling to adopt Nigerian statement of accounting standards (SAS) is a mere codification of IASs (Zayyad, Ahmad & Mubaraq, 2014).

IAS 1 gives the format of presenting income statement/statement of comprehensive income, under NGAAP only income statement is allowed there nothing like a statement of comprehensive income; and other comprehensive income components under IFRS are stated as notes to the account under NGAAP (PWC, 2015). Extraordinary items (those activities that are outside the ordinary activities of an entity) included in the income statement under NGAAP; prohibited under IFRS. The statement of financial position under IFRS classifies assets as current and non-current while, NGAAP classifies assets as current and fixed assets under balance sheet. However, the Bank and Other Financial Institutions Act (BOFIA) allowed Banks and Other Financial Institutions to present their assets on liquidity basis in the balance sheet (FRC, 2015). IAS 1 analyses expenses by nature or function in the income statement, whereas NGAAP do not (PWC, 2015).

The conceptual framework that sets the basis for accounting policies under IFRS has no equivalence in Nigerian GAAP "NGAAP," IFRS and NGAAP use the historical cost, but IFRS permits measurements at fair values. Fair value override is allowed under both systems for fairer presentations, but where there is a conflict with local company law (Company and Allied Matters 2004), IFRS requirement must apply (PWC, 2015). Statement of changes in equity is a component of a financial statement under IAS 1, is not so under NGAAP, where all movements of equities reported under notes to the account.

The comparable one-year figure required under IFRS and NGAAP, but the five-year financial summary is an additional requirement under NGAAP. The Value-added statement is a requirement for presentation under NGAAP, and that does not apply to IAS 1 (PWC, 2015). IAS 1 prohibits offsetting assets against liabilities while NGAAP is salient on that treatment. With effect from 1 January 2012, Nigerian adoption of IFRS and IPSAS eliminates all these differences (FRC 2015, PWC, 2015).

Methodology

This study is qualitative; it adopted explorative research by designing a survey that sourced information from secondary sources. Related literature reviewed journals, and publications on comparative studies on the presentation of financial statements explored. To get a better understanding of why, how, and when to present financial information under IFRS regime, US-GAAP, German GAAP, and Nigerian GAAP. To help users of financial statements make investment decisions across borders (McNeil, 2019).

Outlook and Conclusion

Outlook

The IASB has proposed several recommendations for amendments to IAS 1 in September 201, which are currently evaluated by its board (Deloitte, 2013). The latest proposal reflected modifications of disclosure requirements, particularly regarding the wording of materiality and aggregation (Deloitte, 2013). Furthermore, the proposed amendment to IAS 1 of clarifying the classification of liabilities highly discussed by the IASB (IASB, 2015). In general, we can observe that the IAS 1 takes a unique position within the IFRS framework as it outlines disclosure requirements that will affect the IAS 1 when altering other IFRS standards.

Regarding the convergence process of US-GAAP and IFRS, we would expect further alignment between both frameworks. At this moment, we can observe recent harmonization success in this

particular question, since the FASB (2015) currently issued a simplification initiative to eliminate the concept of extraordinary items to reduce complexity and costs. This amendment accordingly aligns US-GAAP income statement presentation to IAS 1, since IFRS prohibits the presentation and disclosure of extraordinary items (FASB, 2015). Besides those step-by-step achievements of mutual agreements and recognition, we observe that a full IFRS adopting in the US is far away and that FASB does not want to give in their principles to the IASB.

Therefore, one of the most exciting topics shortly about IFRS and its presentation of financial statements will be a further convergence process between FASB and IASB and whether each accounting setter continues to incorporate characteristics of the other framework or we see a full adoption. It remains interesting whether both accounting bodies (FASB & IASB) can diminish cultural, legal, and political boundaries to facilitate full harmonization. However, since IFRS now required in over 120 countries and IFRS profiles exist for 150 jurisdictions, including all the G20 jurisdictions, and thus, we can deem IFRS as the predetermined set of high quality and globally enforceable accounting standards (IASB, 2019).

Summary & Conclusion

IAS 1: Presentation of financial statements sets the minimum standard for the preparation and presentation of financial statements. A set of financial statements consists of a statement of comprehensive income, statement of financial position, statement of cash flows, statement of changes in equity and notes (IASB, 2019). An entity prepares account on historical cost, and for a fair presentation, IFRS requires fair value presentation. The general purpose of financial statements is to show financial performance, financial position, and cash flows (Deloitte, 2014); which enhances comparability and understandability, financial statements need to consistent over time.

Large corporations are required to apply and comply fully with IFRS and Small, and Medium-Sized Entities are to use IFRS for SMEs whose requirements reduced and flexible for adoption. Comparison of IFRS regarding IAS with German and Nigerian GAAP, German legislature, and institutional authorities set fixed financial statements frameworks that differ from that of IAS 1 requirements that are not mandatory (PWC, 2010). In comparison with Nigerian GAAP, Statements of Accounting Standards are principle-based standards that draw mainly from IASs/IFRSs.

IASB issued several Exposure Drafts on amendments to IAS 1 are ongoing to keep abreast with developments and global events in financial reporting. The IAS 1, US-GAAP, German GAAP, and Nigerian GAAP encourage the fair presentation of financial information.

The study recommends the following:

(I)The adoption and application of IFRS by entities and jurisdictions helps result in the fair presentation of financial statements that would enable users to make informed investment decisions.

(II) Investors should carefully examine the bases of preparation and presentation of financial statements before taking investment decisions globally.

(III) National authorities should consider the critical role of the standard setters and regulators in the determination of financial statement frameworks to develop accounting standards in line with IFRS.

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Appendix I Summary of Comparison of IAS 1 with US, German and Nigerian GAAPs

BASES	IAS 1	US GAAP	HGB	NIGERIAN GAAP
Accounting Basis	Historical cost and permits fair value revaluation	Historical cost	Historical cost but do not permit fair value revaluation	Historical cost and permits remeasurement of a specific class of assets
Components of Financial Statements	✓ Statement of financial position ✓ Statement of comprehensive income ✓ Statement of changes in equity ✓ Statement of cash flows ✓ Notes	✓ Balance sheet ✓ Income statement ✓ Statement of changes in equity ✓ Statement of cash flows ✓ Notes	✓ Balance sheet ✓ Profit and loss account ✓ Notes ✓ Management report	✓ Balance sheet ✓ Profit and loss account ✓ Cashflows statement ✓ Accounting policies ✓ Notes to accounts ✓ Value-added statement ✓ Five-year financial statement summary
Presentation of the income statement	• Single statement - Comprehensive income • Two statement- profit or loss and other comprehensive income	Similar to IAS 1, but not all revenues and expenses passed through profit or loss	Similar to IAS 1 but no comprehensive income	Similar to IAS 1. Statement of comprehensive income and statement of changes in equity not required. All movements on reserve shown in notes to account
Classification of expenses	Expenses may be classified by nature or function	• Expenses classified as a single format by nature • Expenses classified as multiple formats (operating expenses)	Expenses classified by function or the type of expenditure	Expenses classified by nature or function

Comparative financial statements	One year of comparative financial information required under IAS 1	No specific guideline under US GAAP. SEC requires 3 years comparative for financial statements	Comparative figures required for companies	Five-year financial summary
Statement of financial position	Presentation of assets not in order of liquidity	Assets presented in order of liquidity from most liquid to least liquid current assets	Balance sheet items shown in increasing order of liquidity	Same as IAS 1, but BOFIA requires banks classify assets according to liquidity
Offsetting	Assets and liabilities; income and expenses may not offset unless permitted by an IFRS	Offsetting assets and liabilities may be allowed subject to the right to offset	Offsetting Assets and liabilities allowed when an entity has legally enforceable rights.	Salient on offsetting
Presentation of extraordinary items	IFRS prohibits	557Extra ordinary items presented in profit and loss account	Extraordinary items disclosed separately in the profit and loss account	Extraordinary items presented in the income statement
Debt classified for subsequent periods	Events after the reporting not considered in debt classification for the reporting date	Events after the reporting debt recognized as a debt of the reporting date	Similar to IAS 1	Similar to IAS 1
Fair presentation override	Override of the standard not permitted except where it will lead to the fair presentation	The concept of override for a fair presentation similar to IFRS but not applied in practice	In peculiar circumstances that result in fair presentation disclose in the notes. However, override in practice is rare	Similar to IAS 1 but not concerning the fair presentation. However, the Companies and Allied Matters Act (CAMA) allows entities to depart from accounting principles when there are special reasons

ORGANIZATIONAL COMPLEXITY AND FINANCIAL REPORTING QUALITY OF LISTED MANUFACTURING FIRMS IN NIGERIA: DOES INDUSTRY SPECIALIZED AUDITOR MATTER?

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Abstract

This study contributes to the literature by examining whether industry specialized auditor has a significant moderating role on the effect of organizational complexity of financial reporting quality of listed manufacturing firms in Nigeria. The data are collected through secondary source from the published annual reports of a sample of 21 manufacturing firms listed on the Nigerian Stock Exchange (NSE) as at December, 2017. The study uses the Ordinary Least Square (OLS) regression with robust standard errors as the technique of data analysis. Industry and geographical diversification are used to proxy organizational complexity, while discretionary accruals is used to proxy financial reporting quality. The study finds that industry complexity has a significant negative effect on financial reporting quality, whereas geographic complexity positively affects quality of financial reports. In addition, industry specialized auditor positively moderates the effect of industry specialization on financial reporting quality. The study recommends that regulatory authorities such as the NSE should encourage companies that are complex along industrial lines to be audited by the specialized auditor to encourage high quality financial reports.

Keywords: Organizational complexity, financial reporting quality, industry specialized auditor, manufacturing firms.

Introduction

Organizational complexity refers to the diversification of a firm into number of business segments with each contributing significantly to the overall turnover. Complexity comes about as a result of corporate diversification, which could be industrial or geographical. In addition to higher information asymmetry, industrially diversified firms are argued to be associated with increased complexity of operation, management structure and ownership structure (Nam, Tang, Thornton, & Wynne, 2006). Further, their financial reports are more difficult to scrutinize and require great deal of expertise and resources for investors and analysts (Vassilescu & Millo, 2016). Industrial complexity also causes a reduction in corporate transparency and a decrease in the quality of audited earnings (Francis & Gunn, 2015). Geographically complex firms are suggested to be larger than their domestic counterparts, which means less transparency (Duru & Reeb, 2002), greater cost of monitoring management's decisions (Denis, Denis & Yost, 2002). As such, these firms require better systematic monitoring (Singh & Davidson, 2003; Ali, Salleh & Hassan, 2008). A counter argument to the information asymmetry hypothesis is the offsetting accrual hypothesis, which predicts that firms that are complex generate their cash flows from diverse sources. The accruals generated from these cash flows are not directly

related and as such they tend to cancel out each other, which makes it more difficult for managers of these firms to manage earnings. Therefore, the managers' inability to predict the accruals from the cash flows arising from diverse sources means less incentive to manipulate earnings. Recent empirical studies do not support that diversified firms have higher information asymmetry (El-Mehdi & Seboui, 2011; Abubakar & Abdullahi, 2018).

Increasing competition and globalization have led to diversification of Nigerian manufacturing companies, which increased their level of complexity arising from having to deal with diverse units that contribute to the overall organizations performance. Diversification and complexity come with a cost to the shareholders. Of particular importance is information asymmetry that has the tendency to increase earnings management and lower the quality of financial reports. Some companies in the manufacturing sector, such as Cardbury Nigeria PLC, have engaged in earnings management in the past that led to litigation and restatement of financial statements. The increasing complexity as a result of diversification of firms such as the Dangote Group that has new branches across international borders is likely to increase managerial scope for misrepresenting earnings. This makes studying the relationship between complexity and financial reporting quality imperative.

There is no consistent evidence on the relationship between organizational complexity and financial reporting quality. A positive effect was reported some strands of the literature (Amit, Livnan & Zarowin, 1999; El Mahdi & Seboui, 2011), while a negative effect was found by others (Farooqi, Harris & Ngo, 2014). Yet some studies found an insignificant relationship (Bushman, Chen, Engel & Smith, 2004; Jiraporn, Kim & Mathur, 2008; Teclezion and Mercelin 2014). The inconsistency of findings suggests that there are factors that influence the relationship. Since industry specialized auditors are experts in specific industries and have both resources and technical expertise to ensure quality of financial reports, they have the tendency to mitigate earnings management arising from both organizational complexity. Previous studies have failed to address the moderating role of industry specialized auditor on the effect of organizational complexity on financial reporting quality. The present study seeks to provide answer to the question: Does industry specialized auditor mitigate the effect on organizational complexity on the financial reporting quality of listed manufacturing firms in Nigeria? The following specific hypotheses are tested:

The study analysis covers the period 2007 to 2017. The period witnessed an unprecedented globalization, which eased trade across international borders and hence relevant for this study. The paper contributes to the literature in two ways. One, it adds to the sparse literature that examines the relationship between organizational complexity and financial reporting quality especially using Nigerian data. Two, it provides methodological contribution by being among the few that interact organizational complexity and industry specialization to test its effect on quality of earnings.
The remainder of the paper is organized as follows. Conceptual issues, review of empirical literature and theoretical framework are discussed in section. Section three details methodological issues that are necessary in testing the hypotheses. The results of the study are discussed in section four, while section five deals with conclusion and recommendation.

Literature Review

The section discusses the concepts of financial reporting quality and organizational complexity. It also

reviews the empirical literature that examined the relationship between organizational complexity and financial reporting quality. The theoretical framework for the study is also discussed.

Conceptual Framework

Financial Reporting Quality

Financial reporting quality is better understood from the concept of earnings management. Earnings management has been defined in various ways according to research focus and perspectives. Schipper (1989) defines earnings management as disclosure management in the sense of a purposeful intervention in the external financial reporting process, with a view to obtaining private gain for shareholders or managers. Thus, simply put, earnings management is the deliberate intervention in financial reporting process to achieve personal goals by firm managers. The relationship between financial reporting quality and earnings management is inverse. The presence of high earnings management means low quality of financial reports and vice-versa. McNichols (2000) discusses the research designs of the three most commonly applied designs in the earnings management literature: aggregate accruals, specific accruals and the distribution of earnings. The most popular design among these three is the aggregate accrual model, which explains financial reporting quality from the perspective of the discretionary accruals that can be manipulated by managers.

Financial reporting quality is a latent construct of desirable properties of reported earnings. In a review of earnings quality literature, Dechow, Ge and Schrand (2010) argued that there is no superior proxy for earnings quality. The literature distinguishes provides two measures of quality of financial reports: accounting-based and market-based. The accounting-based attributes only consider accounting information (e.g., cash flows and accruals), whereas the market-based attributes contain both accounting information and market data (e.g., information summarized in stock returns). The present study views financial reporting quality from the accounting-based measure (accrual).

How to improve the quality of financial reports remains a recurrent topic of discussion among corporate stakeholders due to its effect on stock value and cost of capital. The quality of financial reports is threatened when managers have the incentive to misreport earnings in line with their own personal objectives. The academic literature suggest that organizational complexity leads to greater information asymmetry, which provides additional incentive for earnings management (Francis & Gunn, 2015; Vassilescu & Millo, 2016; Abubakar & Abdullahi, 2018). Other strands of literature points that industry specialized auditors have a role to play in constraining managerial opportunistic tendencies in firms that are complex because of their competence in specific industries and hence ensuring financial statements are of high quality. In spite of the interest in organizational complexity, there has been little empirical effort about the role organizational complexity plays in the quality of financial reports and more so, how this role is affected by industry specialized auditors. This study seeks to address these important points.

Organizational Complexity

Organizational complexity refers to the characteristics of the operations and communication processes within an organization (Jennings, Seo & Tanlu, 2015). Complexity varies positively with the number of elements that must be simultaneously dealt with as well as the level of activities and subsystems. This is because the cost of the Knowledge of information produced determines the internal complexity of operation of an organization (Zurub, Ionescu & Bob, 2015). It describes the

characteristics of the interaction among the various segments of the firm. As a characteristic feature, it occurs and grows when interdependence of the elements within the system becomes relevant (Liu, 2012). In such systems each part or agent has significance of its own, and removal of certain element from the system leads toward destruction of the existing system's behaviour.

Generally, two types of complexity that are prominently discussed in the literature. One form is industrial diversification, which indicates that a firm is operating in different related or unrelated industries. Another type of complexity is international diversification and is referred to firms with geographic segments. In sum, the literature provides that greater complexity leads to opaqueness in firms' activities and thereby a reduction in corporate transparency (Bushman, Chen, Engel & Smith, 2004; Graham, Harvey & Rajgopal, 2013), and affects quality of audited earnings (Francis & Gunn, 2015) and moderates the influence of internal governance mechanisms on earnings management (Cheng, Li & Shevlin, 2014). In the same vein, Lee, Lev and Yeo (2007) observe that the scope for moral hazard increases with organizational complexity, especially in firms with high organizational relatedness, because direct monitoring by principals is difficult. The eempirical evidence by Jiraporn, Kim and Mathur (2008) shows that earnings management is mitigated in industrially diversified firms in line with the offsetting accrual hypothesis.
Organizational complexity is measured using the industry-wise Herfindahl-Hirshman Index. Consistent with Cheng, Li and Shevlin (2014) complexity is defined as an indicator for high complexity, which equals one (zero) for firm-year observations with above (below) the median first principle component of the proportion of segment sales to total sales of the firm.

$$\sum_{industry=1}^{n} \left(\frac{sales_{segment}}{Total\ Firm\ Sales}\right)^2$$

The measure has ranged between 0 and 1. Higher values of these indices imply more industry and segment sales concentration, and therefore less complexity. Thus the variable is represented by '1' for complex firms, and '0' otherwise.

Industry Specialized Auditor
An Industry-specialized auditor is one that understands financial reporting complexities of firms in an industry (Abubakar, 2014). Because of this status, the auditor is expected to detect financial reporting fraud and mis-statement. It follows, therefore, that a firm audited by such specialist is expected to have reduced earnings management arising from discretionary accruals. Some studies have considered financial expertise of the external auditor as a measure of specialization (e.g. Bedard & Biggs, 1991). This measure can be argued to be a misrepresentation of specialization because hardly can any of the reputed auditors be inexperienced in the financial reporting process. An alternative measure that has sprung in the literature, therefore, is that any auditor that audits one-third of the firms in the industry is regarded as a specialist. The benefits of industry specialized auditor as identified in the literature include mitigation of financial fraud (Carcello & Nagy, 2004), reporting of lower discretionary accruals (Krishnan, 2003; Abubakar, 2014), and greater asymmetric timeliness of earnings.

Review of Empirical Literature
Organizational Diversification and Financial Reporting Quality
Empirical studies on the association between organizational complexity and financial reporting quality

are sparse and have yielded inconsistent results. Amit, Livnan and Zarowin (1999) studied the accounting implication of complexity with specific focus on inflation-adjusted earnings, earnings response coefficients and choice of accounting methods. One of the findings was that there is a significant relationship between complexity and choice of depreciation indicating that in complex firms, earnings can be managed through depreciation. The study of El Mahdi and Seboui (2011) examined whether corporate diversification (industrial and geographic complexity) leads to higher or lower in earnings management in a sample of United States' firms. The study found that industrial complexity (diversification) decreases earnings management, whereas geographic diversification increases it.

Bushman, Chen, Engel and Smith (2004) tested the relationship among financial accounting information, organizational complexity and corporate governance systems in the United States' companies listed on the New York Stock Exchange. Using earnings timeliness to proxy accounting information, the study found that organizational complexity does not affect quality of financial reports and that the demand for corporate governance increases with complexity. Teclezion and Mercelin (2014) found that earnings management is significantly reduced in firms that pursue corporate diversification and that diversification increases predictability of return on assets in U.S. banking firms during the period 2001 to 2010. Also, Francis & Gunn (2015) investigated whether auditor industry expertise influences the quality of audited earnings in industries with high complexity. The study found that firms in complex industries have noisier earnings occasioned by less earnings persistence, larger within-year industry variations and larger analysts' forecast errors. Further, Farooqi, Harris and Ngo (2014) examined the interaction among corporate diversification, real earnings management, and firm value. Their analysis indicated that industrial diversification and the combination of industrial and global diversification aggravates earnings management through real activities. Conversely, the study reported that global diversification mitigated real activities manipulation. The results of Jiraporn, Kim and Mathur (2008) demonstrated that complex firms do not suffer more severe informational asymmetry and hence do not have lower financial reporting quality. In this regard, Alhadab and Nguyen (2018) found that diversified firms have higher prevalence of both real and accrual earnings management.

From the review of literature, it is apparent that there is no empirical consensus on the effect of organizational complexity on financial reporting quality. The differences in findings is attributable to the differences in the choice of technique of analysis and proxies of financial reporting quality. The review also reveals that these studies are foreign-based emanating mostly from the United States, which have different regulations and more sophisticated business environment. It is therefore desirable to explore these phenomena using data from emerging economies such as Nigeria. These lead us to two hypotheses:

$H0_1$ Industry complexity has no significant effect on financial reporting quality of listed manufacturing firms in Nigeria

$H0_2$ Geographic complexity has no significant effect on financial reporting quality of listed manufacturing firms in Nigeria

Industry Specialized Auditor and Financial Reporting Quality

The literature also suggests that industry specialist auditors have more industry-specific knowledge and expertise than non-specialist auditors (Dunn & Mayhew, 2004). Empirical evidences suggest that specialized auditors attempt to protect their reputation capital through increased compliance with

generally accepted auditing standards relative to non-specialist auditors (O'Keefe, King & Gaver, 1994). Empirically, Kanagaretnam, Kim and Lobo (2010) examined the relationship between auditor reputation and earnings management and found that once auditor type and auditor industry specialization are included in the same tests, only auditor industry specialization has a significant impact on constraining benchmark beating behaviour. However, once auditor type and industry expertise are separated, only auditor industry expertise has a significant impact on valuation of financial reporting quality. In the same vain, Zhou and Elder (2001) found that industry specialist auditors are related to less earnings management in the initial public offering process. Butar-Butar and Indarto (2018) found that firms that operate in complex business environments have higher absolute accruals (lower) quality of financial reports than firms in non-complex industries. From these findings, it is expected that industry specialized auditors improve financial reporting quality because of their knowledge and experience of the audit peculiarities in the industry.

$H0_3$Industry specialized auditor has no significant effect on financial reporting quality of listed manufacturing firms in Nigeria

Industry Specialized Auditor, Organizational Complexity and Financial Reporting Quality

The moderating role of industry specialized auditor on the relationship between organizational complexity and financial reporting can be inferred from the literature. Alhadab and Nguyen (2018) note that if firms are different at various levels of complexity with regards to organization diversification, strategic goals, financial resources, and investment opportunities, then managers' motivations and abilities to use various techniques to manage earnings may be determined by level of corporate diversification. Thus, the level of complexity (industrial and geographic) are significant incentives to managers to engage in earnings manipulation. Meanwhile, the positive relationship between industry specialized auditor and quality of financial reports is well documented in the literature (Kanagaretnam et al., 2010; Abubakar, 2014). This study argues that industry specialized auditors matter most for firms that are complex along geographic and product lines. Therefore, it is expected that financial reporting quality is enhanced by the specialist auditors in complex firms. These lead us to the next hypotheses:

$H0_4$: Industry specialized auditor has no significant moderating effect on the relationship between industrial complexity and financial reporting quality.

$H0_5$: Industry specialized auditor has no significant moderating effect on the relationship between geographic complexity and financial reporting quality.

Theoretical Framework

Agency theory propounded by Jensen and Meckling (1976) presents the backdrop upon which the study is based. The theory posits that managers are self-interested and that they use their position to pursue their own personal interest, which often contradicts that of the shareholders. To mitigate this, there are mechanisms that are recommended, which includes governance variables and external auditing. The literature argues that the more the information asymmetry, the higher the likelihood of earnings management, which reduces financial reporting quality (Francis & Gunn, 2015). Organizationally complex firms, by their nature are more opaque and as such provides additional incentive for managers to pursue their interest. Industry specialized auditors are needed more in such organizations to ameliorate the likely reduction in the quality of earnings.

Methodology

The study adopts positivism as the research paradigm, which is associated with scientific, experimental, quantitative and deductive frameworks where researchers seek specific quantifiable observations thus regularly using statistics and experiments to test their hypotheses. The correlational and ex-post factor design is employed to test the hypotheses. This design is relevant because it describes the statistical association or variability between two or more variables. The study population comprises all the 58 manufacturing firms listed on the Nigerian Stock Exchange (NSE) as at 31st December, 2017. To determine the sample, two criteria are used. Firms whose data are not available throughout the sample period, and those that have been delisted (disappeared) from the trading schedule of the NSE during the period are dropped. Based on these criteria, a sample size of 21 firms is used for analysis. Secondary data are collected through published annual reports of the sample firms. An unbalanced panel multiple regression is used as a technique for data analysis. Like most earnings management studies two-step regression is used in this research.

The study employs two-stage regression to disentangle discretionary from non-discretionary components of accruals. Consistent with prior studies (such as Ali, Salleh & Hassan, 2008), a cross-sectional regression as proposed by Kothari, Leone and Wasley (1991) is used to obtain the discretionary component of accruals. The model is more powerful in detecting earnings management as compared to the other existing models (Dechow, Ge & Schrand, 2010). Following Kothari, Leone and Wasley (2005), Total Accruals (TACC) is defined as the difference between Net Income (NI) which is the earnings before taxation and extraordinary items and cash flow from operating activities (CFO). This means that;

$$TACC = NI - CFO$$

$$TACC_{it}/TA_{it-1} = a_0\ (1/TA_{it-1} + a_1(DREV - DREV)_{it}/TA_{it} + a_2(PPE)_{it}/TA_{it-1} + a_3 ROA_{it-1} + e_{it}$$

Where TACC is total accruals, ? REV is change in revenue, ? REC is change in receivables, PPE is property, plant, and equipment and "e" is the residual. All variables, excluding ROA (Return on Assets), are scaled by lagged total assets *(Ta_{it-1})*

Financial Reporting Quality (FRQ) is measured as the discretionary accruals, which is obtained from equation (II). The absolute abnormal accruals to proxy financial reporting quality. The larger the value of the discretionary accruals, the lower the quality of financial reports and vice-versa.

To test the study hypotheses, the following multiple regression model is estimated.

$$FRQ_{it} = a_0 + b_1 IC_{it} + b_2 GC_{it} b_3 ISA_{it} + b_4 IC*ISA_{it} + b_5 GC*ISA_{it} + e_{it}$$

III

FRQ = Financial reporting quality measured as the residual from the Kothari et al. (2005).

IC = industry complexity measured using the industry-wise Herfindahl-Hirshman Index (HHI). This is consistent with Cheng et al. (2016).

GC = Geographic complexity is also measured using the HHI in line with Francis and Gunn (2015).

In both cases (IC and GC), complexity is defined as an indicator for high complexity, which equals one (zero) for firm-year observations with above (below) the median first principle component of the proportion of segment sales (industry/geographic) to total sales of the firm.

$$\sum_{industry=1}^{n} \left(\frac{sales_{segment}}{Total\ Firm\ Sales}\right)^2$$

The measure has a range between 0 and 1. Higher values of these indices imply more industry and segment sales concentration, and therefore less complexity. Thus the variable is represented by '1' for complex firms, and '0' otherwise.

ISA = Industry specialized auditor, which is measured as indicator (dummy) variable; 1 is assigned when a firm is audited by a specialist during a year and 0 otherwise. A specialized auditor is one that has at least 15% of the audit market share (Abubakar, 2014).

Results and Discussion

The results of the study are presented and discussed in this section. The results presented are descriptive statistics, correlation matrix, post-estimation tests and regression result.

Table 1
Descriptive Statistics

Variable	FRQ	IC	GC	ISA
Mean	0.102	0.803	0.800	0.452
Std. Dev.	0.100	0.243	0.248	0.499
Min.	0.001	0.049	0.003	0.000
Max.	0.574	1.000	1.000	1.000

Source: Summary Statistics computed using Stata

The summary statistics from Table 1 shows that FRQ has an average of 0.10, standard deviation of 0.10, and minimum of 0.00 and maximum of 0.58. These indicate that the FRQ for the sample firms are widely differentiated as it combines both high and low quality. This is evident in the high standard deviation of 0.10. Industry complexity (IC) has a mean of 0.80 and standard deviation of 0.24. The high average indicates that the firms that are not highly complex along industrial line. This is similar to the statistics of geographic complexity (GC) except that GC has lower minimum value of 0.003 indicating higher complexities along geographic lines. Industry specialized auditor has a mean of 0.452 and standard deviation of 0.49. The mean of 0.45 shows that a large number of firms in the industry are audited by the specialist auditors.

Table 2
Correlation Matrix

Variable	FRQ	IC	GC	ISA	ISA*IC	ISA*GC
FRQ	1.000					
IC	-0.204	1.000				
GC	0.020	0.778	1.000			
ISA	0.452	-0.173	-0.052	1.000		
ISA*IC	0.439	0.059	0.185	0.838	1.000	
ISA*GC	0342	0.068	0.188	0.751	0.832	1.000

Source: Computed by Author using Stata

Table 2 is the Pearson correlation matrix that shows the relationship among all the variables of the study. The Table reveals that industry complexity has a negative relationship whereas geographic complexity positively relates to financial reporting quality. Industry specialized auditor has a positive relationship with quality of financial reports. The interaction of industry specialized auditor and industry complexity, and industry specialized auditor and geographic complexity positively relates with quality of financial reports. The high correlations of ISA and ISA*IC and ISA*IC and ISA*GC indicate that need for multicollinearity test because they exceed the threshold of 0.80 suggested by Gujarati (2003).

Post-Estimation and Specification Tests

Two major post estimation tests that are relevant for this study are multicollinearity and heteorskedasticity tests since the data is micro panel in nature. The multicollinearity test is conducted using the Variance Inflation Factor (VIF). The result indicates VIF values less than 10 indicating absence of exact correlations among the study independent variables. The Breusch-Pagan/Cook-Weisberg test for constant variance shows that the data is heteroskedastic and thus OLS regression may be provide efficient estimates.

Both Fixed effect and random effect regressions are run together with Hausman specification test. The Hausman test reveals a chi2 of 8.59 and probability of 0.13 indicating that the random effect is a more efficient estimate. In addition the Lagrangian Multiplier test shows a probability of 0.14 indicating that that there is no panel effect in the data and hence the OLS regression is more suitable for analysis. Therefore, the OLS regression is used to test the study hypotheses.

Table 3
Regression Result

Variable	Coefficient	t. value	Prob.
Constant	0.096	4.52	0.000
IC	-0.175	-2.83	0.005
GC	0.136	2.13	0.035
ISA	0.042	1.94	0.054
ISA*IC	0.076	2.08	0.039
ISA*GC	0.029	-0.90	0.368
R-Square	0.294		
F. Stat.	13.14		
Prob.	0.000		

Source: Computed by Author using Stata

Table 3 is the result of the regression analysis (with robust standard errors). The multiple coefficient of determination (R-squared) indicates that the variable explain about 30% of the variation in financial reporting quality. Probability of F. Statistics (13.14) of 0.000 shows the model is adequate in explaining the interaction among organizational complexity, industry specialized auditor and financial reporting quality.

In terms of the individual variables, industry complexity has a negative coefficient of -0.174, t. value of -2.83 and probability of 0.005 meaning that industry complexity has a significant negative effect on quality of financial reports. This leads to the rejection of the null hypothesis one, which states that industrial complexity has no significant effect on financial reporting quality. The finding is in line with the

findings of Amit, Livnan and Zarowin (1999) and El Mahdi and Seboui (2011), while it contradicts the results of Jiraporn, Kim and Mathur (2008) and Teclezion and Mercelin (2014). Theoretically, the finding supports the information asymmetry hypothesis that predicts lower quality of earnings as a result of industrial diversification, which provides additional motivation for managers to misreport earnings.

With regards to geographic complexity, the results shows coefficient of 0.136, t. value of 2.13 and probability of 0.035. This shows that geographic complexity has a significant positive effect on financial reporting quality. Based on this, the study rejects that null hypothesis, which states that geographic diversification has no significant effect on financial reporting quality. The result supports the finding of El-Mahdi & Sebui (2011), whereas it contradicts the result of Farooqi, Harris and Ngo (2014) who documented that international diversification aggravates earnings management. This is in line with the offsetting accrual hypothesis, which predicted a positive effect of complexity on quality of earnings.

Industry specialized auditor shows a significant positive effect on financial reporting quality with a coefficient of 0.042, a t. value of 1.94 and probability of 0.054. There is evidence to reject the null hypothesis three, which states that there is no significant effect of industry specialized auditor on financial reporting quality. The result is in line with the findings of Kanagaretnam, Lim and Lobo (2010) and Zhou and Elder (2011). It is also in line with the argument that specialist auditors have the tendency to mitigate earnings management because of their technical expertise, resources and the desire to protect their reputation.

An interesting finding is revealed as regards the interaction of industry specialized auditor and industry complexity, which shows a significant positive influence on financial reporting quality. The result indicates that the specialist auditors reverses the negative effect of industry complexity on quality of earnings. The study, therefore rejects the null hypothesis four, which states that industry specialized auditor has no significant moderating effect on the relationship between industry complexity and financial reporting quality. This supports the assertion that complex firms require specialist auditors that will be able to understand the diversification effect on the financial reporting process. For geographic complexity industry specialist auditors do not seem to play a significant role in enhancing financial reporting quality. Thus, the study fails to reject the null hypothesis five, which states that industry specialized auditor has a significant moderating effect on the relationship between geographic complexity and financial reporting quality.

The findings of this study have both theoretical and practical implications. Theoretically, the finding with respect to industry complexity supports the information asymmetry hypothesis that predicts decreased quality of earnings as a result of organizational complexity. It also confirms the offsetting accrual hypothesis with regards to geographic complexity, which states that as a result of uncorrelated accruals from diverse international segments, managers find it difficult of manage earnings resulting to higher quality of financial reports. Practically, the study supports the call for industry specialized auditor as an external monitoring mechanisms that could checkmate managerial excesses in the face of diversification.

Conclusion and Recommendations

This study examines whether industrial complexity plays a role in the relationship between

organizational complexity and financial reporting quality. Five hypotheses are tested and the result indicates that industrial complexity has a significant negative effect, while geographic complexity has significant positive effect on financial reporting quality. In addition, industry specialized auditor plays a significant positive role on financial reporting quality. More so, industry specialized auditor has a significant moderating effect on the relationship between industrial complexity and financial reporting quality. The study does not find a significant moderating role of industry specialized auditor on geographic complexity and financial reporting quality relationship. Based on these findings, the following recommendations are proffered;

1. Regulatory authorities such as the Nigerian Stock Exchange (NSE) should keep a close monitoring of financial reporting process of industrially diverse firms through increased disclosure with regards to segment reporting.
2. The management of Nigerian manufacturing firms should engage industry specialized auditors so as to minimize earnings manipulation and ensure the integrity of financial reports.
3. Industry specialized auditors should be encouraged by regulatory authorities to audit organizations that are complex along industrial lines in order to guarantee high quality financial reports.

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```
. summarize frq ic gc isa

    Variable |        Obs        Mean    Std. Dev.       Min        Max
-------------+---------------------------------------------------------
         frq |        166     .102267    .1002804    .000478    .574436
          ic |        166     .801304    .2404062    .203501          1
          gc |        166    .8019512    .2431624    .133439          1
         isa |        166    .4518072    .4991779          0          1

. correlate frq ic gc isa isaic isagc
(obs=166)

             |      frq       ic       gc      isa    isaic    isagc
-------------+------------------------------------------------------
         frq |   1.0000
          ic |  -0.2039   1.0000
          gc |   0.0200   0.7779   1.0000
         isa |   0.4523  -0.1729  -0.0523   1.0000
       isaic |   0.4390   0.0592   0.1845   0.8376   1.0000
       isagc |   0.3421   0.0678   0.1883   0.7512   0.8317   1.0000

. regress frq ic gc isa isaic isagc

      Source |       SS       df       MS              Number of obs =     166
-------------+------------------------------           F(  5,   160) =   13.32
       Model |  .487789006     5  .097557801           Prob > F      =  0.0000
    Residual |  1.17147654   160  .007321728           R-squared     =  0.2940
-------------+------------------------------           Adj R-squared =  0.2719
       Total |  1.65926554   165  .010056155           Root MSE      =  .08557

------------------------------------------------------------------------------
         frq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ic |  -.1753035   .0433289    -4.05   0.000    -.2608738   -.0897333
          gc |   .1356088   .0442993     3.06   0.003     .0481219    .2230956
         isa |   .0423007   .0276248     1.53   0.128    -.0122555    .0968569
       isaic |   .0756467   .0353479     2.14   0.034      .005838    .1454555
       isagc |   -.028944   .0288549    -1.00   0.317    -.0859296    .0280417
       _cons |   .0964327   .0270671     3.56   0.000     .0429778    .1498877
------------------------------------------------------------------------------

. vif

    Variable |       VIF       1/VIF
-------------+----------------------
       isaic |      5.37    0.186214
         isa |      4.29    0.233358
       isagc |      3.43    0.291793
          gc |      2.72    0.367791
          ic |      2.67    0.374061
-------------+----------------------
    Mean VIF |      3.69

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of frq

         chi2(1)      =    19.17
         Prob > chi2  =   0.0000
```

```
. xtreg frq ic gc isa isaic isagc, fe

Fixed-effects (within) regression               Number of obs      =       166
Group variable: id                              Number of groups   =        21

R-sq:  within  = 0.3191                         Obs per group: min =         4
       between = 0.3196                                        avg =       7.9
       overall = 0.2813                                        max =        10

                                                F(5,140)           =     13.12
corr(u_i, Xb)  = -0.4569                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         frq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ic |  -.1662871   .0452208    -3.68   0.000    -.2556912   -.0768831
          gc |   .0916101   .0499453     1.83   0.069    -.0071345    .1903547
         isa |   .0537425   .0296094     1.82   0.072    -.0047968    .1122818
       isaic |   .1069911   .0373748     2.86   0.005     .0330991    .1808832
       isagc |  -.0174449   .0325986    -0.54   0.593    -.0818941    .0470044
       _cons |   .1035138   .0377632     2.74   0.007     .0288539    .1781737
-------------+----------------------------------------------------------------
     sigma_u |  .04682426
     sigma_e |  .08151052
         rho |  .24812055   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(20, 140) =     1.82             Prob > F = 0.0241

. xtreg frq ic gc isa isaic isagc, re

Random-effects GLS regression                   Number of obs      =       166
Group variable: id                              Number of groups   =        21

R-sq:  within  = 0.3105                         Obs per group: min =         4
       between = 0.3499                                        avg =       7.9
       overall = 0.2926                                        max =        10

                                                Wald chi2(5)       =     67.37
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
         frq |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ic |  -.1725515   .0429337    -4.02   0.000    -.2567001   -.0884029
          gc |    .122965   .0450031     2.73   0.006     .0347606    .2111694
         isa |   .0435594    .027617     1.58   0.115    -.0105689    .0976878
       isaic |    .085931   .0353885     2.43   0.015     .0165708    .1552911
       isagc |  -.0268754   .0296171    -0.91   0.364    -.0849237     .031173
       _cons |   .0996893   .0295986     3.37   0.001     .0416771    .1577015
-------------+----------------------------------------------------------------
     sigma_u |  .02535052
     sigma_e |  .08151052
         rho |  .08819581   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
. xtreg frq ic gc isa isaic isagc, fe

Fixed-effects (within) regression               Number of obs      =       166
Group variable: id                              Number of groups   =        21

R-sq:  within  = 0.3191                         Obs per group: min =         4
       between = 0.3196                                        avg =       7.9
       overall = 0.2813                                        max =        10

                                                F(5,140)           =     13.12
corr(u_i, Xb)  = -0.4569                        Prob > F           =    0.0000
```

frq	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ic	-.1662871	.0452208	-3.68	0.000	-.2556912	-.0768831
gc	.0916101	.0499453	1.83	0.069	-.0071345	.1903547
isa	.0537425	.0296094	1.82	0.072	-.0047968	.1122818
isaic	.1069911	.0373748	2.86	0.005	.0330991	.1808832
isagc	-.0174449	.0325986	-0.54	0.593	-.0818941	.0470044
_cons	.1035138	.0377632	2.74	0.007	.0288539	.1781737
sigma_u	.04682426					
sigma_e	.08151052					
rho	.24812055	(fraction of variance due to u_i)				

```
F test that all u_i=0:     F(20, 140) =     1.82             Prob > F = 0.0241

. est store fe

. hausman fe re
```

	——— Coefficients ———			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ic	-.1662871	-.1725515	.0062643	.0141992
gc	.0916101	.122965	-.0313549	.0216623
isa	.0537425	.0435594	.0101831	.0106777
isaic	.1069911	.085931	.0210601	.0120222
isagc	-.0174449	-.0268754	.0094305	.0136199

```
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        8.59
                Prob>chi2 =      0.1267
```

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        frq[id,t] = Xb + u[id] + e[id,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                     frq |   .0100562       .1002804
                       e |    .006644       .0815105
                       u |   .0006426       .0253505

        Test:   Var(u) = 0
                             chibar2(01) =     1.08
                          Prob > chibar2 =   0.1492

. reg frq ic gc isa isaic isagc, ro

Linear regression                                      Number of obs =     166
                                                       F(  5,   160) =   13.14
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.2940
                                                       Root MSE      =  .08557
```

frq	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
ic	-.1753035	.0619183	-2.83	0.005	-.2975861	-.053021
gc	.1356088	.0637455	2.13	0.035	.0097176	.2614999
isa	.0423007	.0218264	1.94	0.054	-.0008043	.0854057
isaic	.0756467	.0363061	2.08	0.039	.0039458	.1473477
isagc	-.028944	.0320435	-0.90	0.368	-.0922268	.0343389
_cons	.0964327	.021322	4.52	0.000	.0543239	.1385415

EFFECT OF FAIR VALUE ON FIRM VALUE AND PROFITABILITY

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Abstract

The study evaluated the effects of fair value accounting on financial reporting of profitability and firm value. The study focused on deposit money banks listed on the Nigerian Stock Exchange, using a sample of 13 banks quoted on the Exchange. The study was anchored on the agency theory. The study employed secondary data gathered from published annual reports of eight years (four years pre-IFRS, historical value measurement and four years post-IFRS_ fair value measurement)_ 2008 to 2015. Descriptive analysis was used enabling the generalization of large information while SPSS Version 23 software and regression analysis was used to analyze generate data. From the study, it was found that fair value does not significantly affect reported profitability. Fair value was however found to affect firm valuation. The study concludes that in order to effectively evaluate financial performance and position, knowledge of fair value is not enough. Users also need to know the historical cost of the investment. Therefore, companies should adopt a hybrid form of measurement (measurements which entail both fair and historical values) in reporting their activities to reflect actual values creation.

Keywords: Fair Value, Historical Cost, Firm Value, Profitability

Introduction

The application of fair value measurement in determination of profitability of listed firms in Nigeria was influenced by the adoption of International Financial Reporting Standard (IFRS). International Financial Reporting Standards (IFRS) represent a set of accounting standards, developed by the International Accounting Standards Board (IASB), to harmonise financial reporting practices globally. The standards require that financial statements be reported fairly to ensure proper decision making on the part of users.

Fair value measurement favours a basis of valuing assets and liabilities at their current market price as though the business is at liquidation and trying to realise its assets and dispose its liabilities (Akwu, 2014). Ijeoma (2014) posits that fair values reflect the most current and complete expectation and estimation of the value of assets or obligations, including the amounts, timing, and riskiness of the future cash flows attributable to assets or obligations. As such expectations lie at the heart of all transactions, which add to the belief that market efficiency would be enhanced if the information upon which such decisions are made is reported in the financial statements at fair value.

The International Accounting Standard Board (*IASB) in the third* chapter of the IASB Conceptual

Framework Conceptual Framework identified two fundamental qualitative characteristics and four enhancing qualitative characteristics of financial statements, which includes: relevance and faithful representation, comparability, verifiability, timeliness and understandability.(ICAN, 2014). These characteristics, Enahoro and Jayeoba (2013) stated, are the bedrock on which accounting theories are formulated, since it is important to prepare and present financial statement with a view to meeting its objectives. The move towards meeting these qualitative characteristics led to the development of historical cost accounting. The historical cost accounting recognizes gains and losses only when actually realized. It works with the matching principle where expenses are offset against the revenues they support. The historical cost accounting was believed to have fulfilled the consistency characteristic of financial reporting over the years. However in recent times, investors, financial analysts, shareholders, creditors, employees, and communities, nevertheless, believe that historical cost financial statements have lost the characteristic of relevance and this has led to the development of Fair Value Accounting (Ting & Soo, 2005). With the application of fair value measurement, book earning are brought closer to financial earnings which is considered a positive outcome for the efficient functionary of the market and for the use of accounting information in the valuation of companies. (Osisioma, Okoye & Ijeoma, 2014).

Nissam and Penman (2008) stated that there have been changes in standards that govern accounting practice over the past decade particularly true with regard to the increasing emphasis placed on reporting assets at fair value (predominantly the current market price of an asset). Penman (2007) stated that a fundamental conceptual issue [facing accounting standard setters] is the extent to which the standards should move away from traditional cost based accounting to marking assets and liabilities to market, euphemistically referred to as 'fair value' accounting. Nissim and Penman (2008) also led credence to this statement stating that the adoption of fair value accounting is arguably the most important and controversial issue facing regulators and accounting standard setters today. There is without doubt considerable momentum to move toward fair value methodologies, but there are also significant questions about the practical and useful application of that approach to both internal and external users.

Statement of Problem

A lot of controversy has risen on the helpfulness of Fair Value Accounting in providing transparency and whether it leads to undesirable actions on the part of firms. Inasmuch as investors want fair value information to better determine the true value of their investment, they also wish to see the historical cost information that provide a measure of cash flows and aids forecasting of financial performance and position. An argument against fair value accounting is the induced volatility of earnings if changes in fair values are reported in earnings. Some believe that this volatility of earnings may not correlate to management's performance and that this would make it more difficult for users to predict future performance. Benston (2006) gave credence to this stating that Enron's use of fair-value accounting was substantially responsible for its demise. Topping (2002) also remarked that the Enron case highlights the problems a company may face after applying fair value because it complicates the situation and makes managerial fraud hard to detect. The application of fair value accounting pads the financial statements with unrealized gains and losses that impairs income statement and thus understates or overstates performance. The specific objectives of this study are:

1) To investigate the effect of fair value accounting on reported profitability.
2) To ascertain the effect of fair value accounting on firm value.

The following research hypotheses in their null forms were formulated in line with the objectives above:
H_{01}: Fair value accounting does not significantly affect reported profitability.
H_{02}: Fair value accounting does not have a significant effect on firm value.

Review of Related Literature

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e. an exit price) (IASB, 2011).The definitions of fair value emphasize fair value as market-based measurement, not an entity-specific measurement (Akwu, 2014). When measuring fair value, an entity uses the assumptions that market participants would use when pricing the asset or liability under current market conditions, including assumptions about risk. As a result, an entity's intention to hold an asset or to settle a liability is not relevant when measuring fair value (IASB, 2012) Fair value accounting in its ideal state, satisfies the shareholder reporting objective by accounting for assets and liabilities in the financial statements at fair value (to shareholders) unlike historical cost accounting. The traditional accounting method, historical cost accounting has the quality of hardness. In other words, easy verification and low degree of susceptibility to assumptions and judgment are advantages that accrue to it. It ensured the objectivity principle was followed in that it provides verifiable records for past performance. However, it does not satisfy the information needs of investors (i.e. shareholders and debt-holders) who seek relevant information that can help predict firms' futuristic performance in the dynamic business environment.

IFRS 13 is the extant standard on fair value measurement. The standard explains that a fair value measurement requires an entity to determine the following:

a) The particular asset or liability being measured
b) For a non-financial asset, the highest and best use of the asset and whether the asset is used in combination with other assets or on a stand-alone basis
c) The market in which an orderly transaction would take place for the asset or liability; and
d) The appropriate valuation technique to use when measuring fair value.

The valuation technique used should maximize the use of relevant observable inputs and minimize unobservable inputs. Those inputs should also be consistent with the inputs a market participant would use when pricing the asset or liability (Enahoro & Jayeoba, 2013).

Nissim and Penman (2008) wrote that accounting like any product, should be demand-driven. The only difference is that for products, you have customers while accounting has users in perspective. Different users may demand different accounting reports, and confusion reigns if issues are discussed at cross purposes. For example: A shareholder might see a gain from a fall in the value of a liability while a creditor pictures the same fall as a deterioration in creditworthiness. Bank shareholders might wish to see bank deposits at fair value, but not the depositors (who might be startled by a drop in the book value of their claim). A bank regulator might also be concerned about reporting deposits at less than face value if such reporting affected depositors' confidence in the banking system. While an investor might welcome the information about volatility that fair value accounting reveals, not so a central banker who might be concerned about feedback effects on systematic risk. The bank regulator might also be concerned about marking up banks' capital during speculative times with the resulting incentive for profligate lending (Plantin, Sapra & Shin, 2005).

Barth, Beaver and Landsman (2001) opined that accounting information is considered value relevant if it has the predicted association with market value of equity. Song, Thomas and Han (2010) also stated that value-relevant accounting information is both relevant to investors and reliable enough to be reflected in share prices. Armstrong, Guay and Weber (2010) opined that financial reporting using fair value provides relevant information to debt holders regarding the downside risk and evaluation of firm collateral, as well as information useful in assessing the timing and riskiness of firms' expected future cash flows from existing projects and anticipated investments.

Theoretical Framework

Agency Theory

According to Egbunike and Abiahu (2017, p. 27), "Agency theory has been widely used in literature to investigate the information asymmetry between principals (shareholders) and agent (management)". Jensen and Meckling (1976) describe the agency theory as constituting a contract where the shareholders (the principal) engage the managers (the agent) to manage the firm's operations in an efficient and effective way. A major problem that can result from this agency relationship is the problem of information asymmetry between the managers and shareholders, as managers may possess superior information about the current and expected future performance of the firm when compared to the information available to shareholders. Arnold and Lange (2004) cited in Okoye, Okaro and Okafor (2015) stated that two agency problems exist in an information asymmetry situation. First, adverse selection where the principal cannot determine if the agent is performing the work for which he/she is paid, and secondly, moral hazard where the principal is unsure as to whether the agent has performed their work to their ability. When the interests and functions of the self-serving agents coincide with those of the principals, agency problem will not arise. However, when there is divergence, agency costs are incurred by the principals because the agents will want to maximize their own utility at the expense of the principals (Udeh, Abiahu & Tambou, 2017).

Empirical Review

Okafor and Ogiedu (2011) found that improves business performance management and impacts on other business functions apart from financial reporting. Ijeoma (2013) observed that the implementation of Fair Value measurements gives sufficient precision in assessing firm's financial position and earning. Akpaka (2015) *found very weak value relevance of post IFRS financial information and post IFRS financial information has no relative value relevance over pre- IFRS financial information.* Sanyaola, Iyoha and Ojeka (2017) found a significant and positive relationship between IFRS adoption and EPS of quoted banks in Nigeria.

Methodology

The descriptive research design was used for this research. Thirteen deposit money banks listed on Nigerian Stock Exchange (NSE) in 2017 were studied. Secondary data for the study were extracted from annual reports of 2008 to 2015 financial years. Market capitalization values for the banks were extracted from the Nigerian Stock Exchange Website. The collated data were analyzed using descriptive statistics and the regression analysis. The relevant tests were done on the Statistical Package for Social Sciences (SPSS) Version 23. The hypotheses were accepted or rejected based on the p values derived from the analyses. Probability values greater than 0.05 signify acceptance of null hypotheses while p values less than 0.05 imply acceptance of alternate hypotheses

Data Analyses

Table 1 Descriptive Statistics

	N	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Deviation Statistic
ROI using Historical Value	13	-.1260	.0348	.001818	.0445441
Tobin q using Historical Value	13	.0937	.4566	.220964	.1168242
ROI using Fair Value	13	.0004	.0519	.020900	.0129016
Tobin q using Fair Value	13	.0365	.3237	.115653	.0828634
Valid N (listwise)	13				

Table 2 Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	ROI using Historical Value - ROI using Fair Value	-1.862	12	.087
Pair 1	Tobin q using Historical Value Tobin q using Fair Value	3.429	12	.005

The descriptive results show that the mean value for ROI increased from 0 .18% to 2.09% after the transition to fair value. The paired sample t statistic stood at -1.862 with a probability value of 0.087. Significant difference was not found in the value of reported profitability of banks (p=0.087>0.05). . Fair value accounting does not significantly affect reported profitability. This is consistent with the findings of Akpaka (2015)

The average value of Tobin Q measured using historical cost was .220964 and decreased by .105311 in the era of fair value measurement. The paired sample t statistic stood at -1.862 with a probability value of 0.05. The value of firms was found to reduce with fair value accounting significantly (p=0.05). This is in line with the findings of Lee et al (2013) on Chinese industrial firms.

Conclusion

The popularity of fair value measurement has been on the rise since the move towards global convergence of financial reporting. This has arisen from the adoption of IFRSs by different nations of the world. These global standards set to harmonize accounting practices and improve usefulness of accounting information advocated that items in financial statements are reported fairly. Contradictory views have however risen over time on how much fair value has achieved the purpose of financial statements and the usefulness of accounting information. Based on the results from the analyses of this study, firm value differs significantly when measured with fair value and historical costs.

Profitability was not found to differ significantly. The study therefore concludes that in order to effectively evaluate financial performance and position, knowledge of fair value is not enough. Users also need to know the historical cost of the investment.

Recommendations

In line with the findings of the study, the following recommendations were made:

1. Companies should adopt a hybrid form of measurement. In other words, measurement should entail both fair and historical values.
2. Auditors should examine financial statements with due care to ensure true and fair reporting by directors.

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IFRS ADOPTION AND CROSS BORDER TRANSACTIONS: A COMPARATIVE ANALYSIS OF NIGERIA AND SOUTH AFRICA

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Abstract

This study specifically investigate the impact of IFRS adoption on cross-border transactions in Nigerian and South African firms. In order to investigate the effect of IFRS adoption in Nigeria and South Africa, the flow of cross-border transactions in the forms of foreign direct investments and foreign trade balance before and after the adoption of the accounting principles were investigated. This study used country level measures. A multiple regression analysis was conducted with the use of Stata 14. The study used secondary data gathered from various issues of Central Bank of Nigeria Statistical Bulletin, South Africa Reserved Bank and World Bank Development Indicators Database. Findings show that a positive relationship exist between IFRS Adoption and FDI. The study concluded that the FDI of Nigeria and South Africa is positively influenced by IFRS adoption. Inversely, IFRS adoption does not have statistically significant influence on FTB of both countries.

Keywords: IFRS, Adoption, cross border, FDI, FTB

Introduction

The advent of globalization, global capital markets have witnessed rapid expansion, diversification and integration which has brought about a shift away from local financial reporting standards to global standards. This efforts to converge accounting standards started in the 1950s as a result of the need to integrate economically and also due to the movement of capital across countries post World War II. Initially, the harmonization efforts were meant to close the variations in the principles of accounting used in various capital markets globally. The increase in the growth of international business, and financial transactions across borders call for IFRS adoption (Armstrong, Barth, Jagolinzer and Riedl, 2010) for the following reasons: promotion of uniformity and transparency of reporting; harmonisation of standards for the purpose of consistency and comparability of annual reports leading to a boost in the investment potential and international trade of countries. Harmonization efforts were replaced by convergence which relates to the formulation uniform higher quality set of accounting standards which are international and applicable across capital markets globally(Elkana, 2017). The International

Accounting standards committee was formed in the year 1973, and began issuing International Accounting Standards the same year. The International Accounting Standards Board was formed in the year 2001 in order to develop the International Financial Reporting Standards (King'wara, 2015). International Financial Reporting Standards (IFRS) are a set of accounting standards developed by the International Accounting Standards Board (IASB) that is becoming the global standard for the preparation of public company financial statements.

Consequently, Zakari noted that with adoption ofIFRSlocal financial statements are understood and accepted in global market hence the globalisation will creates new opportunity for business to strive abroad and as such Foreign Direct Investment (FD) will be boosted. However, IFRS adoption is expected to improve accounting quality. Accounting quality is a term, though applied widely, there is no specific definition of it, and it is proposed that accounting quality should be applied in relation to the interests of the shareholders and accounting information usefulness in assisting in helping them in making decisions(Ames, 2013). A financial report gives users information they need to use in making decisions concerning their engagements with a given firm.The disclosure of timely and relevant financial reports helps to lower asymmetry of information (Soderstrom and Sun, 2007). Due to high variations relating to the economic efficiencies of various nations and the quality of financial reporting, the international accounting standards offer a great opportunity in evaluating the consequences arising from the reports prepared on the basis of IFRS. Adopting IFRS enables users of accounting reports to understand the financial statements even in jurisdictions out of their home nations. From the 1980s deregulation of financial markets out

of efforts by the IMF structural adjustment programs for developing nations which vouch for minimal intervention by governments in financial markets. As a result of globalization of financial markets necessitates the need to have uniform standards of accounting and practice. The harmonization of the standards enable investors to make better informed choices especially for diversified international portfolios through comparison of financial results of the various companies drawn for various jurisdictions.

The integration of financial markets has enhanced access to overseas capital markets as a result inflow of FDI to various markets, thereby aiding in the growth of capital markets globally. IFRS adoption helps to avoid restatement of financial reports and further minimizing accounting reporting diversity across nations therefore helping to promote cross-border flow of capital and the integration of capital markets globally (Qu, Fong and Oliver, 2012).Accounting Standards provide for recognizing items which are being disclosed either as expenses, assets, income or liabilities; the criteria of measuring the above items; the manner of presentation of the items in financial reports; and the related disclosure concerning the above items (Pacter, 2015). IFRS adoption is linked to better decisions on investments by the investors due to lower cost of acquiring information as a rest of mandatory adoption of IFRS. Accounting information is considered useful if it is relevant and faithfully represent what it purports to represent, the board further posit that the usefulness of accounting information increases with comparability, verifiability, timeliness and understandability. Information is relevant if it can make a difference on the decision to be made by users. To be useful, financial information must not only present relevant information but also represent faithfully what it purports to represent. Information that is represented faithfully should be complete, that is, includes all the necessary details, neutral and should be free from error (IASB, 2010).

Use of harmonized standards should significantly improve accounting information quality which should also result in significant benefits to the capital markets like: reduction of information asymmetry; lower cost of capital; higher market liquidity among other benefits. At the formulation of IFRS, the expectation was that the standards will lead to high quality financial reporting; however, empirical findings indicate that the improvement in the quality of financial reporting is not guaranteed post adoption due to the influence of factors such as the legal differences across nations, the above findings were confirmed by studies of Houqe and Easton (2013) and Clarkson, Hanna, Richardson and Thompson (2011).

Elkana (2017) stated that since 2001, more than 120 nations and reporting jurisdictions permit or require IFRS for domestic listed companies. Approximately 90 countries have fully conformed to IFRS as promulgated by the IASB and include a statement acknowledging such conformity in audit reports. The remaining major economies have established timelines for convergence with, or adoption of, IFRSs. In Australia. the Australian Accounting Standards Board (AASB) has issued 'Australian equivalents to IFRS' (A-IFRS), numbering IFRS standards as AASB 1–8 and IAS standards as AASB 101–141. While all listed EU companies have been required to use IFRS since 2005. Turkish Accounting Standards Board translated IFRS into Turkish in 2006. Since 2006 Turkish companies listed in Istanbul Stock Exchange are required to prepare IFRS reports. The use of IFRS is now required for Canadian publicly accountable profit-oriented enterprises for financial periods beginning on or after 1 January 2011. In India, the Institute of Chartered Accountants of India (ICAI) has made it mandatory for financial statements for the periods beginning on or after 1 April 2011 to comply with IFRS. All companies listed on the Johannesburg Stock Exchange have been required to comply with the requirements of IFRSs since 1 January 2005. The U.S. Securities and Exchange Commission moved to IFRSs since 2014. Nigeria as the largest economy in Africa moved to IFRSs in 2010. In Africa, Kenya was among the first countries in adopting IFRS in the year 2005. Consequently, listed firms are supposed to prepare financial reports based on IFRS, non-listed companies can choose to adopt IFRS for SMEs or the normal IFRS.

Over the years the FDI between Nigeria and South Africa were facilitated using the financial statement based on local GAAP which by and large hinder easy comparability of the financial statement preparing in the two countries. With adoption of IFRS that is based on world-wide acceptable principles and format, it is expected that comparability of financial statements will directly and indirectly impact on the volume of FDI between the two countries. This study specifically investigate the impact of IFRS adoption on cross-border transactionsin Nigerian and South African firms.

1.1 Hypotheses

$H_0$1: There is no significant relationship between IFRS adoption and FDI in Nigeria and South Africa.

$H_0$2: IFRS adoption does not significantly impact foreign trade balance in both Nigeria and South Africa.

Review of Related Literature

The first detailed study of IFRS and FDI was performed by Ramos (2008) on EU countries. The author employs a gravity model. The findings reveal that IFRS adoption positively influenced FDI. Beneish, Miller and Yohn (2010) discover that IFRS adoption in the European Union has significantly impacted on foreign direct investment. Chen, Ding and Xu (2014) also examine the effect of IFRS adoption on

FDI in OECD countries. They discover that the movement from local standards to IFRS contribute positively to the growth of FDI for the period of five years. According to Emeni (2014), FDI and IFRS adoption in Africa, shows that foreign direct investment is positive, but not significantly related to IFRS adoption due to scanty flow of FDI in Africa. FDI is considered as an essential avenue for direct technology distribution and a major channel for technological transfer consequent upon the dearth of fund in less advanced countries (Hossein and Yazdan, 2012). The IFRS adoption by Nigeria is an economic reform programme by government and standard setters to increase FDI flow to Nigeria. This is why it is important to study whether the adoption has yielded positive and significant result between the two variables.

Christensen, Lee and Walker (2008) offer an interesting insight that is worth mentioning. According to their results, the IFRS adoption does not necessarily translate into higher quality accounting information. The reason is that the IFRS are principle based, thus meaning that there could be more chances for misreporting, given the broader range of reporting possibilities (Henock and Oktay, 2014). Yip Wing-yue and Young (2012) study the effect of IFRS mandatory adoption on information comparability in 17 European countries by looking at the "similarity of accounting functions, the degree of information transfer and the relationship between earnings and the book value of equity". They observe improved comparability due to higher quality information resulting from the IFRS adoption. Similarly, De Fond, Hu, Mingyi and Li (2010) state that dictating a single set of accounting rules can improve financial statements comparability and foster cross-border investments. However, they perform their test taking into account foreignmutual fund investments rather than M&As. The observation here is that in many foreign funds, investment decisions are made both by fund managers and individuals: while the first are assumed to be experienced investors, the funds' definitive target countries are likely to be chosen by the less experienced individuals several studies focus their empirical research to give evidence for an increased comparability of financial reports due to the mandatory adoption of IFRS.
According to Chen, Tang, Jiang and Lin (2010), it was established that the IFRS adoption benefits are not uniform across countries due to the influence of country specific factors that may affect financial reporting. The effect of adopting IFRS on the accounting information quality prior and post IFRS adoption periods were studied by Barth, Landsman and Lang (2008) and Bartov, Goldberg and Kim (2005). The results of the above studies establish no conclusive evidence on accounting information quality improvements in post IFRS adoption. A review of the economic benefits of mandatorily adopting IFRS in the EU was conducted by Brüggemann, Hitz and Sellhorn (2013), who observed that the results of their review indicate that the consequences of IFRS adoption need to be analyzed further so as to ascertain benefits and costs of IFRS adoption in order to assess the effectiveness of IFRS. The review however only considered the EU; as a result the outcomes of the study may not be applicable for countries out of the EU. Comparability of financial statements and IFRS adoption in the UK was studied by Brochet, Jagolinzer and Riedl (2013) that the IFRS adoption benefits are only limited to nations whose domestic standards had big difference as compared to IFRS or for firms which were reporting lower quality information pre IFRS adoption.

In Kenya, IFRS adoption impact on accounting information quality for listed firms was studied by Bova and Pereira (2012). The study's results report mixed findings, in that, three of eight metrics applied indicate marginal improvement in quality while five show reduction in quality. Further, share turnover was found to have a positive association with IFRS compliance levels, but a negative association with

foreign ownership and holding percentage of a given company's largest foreign shareholders. Another study in Kenya to find out the effect of IFRS adoption on accounting quality in Kenya's listed companies was done byOuta (2011). The study used accounting quality measures such as; earnings management, timely loss recognition and value relevance to find out if IFRS adoption has improved accounting quality in Kenya. The study established that three out of the eight measures of quality had marginally increased while five had declined marginally. The results of the study further adds to the existing debate on the effect of IFRS adoption on accounting quality since it does not provide conclusiveness on the impact of IFRS adoption. In Nigeria, a study by Jinadu, Ojeka and Ogundana (2016), suggested that the adoption of IFRS is positively and significantly related to FDI. The findings further revealed a significant impact of foreign investors on quoted firms that have adopted IFRS in Nigeria.

A meta-analysis of the effect of IFRS adoption studies byAhmed, Chalmers, and Khlif (2013) observed that research to find out the economic impact of IFRS adoption is gaining relevance with the increasing global acceptance of IFRS, further the study established that value relevance of book value earnings did not increase post IFRS adoption, Accounting quality is determined by factors such as the corporate incentives, a country's political and legal system and the quality of the standards adopted (Soderstrom and Sun, 2007).This therefore implies that the adoption of the IFRS is not a straight forward from one country to another due to the various political and legal differences that exists between countries.Using a 1990 country-level accounting quality measure, Rossi and Volpin (2004) infer that the odds of a cross-border Merger and Acquisition between 1990 and 2002 decrease with improvement in an acquired firm's accounting quality. Based on the same 1990 accounting quality measure, Erel, Liao, and Weisbach (2012) reach a similar conclusion for the 1990-2007 period. By using the 1990 measure, these studies implicitly assume that country-level accounting quality is constant. However, many countries were actively improving the quality of their financial reports during the 1990-2007 period. Moreover, Rossi and Volpin (2004) use a country as the unit of observations.

In a study by Francis,Huang, and Khurana(2013), it was suggested that the mandatory adoption of IFRS is associated with more cross-border activities among paired-adopting countries than among non-paired-adopting countries that have trading activities. They perform the comparison for only two years: 2004 and 2006. Moreover, they rely on the gravity model, which uses country pairwise cross-border investment to capture the sum of investment inflow and outflow. In general, a model that captures the total flow of investment between two countries is unlikely to indicate whether IFRS leads to an increase in cross-country investment into the adopting countries. Furthermore, although Francis et al. (2013) correctly limit their analysis to M&A. The 2005 mandatory IFRS adoption applies only to listed firms, which represent a relatively small fraction of targets in cross-border M&A. Erel et al. (2012), for instance, report that unlisted targets can represent up to 96% of cross-border M&A, depending on the sample selection criteria. Gordon, Loeb, and Zhu (2012) compare FDI across IFRS and non-IFRS adopting countries over the entire 1996-2008 period. Not only does their sample include acquisitions of unlisted targets, but it also includes Greenfield investment (a major component of FDI). More importantly, Gordon et al. (2012) do not test whether the difference in investment across adopting and non-adopting countries shifts after the IFRS adoption. They present a univariate comparison between before and after the adoption, but the comparison is across developing and non-developing countries and not across adopting and non-adopting countries. Therefore, they have not analysed the effect of the adoption of IFRS on cross-border acquisitions (or on FDI in general for that matter).

EC Regulation No. 1606/2002 stated that one of the primary purposes of IFRS is to improve the comparability of financial statements, with the ultimate goal of increasing cross border transactions. While a strong regulatory environment is beneficial for foreign portfolio investors, it can impede foreign direct investment (FDI), even when the regulations are intended to protect investors and creditors. In general, a firm engaging in a cross-border investment into an IFRS adopting country will continue to use its domestic GAAP, instead of IFRS, to report the performance of its foreign investment. Miller and Yohn (2012) concluded that the increase in foreign equity investment around IFRS adoption documented in prior work is not robust to alternative deflators and more importantly, IFRS is mandatory for listed and not for unlisted firms. There are many studies on the relation between reporting quality, IFRS, and foreign investment. However, there is little evidence in the extant literature that could be used to reach our conclusion that the adoption of IFRS led to an increase in cross-border investment. The evidence provided by Rossi and Volpin (2004) and Erel et al. (2012) might actually lead to the opposition inference. This analysis does not address the question that we examined in our study.

Findings of numerous studies on the impact of IFRS adoption has had mixed findings on the benefits of IFRS adoption. The different findings can be attributed to the differences in measurement of variables, contextual differences between countries and the models adopted by the various studies reviewed. This study, therefore, sought to answer the following questions: What are the consequences of IFRS adoption on foreign direct investment and foreign trade in the selected countries? This study by way of literature review, synthesized the results of previous studies, with a view of coming up answers to the above research questions.

Methodology

Research Design

In order to investigate the effect of IFRS adoption in Nigeria and South Africa, the flow of cross-border transactions in the forms of foreign direct investments and foreign trade balance before and after the adoption of the accounting principles were investigated. That is, the amounts of investments realized from abroad and the net value of balance of trade before and after IFRS adoption wereinvestigated and captured from the two countries. This study used country level measures. With the purpose of measuring the effect of IFRS on cross-border transactions, a multiple regression analysis was conducted with the use of Stata 14.

Data Collection

This study used secondary data gathered from various issues of Central Bank of Nigeria Statistical Bulletin, South Africa Reserved Bank and World Bank Development Indicators Database.

Model Specification

In order to find the relationship between IFRS adoption and cross border transactions proxy by FDI and FTB the following research models were formulated in line with the study hypotheses:

$$FDI = \alpha + \beta 1\,(IFRS\_ADOPTION) + \beta 2\,(gdp\_g) + \beta 3\,(exch\_r\_USD) + e \ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

$$FTB = = \alpha + \beta 1\,(IFRS\_ADOPTION) + \beta 2\,(gdp\_g) + \beta 3\,(exch\_r\_USD) + e \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Variable Definition

Dependent Variables

For the purpose of conducting the analysis in the current research, two dependent variables namely Foreign Direct Investment (FDI) and Foreign Trade Balance (FTB). FDI measured as the addition of equity and other capital investment from abroad into Nigeria and South Africa. While FTB is measured as net of all imports and exports of the respective countries.

Independent Variable

The independent variable, also known as predictor, used in this research is IFRS_Adoption, which is a dummy variable assuming the value one when IFRS is adopted and zero when not adopted.

Control Variables

Besides, it is necessary to control for possible factors that can influence the amount of FDI and trade deals occurred in the two countries. For this purpose, the control variables entered are economic factors such as GDP growthrate and currency exchange rate to USD of the two countries. This is done to isolate the impact of the independent variable (IFRS_Adoption) on the dependent variables (FDI and FTB).

Discussion

A multiple regression was rum to predict FDI from IFRS_Adoption while using gdp_g and exch_r_USD as control variables. From the regression results of table 1, it can be seen that there is a statistically significant relationship between IFRS_Adoption and FDI. The P-value for FDI regressed with IFRS_Adoption is 0.000, which is less than 0.05; *F*(3, 30) = 57.09, R-squared overall is 0.85 which means about 85% of the variation in FDI is explained by IFRS_Adoption. Furthermore, looking at the control variables, gdp_g and exch_r_USD, P-values of 0.357and 0.000 respectively. This means that exch_r_USD is useful for predicting FDI while gdp_g is not. Therefore, the hypothesis regarding a positive relationship between IFRS_Adoption and FDI is supported at the expense of the null hypothesis.

Table 1: Regression Results of the relationship between IFRS _ doption and FDI

```
. regress FDI gdp_g exch_r_USD i.IFRS_ADOPTION

      Source |       SS           df       MS      Number of obs   =        34
-------------+----------------------------------   F(3, 30)        =     57.09
       Model |  1.2668e+13         3  4.2227e+12   Prob > F        =    0.0000
    Residual |  2.2191e+12        30  7.3972e+10   R-squared       =    0.8509
-------------+----------------------------------   Adj R-squared   =    0.8360
       Total |  1.4887e+13        33  4.5113e+11   Root MSE        =    2.7e+05

------------------------------------------------------------------------------
         FDI |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       gdp_g |   8782.396   9379.813     0.94   0.357    -10373.74    27938.53
   exch_r_USD |   1365.673   126.4101    10.80   0.000     1107.509    1623.837
1.IFRS_ADOPTION |   290277.4   107064.9     2.71   0.011     71621.74    508933.2
       _cons |  -395056.5   120092.7    -3.30   0.003    -641118.6   -150594.4
------------------------------------------------------------------------------
```

Source: Stata Result Output

Table 2 presents the regression results of IFRS_Adoption and FTB. The empirical results show that IFRS_Adoption and Foreign Trade balance (FTB) are negatively related as P-value is 0.5758 > 0.05. However, R-squared overall is 0.0630 which means the explanatory power of the regression model (model 2) is only about 6.3%. In addition, the control variables, gdp_g and exch_r_USD show P-values of 0.648 and 0.499 respectively, implying that both gdp_g and exch_r_USD are not useful for predicting FTB. Hence, contrary to the view expressed by Henock and Oktay (2014). The null hypothesis which states that IFRS adoption does not significantly impact foreign trade balance in both Nigeria and South Africa is supported. This shows that IFRS adoption does not statistically significantly influence foreign trade in the two selected countries.

Table 2: Regression Results of the relationship between IFRS_Adoption and FTB

```
. regress FTB gdp_g exch_r_USD i.IFRS_ADOPTION

      Source |       SS           df       MS      Number of obs   =        34
-------------+----------------------------------   F(3, 30)        =      0.67
       Model |  1.9231e+09         3  641042981   Prob > F        =    0.5758
    Residual |  2.8606e+10        30  953544142   R-squared       =    0.0630
-------------+----------------------------------   Adj R-squared   =   -0.0307
       Total |  3.0529e+10        33  925134945   Root MSE        =     30880

------------------------------------------------------------------------------
         FTB |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       gdp_g |  -491.1801   1064.957    -0.46   0.648    -2666.113    1683.753
   exch_r_USD |   9.821336   14.35225     0.68   0.499    -19.48986    39.13253
1.IFRS_ADOPTION |  -16373.87   12155.84    -1.35   0.188    -41199.41    8451.676
       _cons |   11534.34   13634.99     0.85   0.404    -16312.01     39380.7
------------------------------------------------------------------------------
```

Source: Stata Result Output

Conclusion

This research tests the hypotheses formulated for this study on the impact of IFRS adoption on the cross border transactions in the selected two countries. The attained results support that IFRS adoption enhances cross-border transactions. However, the findings also affirmed that following the adoption of IFRS does not statistically significantly reinforces foreign trade balance of the two countries. The study concluded that the FDI of Nigeria and South Africa is positively influenced by IFRS adoption. Inversely, IFRS adoption does not have statistically significant influence on FTB of both countries. This study used country level data, however, the results may be different if further research employ organisational level data in both countries.

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VALUE RELEVANCE OF ACCOUNTING INFORMATION: IS AUDIT QUALITY RELEVANT?

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Abstract

This study aims to provide evidence about the comparative value relevance of accounting information for consolidated and separate financial statement of listed financial service firms in Nigeria while testing for the relevance of audit quality. The study population is the entire listed financial services firms throughout the period 2012- 2017. Data for accounting information were sourced from the annual reports of sampled firms and market prices from Nigerian stock exchange fact book. A census sampling was used after a 3-point filter was applied to the original population. It was found on the overall that both consolidated and separate accounting information were value relevant and more so with the quality of audit. However, consolidated accounting information was found to be more value relevant than the separate accounting information. The study therefore recommends the strengthening of firms' operations, reevaluation of the dividend policy and enhanced implementation of IFRS standard to ensure value relevant accounting information that will be useful to the shareholders in making informed decision and taking adequate actions.

Keywords: Comparative Value Relevance, Consolidated Financial Statement, Separate Financial Statement, Listed Financial Service Firms in Nigeria.

Introduction

Accounting is the process of identifying, measuring, recording, and communicating economic transactions – this is done systematically. Accounting system is the system designed to record the accounting transactions and events of a business and account for them in a way that complies with its policies and procedures. The basic elements of the accounting system are concerned with collecting, recording, evaluating, and reporting transactions and events.

The reporting of transactions and events is done via the annual reports and accounts which contains both financial and non-financial information about the reporting entity. The financial information are available in the financial statements while the non-financial information are available in the other segment of the report. The responsibility for the preparation and fair presentation of financial statements in accordance with International Financial Reporting Standards is with the management of a company. To certify that the financial information provided by the management is truthful and fair, as it is the main source of accountability of management performance by the shareholders, there is need for expression of opinion on these financial information based on audit.

The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error.
This is necessitated by the fact that the persons responsible for the preparation of financial statements

are often different from the owners. The shareholders therefore rely on external verification by auditors in order to gain reasonable assurance that the accounts are free from material misstatements and can be relied upon; as indicating the true and fair view of the affairs of the company. The external auditor's attributes that may affect the quality of audit are basically those characteristics that will (not) affect the auditor's independence – audit tenure, audit client importance, audit specialty, auditor rotation, audit experience, auditor size, audit fee and other attributes or characteristics.

For accounting information to be useful, it must possess certain qualities – relevance, reliability, comparability and consistency. Accounting makes more meaning if it is relevant to users' decision making. Relevance of information implies that it is including all the information that is, or might very likely be, relevant to users' decisions. Value relevance examine if accounting variables are useful in valuing a company by comparing the variable(s) to market value or price (Soderlund, 2012).

Accounting numbers that is related to decision making of investors include; Earnings per share (EPS), Book value per share (BVPS), dividend per share (DPS), cash flow and so on as used in various researches. (Jabbari, Sadeghi&Askari, 2013; Du, 2008; Vijitha&Nimalathasan, 2014). EPS is arguably the most important significant single measure of entity's performance that is required to be disclosed in published financial statements (Ijeoma, 2015). It is used to assess a company's current and previous performance at a glance; Book value of equity represents past performance and current earnings as indicative of future performance. It is the total assets minus the total liabilities of a company and it is used by investors to determine whether a stock price is undervalued or otherwise. If a business increases its BVPS, investors may view the stock as more valuable and thereby increase the share prices.

Although the BVPS is usually different from the market price, it is therefore an indication of what the shareholders will receive had the company been wound up on the date the accounts was published; DPS is the dividend paid during a period per share. Payment of dividend signal different things to different stakeholders and are paid for varying reasons; reward investors as return on investment (ROI), attract new investors – investing in the company at higher share prices, signal confidence of market in the firm's future profitability; The management of cash flow is essential to the success of every enterprise. To be more specific, cash flow must be considered to achieve survival, profitability, growth, creation of shareholder value, and finally, the efficient use of corporate resources.

All the above stated accounting information is presented in the financial statements (either consolidated or separate financial statements). According to IFRS 10, “consolidated financial statements are the financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent and its subsidiaries are presented as those of a single economic entity. Consolidated financial statements (CFS) are the financial statements of a group (parent company and one or more legally distinct subsidiaries) presented as those of a single economic entity. CFS shall include all subsidiaries of the parent. Intra-group balances, transaction, income and expenses shall be eliminated in full. CFS shall be prepared using uniform accounting policies for like transactions.

Also, according to IAS 27, separate financial statements (SFS) contains accounting and disclosure requirements for investments in subsidiaries, joint ventures and associates when an entity prepares

separate financial statements. SFSs are those presented by a parent (i.e. an investor with control of a subsidiary) or an investor with joint control of, or significant influence over, an investee, in which the investments are accounted for at cost or in accordance with IFRS 9 (Financial Instruments). SFSs are those presented in addition to CFS or in addition to financial statements in which investments in associates or joint ventures are accounted for using the equity method, other than exemptions where SFSs need not be appended to, or accompany, those statements.

While CFSs constitute the primary source of financial information regarding corporate affiliations, they should not be viewed as the only source of such information. Some parties, such as "minority/non-controlling" shareholders in a subsidiary and the outside creditors of a subsidiary are primary concerned with the separate financial reports of the subsidiary company. Thus, the need for separate financial statements of each individual subsidiary company which is not necessarily be eliminated by the preparation of consolidated statements.

In addition, financial statements users whose primary interest is in the overall economic entity have found that consolidated statements do not always provide sufficient information for detailed analyses of operations. As a consequence, CFSs may be supplemented by information on defined segments of the consolidated entity.

It is the practice and requirement of public companies to prepare and present their financial statements as the consolidated and separate financial statements which provide accounting information to investors and other stakeholders. However, in a company with a group structure, information is available in two folds – from the consolidated financial statements (group accounts) and separate financial statements (parent or holding company accounts). The availability of the same class of information in two different statements carrying two different figures may be confusing. The investor therefore, will require information as to the relevance of each sets of this information as to their value relevance to make better informed decisions.
Also, before financial statements are published, it is required that an audit be carried out to ensure the fairness and faithfulness of published financial statement. This is intended to narrow down the intended to reduce the information asymmetry between the management and its owners.

Several studies have been carried out to determine the value relevance of accounting information but results are divergent. Some of these studies showed that accounting information are relevant when it come to make investment decisions based on the share prices of companies studied (Irsath, Haleem&Ahamed, 2015) while others found irrelevance of accounting information (Shamki & Abdulrahman, 2011). The divergent results may be due to several issues in the researches; differences in the economic conditions, structure of the capital markets in various countries, sample size, variable selection and the differences in general methodology among other factors. Although, some of these studies used data from the consolidated against the separate financial statements; Abad, Laffarga, Garcia-Borbolla, Larran, Pinero & Garrod (2000); Larran& Rees (1999); Muller (2011) and Bagudo& Busari (2018) found consolidated statements to be more value relevant than unconsolidated financial statements, the methodology used was quite different and they did not include the effects of non-financial information. Other studies were on value relevance of IFRS based accounting information and found variant results (Kargin, 2013; Bolibok, 2014; Alkali & Lode, 2016;

Okafor, Anderson &Warsame, 2016; Bagudo, 2016) and also on value relevance of interim and annual financial statements (Zulu, De Klerk &Oberholster, 2017).

However, in Nigeria studies have been carried out on value relevance of accounting information (Adetoso, 2016 andBagudo& Busari, 2018) but based on the extent of reviewed literature, there is no existing study in Nigeria that examined the impact of non-financial information on the comparative value relevance of financial information for consolidated and separate financial statements and by extension, the comparative value relevance of listed firms in Nigeria based on different sectors of the economy. Therefore, the users of accounting information (especially investors) having two differing information available to them through the consolidated financial statements and the separate financial statements need to be guided as to which set(s) of information to base decisions on in terms of relevance and in addition to know the effect of audit attributes on these statements.

In addition, the financialsector due to its size and purpose have contributed to the capital market and the economy at large. Their impact may depend on the robustness of financial reporting that are useful to decision making. There is need for the each and every existing and potential investor to be well aware of what is relevant to their (or intended) investments to be able to have an expectation from these companies based on the audited published accounting numbers. The firms that present their financial information in both consolidated and separate financial statements (group structure) and is expected to have variant investors sets due to the separate composition of the group and may have a greater necessity to understand all information needed adequately and reliably.

In view of the above, the paper seek to examine the impact of audit quality on the comparative value relevance of accounting information from consolidated and separate financial statements in listed financial service firms in Nigerian. This is done by evaluating the comparative value relevance of EPS, BVPS, DPS and net cash flow from operating activities (financial information) between consolidated and separate financial statements and testing for the impact of audit quality of listed financial service firms in Nigeria.

This study comparesthe impact of non-financial information (audit quality) on the value relevance of financial information in listed firms in Nigeria from 2012-2017. This analysis is to be based on consolidated and separate financial statements representing that of group and parent companies respectively – only companies that have groupstructures and prepare both statements are included in the study. The period 2012-2017 are years after the convergence to new accounting standards (IFRS) to have information based on the same accounting standard (IFRS).

Concepts, Literature Review and Theoretical Framework

Value relevance is the degree of responsiveness of share prices to changes in accounting information (Bagudo& Busari, 2018). It is the ability of accounting data to summarize information impounded in market prices (Hung, 2001). It measures how accounting numbers translate to share price. By this, investors are guided on the pricing of shares to make investment decisions (Vishnani & Shah, 2008). It is traditionally viewed in relation to accounting data as a synonym for high correlation with market data; the more accounting data correlate to market price or returns, the more value relevant

(Filip&Raffournier, 2010). It is also viewed as an empirical relation between market value and accounting variables (Holthausen& Watts, 2001). According to Anandarajan and Hassan (2010), value relevance is the power of specific financial statement numbers such as reported earnings to explain changes in equity values. It analyzes if an accounting variable reflects information used by investors when valuing the equity of a company and it is the operationalization of relevance and reliability quality of financial report (Barth, Beaver &Landman, 2001). In this research, value relevance is to be viewed as the degree of responsiveness of change(s) in stock price to change(s) in accounting information available to the users of such information as presented in the financial statement of companies.

Audit Quality has to do with meeting investor's needs for independent and reliable audits and robust audit committee communication on; financial statements including related disclosures, assurance about internal control and going concern (PCAOB, 2013).

Empirical review

Aderemi, Ajibolade, Uwuigbe and Uwuigbe (2017) used Ohlson model on data from the annual reports of 13 out of 21 listed banks in Nigeria for 2008 to 2015; to find out if accounting measures reported under IFRS exhibits higher value relevance than SAS report. The study found that IFRS financial report is significantly high compared to SAS report. It was also found that BVPS and EPS are positively associated with the share price; BVPS being less associated with share price.

Ahmadi (2017) examined the value relevance of accounting information in Tunisia in other to ascertain whether certain accounting variables have the ability to explain the variation of stock prices on the Tunisian Stock Exchange. It was found that book value is more value relevant that the earnings per share while the combined value relevance has declined when firms have negative earnings.

Erin, Olojede and Ogundele (2017) examined value relevance of accounting data in the pre and post IFRS periods in Nigeria. It was found that from price regression, an increase in adjusted R^2 between the two periods from 32% to 59% which accounts for 84% growth while the return regression model showed an increased in adjusted R^2 between the two periods from 14% to 22% which accounts for 57% growth. This finding suggests that the value relevance of accounting data is more pronounced in the post-IFRS period for the sampled firms. It was also revealed that IFRS implementation in Nigeria has enhanced the value relevance of accounting data such as earnings, cash flow, book value and net income.

Tahat (2017) examined the relative and incremental value relevance of cash flows from operations (CFO) around the recent financial crisis (pre, during and post). The study showed that CFO has relative value relevance to both BV and EPS over all periods to explain the cross variations in firms' market values. Also, it found that a strong evidence exist about the superiority of the value relevance of CFO over the cash flow from investing and financing activities although the cash flow from investing activities revealed a higher explanatory power in the crisis period.

Xu and Qi (2017) examined the impact of presentation pattern changes on the value relevance of comprehensive income (CI) and other comprehensive income (OCI) based on the background of the two reforms of comprehensive income presentation pattern from 2006 to 2014 in China. The results showed that from 2007 to 2008, under equity statement pattern, neither CI nor OCI are correlated with value. From 2009 to 2013, under the single performance pattern, the CI and OCI have value relevance.

Compared with these periods (2009 to 2013), the value relevance of CI is improved during the period 2014 to 2015 under the single performance statement pattern while the OCI does not reflect higher significant value relevance in this period.

Zulu, De Klerk and Oberholster (2017) tested the value relevance of interim accounting information and also explored whether the value relevance of annual and interim financial statement has changed over time in South Africa; checking also for the higher value relevant financial statement between the interim and annual financial statement while also checking their incremental value relevance. It was found that interim book value of equity is value relevant while interim earnings are not. Interim financial statement has higher value relevance than annual financial statements. Also, the value relevance of interim and annual accounting information has remained fairly constant over the sample period. Incremental comparisons provide evidence that additional book value of equity and earnings that accrue to the companies between interim and annual reporting dates are value relevant.

Adetoso (2016) examined the value relevance of accounting information in selected companies in Nigeria from 2003 to 2013. The results showed that accounting information does not have significant relationship with DPS. Balakrishnan (2016) tested to know whether EPS, DPS and P/E ratio can be used as a significant explanatory variable for predicting share market price. It was found that the EPS of Pharma sector are having correlation with share price movements of the sampled companies. The DPS is also having impact on three companies out of the five even though they are positively correlated; their impact is slighter in other companies.
Solomon, Muturi and Memba (2016) investigated the significance of accounting on equity share investment in companies listed on Nigerian Stock Exchange. It was found that there is significant relationship between net book value per share and equity share investment in the listed companies in Nigeria.

Sun and Sari (2016) investigated the quality of accounting information on the period before and after the full convergence IFRS in Indonesia. They found that IFRS convergence reduces the combined value relevance of accounting information and that the value relevance on earnings increases but not on book value. They also found that the overall value relevance of accounting information has declined since the increase in value relevance of earnings is lower than decline in the value relevance of book value.
Uwuigbe, Uwuigbe, Jafaru, Igbinoba and Oladipo (2016) examined the effects of value relevance of financial statements on firms share price in Nigeria. It was found that a significant positive relationship exist between EPS and LDSP.

Anjula and Senani (2015) investigated the incremental value relevance of accrual and cash flow information in top capitalized companies in Sri Lanka. The study found that accrual information (OPPS, TCIPS, BVPS) has incremental value relevance to the share price than cash flow information (TCFPS, CFOPS) which emphasizes the importance of accrual information in decision making rather than cash flow information. All the variables used under the accrual information are significant and none of the variables used under the cash flow information are significant in the study. Ghosh and Ghosh (2015) sought to detect whether corporate accounting disclosures through annual report influence on stock price movement in Dhaka Stock Exchange. It was revealed that EPS, ROE and

NAVPS jointly can explain highest variation in stock price movements in DSE. Past studies in DSE showed weak form of market efficiency. The study showed a positive movement of Bangladesh Stock Market from weak form towards strong form of efficiency.

Haghnejad and Alipourdarvish (2015) investigated the difference between the information content of accounting in companies with growth and value stocks. The study found that there is no significant difference between the information content of accounting of growth and value stocks in Tehran Stock Exchange. Irsath, Haleem and Ahamed (2015) examined the impact of value relevance of accounting information on stock price of the listed manufacturing and beverage food and tobacco companies in the Colombo Stock Exchange (CSE), Sri Lanka. Descriptive, correlation and regression statistics were used and the results showed that EPS, DPS and NAVPS have significant impact on stock price and are also significantly correlated with stock price.

Jeroh and Edesiri (2015) determined the factors that affect the prices of stocks generally in capital market taking into consideration the two schools of thought. The sensitivity analysis showed that DPS of 74.2% of firms were positively sensitive and 25.8% negatively (adversely) sensitive to stock price. For NAVPS, 90.8% of the firms were positively sensitive and 9.2% were adversely sensitive to stock price. It was found that there exist a significant relationship between dividends, net assets and stock prices.

Mulenga (2015) studied the value relevance of EPS, BVPS, ROE and asset turnover ratio on the share price of 20 public sector banks listed in Bombay Stock Exchange (S&P BSE500). This study found BVPS, ROE and asset turnover ratio to have negative relationship and statistically insignificant with share price. EPS, BVPS and ROE were found to have positive correlation with share price but the positive correlation between ROE and share price was reported was very low. Also, the study found that EPS is the most value relevant accounting information for equity valuation in public sector banks. Again, book value per share was found to have negative and insignificant impact on the share price so also is ROE and asset turnover.

Musa (2015) examined the extent to which share price of listed industrial goods firms in Nigeria are associated with accounting numbers (EPS, BVPS and DPS). The result revealed that accounting information published by listed industrial goods firms in Nigeria have high value relevance to the investors in making decisions as EPS, BVPS and DPS; all have positive and significant impact on share price. EPS are the most value relevant followed by the DPS then BVPS. The study concluded that the information contained in the income statement has strong impact on the share price of industrial firms in Nigeria than that in the balance sheet. Based on the above literature reviewed including all others sighted, there is no study carried out that study the impact of audit quality on the comparative value relevance of consolidated and separate financial statements of listed firms on a stock exchange market.

Relevant theories

Accounting theory iseither positive or normative. Positive theories try to explain (what is) the existing accounting practices and phenomena (methods, behaviors and motivations) while the normative theories focus on the way accounting practices should be. Several theories are relevant to this study: the Agency Theory, the Decision Usefulness Theory and The Signaling Theory. The theories are motivated by the necessity to justify the existence of the financial statements, the motivations of some

stakeholders like managers (or the board), to try to influence the financial statement information and the necessity to explain why the financial statement information is important for the shareholders.
The agency theory is based on the principal-agent relationship. In a listed company, the shareholder is "the principal" and the manager (or the board of management) is "the agent". The remuneration of the shareholders (dividends) depends on the managerial capacity, the strategic decisions, and the actions taken by the board of management.

Generally, shareholders of publicly traded companies have one important goal: maximize their profit by keeping all costs as low as possible. At the same time, if companies want to get good managers, they must keep their remuneration high enough. After all, the augmentation of firms' market value, earnings, and dividends depends on the talent of the managers to do their job effectively. The problems occur when the principal and the agent have different goals because the principal cannot easily get access to the same information and at the same time as the agent (information asymmetry). Because of the asymmetry in information between managers and shareholders, it is difficult for shareholders to efficiently check whether the decisions and actions taken by managers are meeting their expectations. Their main information source remains the financial statements.

The concept of decision usefulness has been introduced in accounting theory in 1966 by a committee created by the American Accounting Association (AAA). According to this committee, the most important criterion in choosing an accounting measurement's method is the decision usefulness of accounting information for users. This decision usefulness should be evaluated by the predictive ability of the accounting information. The more accurate users can predict economic and financial events using accounting information, the more useful this information is for them. This criterion should give standard setters and decision makers a handy tool in the choice of the best accounting measurements.
To decide in which firm they want to invest (or disinvest) their money, capital providers should be able to rely on the published accounting information. Signaling theory therefore posits that firms with good performance tend to make voluntary disclosures more readily, as doing so is regarded as an easy means of distinguishing themselves from others in the marketplace.

Signaling theory can explain the relationship between information asymmetry and dividend policy. Dividend payment is a signal for shareholders that illustrates the company's future prospects; changes in dividend payments affect the stock price reaction in the market. This theory is beneficial for explaining the behaviour of managers who have superior access to information compared to investors. The company's annual reports contain information that serve as signals required by investors as considerations in making decisions. A way to check if the published accounting information is relevant to the capital providers in the allocation process is to analyze their reaction after the publication of the information. Does a significant reaction on the financial markets (like for example an augmentation of the traded volume or a change in the price of a security) exist after the publication, then it can be assumed that the information is relevant and useful. However, because of other factors that in addition could explain the reaction of the markets, this assumption can never be fully proven.

The necessity and the legitimacy of the existence of financial statements have been shown through various theories: The agency theory, the Positive Accounting Theory, the decision usefulness theory

and the signaling theory.While the agency theory explains why good financial statements are needed to mitigate the risks and the costs deriving from the information bias between shareholders (the principal) and the boards of management (the agent) with divergent interests, the positive accounting theory is more focused on the motivations of managers to try to manipulate the published annual financial statements in divergent interests. These two theories underlie the usefulness of financial statement information and the importance of the rules and standards framing the elaboration of these statements. Without these rules and standards, shareholders could never have the confidence that the accounting information received from the managers presents a true and fair view of the financial position and the performance of their firms. Standards setters are aware of the importance of this aspect of their work and try to continuously improve the standards. One of the most important tools they could use to evaluate the quality of the standards is based on the third theory: the decision usefulness theory. According to this theory, accounting information should help capital providers in their capital allocation decisions. To realize this purpose, accounting standards should improve the predictive ability of financial statements information. The higher the predictive ability of accounting information, the more useful this information is for users. Also, it is believed that the problem of information asymmetry can be overcome by the signaling theory because this ensures that relevant information is passed to the stock market.

The usefulness of accounting information is one of the most important concerns of standards setters. There is a large consensus about the fact that this usefulness should be improved by facilitating the comparability and also the reliability of financial statements worldwide. The degree of the responsiveness of changes in stock prices to changes in accounting information is dependent on the efficiency of the market.

Methodology

Research design

The study adopt correlational research design in order to establish the relationship between share prices with financial and audit quality of listed financial service firms in Nigeria. To test the hypotheses, the Ohlson (1995) price model was used while modifying it to capture some other relevant variables that aid in explaining the relationship further. In view of the above, a descriptive research designs was used in the study based on panel data for the period of 6 years i.e. 2012-2017. The study aligns with the positivist paradigm because it is dependent on quantifiable observations that lead to statistical analysis through quantitative data collection and interpretation to establish “what is” without any form of human interaction within the study.

Sources and Method of Data Collection

The data for this study was obtained mainly from secondary sources; annual reports and accounts of the sampled firms for the period to be studied (2012-2017) for the financial and non-financial information and Nigeria Stock Exchange fact sheet for information on market prices. Secondary data is used because of the nature of data needed to evaluate the variables; all accounting information is available in the annual reports and accounts. All data were collected manually by hand picking form the annual reports and accounts of various companies.

Population and Sample of the study

The population of the study consists of all listed financial services firms in Nigerian Stock Exchange as at 31st December 2017. There are three categories of financial service firms: Banks, insurance and other financial service companies listed in Nigerian as at 31st December 2017. However, for a company to be included in this study, it must have fulfilled the following criteria:

i. A company must be listed on the Nigerian stock exchange market and remain so throughout the six years of the study.
ii. A company must have a group structure and remain so throughout the study period.
iii. A company financial and market data is available throughout the study period.

Value Relevance Models;

$MPPS_{it} = \alpha + \beta_1 BVPSg_{it} + \beta_2 EPSg_{it} + \beta_3 DPSg_{it} + \beta_4 CSFLg_{it} + \varepsilon_{it}$ ---- Group Model

$MPPS_{it} = \alpha + \beta_1 BVPSs_{it} + \beta_2 EPSs_{it} + \beta_3 DPSs_{it} + \beta_4 CSFLs_{it} + \varepsilon_{it}$ ----- Company Model

Models to test the effect on non-financial information;

$MPPS_{it} = \alpha + \beta_1 BVPS_{it} + \beta_2 EPS_{it} + \beta_3 DPS_{it} + \beta_4 CSFL_{it} + \beta_5 AQ_{it} + \varepsilon_{it}$ ---- Effect of audit quality

Techniques of data analysis

After analysis based on Ordinary Least Square (OLS) regression as a tool for data analysis. Robustness tests were carried out in order to ensure that all the assumptions of OLS are met. Multicollinearity test was also done using the variance inflation factor (VIF). Also, the Hausman specification test was conducted to determine the choice between fixed and random effect regressions.The fixed effects results were adopted based on the hausman test and as the data does not satisfy the basic OLS assumptions.

Variable measurements

Variables	Measurement	Source
MPPS	Market Price Per Share	
EPS	Earnings per Share measured as Profit After Tax (PAT) divided by number of ordinary shares outstanding.	Ahmadi (2017)
BVPS	Book value of equity per share measured as Total shareholders equity dividend by number of ordinary shares outstanding.	Zulu, De Klerk &Oberholster (2017)
DPS	Total dividend divided by weighted average number of ordinary shares outstanding.	Balakrishnan (2016)
CSFL	Cash Flow from Operating Activities measured as Net Cash flow from operating activities (Excess of cash revenue over cash outlays from operating activities) divided by the number of outstanding shares.	Tahat (2017)
AQ	Audit Quality; measured using Big 4 vs. Non-Big 4 dichotomy	Musa and Shehu (2014)

Source: Researcher Review, 2019

Results and Discussions

This chapter focuses on the presentation, analysis and interpretation of the STATA 13 results done on data collected over 2012 – 2016 for listed financial service firms in Nigeria. The overall aim is to

examine the comparative value relevance of accounting information for consolidated and separate financial statement. The chapter begins with the preliminary analysis of the descriptive statistics, Shapiro-wilk test for normality. This is followed by the presentation and analysis of the correlation matrix, regression results, test of hypotheses, discussion of findings and policy implication.

Descriptive Statistics

This descriptive statistics is presented in Table 4.1 showing the minimum, maximum, mean, standard deviation of the both group and separate data on the variables used in the study.

Table 4.1: Descriptive Statistics for Group and Separate Data

Variable		Obs.	Mean	Std. Dev.	Min	Max
MPPS	Overall	150	4.13	6.48	0.50	31.61
	Between	25		5.98	0.50	20.84
	Within	6		2.69	-2.92	17.88
EPSg	Overall	150	75.35	123.03	-30.28	579.21
	Between	25		115.61	-7.37	384.06
	Within	6		47.11	-87.33	292.53
EPSs	Overall	150	61.63	109.58	-30.75	548.01
	Between	25		101.21	-7.972	366.21
	Within	6		45.91	-38.72	271.57
BVPSg	Overall	150	516.04	630.77	0.26	2617.04
	Between	25		620.42	0.41	1935.10
	Within	6		160.82	44.25	1205.36
BVPSs	Overall	150	448.60	547.48	0.17	2253.52
	Between	25		541.64	0.22	1748.69
	Within	6		127.27	37.88	1044.26
DPSg	Overall	150	25.65	50.34	0.00	205.00
	Between	25		48.22	0.00	1748.69
	Within	6		16.94	-54.99	1044.26
DPSs	Overall	150	24.21	49.41	0.00	205
	Between	25		47.10	0.00	168.67
	Within	6		17.23	-49.46	98.00
CSFLg	Overall	150	1396.08	16429.9	-1435.66	20121.5
	Between	25		6800.39	-265.67	34027.85
	Within	6		15008.27	-32480.95	168583.2
CSFLs	Overall	150	132.94	1758.44	-1552.66	21050
	Between	25		741.91	-416.93	3607.17
	Within	6		1600.05	-3462.81	17575.78
AQ	Overall	150	0.64	0.48	0	1
	Between	25		0.46	0	1
	Within	6		0.15	-0.19	1.14

Source: Extracted from STATA 13 output

The above table shows the descriptive statistics for the dependent (MPPS – Market Price per Share) and independent (BVPSg – Book Value of Equity per Share for the group, EPSg – Earnings per Share for the group, DPSg – Dividend per Share for the group and CSFLg – Cash Flow per Share for the group) and (BVPSs – Book Value of Equity per Share for the company, EPSs – Earnings per Share for the company , DPSs – Dividend per Share for the company and CSFLs – Cash Flow per Share for the company) variables of listed financial service firms in Nigeria. A total of 150 observations were made for each of the study over the five year period of 2012-2016. The overall statistics are ordinary statistics that are based on 150 observations. The between statistics (cross sectional specific) are calculated on the basis of summary statistics of 25 entities regardless of time period while the within statistics (time specific) are summary statistics of 5 year period regardless of entities.

Correlation Matrix

The table 4.4 below presents the spearman rank correlation matrix between the dependent (MPPS) and independent variables (BVPS, EPS, DPS and CSFL). Its purpose is to establish whether there is any form of association between two variables when the variables are arranged in a ranked or ordered form. Correlation measures the association or inter-relations between two sets of ranked or ordered data. Correlation can vary from +1, perfect positive rank correlation to perfect negative rank correlation. A coefficient of zero or near zero generally indicates no correlation.

Table 4.2: Correlation Matrix for Group Data

Variable	MPPS	BVPSg	EPSg	DPSg	CSFLg	AQ
MPPS	1.0000					
EPSg	0.8541*	1.0000				
BVPSg	0.7916*	0.7153*	1.0000			
DPSg	0.6808*	0.6695*	0.5882*	1.0000		
CSFLg	0.2062*	0.2447*	0.2152*	0.1139	1.0000	
AQ	0.6856*	0.5475*	0.6444*	0.3990*	0.1091	1.0000

Source: Extracted from STATA 13 output
*Significant at 5% (2-tailed).

The table 4.2 above, shows the Spearman Correlation results between the dependent and independent variables and also among all independent variables. The asterisks beside the spearman correlation coefficients shows the level of significance. The choice of the spearman correlation coefficient over the Pearson correlation is as a result of the normality tests that showed that most of the variables are not normally distributed as they are mostly significant at 1% (see Appendix).

Table 4.3: Correlation Matrix for Separate Data

Variable	MPPS	BVPSs	EPSs	DPSs	CSFLs	AQ
MPPS	1.0000					
EPSs	0.7796*	1.0000				
BVPSs	0.7957*	0.6806*	1.0000			
DPSs	0.6199*	0.6288*	0.5496*	1.0000		
CSFLs	0.0310	0.0069	-0.0302	-0.0550	1.0000	
AQ	0.6856*	0.4613*	0.6210*	0.3695*	-0.0731	1.0000

Source: Extracted from STATA 13 output
* Significant at 1% and **Significant at 5% (2-tailed).

Presentation and Interpretation of Regression Results

The table below shows the regression result of the dependent variable (MPPS) and the independent variables of the study (EPS, BVPS and CSFL). The presentation follows the analysis of the association and impact between the independent and the dependent variable of the study and also the cumulative analysis.

$MPPS_{it} = \alpha + \beta_1 BVPSg_{it} + \beta_2 EPSg_{it} + \beta_3 DPSg_{it} + \beta_4 CSFLg_{it} + \varepsilon_{it}$ ----- Group Model

$MPPS_{it} = \alpha + \beta_1 BVPSs_{it} + \beta_2 EPSs_{it} + \beta_3 DPSs_{it} + \beta_4 CSFLs_{it} + \varepsilon_{it}$ -------- Company Model

Table 4.4: Summary of Regression Result

Variable	Group			Separate			
	Coefficient	T-Values	P-Values	Coefficient	T-Values	P-Values	
Constant ( )	5.7093	8.78	0.000	6.0605	8.10	0.000	
BVPS	-0.0080	-4.59	0.000	-0.0097	-4.66	0.000	
EPS	-0.0057	-1.00	0.321	-0.0043	-0.75	0.454	
DPS	0.1129	8.73	0.000	0.1099	7.79	0.000	
CSFL	0.0004	2.96	0.004	0.0017	1.31	0.193	
R^2				0.4511			0.3767
F-Stat.				24.86			18.28
F-Sig				0.0000			0.0000

Source: Extracted from STATA 13 output

The model is therefore stated as follows:

$MPPS_{it} = 5.7093 - 0.008BVPSg_{it} - 0.0057EPSg_{it} + 0.1129DPSg_{it} + 0.0004CSFLg_{it} + \varepsilon_{it}$

From the result in table 4.4 above, R^2 is 0.4511 for the group which is the coefficient of determination showing the proportion of the total variation in the dependent variable explained by the independent variables jointly. Hence, it signifies 45% of the total variations in MPPS of listed financial service firms in Nigeria is as a result of thevalue relevance of accounting information (includes BVPS, EPS, DPS and CSFL). Also, the F-stat of 24.86which is significant at all levels indicating that the model of the study is well fitted and the independent variables are properly selected, combined and used.

$MPPS_{it} = 6.0605 - 0.0097BVPSs_{it} - 0.0043EPSs_{it} + 0.1099DPSs_{it} + 0.0017CSFLs_{it} + \varepsilon_{it}$

From the result in table 4.4 above, R^2 is 0.3773 for the company which is the coefficient of determination showing the proportion of the total variation in the dependent variable explained by the independent variables jointly. Hence, it signifies 38% of the total variations in MPPS of listed financial service firms in Nigeria is as a result of thevalue relevance of accounting information (includes BVPS, EPS, DPS and CSFL). Also, the F-stat of 14.54which is significant at all levels indicating that the model of the study is well fitted and the independent variables are properly selected, combined and used.

However, the $R^2$of 0.4511 and 0.3767 for group and company respectively show that the consolidated accounting information have more information content than the separate accounting information published in the annual reports of listed financial service firms in Nigeria. Since the group information explain about 5%, more, the variation in MPPS. This is further explained based on individual variables as under.

Table 4.5: Regression result for effect of audit quality on group data

Variable	Group				
	Coefficient	T-Values	P-Values		
Constant ( )	5.5430	5.64	0.000		
BVPS	-0.0080	-0.99	0.000		
EPS	-0.0057	-4.57	0.321	R^2	0.4514
DPS	0.113	8.73	0.000	F-Stat.	19.74
CSFL	0.00004	2.96	0.004	F-Sig	0.0000
AQ	0.2624	0.23	0.821		

$MPPS_{it} = 5.543 - 0.008BVPSg_{it} - 0.0057EPSg_{it} + 0.113DPSg_{it} + 0.00004CSFLg_{it} + 0.2624AQ + \varepsilon_{it}$

From the result in table 4.5 above, R^2 is 0.4514 for the group which is the coefficient of determination showing the proportion of the total variation in the dependent variable explained by the independent variables jointly including the effect of audit quality. Hence, it signifies 45% of the total variations in MPPS of listed financial service firms in Nigeria is as a result of thevalue relevance of accounting information (includes BVPS, EPS, DPS and CSFL) and non-accounting information – audit quality. Also, the F-stat of 19.74which is significant at 1% indicating that the model of the study is well fitted and the independent variables are properly selected, combined and used.

Conclusions and recommendations

On the overall, the study concludes that group accounting information have greater effects on the market price per share than the separate accounting information.

In line with the findings of the study, it recommends that:

i. The management of listed financial service firms should strengthen their operations to enhance earnings and profitability to improve the value relevance of EPS for the group and companies under them.

ii. More effort should be made to report book value that are close to the market values as the book value supposed to reflect fair representation of accounting figures based on IFRS.

iii. Dividend policy should be made such that it affects the shareholders' value positively as dividend paid is share of profit with the shareholders. An increase in dividend therefore pushes the stock price. Many investors hunts for the highest dividend-yielding stock, but the real value is in dividend increases, because if a stock you own increases dividends faster than the rate of inflation, you in effect own an asset that produces a rising income stream that provides protection against inflation.

iv. The management of listed financial service firms should enhance its operations to improve its net cash flows from operations. Because operating cash flows per share measures only the value of the company's operations without considering other sources of cash flows, it better reflects the company's long term core operations.

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```
. xtset id year, yearly
       panel variable:  idno (strongly balanced)
        time variable:  year, 2012 to 2017
                delta:  1 year

. xtsum mpps epsg epss bvpsg bvpss dpsg dpss csflg csfls aq
```

Variable		Mean	Std. Dev.	Min	Max	Observations
mpps	overall	4.1264	6.467469	.5	31.61	N = 150
	between		5.982513	.5	20.84333	n = 25
	within		2.690485	-2.916933	17.88473	T = 6
epsg	overall	75.34853	123.0298	-30.28	579.21	N = 150
	between		115.6098	-7.365	384.06	n = 25
	within		47.10865	-87.3298	292.5302	T = 6
epss	overall	61.62947	109.5871	-30.75	548.01	N = 150
	between		101.2196	-7.973333	366.2067	n = 25
	within		45.90997	-38.72053	271.5695	T = 6
bvpsg	overall	516.0389	630.7706	.26	2617.04	N = 150
	between		620.4244	.4066667	1935.102	n = 25
	within		160.8171	44.24886	1205.359	T = 6
bvpss	overall	448.5966	547.475	.17	2253.52	N = 150
	between		541.6409	.2216667	1748.687	n = 25
	within		127.2746	37.87995	1044.26	T = 6
dpsg	overall	25.6496	50.33825	0	205	N = 150
	between		48.21709	0	168.6667	n = 25
	within		16.9431	-54.98873	84.1346	T = 6
dpss	overall	24.20907	49.40586	0	205	N = 150
	between		47.10179	0	168.6667	n = 25
	within		17.22816	-49.4576	97.9974	T = 6
csflg	overall	1396.077	16429.9	-1435.66	201215	N = 150
	between		6800.386	-265.6683	34027.85	n = 25
	within		15008.27	-32480.95	168583.2	T = 6
csfls	overall	132.9436	1758.441	-1552.66	21050	N = 150
	between		741.9146	-416.9283	3607.165	n = 25
	within		1600.046	-3462.811	17575.78	T = 6
aq	overall	.64	.481608	0	1	N = 150
	between		.4631814	0	1	n = 25
	within		.156871	-.1933333	1.14	T = 6

```
. spearman mpps epsg bvpsg  dpsg csflg  aq, star (0.05)
(obs=150)
```

	mpps	epsg	bvpsg	dpsg	csflg	aq
mpps	1.0000					
epsg	0.8541*	1.0000				
bvpsg	0.7916*	0.7153*	1.0000			
dpsg	0.6808*	0.6695*	0.5882*	1.0000		
csflg	0.2062*	0.2447*	0.2152*	0.1139	1.0000	
aq	0.6856*	0.5475*	0.6444*	0.3990*	0.1091	1.0000

```
. spearman mpps epss bvpss  dpss csfls  aq, star (0.05)
(obs=150)
```

	mpps	epss	bvpss	dpss	csfls	aq
mpps	1.0000					
epss	0.7796*	1.0000				
bvpss	0.7957*	0.6806*	1.0000			
dpss	0.6199*	0.6288*	0.5496*	1.0000		
csfls	0.0310	0.0069	-0.0302	-0.0550	1.0000	
aq	0.6856*	0.4613*	0.6210*	0.3695*	-0.0731	1.0000

Model 1: Group Data

```
. reg mpps epsg bvpsg dpsg csflg
```

Source	SS	df	MS
Model	4783.95964	4	1195.98991
Residual	1448.43546	145	9.98921009
Total	6232.3951	149	41.828155

```
Number of obs =     150
F(  4,   145) =  119.73
Prob > F      =  0.0000
R-squared     =  0.7676
Adj R-squared =  0.7612
Root MSE      =  3.1606
```

mpps	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
epsg	-.0105877	.0046662	-2.27	0.025	-.0198102	-.0013652
bvpsg	.0021891	.0007068	3.10	0.002	.0007922	.003586
dpsg	.1115457	.0102991	10.83	0.000	.09119	.1319014
csflg	.0000668	.0000168	3.98	0.000	.0000336	.0001
_cons	.8401183	.3363266	2.50	0.014	.1753825	1.504854

```
. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of mpps

         chi2(1)      =   211.66
         Prob > chi2  =   0.0000

. vif
```

Variable	VIF	1/VIF
epsg	4.92	0.203423
dpsg	4.01	0.249432
bvpsg	2.96	0.337327
csflg	1.13	0.882159
Mean VIF	3.26	

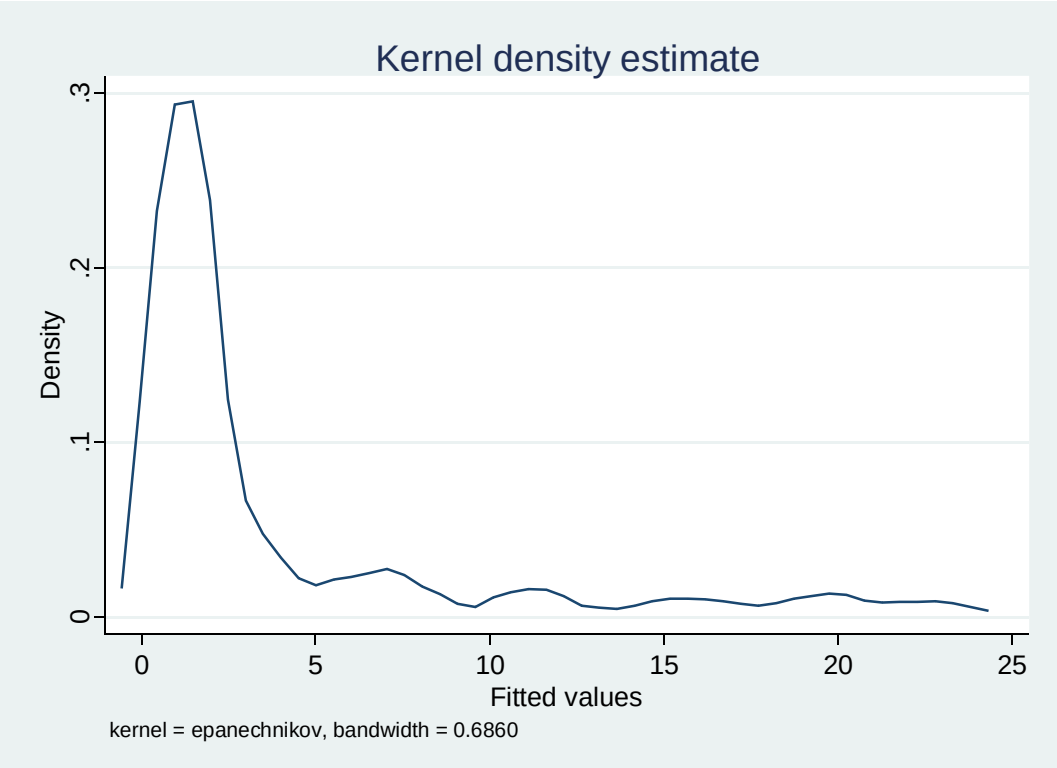
```
. reg mpps epsg bvpsg dpsg csflg, robust

Linear regression                                      Number of obs =     150
                                                       F(  4,   145) = 1386.37
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.7676
                                                       Root MSE      =  3.1606
```

mpps	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
epsg	-.0105877	.0069309	-1.53	0.129	-.0242864	.003111
bvpsg	.0021891	.0009124	2.40	0.018	.0003857	.0039925
dpsg	.1115457	.0180636	6.18	0.000	.0758437	.1472477
csflg	.0000668	9.09e-06	7.35	0.000	.0000488	.0000848
_cons	.8401183	.1994141	4.21	0.000	.4459845	1.234252

```
. predict e
(option xb assumed; fitted values)

. kdensity e
```



```
. xtreg mpps epsg bvpsg dpsg csflg, fe

Fixed-effects (within) regression               Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.4511                         Obs per group: min =         6
       between = 0.0110                                        avg =       6.0
       overall = 0.0482                                        max =         6

                                                F(4,121)           =     24.86
corr(u_i, Xb)  = -0.3567                        Prob > F           =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |   -.005665   .0056878    -1.00   0.321    -.0169255    .0055954
       bvpsg |  -.0079648   .0017356    -4.59   0.000    -.0114008   -.0045287
        dpsg |   .1129288   .0129301     8.73   0.000     .0873303    .1385273
       csflg |   .0000412   .0000139     2.96   0.004     .0000136    .0000687
       _cons |   5.709306   .6502455     8.78   0.000     4.421973    6.996638
-------------+----------------------------------------------------------------
     sigma_u |  6.5186133
     sigma_e |  2.2119001
         rho |  .89674959   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(24, 121) =     7.29             Prob > F = 0.0000

. xtreg mpps epsg bvpsg dpsg csflg, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.2403                         Obs per group: min =         6
       between = 0.8803                                        avg =       6.0
       overall = 0.7607                                        max =         6

                                                Wald chi2(4)       =    273.15
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0140155    .004908    -2.86   0.004     -.023635    -.004396
       bvpsg |   .0014808   .0009049     1.64   0.102    -.0002928    .0032544
        dpsg |   .1211019   .0109285    11.08   0.000     .0996824    .1425214
       csflg |   .0000548   .0000157     3.48   0.000     .0000239    .0000856
       _cons |    1.23563   .4481578     2.76   0.006     .3572564    2.114003
-------------+----------------------------------------------------------------
     sigma_u |  1.0577952
     sigma_e |  2.2119001
         rho |  .18613377   (fraction of variance due to u_i)
------------------------------------------------------------------------------
. est store random
```

```
. hausman fixed random

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
        epsg |    -.005665    -.0140155        .0083505        .0028744
       bvpsg |   -.0079648     .0014808       -.0094455         .001481
        dpsg |    .1129288     .1211019       -.0081731        .0069104
       csflg |    .0000412     .0000548       -.0000136               .
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =       48.56
                Prob>chi2 =      0.0000
                (V_b-V_B is not positive definite)

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        mpps[idno,t] = Xb + u[idno] + e[idno,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                    mpps |   41.82816       6.467469
                       e |   4.892502         2.2119
                       u |   1.118931       1.057795

        Test:   Var(u) = 0
                             chibar2(01) =    16.97
                          Prob > chibar2 =   0.0000
```

Interpreted Fixed Effect Model 2: Separate Data

```
. reg mpps epss bvpss dpss csfls

      Source |       SS       df       MS              Number of obs =     150
-------------+------------------------------           F(  4,   145) =  103.27
       Model |  4613.04162     4  1153.2604           Prob > F      =  0.0000
    Residual |  1619.35348   145  11.167955           R-squared     =  0.7402
-------------+------------------------------           Adj R-squared =  0.7330
       Total |   6232.3951   149  41.828155           Root MSE      =  3.3418

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epss |  -.0218572   .0064909    -3.37   0.001    -.0346863   -.0090281
       bvpss |   .0037448   .0009217     4.06   0.000     .0019231    .0055666
        dpss |   .1207478   .0118267    10.21   0.000     .0973727    .1441229
       csfls |   .0005831   .0001567     3.72   0.000     .0002734    .0008928
       _cons |   .7928262   .3589843     2.21   0.029     .0833082    1.502344
------------------------------------------------------------------------------

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of mpps

         chi2(1)      =   161.11
         Prob > chi2  =   0.0000
```

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
        epss |      6.75    0.148134
        dpss |      4.56    0.219533
       bvpss |      3.40    0.294343
       csfls |      1.01    0.987363
-------------+----------------------
    Mean VIF |      3.93

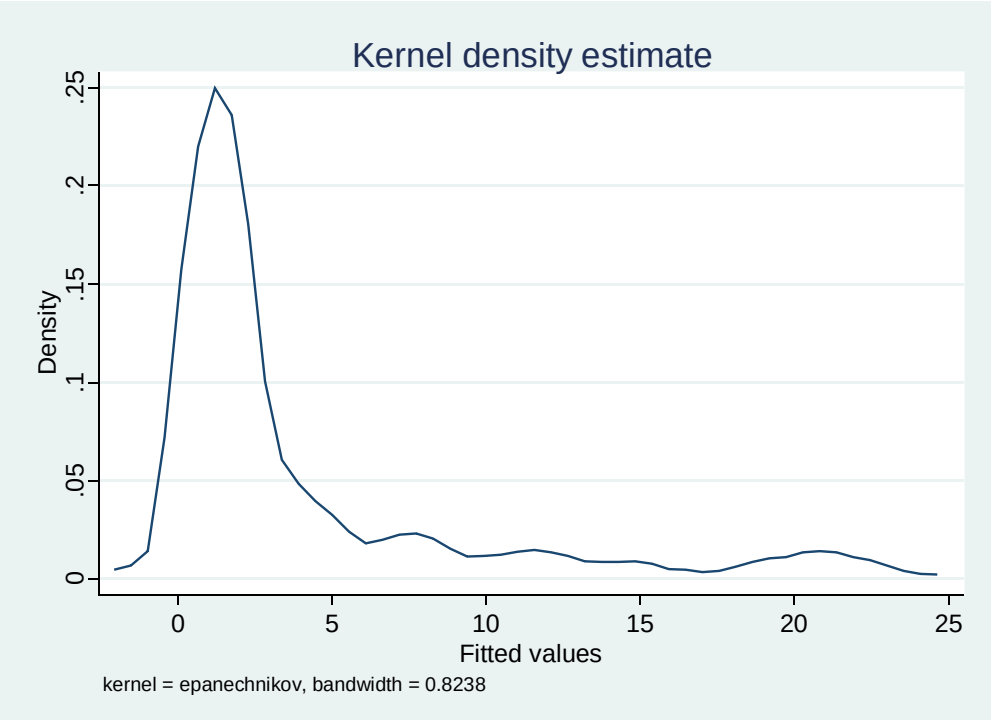
. reg mpps epss bvpss dpss csfls, robust

Linear regression                                      Number of obs =     150
                                                       F(  4,   145) =   47.56
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.7402
                                                       Root MSE      =  3.3418

------------------------------------------------------------------------------
             |               Robust
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epss |  -.0218572   .0099341    -2.20   0.029    -.0414916   -.0022228
       bvpss |   .0037448   .0010952     3.42   0.001     .0015802    .0059094
        dpss |   .1207478    .021382     5.65   0.000     .0784872    .1630084
       csfls |   .0005831   .0000894     6.52   0.000     .0004064    .0007597
       _cons |   .7928262   .1945468     4.08   0.000     .4083124     1.17734
------------------------------------------------------------------------------

. predict r
(option xb assumed; fitted values)

. kdensity r
```



```
. xtreg mpps epss bvpss dpss csfls, fe

Fixed-effects (within) regression               Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.3767                         Obs per group: min =         6
       between = 0.0002                                        avg =       6.0
       overall = 0.0149                                        max =         6

                                                F(4,121)           =     18.28
corr(u_i, Xb)  = -0.4431                        Prob > F           =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epss |  -.0043378   .0057738    -0.75   0.454    -.0157684    .0070929
       bvpss |   -.009696    .002081    -4.66   0.000    -.0138159    -.005576
        dpss |   .1098593    .014106     7.79   0.000     .0819326    .1377859
       csfls |   .0001746   .0001333     1.31   0.193    -.0000894    .0004385
       _cons |    6.06051    .747803     8.10   0.000     4.580037    7.540983
-------------+----------------------------------------------------------------
     sigma_u |  6.8731142
     sigma_e |  2.3570772
         rho |  .89476732   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(24, 121) =     7.10             Prob > F = 0.0000

. est store fixed

. xtreg mpps epss bvpss dpss csfls, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.1744                         Obs per group: min =         6
       between = 0.8734                                        avg =       6.0
       overall = 0.7370                                        max =         6

                                                Wald chi2(4)       =    270.95
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epss |  -.0195903   .0062713    -3.12   0.002    -.0318819   -.0072988
       bvpss |   .0029772   .0010624     2.80   0.005     .0008948    .0050595
        dpss |   .1196888   .0121078     9.89   0.000     .0959579    .1434197
       csfls |   .0004107   .0001493     2.75   0.006      .000118    .0007033
       _cons |    1.04604   .4423512     2.36   0.018      .179048    1.913033
-------------+----------------------------------------------------------------
     sigma_u |    .913837
     sigma_e |  2.3570772
         rho |  .13066964   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est store random
.
```

```
. hausman fixed random

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
        epss |  -.0043378    -.0195903        .0152526               .
       bvpss |   -.009696     .0029772       -.0126731        .0017894
        dpss |   .1098593     .1196888       -.0098295        .0072375
       csfls |   .0001746     .0004107       -.0002361               .
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =       46.30
                Prob>chi2 =      0.0000
                (V_b-V_B is not positive definite)

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        mpps[idno,t] = Xb + u[idno] + e[idno,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                    mpps |   41.82816       6.467469
                       e |   5.555813       2.357077
                       u |   .8350981        .913837

        Test:   Var(u) = 0
                             chibar2(01) =    20.80
                          Prob > chibar2 =   0.0000
```

Model 3: Group Data and Audit Quality

```
. reg mpps epsg bvpsg dpsg csflg aq

      Source |       SS       df       MS              Number of obs =     150
-------------+------------------------------           F(  5,   144) =   98.70
       Model |  4824.58717     5  964.917433           Prob > F      =  0.0000
    Residual |  1407.80794   144    9.776444           R-squared     =  0.7741
-------------+------------------------------           Adj R-squared =  0.7663
       Total |   6232.3951   149   41.828155           Root MSE      =  3.1267

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0111673    .004625    -2.41   0.017    -.0203089   -.0020257
       bvpsg |   .0016454   .0007483     2.20   0.029     .0001663    .0031246
        dpsg |   .1133769   .0102283    11.08   0.000     .0931599     .133594
       csflg |   .0000678   .0000166     4.08   0.000      .000035    .0001006
          aq |   1.285985   .6308354     2.04   0.043     .0390912    2.532878
       _cons |   .2930131   .4274744     0.69   0.494    -.5519221    1.137948
------------------------------------------------------------------------------

    . hettest

    Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
             Ho: Constant variance
             Variables: fitted values of mpps

             chi2(1)      =   197.33
             Prob > chi2  =   0.0000
```

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
        epsg |      4.93    0.202654
        dpsg |      4.04    0.247508
       bvpsg |      3.40    0.294475
          aq |      1.41    0.710845
       csflg |      1.13    0.881428
-------------+----------------------
    Mean VIF |      2.98

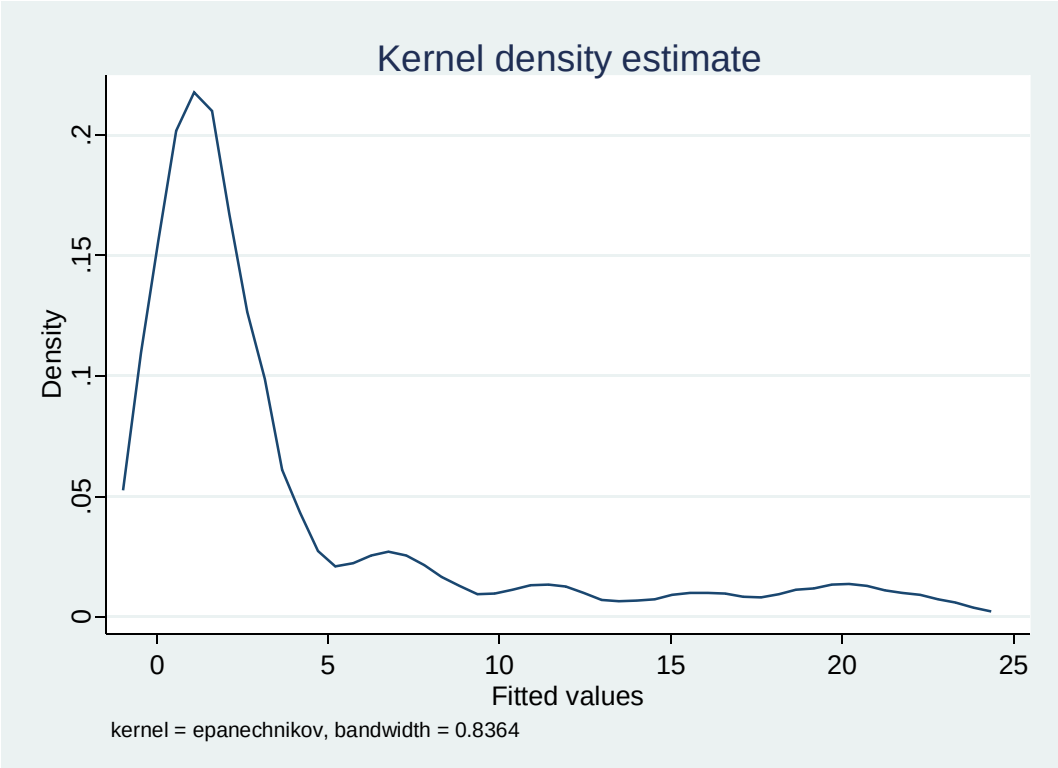
. reg mpps epsg bvpsg dpsg csflg aq, robust

Linear regression                                      Number of obs =     150
                                                       F(  5,   144) = 1787.60
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.7741
                                                       Root MSE      =  3.1267

------------------------------------------------------------------------------
             |               Robust
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0111673   .0069806    -1.60   0.112    -.0249649    .0026304
       bvpsg |   .0016454   .0009383     1.75   0.082    -.0002092       .0035
        dpsg |   .1133769   .0181625     6.24   0.000     .0774774    .1492764
       csflg |   .0000678   9.22e-06     7.35   0.000     .0000495     .000086
          aq |   1.285985   .3807336     3.38   0.001     .5334361    2.038533
       _cons |   .2930131   .0631997     4.64   0.000     .1680941    .4179322
------------------------------------------------------------------------------

. predict i
(option xb assumed; fitted values)

. kdensity i
```




```
. xtreg mpps epsg bvpsg dpsg csflg aq, fe

Fixed-effects (within) regression               Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.4514                         Obs per group: min =         6
       between = 0.0153                                        avg =       6.0
       overall = 0.0554                                        max =         6

                                                F(5,120)           =     19.74
corr(u_i, Xb)  = -0.3403                        Prob > F           =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0056526   .0057105    -0.99   0.324    -.0169589    .0056538
       bvpsg |  -.0079718   .0017427    -4.57   0.000    -.0114222   -.0045213
        dpsg |   .1129683   .0129822     8.70   0.000     .0872643    .1386722
       csflg |   .0000412    .000014     2.95   0.004     .0000136    .0000688
          aq |   .2623976   1.159915     0.23   0.821    -2.034153    2.558948
       _cons |   5.543009   .9831293     5.64   0.000     3.596481    7.489536
-------------+----------------------------------------------------------------
     sigma_u |  6.4492481
     sigma_e |  2.2206238
         rho |  .89400797   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(24, 120) =     6.90             Prob > F = 0.0000

.
. est store fixed
```

```
. xtreg mpps epsg bvpsg dpsg csflg aq, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.2627                         Obs per group: min =         6
       between = 0.8812                                        avg =       6.0
       overall = 0.7671                                        max =         6

                                                Wald chi2(5)       =    279.20
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0140771   .0048544    -2.90   0.004    -.0235915   -.0045626
       bvpsg |    .000773   .0009527     0.81   0.417    -.0010941    .0026402
        dpsg |   .1220285   .0108174    11.28   0.000     .1008267    .1432302
       csflg |    .000055   .0000155     3.55   0.000     .0000247    .0000854
          aq |   1.684011   .7729092     2.18   0.029      .169137    3.198885
       _cons |   .5035936   .5648321     0.89   0.373    -.6034569    1.610644
-------------+----------------------------------------------------------------
     sigma_u |  1.0911642
     sigma_e |  2.2206238
         rho |   .1944914   (fraction of variance due to u_i)
------------------------------------------------------------------------------
. est store random
```

```
. xtreg mpps epsg bvpsg dpsg csflg aq, re

Random-effects GLS regression                   Number of obs      =       150
Group variable: idno                            Number of groups   =        25

R-sq:  within  = 0.2627                         Obs per group: min =         6
       between = 0.8812                                        avg =       6.0
       overall = 0.7671                                        max =         6

                                                Wald chi2(5)       =    279.20
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
        mpps |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        epsg |  -.0140771   .0048544    -2.90   0.004    -.0235915   -.0045626
       bvpsg |    .000773   .0009527     0.81   0.417    -.0010941    .0026402
        dpsg |   .1220285   .0108174    11.28   0.000     .1008267    .1432302
       csflg |    .000055   .0000155     3.55   0.000     .0000247    .0000854
          aq |   1.684011   .7729092     2.18   0.029      .169137    3.198885
       _cons |   .5035936   .5648321     0.89   0.373    -.6034569    1.610644
-------------+----------------------------------------------------------------
     sigma_u |  1.0911642
     sigma_e |  2.2206238
         rho |   .1944914   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est store random

. hausman fixed random

Note: the rank of the differenced variance matrix (4) does not equal the number of
        coefficients being tested (5); be sure this is what you expect, or there may be
        problems computing the test.  Examine the output of your estimators for anything
        unexpected and possibly consider scaling your variables so that the coefficients
        are on a similar scale.

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
        epsg |  -.0056526    -.0140771        .0084245        .0030074
       bvpsg |  -.0079718      .000773       -.0087448        .0014593
        dpsg |   .1129683     .1220285       -.0090602        .0071779
       csflg |   .0000412      .000055       -.0000138               .
          aq |   .2623976     1.684011       -1.421613        .8648779
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =       46.68
                Prob>chi2 =      0.0000
                (V_b-V_B is not positive definite)
```

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        mpps[idno,t] = Xb + u[idno] + e[idno,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                    mpps |   41.82816       6.467469
                       e |    4.93117       2.220624
                       u |   1.190639       1.091164

        Test:   Var(u) = 0
                             chibar2(01) =    18.25
                          Prob > chibar2 =   0.0000
```

Interpreted Fixed Effect

MARKET VALUATION OF RELATED-PARTY LOANS IN THE NIGERIAN BANKING INDUSTRY

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Abstract

This paper investigates the consequences of related-party loans on the market value of deposit money banks in Nigeria over the period 2012-2016. It extracts data from annual reports of 12 deposit money banks quoted on the Nigerian Stock Exchange between 2012 and 2016. The paper uses ordinary least square method of multiple regressions to test the hypothesis that related-party loans are negatively associated with market value. The regression result provides strong empirical evidence that related-party loans are positively associated with market value of deposit money banks. This implies that deposit money banks should grant more related-party loans. This however should be done with caution given that NDIC has continued to express great concern over the rising incidence of non-performing loans associated with insider-related loans in deposit money banks.

Keywords: Deposit money banks, expropriation, market valuation, non-performing loans, related-party loans

Introduction

The banking industry plays a critical role in deposit mobilization, extension of credit facilities to borrowers and providing platform for payment to facilitate exchange of goods and services. Joint special examination by the Nigerian Deposit Insurance Corporation (NDIC) and the Central Bank of Nigeria (CBN) in 2009 on Nigeria's 24 Deposit Money Banks (DMBs) revealed that DMBs were plagued by non-performing loans arising from amongst other factors, abuse and fraudulent use of subsidiaries as well as huge insider-related credits – a form of related party transactions (RPTs). The link of RPTs to corporate scandals and corporate collapses evoked different responses worldwide. For instance, the Sarbanes-Oxley Act 2002 of the US banned related-party loans to officers and directors. The International Accounting Standards Board revised IAS 24 Related-Party Disclosures in November 2009 to enhance disclosure and transparency in financial reporting of RPTs. The Central Bank of Nigeria requires external auditors of deposit money banks (DMBs) to report on insider-related credits. The diverse responses arose from contentions that RPTs could serve as vehicle for managerial opportunism or value enhancing. On the one hand, it is argued that insiders could use RPTs to extract

firm wealth from other stakeholders (conflict of interest hypothesis). On the other hand, it is contended that RPTs could be value-enhancing by creating strategic partnerships, enhancing risk sharing, and facilitating contracting (efficient contracting hypothesis) (Kohlbeck & Maydew, 2010). Prior studies of the effect of RPTs on firm value produce mixed result.

The purpose of this study therefore is to contribute to the debate by investigating how investors value related-party loans of DMBs. The study is informed by the scanty literature on how the market views RPTs in the Nigerian banking industry. We choose to study related-party loans because they constitute the largest component of RPTs of DMBs. DMBs are constantly confronted by non-performing insider credits.

Literature Review

Conceptual review

IAS 24 states that a related party is a person or entity that is related to the reporting entity. Consistent with IAS 24, Mirza and Holt (2011) state that a person or a close member of that person's family is related to the reporting entity if that person:

Has control or joint control over the reporting entity.

Has significant influence over the reporting entity.

Is a member of the key management personnel of the reporting entity or the parent of the reporting entity.

IAS 24 defines related-party transaction as a transfer of resources, services, or obligations between related parties, regardless of whether a price is charged or not. RPTs disclosed by Nigerian DMBs include loans, deposits, loan guarantees, key management personnel compensation and directors' remuneration.

Theoretical Framework

This study relies on agency theory. Agency theory holds that as a result of separation of ownership and control between the agent and the principal, agents act opportunistically to maximise their wealth at the expense of principals (Berle & Means, 1932; Fama & Jensen, 1983; Jensen & Meckling, 1976). Prior studies argue that RPTs represent a conflict of interest between management and shareholders (Gordon, Henry, & Palia, 2004). Related parties can use their influence to procure loans and other credit facilities and influence terms in their favor. More importantly, RPTs are usually made through complicated and opaque transactions between the company and its managers, directors, subsidiaries and major shareholders. It is therefore hard for outsiders to discover questionable or fraudulent transactions. Consistent with agency theory, it is argued that opportunistic RPTs can facilitate insiders' opportunistic behaviour, particularly given the non-arms-length nature of such transactions. As such, RPTs present the potential for the expropriation of the firm's resources. In light of the above discussion, Agency theory is considered appropriate to explain related-party loans (RPLs) and consequences on market value.

Empirical review

RPTs are very common in the Nigerian banking industry as they are inevitable in large firms worldwide. RPTs are commonly viewed from two contrasting perspectives: conflict of interest hypothesis and efficient contracting hypothesis. Under the conflict of interest hypothesis, RPTs are complex and

conducted through complicated channels not easily observable by outsiders and may therefore be used by corporate insiders to expropriate depositors, minority shareholders and other stakeholders. This informs the issuance of revised IAS 24. Loans and other credit facilities may be granted to a related party on such terms that may result in diversion of bank resources to corporate insiders especially where the borrower is a controlling shareholder. Shastri and Kahle (2004) find that related-party loans, which, on average, have below-market interest rates, are beneficial to executives. The fall of Enron, Adelphia and Parmalat as well as Intercontinental Bank Plc and Oceanic Banks Plc reveal RPTs as powerful instrument of financial frauds and shareholders' expropriation.

The contrasting view - the efficient transactions hypothesis - contends that RPTs are efficient contracting arrangements facilitating productive activities thereby posing no harm to investors and other stakeholders (Chen, Chen & Chen, 2009; Gordon, Henry, & Palia, 2004). In granting loans, banks incur significant cost in conducting rigorous evaluations of potential borrowers, delays in negotiations and in monitoring performance of borrowers. These costs are minimal in insider credits because information asymmetries are reduced and contracting is enhanced (Gordon et al., 2004; Ryngaert & Thomas, 2012). Related-party loans can solidify the related party's economic bond and commitment to the DMB. Chen (2006) points out that RPTs are beneficial to mutual monitoring.

Berkman, Cole and Fu (2009) examined related-party loan guarantees in annual reports of 88 publicly traded Chinese firms. They define a loan guarantee to a related party as a guarantee issued by one entity that it will ensure repayment of a loan made to a related entity by a third party, usually a bank. The authors provide evidence that related-party loan guarantees are used by insiders and controlling shareholders in China to expropriate minority shareholders. Specifically they therefore test whether related-party loan guarantees are negatively associated with firm value and firm performance. The result shows that related-party loans are associated with lower firm value.

Cheung, Rau and Stouraitis (2006) study related-party transactions in Hong Kong listed firms during 1998–2000 and report direct evidence of expropriation of minority shareholders. They find on average, firms announcing connected transactions earn significantly negative excess returns, significantly lower than firms announcing similar arm's length transactions. This validates the conflict of interest hypothesis of RPTs and suggests investors do not trust RPTs.

Using a sample of 131 Chinese listed firms in the basic materials industries such as mining, lumber, chemicals and building materials, Wong and Jian (2003) analyze RPTs as a means of earnings management and report that at least part of the RPTs is perceived by the market as opportunistic and therefore less credible. They report a negative correlation between related-party lending and firm value.

Chang (2003) finds that Korean firms use related-party purchases and sales to manipulate earnings. Though stakeholders are likely to anticipate (and tolerate) a certain amount of earnings management (Stein 1989), negative market reactions have been found to be associated with firms that are alleged or detected to have managed earnings (Beneish, 1997; Dechow, Sloan, & Sweeney, 1996; Foster 1979).

In November 2009, NDIC and CBN conducted a special examination of the then existing 24 quoted deposit banks and reported huge insider credits that were non-performing. The non-performing credits

affected the survival of the DMBs and CBN consequent sacked the board of directors and CEOs of 8 DMBs. The result attests to the opportunistic perspective of related-party credits.

La Porta, López-de-Silanes, and Zamarripa (2003) study related lending in Mexican banks and provide evidence that related loans, though granted on better terms (interest rates) than arm's length lending, are 33% more likely to default and, when they do, have lower recovery rates than unrelated ones.

Hypothesis development

In principle, bankers know more about related borrowers than unrelated ones and may be able to use such information to assess the ex-ante risk characteristics of investment projects or to force borrowers to abandon bad investment projects early (Rajan, 1992). Based on convergence of interest model (Jensen & Meckling, 1976), it is expected that both hold-up problems and incentives for pursuing policies that benefit one class of investors at the expense of others may be reduced. Thus, *related lending* may be better for both the borrower and the lender.

However, credits could be extended to related party on favourabe terms than unrelated party thereby facilitating expropriation of depositors and minority shareholders. With NDIC in place, insiders can take excessive risk or grant credits to related party on non-market terms, fully recognizing that the government bears the costs of such diversion should the bank fail. In 2009, the CBN doled out a whopping N620billion to bail out failing banks. As a result of the close tie of the related party, some related party credits were granted without due diligence on the capacity of the related party to repay and loan officers accept collaterals from borrowers that they knew were false or of no value to the banks. These result in non-performing loans.Noting that the rising incidence of insider loans in the banking industry was of great concern to the regulators/supervisors, the NDIC (2016) reports N670.75 billion as total insider-related loans in DMBs as at 31st December, 2016 out of which ? 265.38 billion or 39.57% was non-performing. Non-performing loans constitutes a threat to the survival of the DMBs.As a result of concerns for expropriation and opportunistic use of RPTs, prior studies show the stock market reacts negatively to RPTs (Cheung, Rau, & Stouraitis, 2006; Kohlbeck & Mayhew 2010, 2017; Ryngaert & Thomas, 2012). Since the preponderance of evidence from literature review supports the conflict of interest perspective, this paper formulates the following hypothesis:

Ho: Related-party loans are significantly and negatively association with the market value of deposit money banks.

Methodology

Research design, population and sample size

The paper adopts ex post facto research design, using data extracted from the annual reports of the deposit money banks for the period 2012 to 2017. The paper chooses year 2012 so as to exclude spurious result likely to emanate from accounting regime since Nigeria adopted IFRS in 2012.

The population of this study consists of all the deposit money banks listed on the Nigerian Stock Exchange as at 31st December, 2017. The Fact Book of the Nigerian Stock Exchange showed a total of fifteen deposit money banks were listed on the Nigerian Stock Exchange as at 31st December, 2017. To

obtain the sample, the study adopted a simple sample selection procedure to screen the fifteen deposit money banks. The procedure requires that each deposit money bank must have complete data for the period 2012 to 2016 to run the regressions. Any deposit money bank that failed to satisfy the selection criteria was excluded. Consequently three deposit money banks that had incomplete data were deleted thereby giving a sample size of twelve deposit money banks. The names of the deposit money banks that formed the sample are listed in Appendix.

Model specification

Following Kohlbeck and Maydew (2010), the paper models market value as a function of related-party loans, bank size, age and beta. The model is stated explicitly thus:

$$Q_{jt} = \beta_0 + \beta_1 RPL_{jt} + \beta_2 SZE_{jt} + \beta_3 AGE_{jt} + \beta_4 BETA_{jt} + \varepsilon_{jt}$$

Measurement of variables

The variables in the model are displayed in Table 1 below.

Table 1 Definition and measurement of variables

Variable	Definition	Measurement
Q	Tobin Q	Total assets minus book value of equity plus market value of equity all divided by total assets.
RPL	Related-party loans	Total insider credits divided by gross loans
SZE	Size	Natural log of market value of equity.
AGE	Age	Natural log of age of DMB j at year t. Age is number of years since DMB listed on the Nigerian Stock Exchange
BETA	Beta	Beta estimated from the market model using a DBM's security return data and the return on the NSE equally weighted market portfolio over the 60 months ending three months after the fiscal year end.
E	Error term	
B_0	Intercept	
B_1 ……..B_5	Regression coefficients	

The subscripts j t, represent bank j in year t

Control variables

We follow extant literature to include control variables in the model. The control variables are size, age and beta.

SIZE.

Size has been found as a determinant of stock returns. Large firms tend to have more stable cash flows and higher earnings(Fama & French, 1992). Consequently, Fama and French (1992) argue that large firms face less risk of bankruptcy than smaller firms. Consistent with the above argument, this paper expects a positive relationship between firm size and market value.

AGE

The life-cycle theory holds that as firms move from birth to growth stage and to maturity, they acquire experience in their operations and accumulate reputation and become less risky (Faccio, Marchica, & Mura, 2011). Older firms have more experience than younger firms and can therefore increase earnings (Papadogonas, 2007). Older firms relative to younger firms desire to protect their reputation and would therefore engage in wealth enhancing RPTs. Agiomirgianakis, Magoutas and Sfakianakis (2013) document a positive relationship between firm age and returns. Similarly, Baker and Wurgler (2006) and Rosli, (2011) report a positive effect of firm age on returns. Consequently, we expect positive sign on firm age.

BETA

RPTs portend risk of expropriation, tunneling and earnings management. Risk is likely to influence investors' perception of future returns and risk-averse investors therefore price-protect(Cheung, Rau, & Stouraitis 2006; Cheung, Qi, Rau & Stouraitis 2009). Beta therefore controls for the level of risk associated with RPTs and a negative coefficient is expected.

Data analysis

The paper adopts univirate analysis involving the presentation of the data using tables of descriptive statistics and correlation matrix. In the multivariate analysis, ordinary least square method of multiple regressions was employed to test the hypothesis and to explore the market perceptions of related-party loans. The paper employs Stata 12 to aid in the computation and analysis.

Results.

Descriptive statistics

Table 2 presents the descriptive statistics of the study. It shows that on the average related-party loans constitute 5% of the gross loans of the deposit money banks, with the maximum being 32%. It further shows that *Q* ranges from a minimum of -0.247 to a maximum of 0.206 with an average of -0.0535, indicating wide variation in market valuation among the sampled DMBs. The market value of equity whose natural log is proxy for size ranges from a minimum of N937 million to N4740 billion with a mean of N1476billion, suggesting wide spreads.

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
q	60	-.0535402	.1001807	-.2473668	.205923
rpl	60	.0504127	.051452	.0001237	.3222888
sze (N'm)	60	1476180	1102597	937.664	4739825
age (Years)	60	18.84232	12.41637	7.0301	46.2356
beta	60	1.413912	.7260395	.30503	4.67604

Table 3 contains the correlation matrix for the variables included in the regressions. The correlations among the variables are generally low and not significant suggesting that multicollinearity does not pose a threat to the result. Only the correlation between beta and Q is significant at the 5% level. The

values of the Variance Inflation Factor as displayed in Table 4 confirm that no major multicollinearity problem exists.

	Q	Rpl	sze	age	beta
q	1.0000				
rpl	0.1787	1.0000			
sze	-0.0165	-0.0546	1.0000		
age	-0.2128	-0.0916	0.1890	1.0000	
beta	-0.4814*	0.0901	-0.0132	-0.0627	1.0000

Table 4 Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
Age	1.05	0.954836
Sze	1.04	0.962891
Rpl	1.02	0.983027
Beta	1.01	0.988881
Mean VIF	1.03	

Multivariate regression analysis

Table 5 reports ordinary least square regression results of related-party loans on market value. Table 5 shows the model exhibits excellent fit [(F95, 55) = 6.87; p-value = 0.0001]. It further shows that approximately 33% of the variations in market value of the sample (R^2 = 0.3331) are explained by changes in the predictor variables, with the balance subsumed in the error terms.

The paper examines whether related-party loans are negatively associated with firm value. The coefficient of Q on RPL in Table 5is positive and statistically significant (β_1 = 0.4001; p-value = 0.070). This result therefore fails to provide support for our hypothesis which predicts a negative association between related-party loans and market value of DMBs.

From Table 5 also, the coefficient on SZE is positive (β_2 = 0.0065663). This however is not statistically significant (p-value = 0.778). Another control variable in Table 5 is firm age. AGE indicates a negative and significant coefficient (β_3 = -0.0395234; p-value = 0.044). This is inconsistent with our apriori expectation. The last control variable is BETA which shows a negative and statistically significant coefficient as predicted (β_3= -0.0709288, p-value = 0.000).

Table 5 Regression Result

					Number of obs	60
					F(5, 55)	6.87
					Prob > F	0.0001
					R-squared	0.3331
					Root MSE	.08474
q	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
rpl	4001366	.2162508	1.85	0.070	-.0332397	.8335129
sze	.0018605	.0065663	0.28	0.778	-.0112987	.0150197
age	-.0395234	.0191784	-2.06	0.044	-.0779578	-.0010891
beta	-.0709288	.0152795	-4.64	0.000	-.1015496	-.0403079
cons	.3303282	.1973027	1.67	0.100	-.0650752	.7257316

Discussion of Findings.

The result of hypothesis testing reported in Table 5 shows that related-party loan is positively associated with market value. Indeed with a one percent increase in related-party loans, market value increases by 40%, ceteris paribus. This implies that the market views related-party loans as value enhancing and therefore rewards DMBs that increase related-party loans. This is consistent with the argument that related-party transactions constitute efficient contracting mechanism (Chen, Chen & Chen, 2009; Gordon et al., 2004). It is possible that market participants believe that related-party loans require lower cost for conducting evaluation of and negotiation with related party, and monitoring the performance of related party relative to unrelated party because of reduced information asymmetries between the related party and the DMBs (Gordon et al., 2004; Ryngaert & Thomas, 2012). RPTs are usually made through complicated transactions that are opaque and therefore hard for outsiders to discover questionable or fraudulent transactions. This could equally influence the market assessment of related-party loans.

For the control variable, AGE, one year increase in age is associated with approximately 4% decrease in market value of the DMBs.The result is contrary to our apriori expectation but consistent with Papadogonas (2007) who argues that older firms have a more bureaucratic organization structure. The consequence is that older firms are unable to respond faster to unfavorable market conditions that may negatively affect returns and ipso facto market value.

The other control variable that reveals statistical significance is BETA. The result indicates that a percentage increase in BETA (our proxy for systematic and unsystematic risk) is associated with approximately a 7% decrease in market value. This result seems to agree with the conflict of interest perspective since related-party transactions are employed opportunistically; it will lead to high earnings volatility, litigations and regulatory sanctions. Thus risk averse investors would likely value firms with related-party loans negatively and price protect.

Conclusions

This paper investigates the consequences of related-party loans on the market value of DMBs in Nigeria over the period of five years following the adoption of IFRS. It reviews the two commonly held perspectives of related-party transactions – conflict of interest perspective and efficient contracting perspective - and argues that RPLs are used opportunistically in Nigerian quoted DMBs. It therefore predicts that the market will value RPLs negatively.

Using ordinary least square method of multiple regressions, the paper fails to find evidence in support of a negative association between related-party loans and market value. Instead, it provides strong empirical evidence that related-party loans are positively associated with market value of DMBs. The implication is that DMBs should grant more related party loans. This however should be done with caution given that NDIC has continued to express great concern over the rising incidence of insider-related loans in DMBs and the associated non-performing status of the insider-related credit. The DMBs should enhance their corporate governance practices since according to the CBN Governor, Godwin Emefiele, the financial industry still harbours weaknesses in corporate governance (Abioye, 2017). Weak corporate governance is associated with rising volume of non-performing loans in the DMBs (Sanusi, 2010).

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APPENDIX: List of deposit money banks in the sample.

S/N	DMB	S/N	DMB
1	Access Bank Plc	7	Sterling Bank Plc
2	Diamond Bank Plc	8	United Bank for Africa Plc
3	FCMB Plc	9	Union Bank of Nigeria Plc
4	Fidelity Bank Plc	10	Unity Bank Plc
5	Guaranty Trust Bank Plc	11	Wema Bank Plc
6	Stanbic-IBTC Plc	12	Zenith Bank PLc

PREDICTABILITY OF ACCOUNTING INFORMATION AND VALUE OF SELECTED QUOTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The global economy at the end of the second millennium witnessed the manifestations of important events such as globalization, the consequent dominance of the market economy and the spread of the knowledge economy, which resulted in economic developments and appearance of new products. Empirical studies have shown that all these may require expansion in the use of financial instruments. Several attempts have been made by past researchers to unravel possible causes of loss of investors' confidence, but only few have focused on the predictability of the market to determine the financial strength of shareholders. This study examined the effect of predictability of accounting information on quoted prices of deposit money banks in Nigeria. Ex-post facto research design was used for the study. The population of the study was ten (10) Deposit Money Banks listed on the Nigerian Stock Exchange as at 31 December 2017.The study adopted total enumeration sampling technique by obtaining data from the published annual reports of the sampled companies. Descriptive and inferential statistics were used for analysis of the data. The results showed that Book Value (BV) had positive effect on market share price (MSP) with $\beta=22.58>0, t_{(157)}=6.94$, p-value=0.000 $R^2=0.13$;ROA had positive effect on MSP with $\beta_{=}22.58>0, t_{(157)}=1.41, p=0.19, R^2=0.07$;Earnings Per Share (EPS) recorded positive effect on Market share price with $\beta_{=}0.83>0$, $t_{(157)}=9.13, p=0.000, R^2=0.04$;the results further showed that cash flow (CF) recorded positive effect on market share price with $\beta=1.14>0, t_{(157)}=11.53$, $p=0.000$, $R^2=0.16$. The combine effect showed that predictability of accounting information measured by BV and CF had positive effect on MSP($\beta=22.58>0$ & $0.06>0$) while ROA and EPS recorded negative effect ($-1.51<0$ & $-2.49<0$).Hence predictability of accounting information did not significantly affect market share price of selected deposit money banks in Nigeria with Adj.$R^2=0.08$,F-stat. of 0.95,p-value=0.63.The study concluded that predictability of accounting information does not influence market share price of deposit money banks. It was recommended that investors should recognize that book value and cash flow can predict the market value of share, while the management of these banks should ensure sustainable performance of the institutions

Introduction

The world witnessed at the end of the second millennium, the manifestations of important events such as globalization, the consequent dominance of the market economy and the spread of the knowledge economy, the removal of barriers to cross-border express including goods, services and investments as well as the evolution of financial markets and interdependence. These events resulted in economic developments, appearance of new products such as financial instruments (shares of companies, bonds, certificates of deposit and other items of the assets and liabilities of the other variety (Capkun,

Collins &Jeanjean, 2012).This may require expansion in the use of financial instruments, develop ways to manage financial risk in order to mitigate their effects and a rethinking of the traditional accounting concepts and measurement accounting on the basis of the cost of a number of assets, in revenue recognition, and the principle of conservatism that are essential assumptions and Postulates generally accepted accounting across periods of time (Iatridis, 2010).The published financial reports are important sources of information about the organization's performance which is available to external users. According to Arnold, Hope, South-worth and Kirkham (1994), there are at least two reasons why management should not be given a complete freedom to determine what accounting information to be included in the published financial statement despite the fact that they have access to information about all aspects of organizational activities. The first of the reasons has to do with information asymmetry. Whereas managers have access to information about all aspects of the organization's activities, others do not and therefore they could exploit their privileged position within the organization to further their own interest at the expense of others. The second reason is that of comparability.

Prior to the introduction of International Financial Reporting Standard (IFRS)/International Accounting Standards (IAS), what prevailed all over the world was nation's specific adaptation of the Generally Accepted Accounting Practice (GAAP), which was rooted in cultural, legal, economic and regulatory peculiarities of the countries. In Nigeria, for instance, the Nigerian Accounting Standards Board (NASB) (now Financial Reporting Council of Nigeria (FRCN)) came into being on September 9, 1982. It was the only recognized independent body in Nigeria, responsible for the development and issuance of Statements of Accounting Standards (SAS) for users and preparers of Financial Statement, investors, commercial enterprises and regulatory agencies of Government.To review the true value of a firm, there is a need for high-quality earnings, which serve as a signal of existing level of performance to market investors (Dechow&Schrand, 2010). As a result, more attention is given to sustainability and stability of quality reporting and future cash flows enabling several users to select contract firms, make investment and valuation decisions about listed corporations (Mashayekhi&Baziz, 2010) and, in turn, estimate its future prospects.According to Ezejelue (2001), the requirements of SAS are complementary to any disclosure requirements of the Companies and Allied Matters Act 1990 and related regulations. In events where there were no SAS standards on any issue of concern to accounting practitioners, recourse was then made to International Accounting Standards (IAS).In December 2010, following the approval of the Federal Executive Council, the Nigerian Accounting Standards Board (NASB) issued an implementation roadmap for Nigerian's adoption of IFRS which set a January 2012 date for compliance by publicly quoted companies and banks in Nigeria. The Central Bank of Nigeria (CBN) and the Securities and Exchange Commission also adopted this date for compliance and issued guidance compliance circulars to ensure full implementation of IFRS in Nigeria and as at today, Nigeria has fully migrated to IFRS.

Komolafe (2013) states that the journey to the adoption of IFRS in Nigeria started in July 2010, when the Federal Executive Council approved the Road map for Nigeria's adoption of the standards. This was followed with the enactment of the Financial Reporting Council of Nigeria Act in 2011, which led to the transformation of the Nigeria Accounting Standards Board to the Financial Reporting Council (FRC). The FRC among other things is charged with the responsibility of implanting the road map for adoption of IFRS in Nigeria (Komolafe, 2013).According to FRCN (2015), the chief objective of

financial statements is to portray the position and performance of the entity in question so that investors in equity and debt, among other stakeholders, can make credible and economic decisions based on accurate information regarding potential risks and returns. Nguyen and Do (2017) posit that the quality of financial statements must first be appropriate and honest, and then to improve the quality of information, the information will have to show the ability to compare and understand

Filip, Hammami, Huang, Jeny, Magnan and Moldovan (2018) argue that one major reason for IFRS implementation is to avail countries the opportunity to enhance their international stock market trading activities. Emmanuel and Shivakumar (2016) posit that IFRS benefits to investors are enormous as it brings improved quality of financial reporting, timeliness in financial reporting process compared to having and applying various local standards. The major reason for the collapse of some big corporations such as Enron, WorldCom, and AIG was creative accounting and manipulation of financial statements. In 2002, Enron, a major energy company, collapsed as a result of manipulation of accounting figures in relation to share price manipulation. In 2005, American International Group Insurance company (AIG) was investigated for accounting fraud and non-adherence to corporate governance issues. As a result of this scandal, the company lost over $45 billion worth of market capitalization.

Similarly, Eromosele (2015) posits that in Nigeria precisely October 2006, the board of directors of Cadbury Nigeria Plc. discovered "overstatement" in its accounts, which spanned for many years. The company lost N15 billion as a result of the financial manipulation.According to Chiejine(2010), on August 14, 2009, the Governor of the Central Bank of Nigeria (CBN) in exercising his powers as contained in Sections 33 and 35 of the Banks and Other Financial Institutions (BOFI) Act 1991, as amended, announced the firing of the Chief Executive Officers (CEOs) and the board of directors of five commercial banks. Forty-eight days later, on October 2, 2009 to be precise, the CBN announced additional sack of three bank CEOs and their respective boards of directors and in their stead placed CBN-appointed CEOs and directors due to non-adherence to corporate governance codes and distortion of the financial statements. Sequel to the aforementioned challenges, the study is motivated to examine whether predictability of accounting information has produced information on share price of deposit money bank after the adoption of IFRS, which is able to reduce manipulative and creative accounting. In total, eight bank CEOs and their respective board of directors were fired from their jobs. The affected banks were AfribankPlc, Platinum Habib Bank (PHB) Plc, Equatorial Trust Bank Plc, Finland Plc, Intercontinental Bank Plc, Oceanic Bank Plc, Spring Bank Plc and Union Bank Plc.

Eyenubo, Mohamed and Ali (2017) stated that the report should be understandable, relevant, reliable, and comparable. When the financial statements is misleading through creative accounting or earning management it will no longer represent the true and fair view of the financial performance and position of the reporting entity, which will go a long way in making the various stakeholders to take erroneous decisions and even suffer economy damages and hardship. In this circumstances, an accounting scandal or corporate fraud deemed to have been committed and globally, when financial inappropriate or corporate failure occurred, the auditors and accountants are being accused of either guilt of professional negligence of due care, unethical practice and compromise or collusion, this has been seen in many cases for example Enron, WorldCom, Lever Brothers Nigeria, Cadbury and a host of others. Investigations, into the Cadbury corporate fraud indicted Akintola Williams & Deloitte (AWD) of

falsifying its financial and accounting reports by inflating its profit figure by millions of Naira. Mmadus and Akomolafe (2014) stated another similar case to Cadbury's is that of Afribank Nigeria PLC. Afribank's financial reports presented high profits amid accusation by its former Managing Director that the Board of Directors conspired with its auditors to cook the books.

Although there has been research on Predictability of Accounting Information and Value in other parts of the world, but very little research on this topic has been done in Nigeria. Bessong and Charles (2012) carried out a comparative examination of the effect of fair value accounting and historical cost accounting on the reported profits, concentrating on manufacturing companies in Nigeria. Based on their findings, they concluded that the profit measurement method (i.e. method of accounting) adopted directly influences the amount calculated as depreciation, determines the amount charged as taxes and stipulates the amount paid as dividend from the reported profit of a given period. In the light of this, this study aimed at investigate the effects of Predictability on share price of quoted Deposit Money Banks in Nigeria (with international status) listed on the Nigerian Stock Exchange (NSE).

Statement of the problem.

Adeyemi and Fagbemi (2011) as cited in Filip, Hammami, Huang, Jeny, Magnan and Moldovan (2018) pointed out that the failures of corporate entities have been attributed to poor quality of financial statements. This has had an adverse and cumulative effect on financial reporting. According to Knott, Richardson, Rismanchi and Sen (2014), the usage of the fair value accounting as a measurement attribute for accounting standards has increased considerably in recent time. There has also been an evolution of financial markets and the development of complex financial instruments has even occurred with the passage of time. The decline of cost and transaction based model along with the rise of market-value (fair value) based model of financial reporting certainly has several implications for the role and properties of balance sheet measurement and income accounting as well. This shift in measurement paradigms has occurred due to the presumed belief relating to higher quality and decision relevance associated with market-based measures as opposed to cost based measures.

Eyenubo, Mohamed and Ali (2017) admonished that poor quality of financial statements are attributed to the failures and mortality of banks and other corporate entities. Published cases of the recent past, such as Enron, Satyam, WorldCom, Global Crossing, paramalat, Xerox, and some firms from Nigeria such as, Cadbury, NAMPAK, and Afri-bank of which one of the big four (4) auditing firms in Nigeria was indicted, these cases has drawn aggregate attention to the auditing profession.Adeyemi and Fagbemi (2011) opined that the failures of these corporate entities have been attributed to poor quality of financial statements. This has had an adverse and cumulative effect on financial reporting and the auditing profession. All these happenings around the globe have brought the question of trustworthiness and integrity of the auditing and accounting profession.According to Gadhia(2015), the value of a company is usually ascertained based on the markets values of its equity in the markets. Share prices of a company inform the public on the prospect of such stock hence, decisions to purchase or sales is determined. Price to book value multiple is one of the valuation multiples used to predict stock price of companies. Share prices of companies represent an important avenue that communicates the performance of the company to the outsiders and prospective investors. Investors and other security/investment analysts used certain indices to predict future stock price of companies for effective investment decisions. Studies suggested that book value does not predict market share price of firms. Porto, Costa and Watanabe (2017) opine that the result of accounting rules and

structural changes in the market have led more and more companies including financial houses to report negative book value. This has created broad confusion and problems for the famous value factor, and indexes or strategies which rely on it as a measure of cheapness. Negative equity companies are often written off as distressed. Over the past long years, financial ratios have attracted equity investors and there has been a remarkable interest in financial ratios since they have been used to predict stock returns. Öztürk and Karabulut (2018) opined that there are a lot of macroeconomic and firm specific factors that affect stock returns which make equity valuation much more difficult and complex than other securities. Hence, analyzing the factors that drive stock returns is a major concern and very important to investors and portfolio managers in stock markets. According to Arabahmadi and Arabahmadi (2013), one of the criteria to evaluate management ability of a company to gain return is assets return rate, with regard to existing resources. According to Fonseka, Rajapakse and Gao-Liang (2018) share price announcements are motivated by managers' desire to communicate information about the future prospects of the company. An under-valuation of the issuing company's stocks has affected many companies and impacts other companies in the same industry (contagion effects). The contagion effect suggests that a share announcement by one company positively affects the future prospects of competitor companies.

Mohammad (2016) asserts that excessive levels of current assets have hindered commercial banks realizing a substandard return on investment. However, Ahmadi (2017) pointed out that excessive level of current assets has had a negative effect on firm's share price, whereas a low level of current assets has also led to lowers of liquidity and stock-outs, resulting in difficulties in maintaining smooth operations which ultimately affects the share price of commercial banks. Oyedele and Adeleke (2018) suggested that maximizing shareholders' wealth depends on the tax policy of the company because of these shareholders would satisfy their purchasing and consumption patterns. Oyedele and Adeleke (2018) suggested that maximizing shareholders' wealth depends on the tax policy of the company because of these shareholders would satisfy their purchasing and consumption patterns. Ordu, Enekwe and Anyanwaokoro (2014) agreed that decision to pay tax have a notable impact on other decisions of companies such as financing and investment decisions. This has made virtually all organizations to strive to have an optimal dividend policy that maximizes the wealth of shareholders (Ordu, Enekwe & Anyanwaokoro, 2014). Oyedele and Adeleke (2018) admonished that cash capitalized into share prices has led to a depression of share prices that are frequently traded, and this also leads to higher future tax payments on shares at any rate. Oyinlola and Ajeigbe (2014) found evidence that cash flow indeed has a detrimental effect on share prices. Specifically, the price of shares that are more frequently traded increases relatively to that of shares that are less frequently traded on the announcement dates of cuts in cash flow.

Ullah, Saqib and Usman (2016) observed that cash flow is shown to depress share prices, particularly for firms whose shares are frequently traded. This however increases the cost of capital faced by firms, which in turn has negative repercussions on investment. Cash flow also distorts the signals that share prices send about the profitability of firms, as share prices are also affected by expectations of future turnover volumes and cash flow rates. According to Mironov (2013), firms have tried to increase the impact cash flow has on share price by using cash inflow strategies. However, in the view of Duke, Ikenna and Nkamare (2015), cash inflow strategies have led to significant cash utilization, which in turn, increases firm value. However, such strategies have been associated with detrimental and

significant costs, such as expected penalties and planning, agency, and reputation costs. The interaction between cash flow and share price of quoted companies have not been firmly established by researchers (Adesina, Uwuigbe, Uwuigbe, Asiriuwa&Oriabe, 2017)Therefore, this study focused on investigating the effect of predictability of accounting information on share price of quoted commercial banks in Nigeria.

The Research Objective:

The study focused on the Predictability of Accounting Information and value of selected quoted commercial banks in Nigeria. The Specific objectives were stated to:

i. examine the influence of book value on market share price of selected quoted deposit money banks in Nigeria;
ii. determine the impact of return on assets on market share price of selected quoted deposit money banks in Nigeria;
iii. investigate the role of earnings per share on market share price of selected quoted deposit money banks in Nigeria;
iv. determine the impact of cash flow on market share price of selected quoted deposit money banks in Nigeria;
v. evaluate the effect of predictability of accounting information on market share price of selected quoted deposit money banks in Nigeria.

Research Hypotheses

The following hypotheses were tested:

H_{01}: Book value has no significant influence on market share price of selected quoted deposit money banks in Nigeria.

H_{02}: Return on Assets has no significant impact on market share price of selected quoted deposit money banks in Nigeria.

H_{03}: There is no significant effect of Earnings per share on market share price of selected quoted deposit money banks in Nigeria.

H_{04}: Cash flow has no significant effect on market share price of selected quoted deposit money banks in Nigeria.

H_{05}: Predictability of accounting information has no effect on market share price of selected quoted deposit money banks in Nigeria

Literature Review/Theoretical underpinning

Conceptual Review.

Predictability

To review the true value of a firm, there is a need for high-quality earnings, which serve as a signal of existing level of performance to market investors (Dechowand Schrand., 2010). As a result, more attention is given to sustainability and stability of quality reporting and future cash flows enabling several users to select contract firms, make investment and valuation decisions about listed corporations (Mashayekhi & Baziz, 2010) and, in turn, estimate its future prospects. The use of accounting-based attributes such as predictability, accruals quality, persistence, earnings management and smoothness is widely supported (Srinidhi, Gul&Tsui, 2011). Earnings management can be described as the use of certain accounting methods, changing methods by the avenue of

speeding up or delaying firm expenditures or revenue, or other techniques solely tailored to manipulate earnings (Uwuigbe, Uwuigbe&Okorie, 2015). The ability of current earnings to predict future cash flows is regarded as cash flow predictability, thus, quality earnings should be highly linked with future cash flows (Atwood,Boniface & Fenny 2010). Meanwhile, Oluoch and Gichaiya (2015) indicated higher persistent earnings for medium and larger banks than small banks.

Value Relevance

According to Brown (1994), the term value relevance often refers to long window association studies recognizing that accounting information is not the earliest source of information. While information content studies argue whether the release of new information (or news) causes changes in investor's expectations over short windows (to control for other value relevant events), no causality is expected in value relevance studies as market returns over long windows would reflect more information from competing sources, which is known as price leads earnings. When prices anticipate earnings, share prices reflect more information about firms' future cash flows from alternative sources and hence the portion of unexpected earnings from the total announced earnings would be lower. Value relevance studies recognize the evidence indicating that prices lead earnings by looking back the other way from information content studies, which assume that earnings announcements drive changes in share price.Accounting information is relevant if it is capable of making a difference in decision made by investors; even if already know from other sources (SFAC No.8, FASB, 2010, paragraph QC6). According to Barrak (2011), the concept- value relevance is coined from two key words: value and relevance. Taking it one after another, the definition of the word value is profession or discipline specific. For instance, 'Economic Value' is the worth of a good or service as determined by people preferences and the tradeoffs they choose to make given their scarce resources or the value the market places on an item By implication, irrespective of the nature of the market, the economist equates value to price.

Book Value (BV)

According to Filip, Hammami, Huang, Jeny, Magnanand Moldovan(2018), in accounting, book value is the value of an asset according to its balance sheet account balance. For assets, the value is based on the original cost of the asset less any depreciation, amortization or impairment costs made against the asset. According to Al-Shubiri (2010), traditionally, a company's book value is its total assets minus intangible assets and liabilities. Malhotra and Tandon (2013) opine that in practice, depending on the source of the calculation, book value may variably include goodwill, intangible assets, or both. The value inherent in its workforce, part of the Intellectual capital of a company, is always ignored. Almumani (2014) assert that when intangible assets and goodwill are explicitly excluded, the metric is often specified to be tangible book value. Almumani (2014) clarifies that in the United Kingdom, the term net asset value may refer to the book value of a company.

Return on Assets

According to Al-Masum and Johora (2015), a better indicator of bank profitability is provided by return on assets and measures the profitability from the point of view of the overall efficiency of a bank's utilization of total asset. They opine that return on assets is often accepted as the most comprehensive accounting measure of a bank's overall operating performance. Leuz, and Wysocki (2016) state that return on assets is an indicator of how profitable a company is relative to its assets. In

other words how well a company does generate earnings from usage of its assets.According to Arkan (2016), comparison of this ratio with other companies is useful mainly with companies in the same industry but not so much in cross-industry comparison

Earnings per share (EPS)

The term earnings per share (EPS) represents the portion of a company's earnings, net of taxes and preferred stock dividends, that is allocated to each share of common stock. The figure can be calculated simply by dividing net income earned in a given reporting period (usually quarterly or annually) by the total number of shares outstanding during the same term. Because the number of shares outstanding can fluctuate, a weighted average is typically used (Besely 2006:20)

Calculated as:

$$= \frac{\text{Net Income} - \text{Dividends On Preferred Stock}}{\text{Average Outstanding shares}}$$

Earnings per share are generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio. (Besely 2006: 20). EPS is a carefully scrutinized metric that is often used as a barometer to gauge a company's profitability per unit of shareholder ownership. As such, earnings per share are a key driver of share prices. It is also used as the denominator in the frequently cited P/E ratio.

Quality of Financial statements

According to Financial Accounting Standards Board (FASB, 1999, FASB, 2010) and International Accounting Standards Board (IASB, 2010), the main objective of financial reporting is to provide high quality information for reporting units, which can be used for making economic decisions. Thus providing high-quality information is important, positive influence to the existing capital providers and potential stakeholders as well as the implementation of investment, making credit decisions, allocation of resources and contributes to improving the overall efficiency of the capital market (IASB, 2010).Financial reporting quality is defined as the financial disclosure statements that will disclose the financial status in the annual report and strengthen the investors' confidence in making credible decisions about their organizations. The chief objectives of financial reporting is to portray the position and performance of the entity in question so that investors in equity and debt, among other stakeholders, can make credible and economic decisions based on accurate information regarding potential risks and returns (Deloitte, 2012; FRCN, 2015). Good corporate governance is a product of high financial reporting quality that would reduce the fraudulent disclosures of report from the annual financial statements (Nyor, 2013)

Share Price

A share price is the price of a single share of a company's stock. Share prices in a publicly traded company are determined by market supply and demand. Share price is volatile because it largely depends upon the expectations of buyers and sellers. On a long term perspective, the empirical study conducted by Beatty and Liao (2014) has proven that share price is directly related to the earnings of the firm as well as to the dividends declared by the firm. However, when viewed over short periods, the relationship between share price, earnings, and dividends could be irrational.

According to Olaoye and Owoniya (2017), share price is the market value of the security in the free financial capital market for equity. Share price is usually used as a benchmark to gauge firm's performance and its variations as a pointer of the economic status, or otherwise, of a firm hence the need to be well-known with the indicators that could negatively affect share prices. Investment in equity shares is one of the major ways of investment that yields substantial returns to investors. It is also a financial capital source requirement of firms.

Theoretical Review:

Two theories anchored this study which were the stakeholder theory and efficient market hypothesis

The stakeholder theory was propounded by Freeman (1984). The underlying assumption is that a business creates value for stakeholders and not only the shareholders. The theory balances the divergent interest between internal and external stakeholders. It further aligns the interest of the critical stakeholders with interests of external and passive shareholders. It addresses the question of what groups of stakeholders deserve and require management's attention. Stakeholder was presented as having broad and narrow definitions. Broad definition focused on any group or individual who is affected by or can affect the achievement of organization's goal. Narrow definition focused on any group that is vital to the survival and success of the corporation (Uribe, 2018).A key tenet of the theory holds that firms depend on stakeholders for survival because stakeholders provide critical material or immaterial resources necessary for a firm's success (Sumedrea, 2016). For example, shareholders and equity investors provide capital; employees provide expertise, skills, and effort; suppliers provide material inputs or immaterial knowledge; communities provide infrastructure and location; customers provide loyalty and positive word-of-mouth; and the natural environmental provides ecosystem services. If stakeholders withdraw resources in whole or in part, a firm may be unable to continue as a going concern or can suffer financial distress (Baumfield, 2016; Oloffson, 2017). The theory provides theoretical basis for explaining how diverse information needs of numerous individuals and institutions within and outside the entity are met through sound compliance with qualitative accounting standards. Thus, the theory was adopted to provide theoretical explanation for the objective of this study in that, if managers have interest of all stakeholders at heart, they should comply fully with IFRS mandatory demands as instructed by the stock market regulatory bodies.

The efficient market hypothesis propounded by Eugene Fama in 1965.The theory stipulates that stock prices will always reflect all information that can be found in the market which will affect the fair value of the trading in the stock. He asserted three degrees in the market with the weak form that assumes that stock prices with all available information is not affected by the past price performance. The semi-strong form postulates that all available information have been factored in to the prices, hence analysis is not needed to choose stocks. The strong form says that all public and private information have been incorporated into the current market prices of the stock. Hence this form reflects a perfect market. Since this study is based on predictability of accounting information the strong form of efficient market hypothesis is fully connected.

Empirical Review:

Nyabundi (2013) examined the relationship between share prices and dividends, earnings and book values for companies listed on the Nairobi Securities Exchange (NSE) in Kenya for the six years period between 2005 and 2010. Using panel data analysis the study found evidence that there is a positive and significant relationship between stock prices and dividends, earnings and book values for the firms

listed on the NSE. The study established that dividends have more explanatory power compared to earnings and book values.Dung (2010) studied the Vietnamese stock market and found that earnings and book value correlate the most with stock prices at the end of financial year adjusted for errors. This is a sign that financial statements information is reflected in prices with a time lag.Kar and Soni (2010) examined the impact of mergers and acquisitions on performance of Indian corporate enterprises in the post liberalisation period from 1990-91 to 2000-01. They indicated that turnover of the companies increased after the mergers and acquisition. Profit after tax and book value of the companies increased post mergers and acquisitions during 1994-98 and 1994-99 respectively.

Al-Kassar and Dannoun (2016) combined earnings and book values in an option style valuation model and showed that when the earnings-to-book value ratio is high, earnings is the more important determinant while when the ratio was low, book value is the more important determin-ant. They argued that a high earnings to book value ratio signalled that the firm was likely to continue its current activities successfully; hence earnings played a relatively more important valuation role. Conversely, when the earnings-to-book value ratio was low, the firm was more likely to employ its resources to alternative uses; therefore, the book value was a more important value driver.Salaudeen, Ibikunle and Chima (2015) examined the role of book value under Ohlson's model and concluded that a valuation model based on earnings and book value performs modestly better than a valuation model based on earnings alone.Salaudeen, Ibikunle and Chima (2015) examined the role of book value under Ohlson's model and concluded that a valuation model based on earnings and book value performs modestly better than a valuation model based on earnings alone.Eyenubo, Mohamed and Ali (2017) investigated the relationship between macroeconomic variables and of share prices for companies in Zimbabwe stock exchange from 1993 to 1994. Using dividend discount model, error-correctional model and multi-factor model, it was concluded that, share price movements are caused by movements of monetary policies and market interest rate. A similar study was conducted by Hayes (2014) to investigate the fundamental factors affecting long-run price movement. Using financial statements data of listed firms in Karachi stock exchange from 1981 to 2000, Hayes (2014) found that dividend payout ratio, size and dividend yield explains about half of the variations in share price movements.Tsoncheva (2014) reinvestigated the changes in value relevance of earnings book values and cash flows in security prices over time. Employing data from 1961 to 2005 extracted from Compustat primary, secondary and tertiary full coverage and research annual industrial files. Findings from the study showed that cash flow provides incremental information content beyond earnings and book values in security prices.

In the same vein, Gharaibeh (2014) avowed that earnings, cash flows and book values are significantly influences share prices. They also observed that value relevance of accounting information has improved and that the factors of firm size and branch of activity have not improved the value relevance of accounting information in the Tunisian Stock Exchange following the accounting reforms.Ogboi and Unuafe (2013) carried the empirical evidence on the magnitude of the relationships between credit risk and bank's profitability in Nigeria. Their study used a time series and cross sectional data from 2004-2009 obtained from selected banks annual reports and accounts in Nigeria. Secondary data for the study were obtained from the published financial statements of six out of twenty one banks operating as at December 2009 which were selected by purposive sampling technique. They examined the impact of credit risk and capital adequacy on banks financial performance in Nigeria. Panel data model was used to estimate the relationship that exists among loan loss provisions

(LLP), loans and advances (LA), non-performing loans (NPL) and capital adequacy (CA) which were the independent variables and return on asset (ROA) as the dependent variable to measure the profitability of the banks. The findings showed that sound credit risk management and capital adequacy impacted positively on bank's financial performance with the exception of loans and advances which was found to have a negative impact on banks' profitability during that period. By using panel data was possible to include time effects as well as to control for individual heterogeneity, which is captured by firm specific fixed or random effects components, that leads to biased results when neglected in cross section or time series estimations.

Methodology

The study employed *ex-post facto* research design because the study adopted already published data on all the variables (independent and dependent) measured. This research design was chosen because it enabled the researcher to have general view and findings about listed deposit money banks under the study of predictability of accounting information in terms of book value, return on assets, earnings per share and cash flow, and their effect on of share price of listed banks in Nigeria. The population of the study consisted of 10 listed and classified as International banks by Central Bank of Nigeria in the Nigeria Stock Exchange as at 31 December 2017 as shown in table 3.1 below:

Table 3.1: Commercial banks and their Authorization status

International Authorization	National Authorization	Regional Authorization
ACCESS BANK	ECOBANK	SUNTRUST BANK
DIAMOND BANK	STANBIC IBTC BANK	PROVIDUS BANK
FIDELITY BANK	STERLING BANK	
FIRST BANK	UNITY BANK	
GUARANTY TRUST BANK	WEMA BANK	
SKYE BANK	CITIBANK	
UNION BANK OF NIGERIA	FSDH MERCHANT BANK	
UNITED BANK FOR AFRICA	HERITAGE BANK	
ZENITH INTERNATIONAL BANK	KEYSTONE BANK	
FIRST CITY MONUMENT BANK	RAND MERCHANT BANK	
	STANBIC IBTC BANK	
	STANDARD CHARTERED BANK	
	JAIZ BANK	

Source: CBN, 2017

These banks have been selected because they are listed on the Nigerian Stock Exchange and are given international status by CBN. They have also attained one hundred billion naira mark on their respective shareholders' funds (CBN, 2016).The sampling technique for the study was total enumeration as all elements of the population were chosen for purpose and intent. Justification for using this sampling technique is that all the elements in the population of study were considered and this allowed for a balanced set of findings. Data used were obtained from Central Bank of Nigeria annual reports and statistical bulletin, banks audited accounts, National Bureau of Statistics, and Transparency International. Reliability of the data was based on the statutory audit of the financial

statements and the opinions of the auditor.Fixed and random effect regression analyses were used in presenting the analysis of the empirical results. The major reason for the use of fixed and random analysis was that it appeared to be the best approach in panel analysis of which this study concentrated on. Descriptive and inferential statistics were used for data analysis.The research adopted 5% level of significance in the study

Model Specification

Y = f(X)

Where:

Y= Share Price

X= Predictability of Accounting information

Functional form of the relationship between the dependent and independent variables is written as:

MSP = *f* (BKV, ROA, EPS, CSF) ---------- Eqn 1

The econometric model specified below

$MSP_{it} = bo + b_1BKV_{i,t} + b_2ROA_{i,t} + b_3CF_{i,t} + b_4EPS + b_{i,t}$ ---------- Eqn 2

Where:

MSP = Market Share Price

BKV = Book Value

ROA = Return on Assets

EPS = Earnings per share

CSF = Cash flow

MSP=f(BKV)

$MSP_t = \beta_0 + \beta_1BKV_{at} + e_t$…….. (Model 1)

MSP= f(ROA)

$MSP_t = \beta_0 + \beta_2ROA_{at} + e_t$…….. (Model 2)

MSP=f(EPS)

$MSP_t = \beta_0 + \beta_3EPS_{at} + e_t$…….. (Model 3)

MSP=f(CSF)

$MSP_t = \beta_0 + \beta_3CSF_{at} + e_t$…….. (Model 4)

General Model

MSP=f (BKV, ROA, EPS, CSF)

$MSP_t = \beta_0 + \beta_1BKV_t + \beta_2ROA_t + \beta_3EPS_t + \beta_4CSF_t + e_t$ …….(Model 5)

The above equations were considered in this study.

β_0 = Constant term

$\beta_1 - \beta_5$ = Coefficient of variables adopted in the study

Results and Discussion

Descriptive Statistics

Table 4.1 Descriptive statistics

Variables	Mean	Std. deviation	Minimum	Maximum
BV	1.085	1.228	-0.908	6.03
ROA	1.369	1.940	-6.425	8.675
EPS	4.892	42.164	-394.32	110.7
CF	1.577	2.356	-8.413	6.531
MSP	1.384	0.252	0.828	2.916

Source: Researcher's Study, 2018 *Observations: 157

Interpretation

Table 4.1 Specifically, the mean values stood at 1.085, 1.369, 4.892, and 1.577 for BV, ROA, EPS, and CF respectively while the mean value shows the summary statistics of all the variables obtained from the sampled banks for the period under study. Selected quoted deposit money banks stood at 1.384. The result shows evidence of variation in the minimum and maximum values of all the variables under study. The maximum values of BV, ROA, EPS, and CF stood at 6.03, 8.675, 110.7, and 6.531 respectively, while their minimum values showed -0.908, -6.425, - 394.32, and -8.413 respectively. It showed that some banks recorded losses.hence negative minimum values of BV, ROA, EPS, and CF. Also, the maximum values of MSP stood at 2.916 while their minimum value showed 0.828 indicating that, some banks in some years had fair value or higher returns over their investments than loss hence the negative minimum value of MSP.

Inferential Statistics:

Research Objective 1: examine the influence of book value on share price of selected quoted commercial banks in Nigeria.

Research Hypothesis 1 ($H_0$1): Book value has no significant influence on share price of selected quoted commercial banks in Nigeria

Test of Hypothesis one

Table 4:2 Regression Analysis for Hypothesis one

Variable	Cofficient Standard	Error	t-statistics	p-value
Constant	8.69	0.49	17.62	0.000
	1.03	0.15	6.94	0.000

Level of Significance =0.05

R^2=0.13

Dependent variable –MSP; Observations :157

Source: Researcher's Study, 2018

Model 1: *MSP= 8.69 + 1.03BV…*

The result of the regression analysis on Table 4.2 shows the effect of Book Value (BV) on market share price (MSP) of selected deposit money banks in Nigeria. The regression estimates revealed that BV has positive effects on MSP. This is indicated by the sign of the coefficient of 1.03. This shows that one percent increase in Book Value (BV) will lead to 1.03 percent increase in Market Share Price (MPS). R^2 of 0.13 shows that the composition of book value in market share price is 13%.The balance of 87% is as a result of factors not considered in this study. At the significant level of 0.05,the t-statistics is 6.94 while the p-value of the t-statistics is 0.000 which is less than 0.05 adopted level of significance. Thus, the null hypothesis not accepted,which means that book value has significant influence on market share price of selected deposit money banks in Nigeria.

Test of Hypothesis Two ($H_0$2)

Research Objective 2: Determine the impact of return on assets on market share price of selected quoted commercial banks in Nigeria.

Research Hypothesis 2 ($H_0$2): Return on Assets has no significant impact on market share price of selected quoted commercial banks in Nigeria.

Table 4.3 Regression of Hypothesis two

Variable	Cofficient Standard	Error	t-statistics	p-value
C	104.70	0.49	1.80	0.10
ROA	22.58	0.15	1.41	0.19

R^2:0.07

Dependent Variable: MSP; Obs.: 157 Level of significant :0.05

Source: Researcher's Study, 2018

Model 2MSP= *104.70 + 22.58ROA*

.The result of the regression analysis in Table 4.3 shows the effect of Return on Asset (ROA) on market share price (MSP) of selected quoted deposit moneybanks in Nigeria. The regression estimates revealed that ROA has positive effect on MSP. This is indicated by the sign of the coefficient that is 22.58.This shows that 1% increase in Return on Assets will result into 22.58 Increase in Market Price Per Share. However, the probability value of the t-statistics of 1.41 for ROA was 0.19 higher than 5% level of significance, which shows that this effect is statistically insignificant.The adjusted R-squared showed that about 7% variations in MSP can be attributed to ROA while the remaining 93% variations in MSP are caused by other factors not included in this model. Hence, the coefficient of determination shows that the model has a weak explanatory power. Thus, the null hypothesis was not rejected. It means Return on assets has an insignificant effect on the Market Share Price (MSP) in the selected quoted deposit money banks in Nigeria.

Test of Hypothesis Three ($H_0$3)

Research Objective 3:Investigate the role of earnings per share on market share price of selected quoted commercial banks in Nigeria.

Research Hypothesis 3 ($H_0$3): Earnings per share have no significant effect on market share price of selected quoted commercial banks in Nigeria.

Table 4.3 Regression of Hypothesis two

Variable	Cofficient Standard	Error	t-statistics	p-value
C	1.128	0.44	2.54	0.01
ROA	0.83	0.09	9.13	0.000

Dependent Variable:MPS;Obs:157 Level of Significance :0.05
R^2
Source: Researcher's Study, 2018
Model 3:MSP= 1.128 + 0.83EPS …
The result of the regression analysis in Table 4.4 shows the effect of Earnings per Share (EPS) on Market share price (MSP) of selected quoted deposit money banks in Nigeria. The regression estimates revealed that Earnings per Share have positive effect on Market share price of selected quoted deposit money banks with a coefficient of 0.83. The coefficient of the Earnings per Share revealed that one unit increase in the variable affect 0.83 unit increase in the mean of market share price. Additionally, the R-squared showed that about 4% variations in market share price can be attributed to EPS, while the remaining 96% variations in market share price are caused by other factors not included in this model. Hence, the coefficient of determination shows that the model has a weak explanatory power. However, the probability value of the t-statistics 9.13 stood at 0.000 less than 0.05 level of significance. Thus, null was not accepted. This means that earnings per share have influence on the market share price ed deposit money banks in Nigeria.

Test of Hypothesis Four ($H_0$4)
Research Objective 4: Determine the impact of cash flow on market share price of selected quoted deposit money banks in Nigeria.
Research Hypothesis 4 ($H_0$4): Cash flow has no significant effect on market share price of selected commercial banks in Nigeria.

Table 4.5 Regression Analysis for Model 4

Variable	Cofficient Standard	Error	t-statistics	p-value
C	14.94	0.41	36.05	0.000
ROA	1.14	0.10	11.53	0.000

R^2 Level of Significance =0.05
Dependent Variable: MPS; Obs-157
Source: Researcher's Study, 2018
Model 4:MSP= 14.94 + 1.14CF

Interpretation of diagnostic tests
The result of the regression analysis on Table 4.5 shows the effect of cash flow on market share price of selected commercial banks in Nigeria. The regression estimates show that cash flow influences market share price of selected quoted deposit money banks with a coefficient of 1.14. The sco efficient

of cash flow indicates that a 1 unit increase in Cash flow will lead to 1.14 unit increases in the mean of market share price. The R-squared showed that about 16% variations in Market share price can be attributed to Cash flow while the balance of 84% variations in Market share price are influenced outside this model. Hence, the result shows that the model has a weak explanatory power. However, the probability value of the t-statistic of 11.53 stood at 0.000 which is less than 0.05 level of significance.Thus, the null hypothesis was not accepted. Cash flow has significantly affect market share price of selected quoted deposit money banks in Nigeria.

Test of Hypothesis $H_0$5

Research Objective 5: Evaluate the combined effect of predictability of accounting information on market share price of selected quoted deposit money banks in Nigeria.

Research Hypothesis H_{05}: Predictability of accounting information has no combined effect on market share price of commercial banks in Nigeria.

Variable 4.6 Regression Analysis for Model 5

Variable	Cofficient Standard	Error	t-statistics	p-value
Constant	104.70	58.70	1.80	0.100
BV	22.58	16.07	1.41	0.19
ROA	-1.51	0.94	-1.61	0.14
EPS	-249	8.75	-0.290	0.78
CF	0.06	0.03	1.17	0.12

Adjusted R^2:0.08 Level of Significance=0.05
F-Statistic :0.95
P-value:0,63
Dependent Variable:MPS;Obs:157
Source: Researcher's Study, 2018

Model 5:MSP=104.70+22.58BV-1.51ROA-2.49EPS+0.060CF.

The result of the regression analysis in Table 4.6 shows the effect of Predictability of accounting information measured by Book Value (BV), Return on Asset (ROA), Earning Per Share (EPS), and Cash flow (CF) on market share price of selected quoted deposit money banks in Nigeria. The regression estimates revealed that both BV and CF have positive effects on MSP, while ROA and EPS have negative effects. This is indicated by the signs of the coefficient, that is: BV =22.58, ROA= -1.51, EPS= -2.49, and CF= 0.06.The adjusted R-squared showed that about 8% variations in MSP can be attributed to Book Value, Return on Asset, Earning Per Share, and Cash flow. The balance of 92% on MSP are caused by other factors outside this model. This is confirmed by the probability value of the F-statistic of 0.95 which is 0.63 higher than 5% level of significance . This shows that the regression model was insignificant and that all the independent variables (Predictability of accounting information measures) were not jointly significant in explaining the variation in the dependent variable (MSP). Furthermore, in the analysis book value recorded the highest beta value BV=22.58>0), than cash flow CF= 0.06>0), return on asset ROA = -1.51 <0), and earning per share EPS= -2.49<0 respectively. Although the proxies of predictability of accounting information measures in the model (block book

value, return on asset, earning per share, and cash flow were found not to besignificant, the fact that two of the measures had a positive beta coefficients could be assessed as an important outcome. Therefore, null hypothesis five that predictability of accounting information has no combined effect on market share price of selected quoted money deposited banks in Nigeria is accepted. Thus, predictability of accounting information has an insignificant combined effect on the market share price of selected quoted money deposited banks in Nigeria.

Discussion of Findings

This study was set out to examine thePredictability of Accounting Information and value of selected quoted deposit banks in Nigeria.The Summary of the results on descriptive analysis showed negative minimum values of the performance indices indicating that some banks made loss during some accounting yearunder study. Few banks expended more cash in operating activities than receipt hence the negative minimum value of Operating Cash flow. The variable shows wide dispersion from the mean is the Earnings Per Share (EPS) among the independent and dependent variables which reveals fluctuation over the years of sampled banks in Nigeria.

The result of the regression analysis of model 1 showed the effect Book Value (BV) on market share price (MSP) of selected deposit money banks in Nigeria. The regression estimates revealed that BV has positive effects on MSP with the coefficient of 22.58. This is indicated by the sign of the coefficient ($p<0.05$). Also, the probability value of the t-statistics for all independent variables stood at 0.000 which shows that they are all statistically significant at 5% level of significance. This result agreed witha *priori* expectation that the probability value of the t-statistic recorded 0.000 which shows that the regression result is statistically significant at 5%. Therefore, book value has significant influence on market share price of selected quoted deposit money banks in Nigeria. This result is in line with the findings of Tsoncheva (2014) that cash flow provides incremental information content beyond earnings and book values in security prices. Also, the finding was in agreement with the finding of Gharaibeh (2014)that earnings, cash flows and book values are significantly influences share prices. They also observed that value relevance of accounting information has improved and that the factors of firm size and branch of activity have not improved the value relevance of accounting information in the Tunisian Stock Exchange following the accounting reforms. The findings were also supported by Andriantomoand Yudianti (2013) whose study found thatearnings and book values simultaneously are relevant information in explaining stock prices. The finding is also consistent with Pervan (2012) using a sample of 97 corporations analyzed the value relevance of accounting information on the capital markets of Southeast Europe. Documented evidence from the research indicated that accounting information are value relevant on all the observed markets. In addition, the study observed that there were certain differences in the value relevance among countries. However, this finding seems to go against the finding of Mohammadi*et al.* (2012) who found that there is no relationship between accounting information and companies' value.

The result of the regression analysis of model 2 shows that ROA has negative effect on MSP with coeeficient -1.51. However, the probability value 0.19 of the t-statisticsfor ROA was higher than 5% level of significance, which shows that this effect is statistically insignificant. This shows that the regression result is statistically insignificant. Thus, Return on assets has an insignificant effect on the Market Share Price (MSP) in the selected quoted deposit money banks in Nigeria. This result does not

align with the findings of Ogboi and Unuafe (2013), Callao, Jarne and La´ınez (2007), and Eccher*et al.* (1996) that Return on Assets have a significant effect on Market Share Price.

In addition, the result of the regression analysis of model 3 shows that Earnings per Sharehave negative effect on Market share price of selected quoted deposit money banks. However, the probability value of the t-statistics 0.000 waslower than 5% level of significance, which shows that this effect is statistically significant. This shows that earnings per share have significant effect on market share price of selected quoted deposit money banks in Nigeria. Since EPS is one of the measures of profitability, this result is consistent with the findings of Arif(2012) that earning per share has effect on market share price. Also, the finding of this study is in line with findings of Malhotra and Tandon (2013) who investigated the factors influencing share using a panel data of 95 firms for the period of 2007-2012 listed in National stock exchange. The study found that the book value, earnings per share and price-earnings ratio accounts for 51.6% of share price movements. The study suggested that a firm's manager can maximize their share prices by watching their book value, earnings per share and price-earnings ratio. In another attempt to identify factors that determine share price movements. Similarly, the finding is supported by those of Gatua (2013) that EPS correlated to share prices, implying selected variables cannot be used to predict share prices movements. Furthermore, the finding of Almumani (2014) support the finding of this study that dividend per share, earnings per share, book value, price earnings are major determinants of share prices. The researcher concluded that, dividend per share, earnings per share, book value, price earnings can be used to forecast share prices.

Furthermore, the result of the regression analysis of model 4 shows that cash flow have positive effect on market share price of selected quoted commercial banks. This is indicated by the signs of the coefficient 0.06. Also, the probability value of the t statistics for cash flow stood at 0.000, which shows that this effect is statistically significant at 5% level of significance. Thus, Cash flow has significant effect on market share price of selected quoted deposit money banks in Nigeria. This result concurs with the study by Akinyomi (2014) which established a positive relationship between cash flow and market share price. A firm can become insolvent when it is not capable either of generating enough cash from internal sources or obtain from external sources for sustaining operating, investment and financing activities of the firm. The findings were in agreement with the findings of the study by Zott (2003), linking Cash flow directly to financial performance and stating their influence market share price. Bowman and Ambrosini (2016), support the direct effect of CF on market share price, whereas Helfat*et al.,* (2007) argue that CF do not lead to profitability but influence market share price.

Conclusion

Based on the data analysis and the research findings, the following conclusions can be deduced empirically: The mean values of the summary statistics of all variables obtained from the sampled banks for the period under study indicated that some banks made loss during some accounting year under study, hence the negative minimum values of BV, ROA, EPS, and CF. Also, the maximum values of MSP stood at 2.916 while their minimum value showed 0.828 indicating that, some banks in some years had fair value or higher returns over their investments than loss hence the negative minimum value of MSP. The results show that individually Book value (BV), Earnings Per Share (EPS), and Cash Flow (CF) have significant effect on Market Price Per Share (MPS). Return on Assets (ROA) does not significantly affect Market Price Per Share(MPS).The combined effect do not have significant effect on

MPS. The study concluded therefore that predictability of accounting information on market price can be done using Book Value, Earnings Per Share and Cash Flow.Return on Assets has no predictability value because it is based on internal efficiency of capacity utilization while others depend on external factors.

Recommendations

Based on the findings of this study, the following recommendations were made:

The need for regulatory bodies, as it relates to the Nigerian banking sector (that is, the Central Bank of Nigeria (CBN), security and exchange commission (SEC), should note that there may be some circumstances whereby the major agent of change or influence in variables that determine market share price may not truly predict the share prices of banks such as the study realizes in the return on assets, more so, they should ensure that banks report their losses when incurred and put in place measures that will enforce strict adherence to principles and procedures of laid down standards, as well as enhance investors' protection.

Specifically, the descriptive statistics indicated that some banks made loss during some accounting year under study, hence the negative minimum values of BV, ROA, EPS, and CF. Also, the maximum values of MSP stood at 2.916 while their minimum value showed 0.828 indicating that, some banks in some years had fair value or higher returns over their investments than loss hence the negative minimum value of MSP, In other words, banks should imbibe the culture of reporting their losses as soon as they are incurred. This will enable analyst and potential investors among other stakeholders to know or have an idea of the financial worth or position of the Bank at every point in time. More so, this will enable investors to take its economic and informed decision. However, the management of these organizations should thus ensure that losses incurred are recognized and reported as soon as incurred.

Accounting conservatism practices should be completely reduced or put on proper check curt and not to be extremely practiced in banks. This is because, as good as it is, its extreme practice may be fraudulent. Dubious managers/accountants may capitalized on it and not disclose some vital information which may mislead investors and other stakeholders. Hence, management of organizations should be sensitive to the extent of accounting conservatism practice in their organization.

.Since predictability of accounting information has significant effect on share price of quoted money deposits banks for the sampled companies over the sampled period, every avenue to ensure a qualitative financial reporting need to be explored. The regulatory agencies such as Security and Exchange Commission (SEC) and Financial Reporting Council of Nigeria (FRCN) are urged to further foster compliance of rules and regulations governing corporate entities. There is more to ensuring compliance than just enacting the laws. Unbiased sanctions can be explored for defaulters.

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FIRM CHARACTERISTICS' AND ACCOUNTING CONSERVATISM

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Abstract

The practice of accounting conservatism in financial reporting has implications firms' stakeholders. This study therefore investigated firm attributes that affects conservative accounting reporting. As empirical literature on this topic using data from Nigeria is less abundant, to address this question, a sample of 21 listed manufacturing firms from 2011 to 2017 was utilized. Firm characteristics were measured using firm size, leverage, profitability and board size. Accounting conservatism was measured using negative accruals. Generalized Least Square regression model was used to estimate the parameters of interest. The results showed that leverage has significant positive effect on accounting conservatism. On the contrary, profitability has significant negative effect on accounting conservatism. It is therefore recommended that Securities and Exchange Commission should encourage a mix of debt and equity capital to improve reliability of financial reporting.

Keywords: Accounting Conservatism; Leverage; Firm size; Board Size

Introduction

This paper aims at giving a contribution to the extant literature on the determinants of accounting conservatism. Although prior studies focus mostly on corporate governance determinants, this study includes firm's specific determinants accounting conservatism. Managers have personal incentives to engage in conservative accounting practice that may not be in the interest of shareholders thereby creating agency problem.

Accounting conservatism is a fundamental feature of quality financial statements because it enhances the reliability of financial statements by facilitating effective monitoring of managers and contracts as part of corporate governance mechanisms (Nor, Kamran & Xu 2011). Given that conservatism entails timely recognition of losses than earnings and avoids over estimation of firms value, it thereby reduces firms' bankruptcy risk (Wang, 2009).

Advocates of conservatism posit that it benefits the users of financial reports, as it increases firm value by constraining management's opportunistic payments to themselves or other parties which will ultimately be shared among all parties to the firm, increasing their welfare (Garcia, Beatriz & Penalva 2009). Conservatism is beneficial for creditors, minority stockholders, the firm as a whole and regulatory authorities (Donglin & Song, 2009).

The accounting conservatism concept was controversial at the turn of last century and is still until now. One characteristic of higher quality accounting information is accounting conservatism, which has been a characteristic of accounting information for over 500 years (Basu, 1997; Watts, 2003). Today, in the middle of the waves of skepticism regarding financial reports, adherence to this principle became a

distinguishing aspect for companies with reference to the transparency of their financial reports and a standard for classifying countries according to adherence to accounting principles (Hamdan, 2010).
There are controversies on the relationship between firm characteristics and accounting conservatism. For example, Hamdan, (2010) found that big companies adopt conservative accounting policies to avoid political costs, but Sahli (2009) did not find any relation between the size of the company and the degree of accounting conservatism. To the researchers best of knowledge, absence of studies on firm characteristics on accounting conservatism is a gap to be filled by this study. Accounting conservatism provides a platform to ensure reliability of accounting numbers. Prior studies have identified firm size, leverage, profitability and board size as part of the factors that affects accounting quality.

This study therefore attempts to investigate the effect of firm size, leverage, profitability and board size on accounting conservatism using data from Nigeria. The following four hypotheses were raised;
H_{o1} Firm size does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria.
H_{o2} Leverage does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria.
H_{o3} Profitability does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria.
H_{o4} Board size does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria.

Literature Review and Theoretical Framework

Conceptual Framework

Accounting conservatism is one of the main characteristics of financial reporting that has been incorporated in accounting theory and practice for a long time (Kim & Jung, 2007). Sari, Subroto, Purnomosidhi and Rosidi (2014) stated that when faced with uncertainty, management will use the accounting treatment option which describes the situation to be less favorable. Givoly and Hayn (2000) defined conservatism as a selection criterion between accounting principles which leads to the minimization of cumulative reported earnings by slower revenue recognition, faster expense recognition, lower asset valuation and higher liability valuation.

Basu (1997) defined conservatism as the accountants' tendency to require a higher degree of verification to recognize good news as gains than to recognize bad news as losses. That means accountants incorporate bad news into earnings in a timelier manner than good news. On his own part, Wang (2009) sees conservatism as a tendency, when encountering uncertainties in economic transactions; accountants will choose to report lower estimates for the values of assets and revenues, but higher estimates for the values of liabilities and expenses. Accounting is therefore defined as a cautious approach in financial reporting requiring economic firms to choose reporting alternatives that are likely to less overstate assets and income. Deductively however, conservatism does not suggest understatement of income or assets.
Despite the significance of accounting conservatism, it has faced criticism from some professionals and academics, arguing that it leads to the creation of hidden reserves. However, its long survival in accounting practice suggests that it has significant benefits. The main argument against accounting

conservatism is that it lays the foundation for historical cost convention in accounting. In other words, it is argued that accounting conservatism makes accounting numbers to be irrelevant for decision making and leads to the creation of hidden reserves (Penman & Zhang, 2002). A*ccounting conservatism is desirable because it improves board efficiency and* directs corporate boards of directors' attention to possible ways to effectively monitor management. From the foregoing, accounting conservatism as a cautious approach in financial reporting requiring economic firms to choose reporting alternatives that are likely to less overstate assets and income. Deductively, accounting conservatism does not suggest deliberate understatement of income or assets.

Empirical Literature

Firm Size and Accounting Conservatism

Based on positive accounting theory there is a political cost hypothesis that explains that large firms than small firms will choose accounting methods to reduce reported earnings in order to avoid more demands from external parties. Companies that are large in size tend to incur high political costs associated with taxes because large companies tend to have high profit, profit is a government reference in the tax collection base of business entities. So the higher the profits generated the higher the political costs associated with taxes. Companies to minimize tax expenditures will use accounting methods that can show a low profit that is the method of accounting conservatism. So when high political costs will increase the application of accounting conservatism in the preparation of financial statements. It is in line with Oktomegah (2012), that political costs have a significant positive effect on accounting conservatism.

Leverage and Accounting Conservatism

When earnings manipulation is detected by the creditor and investor then there is possibility that they will make a lawsuit to the company. This is because they have legal protection as the owner of the funds. When companies experience lawsuits because reported earnings are too high then the costs incurred will be large so that to minimize the risk of litigation then the company can apply accounting conservatism because with this method the resulting profit will tend to be low. So the higher the risk litigation, then the company will increase accounting conservatism. This is in accordance with Deslatu & Susanto (2009) and Sulastiningsih & Husna (2017) that the risk of litigation has a significant positive effect on accounting conservatism.

Profitability and Accounting Conservatism

Profitability is a description of the company's financial performance seen from the current period compared to the previous period. High profitability reflects good ability by the company to operate and earn profits. Based on the positive accounting theory that is the hypothesis of the political costs of companies that have high profits will tend to use accounting methods that reduce the earnings to avoid the demands of external parties. The method that can report low profits is the method of accounting conservatism. Profitability can also be seen from sales growth. Sales growth will affect conservatism through size of accruals. Therefore, higher companies' accruals suggest higher conservative accounting practice in the companies. This is in accordance with research by Risdiyani & Kusmuriyanto (2015) that company growth has a positive effect on accounting conservatism

Board Size and Accounting Conservatism

Arguments in relation to large or small size of the board in relation to boards' effectiveness exist. In line

with the organizational behavior theory that workers productivity declines in larger work groups, Jensen (1993) argues that overcrowded boards is less likely to function effectively and is easier for CEO to control.

In favour of small board size is that directors rarely criticize the policies of top managers and that this problem tend to increase with the number of directors (Sanda, Mikail, & Garba 2004). In favour of larger boards is that they may be more constructive as they have more external linkage and the ability to extract critical resources such as funding and expertise, which leads to higher performance (Joo, 2009). Large boards indicates increase in the boards knowledge which results in better monitoring and fewer assignment per director, thus allowing directors to specialize more (Ahmed and Duellman 2007). Joo (2009) found that board size is negatively associated with accounting conservatism while the Rahimah (2011) provides evidence which shows board size is positively associated with conservative accounting. However in a study by Nor, Kamran and Xu (2011), they provide evidence that board size is not related to accounting conservatism in Malaysia.

Theoretical Framework

In line with positive accounting theory, larger and profitable firms are more conservative in other to avoid political cost (Watts, 1993). This is because Large and profitable firms are more visible to the public view and face a lot of pressures to release more credible information. Debt contracting theory is used to anchor leverage and accounting conservatism. Firms with high leverage are likely to have greater bondholder and shareholder conflict which may affect the level of conservatism in firms. Agency theory is used to anchor the effect of board size on accounting conservatism. Jensen (1993) argues that overcrowded boards is less likely to function effectively and is easier for CEO to control. On the contrary, Ahmed and Duellman (2007) posits that large boards indicates increase in the boards knowledge which results in better monitoring and fewer assignment per director, thus allowing directors to specialize.

Methodology

The research design employed for this study is ex-post factor research design as it describes the statistical effect of various explanatory variables on an outcome variable. The sample includes manufacturing firms listed on Nigeria stock exchange as at 31st December 2017. These firms are under consumer goods, industrial goods, conglomerates and health care sub sectors. To ensure minimum probability for error, data used in this study was collected from the annual reports and accounts of firms under study. These annual reports were downloaded from the websites of respective companies for the financial years 2011 to 2017. For analysis, this study excludes firms that with poor corporate governance disclosure regarding board of directors. We obtain 147 firm year observations of a balanced panel data. Table 1 show the adjusted population procedure and sample distribution per sector.

Table 3.1 Adjusted population procedure

Panel		
Sub-sector	Number of Firms	Firm-year observation
Consumer goods	9	63
Industrial goods	5	35
Conglomerates	3	21
Health Care	4	28
Total		147

Source: Authors Computation, 2019

In analyzing the data for this study, panel regression technique (using balanced panel data) was employed. Stata statistical package 13.0 was used to run the data so as to test the hypothesis of the study. This study therefore expresses accounting conservatism as a function of firm characteristics as given below:

ACCOUNTING CONSERVATISM = f(FIRM CHARACTERISTICS)……..(i)

Substituting proxies for accounting conservatism and firm characteristics in (i) above, we have:

CONACC = *f(FIRMSIZE,LEV,PROFITABILITY,BS)……(ii)*

Transforming eq (iii) above into a linear relation, we have:

$CONACC\,it = \alpha it + \beta_1 FIRMSIZEit + \beta_2 LEVit + \beta_3 PROFITit + \beta_4 BSit + \varepsilon it$

Table 2 presents the summary of variables used in this study.

Table 3.2: Definitions and measurements of the variables.

Variable	Definition	Measurement
CONACC	Accounting Conservatism	$(-\frac{1}{3})$ X $\sum_{i=t-1}^{t+1}(PIT + DEP - OCF)/TA$ Givoly and Hayn (2000). Where: PIT = Income before tax and extraordinary items DEP = Depreciation Charge for the year OCF = Operating Cash Flow TA = Total Assets
FS	Firm size	Log of total assets (Katz, Khan & Schmidt, 2013)
LEV	Leverage	Total liabilities to total assets
PROF	Profitability	Profit before interest and tax divided by total assests (Kubata, Lietz, & Watrin, 2013).
BS	Board Size	Total number of Directors on the Board

Source: Authors Review, 2019

This study regresses firm *i*'s accounting conservatism in year *t* on the proxies for firm characteristics. The main coefficient of interest is $\beta_1, \beta_2, \beta_3$ *and* β_4 which capture the influence of firm size, leverage, profitability and board size on accounting conservatism.

Results and Discussion

In order to have a better understanding of the data, the following table provides the descriptive results.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std Dev	Min	Max	Skewness	Kurtosi
CONACC	147	-0.4794	0.1350	-0.6559	0.5244	-2.3760	11.8302
FS	147	7.6116	0.7206	5.6360	9.2509	-0.4257	3.2652
LEV	147	0.5277	0.3754	0.1330	2.4782	3.7501	24.5213
PROF	147	0.2241	0.3718	-0.3416	0.8926	0.8563	6.8736
BS	147	9.6394	2.5182	6	18	0.1418	2.6141

Source: Stata output 2019

Table 4.1 shows the descriptive statistics of the dependent and explanatory variables. On the average, firms in our sample reports negative accruals of -0.4794 during the period 2011-2017. The negative mean accruals indicate presence of conservative accounting practice. The standard deviation of 0.1350 relative to the mean of -0.4794 indicate significant variation in the level of tax avoidance among firms. The average firm size 7.616, the minimum shows a value of 5.63 and the maximum is 9.25. In terms of leverage, the average ratio of debt to total assets is 52.77% during the period. The minimum is 13.3% while the maximum is 247.8% of total assets. The mean PROF is 22.41%, which indicates that Nigeria manufacturing firms earn 22.41% return on assets during the period. The negative minimum value of -0.3416 is because some firms has operating losses during the period. The highest PROF during the period is 89.26%. In relation to board size, the mean value is 9.6394. The minimum is six (6) while maximum is eighteen (18). This implies that no board has number of directors lower than six or higher than eighteen during the period of this study.

Table 4.2 Correlation Matrix Table

	CONACC	FS	LEV	PROF	BS
CONACC	1.0000				
FS	-0.0679***	1.0000			
LEV	0.3915***	-0.0805	1.0000		
PROF	-0.5704***	-0.2178***	-0.0805	1.0000	
BS	0.1157	-0.1429*	0.5365***	0.0281	1.000

Source: Stata output 2019

Table 4.2 shows the result of the Pearson correlation coefficients. The table shows that board size has an insignificant association with accounting conservatism ($r = 0.1157$, $p>0.10$). However, while firm size ($r = -0.0679$, $p<0.01$) and profitability ($r = -0.5704$, $p<0.01$) are negatively associated with accounting conservatism, leverage shows a significant positive correlation with accounting conservatism ($r = 0.3915$, $p<0.01$). The result implies that while large firms are 6.7% less likely to engage in conservative accounting practice, highly levered firms are 39.15% likely to practice accounting conservatism. However, profitable firms are 57.04% less likely to indulge in conservative accounting practice. On the overall, the correlation values indicate absence of multi collinearity as none of the values is above 0.80.

Table 4.3 Regression Table

Random Effect Regression results of $CONACC_{it} = \alpha + \beta_1 FIRMSIZE_{it} + \beta_2 LEV_{it} + \beta_3 PROFIT_{it} + \beta_4 BS_{it} + \varepsilon it$

Independent Variables	*Coefficient*	*T. Values*
Firms Size	*0.2356*	*0.99*
Leverage	*0.0924*	*2.43***
Profitability	*-0.5204*	*-6.46****
Board Size	*-0.0018*	*0.32*
R-sq Within	*0.3058*	
R-sq Between	*0.4647*	
R-sq Overall	*0.3836*	
F.Statistics	*68.29****	

Source: Stata output. 2019

The result in table 4.3 shows results of the random effect regression based on the results of hausman test. The overall R-square is 38.36%, this suggest that, holding other variables constant, the explanatory variables (firm size, leverage, profitability and board size) explains 38.36% variation in tax avoidance across listed manufacturing firms. The model of the study is fit given F. satatistics value of 68.29 which is significant at 1%. Contrary to apriori expectation, the coefficient for firm size is insignificant. This means firm size does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria. This study therefore fail to reject the first hypothesis which states that Firm size does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria. This result is not in accordance with the positive accounting theory of the political cost hypothesis that companies that have high political costs will tend to utilize conservative accounting practice. This study supports research conducted by Deslatu & Susanto (2009) which states that political costs have no effect on accounting conservatism. These results are also inconsistent with studies conducted by Oktomegah (2012) that political costs have a positive and significant impact on accounting conservatism.

In line with the expectation of this study, the coefficient for leverage is positive and significantly affects accounting conservatism. This study therefore rejects hypothesis two which states that Leverage does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria. This confirms the debt contracting theory of accounting conservatism which states that debt and bond holders demand conservative reporting as they will not be paid excess interest when earnings is higher than expectation (Watts, 2003). The results of this study support the research of Risdiyani and Kusmuriyanto (2015), and Alfian and Sabeni (2013) stating that leverage has a positive and significant impact on accounting conservatism. On the other hand, it contradicts the studies of Oktomegah (2012) and Noviantari & Ratnadi (2015) which suggest that leverage has a significant negative effect on accounting conservatism.

Contrary to the expectation of this study, the coefficient for profitability is negative and significantly affects accounting conservatism. This is contrary to our apriori expectation in line with positive accounting theory that more profitable firms are more conservative in other to avoid political cost. This study therefore rejects hypothesis three which states that profitability does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria. The results of this study are in

accordance with research conducted by Risdiyani and Kusmuriyanto (2015) and contradicts the findings of Saputri (2013)

The result shows that although board size is negative, it insignificantly affects accounting conservatism. It contradicts the position of agency theory that managers may use their discretion in manipulating accounting numbers for their benefit in the presence of agency problem. This study therefore fail to reject the hypothesis four which states that board size does not significantly affect accounting conservatism in listed manufacturing firms in Nigeria. This result contradicts the findings of Joo (2009) but supports the findings of Rahimah (2011).

Conclusion and Recommendations

This study considers the effect of firm characteristics on conservative accounting practice of listed manufacturing firms in Nigeria. Based on 147 firm year observation, the study employs random effect regression technique to test our prediction that firm characteristics affect accounting conservatism. Based on the findings, this study concludes that both highly levered and profitable firms affect conservative practice. But while highly levered firms exhibit conservative accounting practices, profitable firms limit the practice of accounting conservatism. Also, both firm size and size of the board of directors is not an important factor in influencing conservative accounting practice of listed manufacturing firms in Nigeria. It is therefore recommended that highly levered firms and profitable require strict monitoring from regulatory bodies given that they can impact on reported accounting numbers. Also, it is recommended that Securities and Exchange Commission should encourage a mix of debt and equity capital to improve reliability of financial reporting.

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VALUE RELEVANCE OF INTERNATIONAL FINANCIAL REPORTING STANDARDS' ACCOUNTING INFORMATION IN THE NIGERIAN INSURANCE INDUSTRY

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Abstract

This study examines the Relative Value Relevance of International Financial Reporting Standards (IFRS) of the insurance companies in Nigeria. The annual financial statements of 14 out of the 26 firms listed on the Nigerian Stock Exchange were used for this study, covering a period of ten (10) years from 2007-2016. Using the Edward-Bell-Ohlson 1995 model, Multiple Regression Analysis was applied to regressing share price on accounting information (deflated earnings per share, deflated change in earnings per share and deflated book value per share). The study found that earnings per share, change in earnings per share and book value of equity per share combined, provide a better explanation of the variance in share price under IFRS. The study further found that earnings per share, change in earnings per share and book value of equity per share each, is significantly related to share price under IFRS. The work concludes that the value relevance of accounting information has improved after the adoption of IFRS. The study further concludes that earnings per share, change in earnings per share and book value of equity per share are relevant in determining the value of shares in the Nigerian insurance industry in the post IFRS era. It recommends that Investors, shareholders, owners and other users of accounting information should use IFRS- compliant financial statements when making decision, because it will eliminate the challenge posed by the previous accounting standards of financial reporting inconsistency, allow comparison of financial performance of companies with international peers and produce more reliable accounting information because of the use of fair value which produces more realistic value of asset.

Keyword: IFRS; Value Relevance of accounting information; Insurance Companies

Introduction

Concerns have been expressed about the irrelevant accounting information provided by the previous accounting standard (GAAP) which relied on the historical cost accounting. This was argued to be the cause of the corporate failure involving Enron Corporation in USA and the event of capital market crash. On another hand GAAP being usually country-based was argued to lead to persistence of financial reporting inconsistencies due to varying reporting standards and requirements in different countries of the world. This was said to pose a great challenge to global investors and led to the establishment of International Financial Reporting Standard (IFRS). To ensure IFRS provides high quality accounting information which means more value relevant accounting information, it is made Principle-Based Standards and not rule-based and the emphasis have been turned towards Fair Value Accounting. This according to Evans, Houston, Peters and Pratt (2012), leads to a greater likelihood of earnings management. Managers, can use the discretion to interpret principles differently and use the

allowed subjectivity to increase their own wealth instead of the shareholders' value. This leads to lower trust in the stock market, thereby increasing firms' cost of capital.

On the other hand, argument was raised concerning the irrelevance of principle-based accounting standards and fair value. By making it principles-based and the use of Fair Value scholars argued that it will allow management discretion into accounting; managers can interpret principles differently and use the allowed subjectivity to increase their own wealth instead of the shareholders' value. Also the use of fair value will lead to unreliable numbers that will misguide decision making. This led to a great deal of studies to examine whether IFRS has any value relevance.

A number of studies have been conducted on the value relevance of IFRS at different times in developed, as well as, developing countries, most of which are well documented in accounting and finance literature. Many of these studies covered very short period (two to four years) and their findings are mixed and may not be applicable to our economy (Nigeria). This study differs from most of the earlier ones because it is in Nigeria and covers very wide period (ten years). Therefore, this study examines the relative value relevance of IFRS accounting information by comparing the R^2 obtained from the regression of earnings, change in earnings and book value on the share price for pre and post IFRS data of the listed insurance companies in Nigeria.

In Nigeria, few studies examined the value relevance of accounting information after the switch to IFRS. These studies reported mixed results. While other studies indicated a significant increase in the Value relevance of accounting information (Jinadu, 2016; Umoren & Enang, 2015; Okoye, Jane & Ezejiofor, 2014), studies by Alabede (2016), found a slight increase in the value relevance of accounting information and study by Akpaka (2015) showed a decline in the value relevance. These studies have failed to reach consensus about the value relevance of IFRS because they cover a short period of time like Umoren and Enang (2015) four years and Okoye, Jane and Ezejiofor (2014) two years. In addition, though some of these studies cover a long period of time, the post-IFRS adoption period covered is very short, like Akpaka (2015) two years and Alabede (2016) three years. Hence, this study covers a period of ten (10) years. Furthermore, the post-IFRS adoption period covered is five years.

Some of the above studies like Alabede, (2016) generalized findings to all listed non financial companies in the Nigerian stock market which made it difficult to determine the value relevance of accounting information on industry basis and the study by Okoye, Jane, and Ezejiofor (2014), Umoren and Enang (2015) and Akpaka (2015) were all in the Banking industry. This study concentrated on the Nigerian insurance industry.

Literature Review

The Concept of Value Relevance

The concept of Value Relevance is conceptualized in the literature by various researchers and scholars in different ways based on their experiences. The construct is also approached from different perspectives and classified accordingly. Amir, Harris, and Venuti (1993) and Barth, Beaver and Landsman (2001) define value relevance as the association between accounting numbers and security market value. Francis and Schipper (1999) look at the concept of Value Relevance from four

perspectives; from the Fundamental Analysis Perspectives, Prediction Perspectives, Information Perspectives, and Measurement Perspectives. In their Fundamental Analysis interpretation, Accounting Information is said to be value relevant if it causes changes in the share price trends by capturing intrinsic share values toward which share prices drift. The Prediction View states that Financial Information is value relevant if it contains the variables used in a valuation model or assists in predicting those variables. In the Information and Measurement Views, Accounting Information is relevant if the information contained in the financial statements has the ability to enable the financial statement users to determine the value and performance of the company that is if there is a statistical association between financial information and share prices or returns.

Scott (2003) claims that Accounting Information is value relevant if it leads investors to change their beliefs and actions and in order to be relevant, accounting data must, among others, be quick to respond to users' needs. Beisland, (2009) defines value relevance as the ability of financial statement information to capture and summarise firm value. Klimczak (2009) in a more detailed discussion of the construct states that value relevance studies usually have two goals. The first is to test whether accounting earnings are relevant for equity valuation in the local stock market. The second aim is to compare the results of the test with results obtained by previous researchers of rich countries and draw conclusions about the state of the local economy. He argued that in both cases Value Relevance is treated as proof of the quality and usefulness of accounting numbers.

Barth, Beaver, and Landsman (2001); Chang, Chen, Su and Chang (2008) and Abiodun (2012) define value relevance as the statistical relationship between the accounting information as disclosed in the financial statements and the market prices or returns of shares. This statistical relationship between share price and Accounting Information, as suggested by the definition above, can be further explained in terms of the extent of the volume of share or share price change following the release of financial information. This places the investors as the theme of this definition (Ernest & Oscar, 2014). It is in recognition of this and in tandem with the third and fourth interpretations by Francis and Schipper (1999) that the researcher defines the concept of Value Relevance of Accounting Information as the ability of accounting numbers to capture and summarise information that affects the firm's value, which can be measured by the share price or return.

The International Financial Reporting Standards (IFRS)

The International Financial Reporting Standards (IFRS) are a set of principle-based accounting guidelines and rules issued by the International Accounting Standards Board (IASB) and generally accepted by different countries worldwide (Psaroulis, 2011; Desoky & Mousa, 2014). To improve the rate at which decisions made by investors and creditors is taken and to assist the international comparability of companies' performance both within and outside the reporting countries, it became necessary that accounting standards around the world be harmonized to form a single set of accounting standard (Herbert, Tsegba, Ohanele & Anyahara, 2013). IFRS adoption improved the comparability and transparency of Financial Accounting Information disclosed in financial statements and these are two of the four key qualitative characteristics of financial statements that make financial information more useful to the users (Callao et' al. 2007). They added that the existing evidence in the international accounting literature reveals that the impact of IFRS adoption involves three elements, including the Accounting Information presented in financial statements, the harmonization of accounting practices and the efficiency of markets.

IFRS has its origin from 1973 by the formation of an International Accounting Standard Committee (IASC) by 16 professional bodies from Australia, Canada, France, Germany, Japan, Mexico, Netherlands, UK, and USA. The aim was to bridge the gap between national GAAPs of different countries because of the rise of multinational companies, globalisation, international trades, parent and subsidiary companies and cross country investment. This led to the development of the International Accounting Standard (IAS) as a uniform global accounting standard, which helps in reducing discrepancies in international accounting principles and reporting standards. IAS took about harmonizing accounting practices as the initial efforts were on harmonization, which entailed reducing differences among the accounting principles used in major capital markets around the world. By the 1990s, the effort changed from harmonization to convergence; the development of a single set of high-quality International Accounting Standards. In 2001, the International Accounting Standard Board (IASB), a replacement of IASC, took over with an objective to develop global standards and related interpretations that are known to us now as IFRS.

The rapid diversification and expansion in the world capital market because of globalization and integration brought about a shift away from local reporting standards to global standards. In 2005 EU commission issued legislation to require the use of IASB standards for all listed firms, thereby making IFRS mandatory. In response to this, over a hundred and fifteen countries have adopted IFRS of which Nigeria is not an exception.

The Nigerian Insurance Industry

The Nigerian insurance industry is very significant to the growth and development of the Nigerian economy as it provides confidence to the businesses enterprises and also contributes to the economy through investments. Moreover, the insurance industry is one of the industries that adoption of IFRS has brought some significant changes to their accounting system thereby influencing the definition, recognition, and measurement of financial instrument and acquisition cost. For example, IFRS4 prohibits provisions for possible claims under contracts that are not in existence at the reporting date such as catastrophe and equalization provisions (IFRS4). It requires a test for adequacy of recognized insurance liabilities and an impairment test for reinsurance assets. It also permits an insurer to change its accounting policies for insurance contracts but an insurer cannot measure insurance liabilities on an undiscounted basis (IFRS4). IFRS4 also authorize insurance companies to choose whether to adopt deferred acquisition cost or expense the acquisition cost when incurred. This is different from the provision under SAS that allows insurance companies to only defer this cost. These changes have a direct effect on the earning and book value of insurance firm since acquisition cost that was capitalized under GAAP can now be expensed in IFRS and the issue of impairment in the reinsurance assets will affect the book value of the assets. This study fills this gap for the Nigerian insurance industry.

Empirical Studies

A large number of empirical studies have combined streams of literature on the value relevance of IFRS accounting information both nationally and internationally. Such as Alali and Foote (2009) who examined the value relevance of accounting information under International Financial Reporting Standards (IFRS) of 56 firms in the Abu Dhabi Stock Exchange. Based on models developed by Easton and Harris (1991) and Ohlson (1995) and using monthly market data from 2000 to 2006, their overall results showed that earnings scaled by the beginning of period price are positively and significantly related to cumulative returns and that earnings per share and book value per share are

positively and significantly related to price per share. This study only examines the post-IFRS period, it does not test the value relevance of accounting information before IFRS adoption so we can not know whether the value relevance increases or not. The study was also conducted in an emerging market of Africa and Asia, due to institutional, socio-economic and political differences the findings may not be generalized on the companies in Nigeria.

Elbakry, Nwachukwu, Abdou, and Elshandidye (2016) investigate the changes in the value relevance of accounting information before and after the mandatory adoption of IFRS in Germany and the UK under three different valuation models, the basic Ohlson model, a modified model, and a simultaneous addition of accounting and macroeconomic variables in an extended model. Collectively, the results of these models indicate that: (i) book values (BV) declined under basic price model after the switch to the IFRS, (ii) incremental value relevance of both earnings and book values under the modified model has increased and (iii) significant rise in the relative predictive power of the book value of equity under the third model. However, this research was carried out outside Nigeria; the result cannot be generalized on the Nigerian companies due to institutional, socio-economic and political differences.

Gjerde, Knivsfla and Saettem (2008) examine the value relevance of adopting IFRS in Norway. Their sample during 2005 consists of 145 restatements from Norway GAAP to IFRS for firms listed on the Oslo Stock Exchange. Using price and return models and accounting figures of Book value, earnings per share and change in earnings per share, their analysis documents little increase in value-relevance after adopting IFRS with uncontrolled data, but the marginal value-relevance was found to increase when the data was controlled by firm size, intangible asset intensity, profitability and the degree of non-recurring items. However, the period of the study was too short is just one year. It will be more reliable to analyse the value relevance for a wide interval.

Ran (2011) investigates the impact of IFRS on the value relevance of insurance accounting due to the fact that it is highly sensitive to important under procedure projects of IASB, such as IFRS 4 and IAS 39. The basic sample of the study composed of all the companies having the term of premium income, which is a symbol of involvement in the insurance business from the Compustat Global. Based on the above, accounting information of 234 companies from 50 countries (41 of these countries adopted the IFRS after 2005) between 2001 and 2010 was gathered. The data covered the stock price, earnings, book value of equity, common shares outstanding, deferred acquisition costs and adopted standards. He drew a conclusion that IFRS increases the value relevance of insurance accounting while the inconsistency of standards damaged the value relevance and deferred acquisition costs.

However, the above study is an international comparative one that combined different countries in a single study. In this kind of studies, it is difficult to control for the institutional, socio-economic and political factors that affect companies' reporting and stock market participants' investing (Ruland, Shon, & Zhou, 2007). This significantly affects the results of this study.

Tsalavoutas, Andre and Evans (2012) examine the combined value relevance of book value of equity and net income before and after the mandatory transition to IFRS in Greece using the Ohlson price model and a sample of 1861 companies from 2001 to 2008 (2001-2004 before 2005-2008 after). Contrary to their expectations, they found no significant change in the combined value relevance

between the two periods. However, the book value of equity was more value relevant under IFRS. It was also found that market participants viewed the extra information provided by reconciliations between Greek GAAP and IFRS for 2004 figures as incrementally value relevant. However, the study was conducted in a foreign country and the period covered is 2001 to 2008, there is the need of a new study that will consider the interval between 2008 and 2017 and which will be conducted in an emerging capital market like that of Nigeria.

Mousa and Desoky (2014) examine whether the adoption of International Financial Reporting Standards (IFRS) has increased the value relevance of accounting information in one of the Gulf Co-operation Council (GCC) countries, Bahrain. Their study extended the literature on the attributes of financial reports prepared under IFRS through examining its value relevance. They used a sample of 40 listed companies in Bahrain Bourse (BHB) as one of the emerging markets with a total of 280 year-firm observations. The study employed the Ordinary Least Square (OLS) regression analysis. Two models of OLS regression (returns and price models) were employed. For the stock return model, the findings of the study showed a slight difference in the value relevance of accounting information after the adoption of IFRS by listed companies in BHB. However, in the price earning model, the findings showed some improvement in the value relevance after the adaption of IFRS.

Akpaka (2015) seeks to investigate the impact of IFRS adoption on the value relevance of the financial information of listed Deposit Money Banks (DMBs) in Nigeria. The study used correlation research design and data on Earnings per Share (EPS), Change in Earnings per Share (CEPS), Book Value per Share (BVPS) and share price (SP) were sourced from published annual reports of listed banks and cash craft asset management. Moreover, the Edwards Bells and Olhson (1995) model was adopted to conduct a pre (2006-2009) and post (2010-2013) IFRS analyses on seven (7) listed banks. Using the Generalized Least Square (GLS), the study documented that: Pre-IFRS financial information is value relevant; post-IFRS financial information has very weak value relevance and post-IFRS financial information has no relative value relevance over pre-IFRS financial information. However, this study was on the banking industry, its results cannot necessarily be generalised on insurance companies, as banks differ from insurance in terms of regulations, business environment, the extent of management discretion and information availability. These would have an influence on the results of banks. The study also used 2010, 2011 as post-IFRS period which is not. Though the financial statements of these periods has been restated on an IFRS basis, the market reaction was not based on the IFRS information so, including these years under IFRS period would not produce an actual result.

Alabede (2016) investigates the impact of IFRS adoption on the value relevance of accounting information of Nigerian listed companies. The study using a sample of 67 non-financial companies operating in different sectors of the Nigerian economy and listed on Nigerian Stock Exchange (NSE) covering the period between 2007 and 2014, applied both return and price models to determine and compare the value relevance of accounting information in the pre and post-IFRS adoption period. The findings under both models indicated that accounting information is more value relevant in the post-IFRS period but not significantly different from the pre-IFRS period at least for the non-financial firms. However, this study was conducted on non-financial companies. IFRS value relevance will be best determined in the financial companies, as the changes brought by IFRS are more reflected on the financial companies.

Edogbanya and Kamardin (2014) study the concepts and issues of International Financial Reporting Standards (IFRS) adoption by corporate organisations in Nigeria. The research was based on data obtained from survey and literature in the context of worldwide convergence, compliance and adoption processes of IFRS. The paper also compares the Nigerian GAAP and IFRS. It found that there is high compliance in adoption, particularly by financial institutions and other corporate bodies with little hitches. This is a conceptual study on the concepts and issues of IFRS while the present study is empirically assessing the value relevance of IFRS.

Jinadu (2016) examines whether the adoption of International Financial Reporting Standards (IFRS) has improved the quality of accounting information in the area of value relevance as it affects Nigerian quoted firms. The study specifically investigated the perceptions of the preparers and users of financial statements on the effect of value relevance on quoted companies that have adopted IFRS. The researcher used a questionnaire to collect the data for the study and Ordinary Least Square Regression to analyse the data collected. The findings revealed that the adoption of IFRS has a positive and significant effect on the value relevance of accounting information. This study used primary data to analyse the impact of IFRS on the value relevance of accounting information. Primary data are subjective and easy to be manipulated; therefore, the present study uses secondary which is objective and more reliable.

Okoye, Jane, and Ezejiofor (2014) attempt to assess the impact of International Financial Reporting Standard on stock market movement and the extent at which it can improve the position of the corporate organisation in the Nigerian capital market. A descriptive design was adopted and ten banks were selected as the samples. Using the stock price and shares traded during two years periods of 2011 and 2012, the study found that the adoption of IFRS in Nigeria will enhance credible financial statements that will also provide a basis for the strength of a corporate entity in the capital market. Hence it is a welcome development in the Nigerian economy. The period covered by this study is too short such that it may not render a reliable result. The present study covers a period of ten years and is on the insurance companies.

Umoren and Enang (2015) examined whether the mandatory adoption of IFRS has improved the value relevance of financial information in the financial statements of commercial banks in Nigeria. The sample comprises twelve listed banks in Nigeria. They used financial statement figures of 2010 and 2011 (pre-adoption period) and 2012 and 2013 (post-adoption). Descriptive statistics and least square regression were conducted to analyse the effect of IFRS adoption on the accounting quality. The result indicated that the equity value and earnings of banks are relatively valued relevant to share prices under IFRS than under the previous Nigerian SAS. The results also indicated that earnings per share incrementally value relevant during the post-IFRS period while the book value of equity per share is incrementally less value relevant during the post-IFRS period. However, the period of the study is too short therefore not sufficient enough to give a reliable result. In addition, the findings of this study cannot be generalised on insurance companies, as banks differ from insurance in terms of regulations, business environment, the extent of management discretion and information availability.

From the empirical review subsection in general, it can be deduced that the value relevance of financial information under IFRS has no clear direction. There were mixed results in both matured and emerging market and in Nigeria, in particular, where the literature is very little. The inconsistencies in

the result can be linked to many things, which include the level of the market of the countries where these studies were carried out, the type of investors in the market (well or poorly informed), the accounting system in existence, the industrial differences, the methodologies used, the level of sophistication, time frame, etc.

The Valuation Method and the Research Hypotheses

The Ohlson (1995) valuation model

The Ohlson (1995) Valuation Model expressed that the market value of a firm is a linear function of accounting information (earnings, dividends and book value of equity) (Vazquez, Valdes, & Herrara, 2007). The main limitation of the traditional view of the model is its inability to control for size across firms (Babalola, 2012). Therefore, researchers have resorted to the use of the deflated price model to control for the scale effect (heteroscedasticity). This study therefore uses the modified Edward-Bell-Ohlson (1995) deflated model as specified below:

$DSPit = \beta_0 + \beta_1 DEPSit + \beta_2 DCEPSit + \beta_3 DBVPSit + eit$

Where DSPit is the share price of the company four months after publishing reports deflated by the opening book value of equity; DEPSit is the Earnings per share of firm i at time t deflated by the opening book value of equity; DCEPSit is the change in earnings per share of firm i at time t deflated by the opening book value of equity; DBVPSit is the Book value per share of firm i at time t; βn is the coefficient of the variables signifying the rate at which a unit change in the independent variables will influence a change in the dependent variable using the assumption that all other independent variables are held constant and εit is an error terms.

Research Hypotheses

The combined value relevance of earnings per share, change in earnings per share and book value of equity per share of listed insurance companies has not significantly increased after the switch from Nigerian GAAP to IFRS.

The Dataset

This study used earnings per share, change in earnings per share, book value of equity per share as the independent variables and share price as dependent. The source of data is secondary and the research design is ex-post facto. The population of the study is the entire twenty six (26) insurance companies listed on Nigerian stock exchange as at 31st December, 2016. The sample of the study is fourteen (14) companies and this is arrived at after employing two-point criteria to filter out the companies that do not qualify as a sample of the study. The criteria include the company that did not report consistent financial statements during the period (2006 to 2016); and the one that had not been listed for the entire period of the study. The population and sample of the study are shown below as table 3.1 and 3.2 respectively.

Table 3.1 Population of the Study

S/N	Company	Year of Listing
1	AFRICAN ALLIANCE INSURANCE COMPANY PLC[MRF]	2009
2	AIICO INSURANCE PLC.	1990
3	AXAMANSARD INSURANCE PLC	2009

4	CONSOLIDATED HALLMARK INSURANCE PLC	2008
5	CONTINENTAL REINSURANCE PLC	2007
6	CORNERSTONE INSURANCE COMPANY PLC.	1997
7	CUSTODIAN AND ALLIED PLC	2007
8	EQUITY ASSURANCE PLC.	2007
9	GOLDLINK INSURANCE PLC[MRS]	2008
10	GREAT NIGERIAN INSURANCE PLC[BAA]	2005
11	GUINEA INSURANCE PLC.[AWR]	1990
12	INTERNATIONAL ENERGY INSURANCE COMPANY PLC	2007
13	LASACO ASSURANCE PLC.	1991
14	LAW UNION AND ROCK INS. PLC.	1990
15	LINKAGE ASSURANCE PLC	2003
16	MUTUAL BENEFITS ASSURANCE PLC.[AWR]	2002
17	N.E.M INSURANCE CO (NIG) PLC.	1990
18	NIGER INSURANCE CO. PLC.[MRF]	1993
19	PRESTIGE ASSURANCE CO. PLC.	1990
20	REGENCY ALLIANCE INSURANCE COMPANY PLC	2008
21	SOVEREIGN TRUST INSURANCE PLC	2006
22	STANDARD ALLIANCE INSURANCE PLC.	2003
23	STANDARD TRUST ASSURANCE PLC	2007
24	UNITY KAPITAL ASSURANCE PLC	2009
25	UNIVERSAL INSURANCE COMPANY PLC[MRF]	2008
26	WAPIC INSURANCE PLC	1972

Source: Generated by the Author from NSE Website 30th Dec. 2016

Table 3.2 Sample of the Study

S/N	Company	Year of Listing
1	AIICO INSURANCE PLC.	1990.
2	CORNERSTONE INSURANCE COMPANY PLC.	1997.
3	GREAT NIGERIAN INSURANCE PLC.	2005.
4	GUINEA INSURANCE PLC.	1990.
5	LASACO ASSURANCE PLC.	1991.
6	LAW UNION AND ROCK INSURANCE PLC.	1990.
7	LINKAGE ASSURANCE PLC.	2003.
8	MUTUAL BENEFITS ASSURANCE PLC.	2002.
9	N.E.M INSURANCE CO (NIG) PLC.	1990.
10	NIGER INSURANCE CO. PLC.	1993.
11	PRESTIGE ASSURANCE CO. PLC.	1990.
12	SOVEREIGN TRUST INSURANCE PLC.	2006.
13	STANDARD ALLIANCE INSURANCE PLC.	2003.
14	WAPIC INSURANCE PLC.	1972.

Generated from Table 3.1

The variables of the study are defined as follows. The market price of equity is a dependent variable and is the price of the shares four months after the year-end. This is because the filing requirement is 90 days after the accounting year-end. The researcher, therefore, assumed that by this time market participants would have access to all the available information for decision-making. This is as in Usman, Amran and Shaari (2016). Earnings per share (EPS) is an independent variable and is measured as current earnings per share deflated by the opening book value of equity (Siyanbola 2014). Change in earning per share is the change in the current earning deflated by the preceding year market value of equity (Alfaraih, 2009). Book value per share is arrived at by dividing the current book value of equity by the preceding year book value of equity, as done by Siyanbola (2014).

The period of the study was divided into pre and post IFRS adoption period and each was regressed separately. Using the Edward-Bell-Ohlson (EBO) (1995) price regression model, this study regresses the share price on earning per share, change in earning per share and book value of equity per share (for each of the period), as obtained from the published annual reports of the sampled firms. The R^2 obtained for the two periods was then compared to determine the relative Value Relevance or otherwise of the accounting information under IFRS. If the obtained R^2 under IFRS regime was found to be higher, the accounting information under the regime would be concluded to have relative Value Relevance over the NGAAP regime compared with Holthausen & Watts (2001), Umoren and Enang (2015) and Alabede (2016). The EBO regression model is as shown below:

$DSPit = \beta 0 + \beta 1 DEPSit + \beta 2\ DCEPSit + \beta 3 DBVPSit + eit$……..(1)

From the above model, two equations were developed to represent the NGAAP and IFRS periods as follows:

$DSPit = \beta_0 + \beta_1 DEPSit^{NGAAP} + \beta_2 DCEPSit^{NGAAP} + \beta_3 DBVPSit^{NGAAP} + eit$……(2)

$DSPit = \beta_0 + \beta_1 DEPSit^{IFRS} + \beta_2 DCEPSit^{IFRS} + \beta_3 DBVPSit^{IFRS} + eit$……..(3)

Where:

β_0 = Intercept coefficient

β_1, β_2, = Coefficient for each independent variable

DSPit = The deflated share price of the studied company four months after publishing reports.

DEPSit = deflated Earnings per share of firm i at time t.

DCEPSit = deflated Change in earnings of firm i at time t.

DBVPSit = deflated Book value per share of firm i at time t.

eit = Other variables that affect the share price.

Descriptive Statistics

Table 3.3 provides summary statistics for the variables of the study. The summary statistics include measures of central tendencies, such as the mean, measures of dispersion (the spread of the distribution), such as the standard deviation and the minimum and maximum of both the dependent variable and independent variables. The Table shows the summary statistics of the dependent and independent variables in order to effectively appreciate the nature of the results. The descriptive statistics analyse the basic feature of accounting information and share price. It provides a basic insight into the nature of the data upon which analysis was done.

Table 4.3 Descriptive Statistics of the Variables

CODE	Variables	NGAAP 2007-2011 Mean Std Dev Max Min N=70	IFRS 2012-2016 Mean Std Dev Max Min N=70
SP	Share Price	2.16	0.55
		2.18	0.12
		11.66	1.05
		0.5	0.5
DEPS	Deflated Earnings per share	0.04	0.10
		0.19	0.22
		0.39	1.4
		-0.99	-0.39
DCEPS	Deflated changeEarnings per share	-0.02	0.02
		0.19	0.25
		1.02	1.26
		-0.79	-0.43
DBVEPS	Deflated Book value of Equity per share	1.21	1.04
		0.68	0.45
		4.03	2.07
		0.29	0.28

Source: Generated by the author from the annual report and account of the Nigerian insurance companies and the NSE daily price list

Table 3.3 shows observation of 70 (for each of NGAAP and IFRS period) for each of the variables implying fourteen sampled companies for ten years period of the study (five years 2007 – 2011) NGAAP and (five years 2012-2016) IFRS. The table also reveals that the SP of NGAAP period has an average of N2.16 and standard deviation of 2.18 while 11.66 and 0.5 are the maximum and minimum respectively. The standard deviation reveals that the data of share price are far spread across the mean of the data; this simply implies that the share prices of the insurance companies in Nigeria are not similar. This is further confirmed by the disparity between the maximum and minimum. Thus, the price of shares of insurance companies varies a great deal from one company to the other in the NGAAP period.

The SP of the IFRS period has a mean of 0.55 and a standard deviation of 0.12. The value of the standard deviation shows that the SP is tightly clustered around the mean of the data under study, consistently the SP of the insurance companies do not differ from one company to another during the IFRS period. Furthermore, the maximum value of 1.05 and a minimum of 0.5 confirm the lack of disparity in SP among the companies under study. However, compared to NGAAP data on SP, the

value of shares of insurance companies reduced a great deal judging from the mean and maximum of the NGAAP data.

EPS has an average of N 0.04 and the standard deviation is N0.19 with a maximum of 0.39 and a minimum of -0.99 resulting from 70 observations. Though the mean is low compared to the maximum, the standard deviation proves that the data set for EPS is widely spread across the mean indicating that some insurance companies earn very low while the others earn very high.

The EPS of post-IFRS has an average of 0.10 and a standard deviation of 0.22 with a maximum of 1.4 and a minimum of -0.39. The standard deviation, like in the NGAAP period indicates that the data set for EPS is widely spread across the mean indicating higher earnings for some companies and very low for the others. The earnings of insurance companies in Nigeria seem to have increased in the IFRS period. This could be attributed to changes in valuation methods and the recognition of earnings in the IFRS framework.
The data CEPS has an average of -0.02 and a standard deviation of 0.19 with a maximum and minimum values of 1.02 and -0.79 respectively. The standard deviation is largely showing a wide disparity among values of CEPS of different insurance companies.

The mean value of CEPS in the IFRS period is 0.02 which is very small but attributed to the fact that it is the difference in earnings that are considered. It also has a standard deviation of 0.25 showing a wide disparity among values of CEPS of different insurance companies. The minimum value is -0.43 while the maximum is 1.26.

BVEPS has a mean of 1.21, standard deviation as 0.68. From the value of the standard deviation, it can be deduced that the BVEPS is tightly clustered around the mean of the data under study, invariably the BVEPS of the insurance companies are not so different from one company to another. Moreover, the minimum value is 0.29 with 4.03 as the maximum value. Thus, it has a small range of BVEPS reading from the minimum and maximum value. BVEPS in the IFRS period has an average of 1.04 and a standard deviation of 0.45 with a maximum value of 2.07 and a minimum of 0.28. The standard deviation is low and so implies that the data is tightly clustered around the mean value. Also, the difference between the minimum and the maximum is not wide, meaning the net assets of insurance companies are not different from one company to the other. The values for BVEPS decreased after IFRS adoption because the values of mean, standard deviation, minimum and maximum are higher than what we have after adoption.

Empirical Result

Table 4.1 presents the regression results of OLS (for NGAAP), and RE (for IFRS) on the relationship between the dependent variables (share price) and the independent variables (earnings per share, change in earnings per share and book value of equity per share) of the study. To balance the trade-off between GLS RE and FE Hausman specification test was carried out, the result reveals the Hausman Prob>chi2 value of 0.3588 for NGAAP and 0.1513 for IFRS which are all greater than 0.05 meaning that random effect is more appropriate however lagragian multiplier test for random effect revealed an insignificant Prob>chi2 value of 0.0924 for NGAAP which is greater than 0.05 hence OLS is chosen, while for the IFRS the lagragian multiplier test for random effect revealed a significant Prob>chi2 value of 0.0000 hence RE is chosen for IFRS by the study (Appendix A and B).

The result in Table 4.1 indicates that F ratios for the NGAAP and IFRS periods are statistically significant; suggesting that the models are statistically fit to predict share price (SP). At the same time, the R^2 (0.1305) for the pre-IFRS suggests that joint EPS, CEPS and BVEPS account for approximately 13% of the variance in the SP. However, the application of IFRS significantly strengthened the R^2 by 12% to 25%.

On the overall, this result suggests that the EPS, CEPS and BVEPS combined to provide a better explanation of the variance in the SP under IFRS. Furthermore, on each of the variables, the regression coefficient, and the P-value indicate that EPS is positively associated with SP at a 1% significance level in pre and post-IFRS period this suggests that the accounting information content of EPS has a greater impact on SP in the two periods. Change in earning is negatively correlated to SP before and after IFRS adoption, but exert a significant impact in post-IFRS. In the same vein, BVEPS is negatively and insignificantly related to SP before IFRS adoption. However, the association between BVEPS and SP in the post-IFRS period is positive and significant at marginal of 1%. This confirms the result of the R^2 that EPS, CEPS and BVEPS jointly provide a better explanation of the variance in the SP under IFRS. This is because only earnings are significant in the pre-IFRS period, but in the post-IFRS, all the variables are significant at 1% significant level. By this result, IFRS based accounting information is significantly and relatively more value relevant than accounting information derived from Nigeria GAAP. This means that adoption of IFRS has much more impact on the value relevance of EPS, CEPS and BVE. This finding is similar to the result in Alali & Foote (2012); Mousa & Desoky (2014) and Umoren and Enang (2015). This result is better than those reported in Gjerde et al. (2008), Tsalavoutas et al. (2012), and Alabede (2016), which indicate a slight increase in the combined value relevance of accounting information after IFRS adoption. However, the present finding is inconsistent with the findings in the studies indicating a decrease in the accounting information in the IFRS period (Khanagha 2011, Akpaka 2015).

Table 4.1 Regression Results

	OLS	Random
Variables	Pre-IFRS 2007-2011	Post- IFRS 2012-2016
CONSTANT	1.937709	0.2193436
	(0.000)***	(0.069)*
DEPS	4.824893	0.8667649
	(0.003)***	(0.000)***
DCEPS	-1.524838	-0.5443927
	(0.155)	(0.000)***
DBVPS	-0.2037055	0. 3004473
	(0.672)	(0.003)***
F ratio	3.30	
R^2	0.1305	
AdJ. R^2	0.0910	
R^2:		
Within		0.5961
Between		0.0469
Overall		0.2529
Rho		0.7352

Source: Generated by the Author from Annual Reports and Accounts Data of Nigerian insuranc Companies

***, ** and * indicate 1% and 5% and 10% significant levels respectively.

Conclusions

The present study aims at providing some evidence of the impact of the IFRS on the value relevance of accounting information. The study employs a data set that includes 14 firms with 140 observations for the period 2007- 2016. This data set is used as an input in the Edward-Bell -Ohlson's (1995) valuation model.

The study found that earnings per share, change in earnings per share and book value of equity per share combined provide a better explanation of the variance in share price under IFRS. The study further found that earnings per share, change in earnings per share and book value of equity per share each, is significantly related to share price under IFRS. The work therefore, concludes that the value relevance of accounting information has improved after the adoption of IFRS. The study further concludes that earnings per share, change in earnings per share and book value of equity per share is relevant in determining the value of shares in Nigerian insurance industry in the post IFRS era. It recommends that Investors, shareholders, owners and other users of accounting information should use IFRS- compliant financial statements when making decision, because it will eliminate the challenge posed by the previous accounting standards of financial reporting inconsistency, allow comparison of financial performance of companies with international peers and produce more reliable accounting information because of the use of fair value which produces more realistic value of asset.

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Appendix (A)

NGAAP OLS Regression result

```
. reg dsp deps dceps dbveps
      Source |       SS       df       MS              Number of obs =      70
-------------+------------------------------           F(  3,    66) =    3.30
       Model |  36.3413021     3  12.1137674           Prob> F      =  0.0256
    Residual |  242.169218    66  3.66923058           R-squared     =  0.1305
-------------+------------------------------           Adj R-squared =  0.0910
       Total |   278.51052    69  4.03638435           Root MSE      =  1.9155
------------------------------------------------------------------------------
   dsp |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
  deps |   4.824893   1.550822     3.11   0.003     1.728577    7.921209
 dceps |  -1.524838   1.059653    -1.44   0.155    -3.640503    .5908282
dbveps |  -.2037055   .4783169    -0.43   0.672    -1.158696    .7512851
 _cons |   1.937709   .4904433     3.95   0.000     .9585073    2.916911
------------------------------------------------------------------------------
```

Hausman Specification Test for NGAAP

```
. hausman fixed random
                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt (diag (V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
        deps |    2.747651     4.205565       -1.457914        1.374044
       dceps |   -1.173936    -1.448248        .2743112        .3964612
      dbveps |   -.3201005    -.2845794       -.0355211         .28169
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg
    Test:  Ho:  difference in coefficients not systematic
chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                        =       3.22
Prob>chi2 =      0.3588
.xtregdspdepsdcepsdbveps, re

Random-effects GLS regression                   Number of obs      =        70
Group variable: comp                            Number of groups   =        14

R-sq:  within  = 0.0321                         Obs per group: min =         5
between = 0.3425                                                avg =       5.0
overall = 0.1293                                                max =         5

                                                Wald chi2(3)       =      6.63
corr(u_i, X)   = 0 (assumed)                    Prob> chi2         =    0.0848
```

```
------------------------------------------------------------------------------
        dsp |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       deps |   4.205565   1.664912     2.53   0.012     .9423976    7.468733
      dceps |  -1.448248   1.018928    -1.42   0.155     -3.44531    .5488149
     dbveps |  -.2845794   .4836592    -0.59   0.556    -1.232534    .6633753
      _cons |   2.049542   .5197832     3.94   0.000     1.030786    3.068299
-------------+----------------------------------------------------------------
sigma_u|  .73483396
sigma_e|  1.7779483
rho|  .14589817   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

Breusch and Pagan Lagrangian multiplier test for random effects (NGAAP)

```
. xttest0
Breusch and Pagan Lagrangian multiplier test for random effects
dsp[comp,t] = Xb + u[comp] + e[comp,t]

            Estimated results:
                     |       Varsd = sqrt(Var)
             ---------+-----------------------------
dsp |   4.036384       2.009075
e |     3.1611       1.777948
u |   .5399809        .734834
        Test:   Var(u) = 0
chibar2(01) =     1.76
Prob> chibar2 =   0.0924
```

Appendix B

IFRS Regression results random effect

```
. xtregdspdepsdcepsdbveps, re
Random-effects GLS regression                   Number of obs      =        70
Group variable: comp                            Number of groups   =        14

R-sq:  within  = 0.5961                         Obs per group: min =         5
       between = 0.0469                                        avg =       5.0
       overall = 0.2529                                        max =         5

                                                Wald chi2(3)       =     78.25
 corr(u_i, X)   = 0 (assumed)                   Prob> chi2         =    0.0000

------------------------------------------------------------------------------
dsp |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     deps |   .8667649   .1731434     5.01   0.000     .5274101     1.20612
```

```
    dceps | -.5443927   .127571   -4.27  0.000   -.7944271  -.2943582
   dbveps |  .3004473  .1022461    2.94  0.003    .1000486    .500846
    _cons |  .2193436  .1205721    1.82  0.069   -.0169734   .4556606
-------------+----------------------------------------------------------------
  sigma_u |  .2617298
   sigma_e|  .15707796
      rho |  .73519478   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

Hausman Specification Test for IFRS

```
. hausman fixed random
                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
deps |    .8800009     .8667649         .013236        .0654108
dceps |   -.5264173    -.5443927        .0179754        .0288892
dbveps |    .3006408     .3004473        .0001936        .0316098
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg
    Test:  Ho:  difference in coefficients not systematic
chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                      =       5.30
Prob>chi2 =      0.1513
```

Breusch and pagan Lagragian multiplier test for random effects (IFRS)

```
. xttest0
Breusch and Pagan Lagrangian multiplier test for random effects
dsp[comp,t] = Xb + u[comp] + e[comp,t]
        Estimated results:
                         |       Varsd = sqrt(Var)
                ---------+-----------------------------
                     dsp |   .1198829       .3462411
                       e |   .0246735        .157078
                       u |   .0685025       .2617298
                     Test:   Var(u) = 0
                  chibar2(01) =    61.29
                Prob> chibar2 =   0.0000
```

Conference theme 10:

Development in Corporate Governance

BOARD ATTRIBUTES AND CREDIT RISK OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

This paper examine the impact of board attributes on credit risk of listed deposit money banks in Nigeria for the period 2007-2018. Annual report and accounts of 15 listed deposit money banks were used for data collection. The study employed the use of descriptive statistics, correlation and panel data methodology of fixed effect, random effect and pooled OLS for analysis. Result from the analysis reveals that board size, profitability, bank size and age of listing have a significant negative effect on credit risk, while a significant positive effect between executive remuneration and credit risk was recorded. Though not significant, the study found a positive relationship between board composition and credit risk and a negative relationship between director ownership with credit risk. This result signifies the inefficiencies of the board and non-executive directors on the board of Nigerian banks despite their dominance. The banks tend to take high risk that jeopardize the achievement of their strategic objective. Therefore, the study recommends that Nigerian banks should maintain a sufficient board size relative to the risk they take dominated by non-executive directors who are having vast experience, skills and knowledge especially on risk who can be able to act independently enough with integrity, honesty and competence.

Keywords: Board attributes, board size, board composition, NED remuneration and credit risk

Introduction

Banks play an important role in economic development, and in fostering economic growth of any country through their role of intermediation and in providing financial services to the needy individuals and corporations in form of loans. More so, the profit of banks comes from providing this facility. Consequently, the granting of loan expose banks to a number of risk such as liquidity, interest rate risk, foreign exchange risk, operation risk, market risk, capital risk and credit risk. Boahene, Dasah and Agyei (2012) and Chen and Pan (2012) noted that credit risk is the most important risk as all the other risks revolve round it and as such, it demands special attention and handling. Therefore, credit risk is the risk that money owed is not repaid. In other words, it is defined as the probability that a counterpart of a contract fails to fulfill his engagements at times or not at all.

Risk is an integral feature of business activity, as such there has to be a system of controlling the potential consequences of credit risk which follow a standard risk management framework of identification, evaluation and management. For Ismail and Rahman (2011) noted that a company's future financial position will help investors when appropriate and adequate risk is reported. Therefore, effective risk management not only helps companies avoid costly financial distress and sustain investment programmes, but also company-wide decision making is improved. At the center of this, the board is charged with the responsibility for determining an appropriate and acceptable risk level. In Nigeria, the Code of Corporate Governance has articulated theresponsibility of boards for effective risk management and for determining the nature and the extent of significant risks a company is can to take. Consequently, as observed by Mcnulty, Florackis and Ormrod (2012), theboard should maintain a comprehensive risk management and internal control systems in achieving the objective of the bank by ensuring sound policies and monitor the methods used to achieve those objectives.

Corporate governance is a system that has been used in designing the hierarchical structure of a company, separating the authorities and responsibilities of shareholders, board of directors, the committees to ensure that the company is running effectively and efficiently (Trinh, Duyen&Thao, 2015) in order to maintain its long-term goals. Thus, it is widely accepted in financial literature that risk management can lead to conflicts of interest between managers and shareholders. Effective corporate governance through the board can be used to balance the interest of different stakeholders in a company, including shareholders, investors, managers, employees, customers, suppliers and government. In the aftermath of the financial crisis around the globe, emphasis has been given to the importance boards have in managing risk. Thus, making sure of the effectiveness of the board. OECD (2014), maintain that risk management failures at major corporations have been the headlines for many years, primarily in the financial sector. Often these failures were mostly facilitated by corporate governance failures, in which boards did not fully appreciate the risks that the companies were taking, and/or poor risk management systems.

Drawing from previous research, this study suggest that there are potentially three sets of board attributes that can facilitate or prevent boards from performing the risk management functions in an effective way. These are the board size, board composition and non-executive director's compensation.Previous studies by Yermack (1996) and Conyon and Peck (1998) documented that larger boards are more difficult to coordinate and may experience problems with communication and organization. As such, it was reported that smaller boards are more effective in ensuring good performance. Similarly, smaller boards are expected to perform their risk-management function in a more efficient manner. On the other hand, outside representation, in the form of non-executives sitting on the board, has also been suggested as a key criterion of board effectiveness. Mcnulty, Florackis and Ormrod (2012), for example, suggest that a greater representation of non-executive directors improves the control and strategic functions of the board. Through activities such as close monitoring, non-executives may reduce excessive risk-taking by executives that might endanger the existence of such a company. Directors' pay is also associated with excessive risk-taking. From the work of Stewart (2003) who suggests that high levels of director compensation may destroy value as board members abandon their independence in order to retain their positions. However, attractive compensation packages for non-executive directors can lead to a better supervising function of the board. Thus, in order to have a more skilled and experienced non-executives directors, who may be more willing to act

independently and competently in controlling excessive risk-taking by executive directors, a higher remuneration of non-executives is required.

It is only recently that most studies on corporate governance and risk management around the globe were given attention. However, only two studies were found to have been conducted on corporate governance and risk management in Nigeria. They are the work of Sharon, Olamide and Folashade (2015) who study the effect of ownership structure on credit risk of banks in Nigeria for the period 2005-2009, while Bello (2013) examine the extent to which corporate governance mitigate against exposure to risk among Nigerian banks for the period 2005-2009. It is against this back drop that this study intends to explore the effect of board attributes on credit risk of listed banks in Nigeria for the period 2007-2018.

More so, the reported corporate collapse especially in the financial sector around the globe and in Nigeria, and the call for a review and the need for new corporate governance code call for more studies to be conducted on corporate governance and risk. In addition, drawing from the global financial crisis of 2008 and 2012 of which Nigerian banks were not exempted, there is need for a study to be conducted in order to explore the effect of board attributes on credit risk of listed deposit money banks in Nigeria, which lead to the collapse of several banks in the country.
Therefore, this study intends to explore the impact of board attributes on credit risk of listed deposit money banks in Nigeria. Specifically, the study will examine the effect of board size proportion of nonexecutive directors on board and non-executive director's remuneration on credit risk of listed deposit money banks in Nigeria.
Consequently, the following hypothesis will be tested;
H_oBoard size has no significant effect on credit risk of listed deposit money banks in Nigeria.
H_oBoard composition has no significant impact on credit risk of listed deposit money banks in Nigeria.
H_o Non-executive director's remuneration has no significant effect on credit risk of listed deposit money banks in Nigeria.

Literature Review

Corporate Governanceand Board Attributes

With the increase need for a well sound and articulated financial sector, corporate governance has become a necessary mechanism to maintain in order to improve public confidence in the banking system and its ability to properly manage its assets and liabilities, showing their commitment to the depositors, shareholders and others stakeholders. According to Trinh, DuyenandThao (2015), the characteristics of competition, high regulation, agency problems and high information asymmetric of the banking system lead to a strong concern about the need for corporate governance in banking system. Consequently, as specified by BIS (2010), corporate governance in banking is about the board of management governing the business and affairs of a company. Parties interested in the good functioning of an entity, especially its shareholders, its management and its stakeholders, assume and take steps in the putting together sound board that will formulate policies in the field of risk in such a manner that the overall goal and objective of a company is not compromised.

The governance system of banks should be able to put in place a set of relationships between various stakeholders and the bank. Moreover, Greuning and Bratanovic (2009) define corporate governance

as the set of relationships between a bank's management, its board, its shareholders and other stakeholders. Therefore, effective corporate governance practices are essential to achieving and maintaining public trust and confidence in the banking system. At the center of these, the board of directors is charged with the responsibility of ensuring good corporate governance in the bank.The board has the ultimate responsibility for the manner in which the operations of a bank is effectively conducted in such way that the performance of the management is monitored in order to protect and enhance shareholder value and to meet the bank's obligations to its employees and other stakeholders. Thus, the governance framework that will be in place must have a bearing on bank risk management.

Boards of director have being criticized for failing to keep up with their governance responsibilities. As a result, several stakeholders put pressure on (incompetent) directors and have long advocated changes in the board structure (CBN, 2006). Their call has been evidenced by different corporate governance reforms resulting from major corporate failures. These reforms over time put great emphasis on board attributes such as board size, board independence, director remuneration, board leadership structure and board committees (Ogbechie&Koufopoulos, 2010). In this study however, the board attributes to be considered are; board size, board composition and non-executive director remuneration.

Board size refers to the total number of directors on the board of any corporate entity. Maintaining an optimal board size for an entity is very important because the number and quality of directors on the board determines and influences the functioning of the board and ultimately determine corporate performance. The advocates of a larger board size believe that more members on board provide an increased pool of expertise because larger boards are likely to have more knowledge and skills at their disposal. The dominance of the CEO is also reduced in this situation and hence put the necessary checks and balances. More so, Jensen (1993) maintained that monitoring and supervising capacity of the board is increased as more and more directors join the board. Besides, there are authors who believe that large board size adversely affects the performance and well-being of any firm. Larger boards are difficult to coordinate, and are very prone to fictionalizations and coalitions that will delay strategic decision making processes.

Board Composition refers to the distinction between inside and outside directors on the board, i.e. executive directors and non-executive directors. Traditionally, board composition is shown as a percentage of outside directors on the board (El-masry, Abdelfattah & Elbahar, 2016). Executive directors are those directors that are involve in the day-to-day operations and management of a company. They are responsible for the departments they head and are answerable to the board through the CEO/MD. While the non-executive directors are non-manager directors. Non-executive directors are key members of the board. They are expected to be persons of high caliber with broad experience, integrity, credibility and also maintain an independent judgment as well as necessary scrutiny of the actions of management and executive directors especially on issues of strategy, performance evaluation and key appointments. As contained in the code of corporate governance of banks CBN (2006), the number of non-executive directors on the bank board should be more than that of executive directors subject to a maximum board size of 20 directors. Consequently, Ogbechie and Koufopoulos (2010) noted that non-executive directors provide greater performance benefits to the

company as a result of their independence from company's management, increase the element of independence and objectivity in board's strategic decision-making, and also help in providing independent supervision of the company's management, hence making the board's oversight function more effective.

Non-executive director's remuneration refers to sitting allowances, directors' fees and reimbursable travel and hotel expenses to be determined by the shareholders at AGM (CBN, 2006). More so, a committee of non-executive directors is responsible for determining the remuneration of executive directors and reports same to the shareholders at AGMs for ratification. Consequently, Stewart (2003) suggests that high levels of director compensation may destroy value as board members abandon their independence in order to retain their positions. However, attractive compensation packages for non-executive directors can lead to a better supervising function of the board. Thus, in order to have a more skilled and experienced non-executives directors, who may be more willing to act independently and competently in controlling excessive risk-taking by executive directors, a higher remuneration of non-executives is required.

The Concept of Credit Risk

Credit is the trusts which allow one party to provide resources to another party where that second party do not repay the first party immediately, but instead promise either to repay or return those resources at a later date. More so, Johnson (1971) defines credit as the relationship between two parties in a transaction in which one party provide resources for temporary usage by the borrower, subject to the preparation on the principles of urgency of liability and serviceability. The resources provided may be financial, and or goods or services. The importance of credit in the economic growth and development of a country cannot be over-emphasized. Therefore, Aremu, Suberu and Oke (2010) pointed out that credit facilitates the transfer of capital or money from where it is less needed to where it will be most effectively and efficiently used.

The main activity and source of revenue for banks is the granting of credit and it makes up a huge amount of banks activity. As the amount of credit increases, the more exposed the banks are to default of non-payment. Therefore, CIMA Official Terminology (2005) defines risk as a condition in which there exists a quantifiable dispersion in the possible outcomes from any activity undertaking by a bank. Van Gestel and Baesens (2009) and Onaolapo (2012) observed that modern banks operate in a highly dynamic environment that exposes them to a variety of risks ranging from liquidity risk, credit risk, operational risk, foreign exchange risk to market risk; thus thereby creating a source of threat towards their survival and or success. However, Boahene, Dasah and Agyei (2012) and Chen and Pan (2012) noted that credit risk is the most important risk of all risk as all the other risk revolves round it.

Therefore, credit risk can be seen as the risk that money owed is not repaid. Fun Ho and Yusoff (2009) defined credit risk as the possibility that a bank borrower or counter party will fail to meets it obligations in accordance with the terms and conditions of repayment. Credit risk does not necessarily occur in isolation. Altman, Resti and Sironi (2003) and Brown and Moles (2011), noted that there are three characteristics that define credit risk: Exposure to a party that may possibly default or suffer an adverse change in its ability to perform, the likelihood that this party will default (or the default probability) on its obligations and the recovery rate (that is, how much can be retrieved if a default takes place).Credit has the potentiality of being paid all in full, probability of default before payment is made complete or

the probability of not paying at all. When any of these occur, the bank is said to have a performing or non-performing loan.

In the prudential guidelines issued by the central bank of Nigeria, CBN (2010) a credit facility is deemed to be performing if payments of both principal and interest are up-to-date in accordance with the agreed terms which constitute quality asset portfolio for banks. *Loans that are outstanding in both principal and interest for a long time contrary to the terms and conditions contained in the loan contract are considered as non-performing loans.*

Empirical Evidence on the Effect of Board Size on Credit Risk

Mcnulty, Florackis and Ormrod (2012), examine the impact of corporate governance on risk management among listed firms in United Kingdom for the period 2007 – 2009, using pooled OLS and reported a negative and significant impact of board size on risk management. Adusei, Akome and Nyadu-Ado (2014) investigated the predictors of credit risk of listed banks in Ghana for the period 2006 – 2010 using pooled OLS and reported a negative and significant effect of board size on credit risk. Similar, Upadhyay (2014) examine the impact of board structure on firm risk in the USA for the period 1992 – 2010 using pooled OLS. The study was able to find a negative and significant effect of board size on firm risk. A similar negative and significant effect of board size on risk was reported by Bourakba and Zerargui (2015), Pan (2016) and Mathew, Ibrahim and Archbold (2016). Though not significant, Sharon, Olamide and Folashade (2015) and El-Masry, Abdelfattah and El-Bahar (2016), Mamatzakis, Zhang and Wang (2017) reported a negative relationship between board size and risk management.

On the other hand, Chiang, Chung and Huang (2013) investigated the influence of board characteristics on default risk of listed firms in Taiwan for the period 1998 – 2009 using Dynamic GMM. The study was able to establish a positive and significant effect of board size on risk management. Similarly, Lotfi and Malgharni (2013) in Iran, investigated the relationship between board composition and risk management for the period 2007 – 2012 among listed firms using multiple linear regression was able to establish a positive and significant effect of board size on risk management.Boussaada and Labraronne (2015) examine the impact of governance mechanism on credit risk for the period 2004 – 2011 using panel corrected standard errors among listed banks in the MENA countries and reported a positive and significant effect of board size and risk. A similar positive and significant effect of board size on risk was reported by, Nzioki (2016), Akwaa-Sekyi and Gene (2016), Battaglia and Gallo (2017), Saggar and Singh (2017). However, Trinh, Duyen&Thao (2015) and Rao and Jirra (2017) reported a positive but not significant relationship between board size and risk.

Empirical Evidence on the Effect of Board Composition on Credit Risk

Eling and Marek (2013) examine the effect of corporate governance on risk taking among insurance firms in the UK and Germany for the period 1997 – 2010 using SEM and reported a negative and significant effect of board composition on risk. Similar, Bello (2013) investigated how corporate governance can mitigate risk exposure of listed banks in Nigeria for the period 2005 – 2009 using LP logit model and reported a negative and significant effect of board composition on risk management. More so, Bourakba and Zerargui (2015), Bousssaada and Labraronne (2015), Sharon, Olamide and Folashade (2015), Pan (2016), Battaglia and Gallo (2017) and Mamatzakis, Zhang and Wang (2017) reported a negative and significant effect of board composition on risk management. However, Zhao

and Xiao (2016), Sanusi, Motjaba-Nia, Roosle, Sari and Harjitok(2017) were able to find a negative but not significant relationship between board composition and risk

Contrary to this findings, Adusei, Akomea and Nyadu-Ado (2014) investigated the predictors of credit risk of banks in Ghana for the period 2006 – 2010 using pooled OLS and reported a positive and significant effect of board composition on risk management. Trinh, Duyen and Thao (2015) investigated the impact of corporate governance on financial risk of banks in Vietnam for the period 2009 – 2013 also reported a positive and significant effect of board composition on risk management. A similar positive and significant effect of board composition on risk was reported in the studies of Nzioki (2016), Akwaa-Sekyi and Gene (2016) and Rose (2017). However, Mathew, Ibrahim and Archbold (2016), El-Masry, Abdulfattah and El-Bahar (2016) and Saggar and Singh (2017) were able to report a positive but not significant effect of board composition on risk management.

Empirical Evidence on the Effect of NED Remuneration on Credit Risk

Mcnulty, Florackis and Ormrod (2012) examine under what condition board engage in risk management of companies in UK for the period 2007 – 2009 using pooled OLS and found a negative and significant effect of remuneration and risk. Similarly, Eling and Marek (2012) examine the effect of corporate governance on risk taking by insurance companies in UK and Germany for the period 1997 – 2010 using SEM and reported a negative and significant effect of board remuneration and risk management. A similar result was reported by Chiang, Chung and Huang (2013), Upadhyay (2014) and Pan (2016) who reported a negative and significant effect of board. However, Cheng, Elyasiani and Jia (2011) were not able to establish any significant effect.

On the However, Lotfi and Malgharni (2013) investigated the relationship between board composition and risk of firms in Iran for the period 2007 – 2012 using multiple linear regression and reported a positive and significant effect of remuneration on risk. Similarly, Nzioki (2016) investigated the effect of corporate governance on credit risk of banks in Ghana for the period 2010 – 2014 using pooled OLS and reported a positive and significant effect of board remuneration on risk management. A similar result was reported in the study of Rose (2017).

Methodology

The research design adopted by this study is the ex-post factor research design because the annual report and accounts of the listed banks on the floor of Nigerian stock exchange are utilized. For the purpose of analysis, data was extracted for the period 2007-2018. The population of the study is all the 20 listed deposit money banks in the Nigerian stock exchange as at 2018. Thus, the population of the study is shown in Table 1.

The sampling technique adopted by the study is the non-probability sampling technique of judgmental sampling technique base on the filter that for any bank to be selected, it should have been in operation throughout the study period (2007-2018). This will enable the banks to have a complete set of annual report and account throughout the study period. Thus, the sample size is shown in table 2.

The dependent variable employed by the study is credit risk, while the independent variables employed are; board size, board composition and directors remuneration. Meanwhile the control variables used in the study are; director ownership, bank size, profitability and bank Age. Thus, the measurement of the dependent, independent and control variables are shown in table 1.3

Table 3 Variables and there Measurement

Dependent Variable	Measurement	Source
Credit risk (CR)	Non-performing loan/Total loan	Sraini (2013)
Independent Variable		
Board Size (BS)	Number of directors on board	Lotfi&Malgharni (2013)
Board Composition (BC)	Ratio of non-executive directors/total directors on board	El-Masry, Abdelfattah& El-Bahar (2016)
Director remuneration (DR)	Ln total amount of non-executive director pay	Nzioki (2016)
Control Variable		
Director Ownership (OW)	Ln total director ownership	Lotfi&Mohammadi (2014)
Bank Size (SIZE)	Ln total asset	Zemzem (2014)
Profitability (ROA)	Profit after tax/total asset	Sraini (2013)

For the purpose of analysis multi-colinearity test is conducted in conjunction with heteroskedasticity test. More so, the data is analyzed with the use of descriptive statistics, correlation and panel data analysis of fixed effect, random effect and pooled OLS. Lastly, the empirical model employed by the study is given as;

$$CR_{it} = c + \beta_i BSIZE_{it} + \beta_i BC_{it} + \beta_i DR_{it} + \beta_i DOW_{it} + \beta_i SIZE_{iit} + \beta_i ROA_{it} + e_{it}$$

Result

Descriptive Statistics

Table 4 shows the summary statistics of the dependent, independent and the control variables of the study. The summary statistics showed the mean, standard deviation, minimum and the maximum values of the variables of the study. Table 4 also include the variance inflation (VIF) of the study variables.

Table 4: Descriptive Statistics

	mean	std. dev.	min	max	vif
Cr	0.09	0.12	0.02	0.74	
bsize	14	2.62	6	20	1.37
Bc	62	0.09	0.45	0.91	1.33
Dr	12	0.96	9.16	15.07	1.07
Dow	19	2.47	9.76	24.27	1.23
Roa	0.02	0.05	-0.45	0.23	1.07
Size	18	3.37	11.19	21.85	1.32
Age	16	13	1	46	1.49

Source: Generated by the Author from the Annual

Report andaccount Data of DMBs.

Table 4 revealed that on the average, the banks in the sample generate a default rate of about 9% and a standard deviation of 12%. This means that the value of default rate can deviate from the mean to both sides by 12%. The maximum and minimum default rate are 74% and 0.2% respectively. The

average board size as revealed from the 150 observation is about 14 with a standard deviation of 3, suggesting that banks in Nigeria have relatively similar board size. The maximum and minimum board size of Nigerian banks are 20 and 6. In addition, the average proportion of non-executive directors on the board of Nigerian banks is 62% and the standard deviation is 9%. This signifies that some of the board of Nigerian banks are moderately composed. The maximum and minimum board composition are 91% and 45% respectively. The mean value of non-executive director's remuneration is 12 with standard deviation of 0.96. This means that the non-executive directors are adequately compensated. The maximum and minimum value of non-executive director's compensation are 15 and 9 respectively.

The mean value of director ownership as revealed in Table 4 is 19 and the banks generate a standard deviation of 2. The maximum and minimum director ownership stood at 24 and 9 respectively. However, the average return on asset generated by Nigerian banks is 2% with a standard deviation of 5%. This means that the profit made by Nigerian banks is almost similar. The maximum and minimum return on asset are 22% and -45%. In addition, the average size of Nigerian banks is 17 and the standard deviation as revealed is 3.3. This signifies that Nigerian banks hold relatively the same asset size. The maximum and minimum asset size are 22 and 11 respectively. Lastly, Table 4 revealed that the average age of Nigerian banks is 16 years and the standard deviation is 13 years. This signifies indicate that Nigerian banks almost of the same age. The maximum and minimum age of the banks are 46 and 1.

Correlation Result

Correlation shows the relationship between one variable and the other. And the sign of the correlation indicates the direction of the relationship while the coefficient of the correlation gives the magnitude of the relationship. Table 5 gives the relationship between the dependent variable and the explanatory variables.

Table 5: Correlation Between the dependent and the explanatory variables

	Cr	Bsize	bc	dr	Dow	Roa	size	age
Cr	1.0000							
bsize	-0.2258	1.0000						
Bc	-0.0061	-0.4205	1.0000					
Dr	-0.0816	0.1551	0.0699	1.0000				
Dow	-0.3624	0.1053	-0.1457	-0.0414	1.0000			
Roa	-0.2764	0.0076	0.1582	0.1509	-0.0384	1.0000		
Size	-0.0730	0.0040	-0.0565	0.0354	0.1491	-0.0441	1.0000	
Age	0.0659	0.1408	0.0960	0.0656	0.2802	0.1246	0.3794	1.000

Source: Generated by the Author from the Annual Report and account Data of DMBs.

The result from correlation analysis as depicted in Table 5 shows that credit risk as measured using default rate has an inverse relationship with all the explanatory variables (bsize, bc, dr, dow, roa, size and age) except age of listing that showed a positive relationship with coefficients 0.2258, 0.0061, 0.0816, 0.3624, 0.2764, 0.0730 and 0.0659 respectively. The negative relationship between board size and credit risk indicate that the higher the number of directors on the board the lesser will be the

risk the banks expose their self to and the fewer the number of directors on board the more the banks are exposed to higher risk. This has reiterate the notion larger board size provide an increased pool of expertise who are likely to have more knowledge and skills at their disposal. Hence, reducing the dominance of the CEO and putting the necessary checks and balances. The result also indicate that the higher the presence of non-executive directors on board the lower the risk exposure of the banks and the lower the number of non-executive directors on board the higher the risk exposure of the banks. This result maintain the notion that non-executive directors provide greater performance benefits to the company as a result of their independence from company's management, objectivity in board's strategic decision-making, and also help in providing independent supervision of the company's management, hence making the board's oversight function more effective.

Similarly, the result of executive compensation reveals that the higher the executive pay, the lower the risk and the lower the executive pay, the higher the risk. This indicate that in order to have a more skilled and experienced non-executives directors, who may be more willing to act independently and competently in controlling excessive risk-taking by executive directors, a higher remuneration of non-executives is required. The first control variable used in the study also indicate that the more board members take on shares of the bank the lesser they take on risky decisions that will endanger their investment. More so, the sign shown by the profitability measure indicate that more profitable banks are taking less risk while less profitable banks are riskier. The relationship between size of bank and credit risk as indicated reveals that as the size of the bank increases credit risk reduces and as the amount of asset held by the banks reduces, credit risk increases. However, as indicated by age of the bank, the older banks are taking more risk than the newer banks.

Regression Result

Table 6 present the regression result from the analysis. As indicated all the variables are having VIF ranging from 1.06 – 1.49 which indicate absence of multicolinearity (see Table 4). In addition, Hausman test was conducted in order to determine whether to use a random effector a fixed effect, the Hausman test (chi2 = 18.84; prob. = 0.0087) conducted showed that the fixed-effect model gives consistent estimates and as such analysis is done using the fixed-effect model result. Also, the f-test shows that fixed effect (7.38) is more robust than the pooled OLS (3.15) result and as such the result of the fixed is used for analysis.

Table 6: Regression result credit risk and the explanatory variables

	Pooled OLS		Random effect		Fixed effect	
Variable	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Bsize	-0.0117	0.003	-0.1435	0.001	-0.1414	0.005
Bc	-0.1648	0.124	-0.1966	0.086	-0.1241	0.323
Dr	-0.0010	0.917	0.0070	0.500	0.0278	0.024
Dow	-0.0163	0.000	-0.0115	0.019	-0.0022	0.737
Roa	-0.6767	0.000	-0.6213	0.000	-0.4945	0.006
Size	-0.0027	0.371	-0.0038	0.344	-0.1201	0.075
Age	0.0008	0.335	0.0006	0.610	-0.0085	0.007

R-squared	0.2667		
F-value	3.15		
Prob. F	0.0000		
R-squared:			
Within		0.1301	0.2042
Between		0.5383	0.0072
Overall		0.2514	0.0050
Rho		0.1559	0.7452
F-value			7.38
P-value			0.0001

Source: Generated by the Author from the Annual Report and accounts of DMBs

Board Size and Credit Risk

The regression result showed the model is consistently fitted with P-value of 0.0001. Board size shows a negative and significant effect on credit risk of listed deposit money banks in Nigeria suggesting that the higher the boardroom the lower the credit risk and the lower the boardroom the higher the credit risk. This result contradicts the idea that a smaller boardroom is expected to enhance bank's ability to take quick, adequate and right decisions as larger boardroom tend to be slow in making decisions that will endanger the banks strategic objective. However, the implication of this result is that larger board size provide an increased pool of expertise who are likely to have vast knowledge, skills and competence at their disposal. Hence, reducing the dominance of the CEO and putting the necessary checks and balances on the board thereby reducing excessive risk taking. Therefore, the results provide evidence for the rejection of the hypothesis which says that there is no significant effect of board size on credit risk of listed deposit money banks in Nigeria. This findings is consistent with the result reported by Mcnulty, Florackis and Ormrod (2012), Adusei, Akomea and Nyadu-Ado (2014), Bourakba and Zerargui (2015), Pan (2016). And contradict the findings of Dhouibi (2013), Trinh, Duyen and Thao (2015) and Nzioki (2016) who found a positive relationship between board size and various measures of risk.

Board Composition and Credit Risk

The study was not able to establish any significant effect of board composition on credit risk which is similar to the findings of Mcnulty, Florackis and Ormrod (2012) and Sharon, Olamide and Folashade (2015) who also found a positive and insignificant result. However, Adusei, Akomea and Nyadu-Addo (2014) and Nzioki (2016) were able to report a positive and significant relationship between board composition and credit risk. The positive relationship reported by the study contradict the notion that having more of non-executive directors on board provide greater performance benefits to the company as a result of their independence from company's management, increase the element of independence and objectivity in board's strategic decision-making, and also help in providing independent supervision of the company's management, hence making the board's oversight function more effective. Therefore, the hypothesis board composition has no significant effect on credit risk of listed deposit money banks in Nigeria is upheld.

Non-Executive Compensation and Credit Risk

Non-executive compensation showed a positive and significant effect on credit risk of listed deposit money banks. This signifies that if non-executive directors on board are highly compensated, they tend to take more risk and as they are less compensated, they tend to take less risk. This result confirms the fact that high levels of non-executive director compensation may destroy value as they abandon their independence in order to retain their positions and align their interest with that of executive management. However, non-executive director compensation plays an important role in corporate governance where the aim is to ensure non-executive directors are adequately compensated to align the interest of the executive management with shareholder interest. The presence of non-executive directors on board will ensure that the executive management do not take higher risk that might jeopardize the well being of banks. This findings is similar to the findings of Nzioki (2016) and Rose (2017) and contradict the findings of Mcnulty, Florackis and Ormrod (2012) who argue that attractive compensation packages for non-executive directors lead to a better supervising function of the board. Thus, higher remuneration of non-executives directors ensures that skilled and experienced non-executives directors are attracted who are willing to act independently and competently enough in controlling the excessive risk-taking by executive directors. Therefore, the hypothesis which says that there is no significant effect of executive compensation on credit risk of listed deposit money banks in Nigeria is rejected.

Control Variables and Credit Risk

The study was not able to establish any significant relationship between director ownership and credit risk. However, the negative relationship signifies that as directors take on more shares in the bank, credit risk reduces and as they hold less shares, credit risk of the banks increases. This findings is similar to the findings of Bello (2013), Sharon, Olamide and Folashade (2015) Hammami and Boubakaer (2015) and Sarker and Nahar (2017). The findings contradict the findings of Tsorhe, Aboagye and Kyereboah-Coleman (2016) and Lofti and Mohamadi (2014) found a positive and significant relationship between director ownership and risk.

However, the study was able to establish a negative and significant effect of profitability measured using ROA, Size and Age of bank with credit risk. The result signifies that as profitability of listed deposit money banks in Nigeria increases, credit risk reduces and as profitability reduces, credit risk faced by the banks increases. This findings is similar to the findings of Akwaa-Sekyi and Gene (2016) and contradict the findings of Mcnulty, Florackis and Ormrod (2012). So also, the negative relationship between size of bank and credit risk indicate that as the size of the bank increases, credit risk reduces and as the size decreases, they are exposed to a very high risk. The findings is similar to the findings of Akwaa-Sekyi and Gene (2016) and contradict the result reported by Mcnulty, Florackis and Ormrod (2012), Bourakba and Zerargui (2015) and Tsorhe, Aboagye and Kyereboah-Coleman (2011). Finally, the study also found a negative effect of Age and credit risk which signifies that older banks are in a better position to handle credit risk more efficiently than newer banks. The findings is similar to the findings of Akwaa-Sekyi and Gene (2016) and Sarker and Nabar (2017) and contradict the findings of Dhouibi (2013).

Conclusion

This study is conducted to explore the impact of board attributes (board size, board composition and executive remuneration) on credit risk of listed deposit money banks in Nigeria. Therefore, from the

findings of the study, the following conclusions were made

i. Board size has a significant inverse effect on credit risk of listed deposit money banks in Nigeria. This implies that high presence of directors on the board of Nigerian banks ensure that the directors are performing their statutory duty by ensuring that risk is maintained at the tolerable limit and making sure bank management do not take unnecessary high risk that will jeopardize the strategic objective of the bank.

ii. There is a direct effect of the number of non-executive directors on credit risk. Though not significant, this implies that Nigerian bank boards dominated by non-executive directors don't adopt different strategies on credit risk different from the philosophy of executive directors who tend to take high risk at the expense of the interest of the banks.

iii. There is a positive effect of executive compensation on credit risk of banks in Nigeria. It is essential to state that the idea behind compensating non-executives relative to executive directors is effective due to the fact it will make the non-executive directors to be able to challenge executive management on key issues that relates to credit risk. Thus, it is concluded that there is poor risk management framework in relation to the risk Nigerian banks take.

Recommendation

i. Board size to be maintained by Nigerian banks should be sufficiently enough relative to the extend and complexity of a bank's operations, size and risk exposure without compromising competence, independence, expertise and integrity of the board.

ii. The appointment of non-executive directors on the boards of banks in Nigeria should be on the basis of experience and knowledge on risk and financial issues. The appointment should be made in such a manner that they will be able to act independently enough in checkmating the activities if the banks.

iii. The remuneration of non-executive directors by Nigerian banks should not be fixed very high in such a way that it will destroy value and make them abandon their independence, integrity and competence. The remuneration should be geared towards attracting highly skilled, experience and expertise on financial matters especially on risk.

iv. The Central Bank of Nigeria and other relevant regulatory agencies should make sure that all necessary laws and rules passed are strictly adhered to by the banks and mandate all banks to develop a well-articulated credit risk framework that will check the excesses of risk taking by executive management to safe guard shareholders and stakeholders interest and the economy at large.

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APPENDIX

Table 1: Population of the study

S/N	Banks	Date Listed
1	Access Bank Plc	1998
2	Citibank Nigeria limited	2008
3	Diamond Bank Plc	2005
4	EcobankNig Plc	2006
5	Fidelity Bank Plc	2005
6	First Bank of Nig. Plc	1971
7	First City Monument Bank Plc	2004
8	Guaranty Trust Bank Plc	1996
9	Heritage Bank Limited	2013
10	Jaiz Bank	2016
11	Keystone Bank Limited	2011
12	Skye Bank Plc	2005
13	Standard Chartered Bank Limited	2012
14	Stanbic IBTC Bank Plc	2005
15	Sterling Bank	1993
16	Union Bank Plc	1970
17	United Bank for Africa Plc	1971
18	Unity Bank Plc	2005
19	Wema Bank Plc	1991
20	Zenith Bank Plc	2004

Source: Central Bank of Nigerian 2018

Table 2: Sample size

S/N	Banks	Date Listed
1	Access Bank Plc	1998
2	Diamond Bank Plc	2005
3	EcobankNig Plc	2006
4	Fidelity Bank Plc	2005
5	First Bank of Nig. Plc	1971
6	First City Monument Bank Plc	2004
7	Guaranty Trust Bank Plc	1996
8	Skye Bank Plc	2005
9	Stanbic IBTC Bank Plc	2005
10	Sterling Bank	1993
11	Union Bank Plc	1970
12	United Bank for Africa Plc	1971
13	Unity Bank Plc	2005
14	Wema Bank Plc	1991
15	Zenith Bank Plc	2004

BOARD DYNAMISM AND FINANCIAL PERFORMANCE: EVIDENCE FROM LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The study investigates the effect of board dynamism on financial performance of listed Deposit Money Banks in Nigeria. Board Dynamism is proxied by gender diversity, board size, Hausa ethnic group, Igbo ethnic group, Yoruba ethnic group and board reputation, while dependent variable (financial performance) was represented with earnings per share. Robust Ordinary Least Square regression was adopted, while Stata 13 was used as a tool for analysis of data. Data were obtained from secondary source through the annual reports and accounts of the selected banks for the period covering 2013 to 2017. Post estimation tests such as normality test of error term, multicollinearity and heteroscedasticity tests were carried out to validate the results. The findings revealed that, gender diversity and Igbo ethnic group have significant and positive effect on financial performance of banks, while board size shows a significant but negative effect on financial performance of listed banks in Nigeria. Hausa ethnic group, Yoruba ethnic group and board reputation were found to have insignificant effect on financial performance of banks. From the findings, the paper concludes that gender diversity and Igbo ethnic group enhances the earnings per share of the banks. However, increase in the size of the board members reduces the bank's earnings per share, while Hausa ethnic group, Yoruba ethnic group and reputation of the board members do not contribute significantly in improving the earnings per share of the banks. It is therefore recommended amongst others that the number of women directors should be increased while a balance should be maintained amongst ethnic groups in order to foster diversity in experience and better cross fertilization of ideas that will improve the financial position of the banks.

Keyword: Board Ethnicity, Board Dynamism, Echelon Theory, Earnings per Share

Introduction

Corporate entities world-wide requires growth and development in a bid to attract funding from investors and potential investors. These investors, before they invest in a particular business organization, they often want to be sure that the business in which they are investing money is financially stable, economically viable, secured and have ability to generate profits in the long run (Milan, 2007).According to Lai and Semiu (2012), corporate governance failure creates problems that could negatively influence investors' funds and consequently deteriorate the stability of the companies. However, effective board of directors and good corporate governance practices represent

an essential ingredient in achieving and maintaining public trust as well as confidence in the running of corporate entities. An effective board ensures that the operation of a corporate entity complied to the highest standard of corporate governance which ultimately create and deliver value to shareholders and achieve continuous corporate success. The board of directors is also responsible for the overall governance of a business firm and is accountable to shareholders for creating and delivering sustainable value as well as ensuring long term profitability.

In recent time, researchers in the area of corporate governance and corporate financial reportingbegan to link the influence of board diversity, most typically gender diversity on firm performance. However, the extent to which this board diversity influences firm performance remained an unresolved empirical question. A common argument by these scholars is that diversity enhances board decision making and monitoring functions. A diverse board can enhance the quality of a board's decision making and monitoring functions because diverse groups are less likely to take extreme positions and more likely to engage in high qualityanalysis. Diversity among board member backgrounds may promote the airing of different perspectives and reduce the probability of complacency and narrow mindedness in a boards' evaluation of executive proposals (Kosnic, 1990). This is consistent with the view thatthe promotion of diverse perspectives can produce a wider range of solutions and decision criteria for strategic decisions. Another argument is that board racial diversity increased innovation by expanding access to information and networks as well as prompting thorough evaluation.

The Nigerian banking industry has over the years suffered from weak corporate governance practices and ineffective board of directors. These, and other problems necessitated the Central Bank of Nigeria to sack the boards and managements of five deposit money banks in 2009. Accordingly, the Central Bank has since then began to issue codes of best practices to the industry which are aimed to among other things bring about dynamism in the board and ensure strict adherence to best practices. It is in view of this the study evaluates empirically the extent to which board dynamism influences the financial performance of listed deposit money banks in Nigeria.
The remaining part of the paper covers literature review and hypotheses development, this was followed by review of theory underpinning the research. Methodology adopted was also discussed followed by the results and discussion of the findings. The paper ends with conclusion and recommendations from the findings.

Literature Review and Hypotheses Development

Herdjiono and Sari (2017)analyzed the effect of corporate governance on the financial performance of 156 Indonesia firms listed on the Indonesia Stock Exchange using linear regression analysis. They found that size of the board of directors has positive effect on financial performance. Abu, Okpeh and Okpe (2016)investigate the influence of board characteristics on financial performance of listed deposit money banks in Nigeria for the period of 2005-2014. Sample of fifteen out of seventeen listed banks were used for the analysis. Multiple regression technique employed as tool of data analysis and data were collected from secondary source through their annual reports and accounts. The findings show that women director have no significant impact on banks performance in Nigeria.

Al-Matari, Al-Swidi and BtFadzil (2014) examine the relationship between internal corporate governance mechanisms and firm performance of the Muscat Security Market (MSM) listed

companies during 2011 and 2012. A sample of non-financial firms was used. The findings revealed that board size has positive but not significant impact on financial performance. Basuony, Mohamed andElbayoumi (2016) examine the effect of ownership structure and board characteristics on bank financial performance using data from the six countries inthe Gulf Cooperation Council (GCC). Sixty seven banks, conventional and Islamicwere studied. OLS regression is used. The results revealed that there is a significant relationship between board size and Tobin's Q.

Marimuthu, Abdul Rahman and Kolandaisamy (2009) examine the effect of demographic diversity on boards of directors on firm financial performance. Secondary data of non-financial listed companies over the period 2000 to 2006 were utilized. OLS regression was used on cross-sectional data. Based on the findings, gender and ethnic diversity have positive but weak effect on firm financial performance.Ilogho (2017) examined the effect of board nationality and ethnic diversity on firms' performance in the Nigeria Stock Exchange. Data from 60 non-financial firms covering 2012-2015 were utilized and Ordinary Least Squares regression method was employed. It was found that ethnic diversity has no significant influence on performance level of firms.

Chuah and Hooy (2018)examine the impact of board ethnic diversity on firm performance. The directors' details were hand-collected through identifying them as Malay, Chinese, Indian or other ethnics' directors. Using panel data analysis of public listed firms in Malaysia, it was revealed that diverse ethnic directors in the board increase financial performance only if more than half of the board consists of independent directors. Marimuthu (2008) investigate the effect of ethnic diversity in top level management on firm financial performance. Secondary data from the top 100 non-financial companies listed on the Main Board over a period of 2000 to 2005 was used. Statistical techniques such as correlation and regression analyses were considered. The finding shows that ethnic diversity lead to superior financial performance.
Cheong and Sinnakkannu (2014) investigate the relationship between board ethnic diversity, ethnicity and market, and book measures of firm financial performance using Malaysian data. After controlling for firm and board-specific attributes, a significant positive relationship between ethnic diversity and firm financial performance was established. Ujunwa, Nwakoby and Ugbam (2012) investigate the impact of corporate board characteristics on financial performance of Nigerian quoted firms. The study employed the random-effects and fixed-effects generalized least squares regression. Using panel data from 122 quoted firms in Nigeria between 1991 and 2008, it was found that board size and gender diversity were negatively linked with firm performance, whereas board ethnicity was found to have positiveimpact on firm performance.

Naseem, Xiaoming, Raiz and Ur Rehman (2017) examine the impact of board characteristics on financial performance of listed companies in Pakistan Stock Exchange. Data were collected from six different sectors of the economy represented in the stock exchange market from 2009 to 2015. The panel data regression analysis revealed that board size is positively linked with firms' financial performance, whereas gender diversity is negatively associated with firms' financial performance. Palaniappan (2017) examine effect of board characteristics on the financial performance of manufacturing firms in India. The study draws on data from 275 firms listed in NSE during from 2011 to 2015, using a multiple regression model. The finding revealed a statistically significant negative relationship between board size and financial performance. Assenga, Aly andHussainey

(2016)investigate the impact of board characteristics on the financial performance of listed firms in Tanzania. Balanced panel data regression analysis on 80 firm-years observations covering 2006-2013 from annual reports, and semi-structured interviews was conducted with 12 key stakeholders. It was found that gender diversity has a positive impact on financial performance. Furthermore, the findings do not support an association between financial performance and board size.

The study adopts upper echelon theory as it suggests that organizations wishing to attract, retain and benefit from diverse talents should increase the diversity of their senior management (Gelfand, Nishii, Raver, & Schneider, 2004). They concluded that, doing so does help, not only because of the signal that it sends to diverse employees about their advancement potential, but because a diverse senior management team is more likely to be sensitive to the issues that may affect the owners of the business. Thus, organizations with more diverse senior managers are expected to improve the level of management efficiency thereby enhancing their financial performance. Also, there is the notion that the characteristics of senior management or the upper echelon of an organization can influence the decisions made and practices adopted by an organization (Hambrick & Mason, 1984).

Methodology

The study employedex-post facto research design. The design is considered appropriate because it will help to determine the effect of board dynamism on financial performance which enables forecast. The study population covers fourteen (14) Deposit Money Banks listed on the Nigerian Stock Exchange as 31st December, 2017. Ten (10) banks out of fourteen were used for the analysis using convenient sampling techniques. Secondary data source was utilized and extracted from the Published Audited Annual Reports and Accounts of the banks from 2013 - 2017. The period selected is considered important because it is a period in which there are continues clamour for dynamism in board and improved financial performance. Robust Ordinary Least Square was employed for the analysis having satisfied some of the key assumptions such as heteroskedasticity, multicolinearity and normality test of the standard error. The choice of this is due to the fact that Ordinary Least Square is regarded as best linear unbiased estimator.

Model Specification

The following equation forms the model of the study using balanced panel multiple regression.

$$EPS_{it} = \beta_{0it} + \beta_1 BGD_{it} + \beta_2 BS_{it} + \beta_3 HAU_{it} + \beta_4 IGB_{it} + \beta_5 YOR_{it} + \beta_6 BRP_{it} + \mu_{it}$$

Where:

EPS = Earnings per share, BGD = Board gender diversity, BS = Board size, HAU = Hausa ethnic diversity, IGB = Igbo ethnic diversity, YOR = Yoruba ethnic diversity, BRP = Board reputation, β_1, -β_6 = Coefficient of explanatory variables, β_o = Constant, μ = Error Term and it = Banks and Time

Variable Definition and Measurement

The dependent variable which is earnings per share was measured using ratio of profit after tax to number of common stock outstanding, while the independent variables such as board gender diversity was measured as number of women on board of directors' of banks, board sizeis measured as number of members of the bank's board, Hausa ethnic diversity is measured as total number of Hausas on the board of a particular bank, Igbo ethnic diversityis measured as total number of Igbos on the board of a particular bank, Yoruba ethnic diversity is measured as total number of Yorubas on the board of a particular bank and board members' reputation is measured as the total numbers of board members with any of the following national honours GCFR, GCON, CFR, OFR, OON, MFR, MON and mni.

Results and Discussion

The descriptive statistics is presented in Table 1 showing the minimum, maximum, mean, standard deviation and normality test showcased through skewness and kurtosis.

Table 1: Descriptive Statistics

Variables	Min	Max	Mean	Std.	J/Bera	S/Wilk
EPS	0.18	4.67	1.76	1.16	0.1939	0.01189
BGD	0	5	2.44	1.37	0.4524	0.43355
BS	6	20	14.22	3.36	0.5076	0.68674
HAU	0	4	1.8	0.94	0.9142	0.99451
IGB	0	12	6.08	3.89	0.0000	0.01192
YOR	1	11	4.34	2.52	0.0821	0.02331
BRP	0	5	1.66	1.34	0.2532	0.06285

Source: Descriptive Statistic Results Using STATA 13

*Skew = Min = Minimum, Max = Maximum, Std = Standard deviation, Skewness, Kurt = Kurtosis

Table 1 indicates that the smallest value for earnings per share is 0.18 implying that the lowest value for earnings per share within the banks for the period covered is at 18 kobo, while the highest value for the same period stood at 4.67. This means that the maximum amount recorded by banks for earnings per share is N4.67k. On the average each banks earns at least about N2. For board gender diversity, the minimum value recorded is zero, while the highest is five. This means that there were banks without women on their board, while the highest number of women recorded for any bank is five, while on the average, most banks' have at least two women on their board based on the mean value. The bank with the lowest number of board members is six while the highest stood at twenty, however, on average, most of the banks have not less than fourteen number of members on their board. Both Hausa and Igbo ethnicity diversity have zero representations in some of the bank's board. Whereas, where Hausa ethnicity group have highest of four members in a board, the Igbo ethnic group pooled maximum of twelve in a particular bank. Yoruba ethnic group have at least one member on the board of banks, while the largest at eleven members on a particular board. On the overall, the Igbo have the highest number of representation on the board of banks. This may explain their significant nature of role in the banking sector in Nigeria. Board reputation has a smallest value of 0 and largest value of 5. This indicates that the lowest and the highest numbers of banks' board members with national honours. The mean value of implies that, on the average, the members of banks board with national honour is at least two in number.

Correlation Analysis

Table 2 shows the Spearman correlation of the dependent and independent variables. It also displays the association among the independent variables themselves.

Table 2: Correlation Matrix

	EPS	BGD	BS	HAU	IGB	YOR	BRP
EPS	1						
BGD	.0427	1					
BS	-.1482	.5623*	1				
HAU	-.1200	.0023	.4306*	1			
IGB	.1505	.2270	.6635*	.1619	1		
YOR	-.1947	.1107	.1251	.0263	-.4506*	1	
BRP	-.1271	.1294	.1641	.2231	.0258	-.0102	1

Source: Correlation Matrix Results Using STATA 13

*. Correlation is significant at 0.01 and 0.05 level (2-tailed)

Earnings per share are positively but weakly correlated with board gender diversity and Igbo ethnic diversity. These indicate that the variables steps in the same trend. Also, the correlation between board size, Hausa ethnic diversity, Yoruba ethnic diversity board reputation and earnings per share are insignificant but negative. The relationships amongst the independent variables were most insignificant and positive except for few that were significantly associated. Therefore, to establish the presence of multicolinearity among the independent variables, multicolinearity test was conducted by estimating Variance Inflation Factor (VIF) and Tolerance. Their values were consistently smaller than ten and one respectively, indicating the absence of multicollinearity (Cassey& Anderson, 1999). To validate this position, the mean VIF of 3.48 further showcase that multicollinearity is tolerably mild.

Discussion of Regression Result

The section presents and discusses the regression result. This is followed with interpretation, and analysis of the findings.

Table 3: Summary of Regression Results (Robust OLS)

Variables	Coeff	T-Stat	Prob	Cum. R
Constant	3.4474	6.06	0.000	
BGD	0.3647	2.37	0.022	
BS	-0.2909	-3.46	0.001	
HAU	0.2045	1.01	0.320	
IGB	0.1951	2.59	0.013	
YOR	0.0692	0.78	0.443	
BRP	-0.1755	-1.34	0.187	
R^2				0.2177
F-Statistics				3.81
P-Value				0.0039

Source: Result output from Stata 13

*Coeff = Coefficient, Stat = Statistics, Prob = Probability, Cum. R = Cumulative Result

Cummulatively, the R^2 of 0.2177 (22%) shows the extent to which the financial performance is explained by board gender diversity, board size, Hausa ethnic diversity, Igbo ethnic diversity, Yoruba ethnic diversity and board reputation. Also, the F-statistic test value of 3.81shows that the study model is fitted and the relationship between the two extreme variables are not due to mere occurrence.

The regression results revealed that board gender diversity has positive and significant effect on financial performance of banks. This means that an increase in the numbers of women on the board of banks improves their level of financial performance. This result mayimply that increasing the number of female directors could increase the board's monitoring since women are more inquisitive than male directors.The finding is in line with those of Chuah and Hooy (2018), Assenga, Aly and Hussainey (2016) and Cheong and Sinnakkannu (2014) but contrary to that of Naseem, Xiaoming, Raiz and Ur Rehman (2017) and Ujunwa, Nwakoby and Ugbam (2012).

The study found that board size has negative and significant effect on financial performance of banks in Nigeria. This implies that more having members of on banks board may create problem of override

which could bring out negative effect on the performance. This finding is in contrast with the studies of Herdjiono and Sari (2017), Al-Matari, Al-Swidi and BtFadzil (2014), while that of Palaniappan (2017) and Ujunwa, Nwakoby and Ugbam (2012) concur with our finding.

Hausa and Yoruba ethnic diversity records a positive but insignificant effect on financial performance of listed deposit money banks in Nigeria. However, Igbo ethnic diversity has significant and positive influence on financial performance of banks. This connotes that improvement in diversity in terms ethnicity in listed deposit money banks enhances their financial fortunes. This finding is in line with those of Chuah and Hooy (2018), Ujunwa, Nwakoby and Ugbam (2012), Marimuthu, Abdul Rahman and Kolandaisamy (2009)and Marimuthu (2008).

Board reputation has a negative but insignificant effect on financial performance of banks which implies that few numbers of board members with national honour, reduces financial performance insignificantly. This finding may not be surprising as the board members with national honours are few. As such their positive impact on performance may not be felt significantly.

Summary of findings

From the regression results, it is found that board of directors' dynamism have significant impact on the financial performance of deposit money banks in Nigeria. Individual result indicated that the effect of board gender diversity and Igbo ethnic diversity on the financial performance deposit money banks were positive and significant. Board reputation was however found to have negative but insignificant impact on financial performance deposit money banks in Nigeria. Hausa and Yoruba ethnic diversity were also found to positive but insignificant effect on financial performance of deposit money banks in Nigeria.

Policy Implication of Findings

The results and outcomes from this paper have theoretical, practical and regulatory implications. The findings suggest a constant need for CBN to enforce and urge banks to fully comply with corporate governance and ensure dynamism of the board forguaranteeing their improved financial performance. Furthermore, there is need for management to consider reputations of directors before their appointment into the board of banks. Finally, the finding has reinforced the upper echelon theory which is built and advocates diversity in top management of organization to ensure organizational success.

Conclusion and Recommendation

From the findings, the study concludes that diversity in banks is essential for achieving better inputs from varieties of dynamic and seasoned directors for guaranteed and improved financial performance. It is therefore recommended that in order to boost and ensure continuous financial performance in listed banks in Nigeria. The management should ensure that their bank board cut across three major ethnic groups in Nigeria and people with national honours should be considered. Furthermore, appointment of women to the banks board should be part of the cardinal point to be considered during appointment of directors of banks.

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```
. xtset id year, yearly
       panel variable:  id (strongly balanced)
        time variable:  year, 2013 to 2017
                delta:  1 year

 . xtsum eps bgd bs hau igb yor brp
```

Variable		Mean	Std. Dev.	Min	Max	Observations
eps	overall	1.7646	1.166206	.18	4.67	N = 50
	between		1.090986	.384	3.576	n = 10
	within		.5166722	.3286	2.9986	T = 5
bgd	overall	2.44	1.372619	0	5	N = 50
	between		1.228549	0	3.6	n = 10
	within		.7056622	.24	4.24	T = 5
bs	overall	14.22	3.364217	6	20	N = 50
	between		3.218626	9.2	19.6	n = 10
	within		1.343161	10.82	17.62	T = 5
hau	overall	1.8	.9476071	0	4	N = 50
	between		.8589399	.2	3	n = 10
	within		.4694765	.8	3	T = 5
igb	overall	6.08	3.895785	0	12	N = 50
	between		3.893242	.6	11.2	n = 10
	within		1.121224	3.68	8.68	T = 5
yor	overall	4.34	2.528289	1	11	N = 50
	between		2.303717	1.8	9.2	n = 10
	within		1.23222	1.34	6.74	T = 5
brp	overall	1.66	1.349376	0	5	N = 50
	between		1.222202	0	3.6	n = 10
	within		.6700594	.26	3.26	T = 5

```
. sktest eps bgd bs hau igb yor brp
```

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
eps	50	0.2212	0.2057	3.28	0.1939
bgd	50	0.2671	0.5960	1.59	0.4524
bs	50	0.3572	0.5026	1.36	0.5076
hau	50	0.7088	0.8416	0.18	0.9142
igb	50	0.9031	0.0000	27.20	0.0000
yor	50	0.0281	0.6067	5.00	0.0821
brp	50	0.2254	0.2878	2.75	0.2532

```
. swilk eps bgd bs hau igb yor brp

                    Shapiro-Wilk W test for normal data

    Variable |     Obs       W           V         z       Prob>z
-------------+-------------------------------------------------------
         eps |      50    0.93863      2.886     2.261    0.01189
         bgd |      50    0.97700      1.082     0.167    0.43355
          bs |      50    0.98307      0.796    -0.487    0.68674
         hau |      50    0.99355      0.303    -2.543    0.99451
         igb |      50    0.93865      2.885     2.260    0.01192
         yor |      50    0.94595      2.542     1.990    0.02331
         brp |      50    0.95640      2.050     1.531    0.06285

. spearman eps bgd bs hau igb yor brp, star (0.05)
(obs=50)

             |      eps      bgd       bs      hau      igb      yor      brp
-------------+-------------------------------------------------------------------
         eps |   1.0000
         bgd |   0.0427   1.0000
          bs |  -0.1482   0.5623*  1.0000
         hau |  -0.1200   0.0023   0.4306*  1.0000
         igb |   0.1505   0.2270   0.6635*  0.1619   1.0000
         yor |  -0.1947   0.1107   0.1251   0.0263  -0.4506*  1.0000
         brp |  -0.1271   0.1294   0.1641   0.2231   0.0258  -0.0102   1.0000

. reg eps bgd bs hau igb yor brp

      Source |       SS       df       MS              Number of obs =      50
-------------+------------------------------           F(  6,    43) =    1.99
       Model |  14.5068652     6  2.41781087           Prob > F      =  0.0875
    Residual |  52.1349765    43  1.21244131           R-squared     =  0.2177
-------------+------------------------------           Adj R-squared =  0.1085
       Total |  66.6418418    49  1.36003759           Root MSE      =  1.1011

------------------------------------------------------------------------------
         eps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bgd |   .3647435   .1590746     2.29   0.027      .043939    .6855479
          bs |  -.2909045   .1242719    -2.34   0.024    -.5415227   -.0402863
         hau |   .2045011   .1971143     1.04   0.305    -.1930178      .60202
         igb |   .1951402   .0999271     1.95   0.057     -.006382    .3966624
         yor |   .0692846   .1118405     0.62   0.539    -.1562633    .2948325
         brp |  -.1755293   .1234805    -1.42   0.162    -.4245516    .0734929
       _cons |   3.447417   .7829983     4.40   0.000     1.868351    5.026484
------------------------------------------------------------------------------

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of eps

         chi2(1)      =     1.11
         Prob > chi2  =   0.2931
```

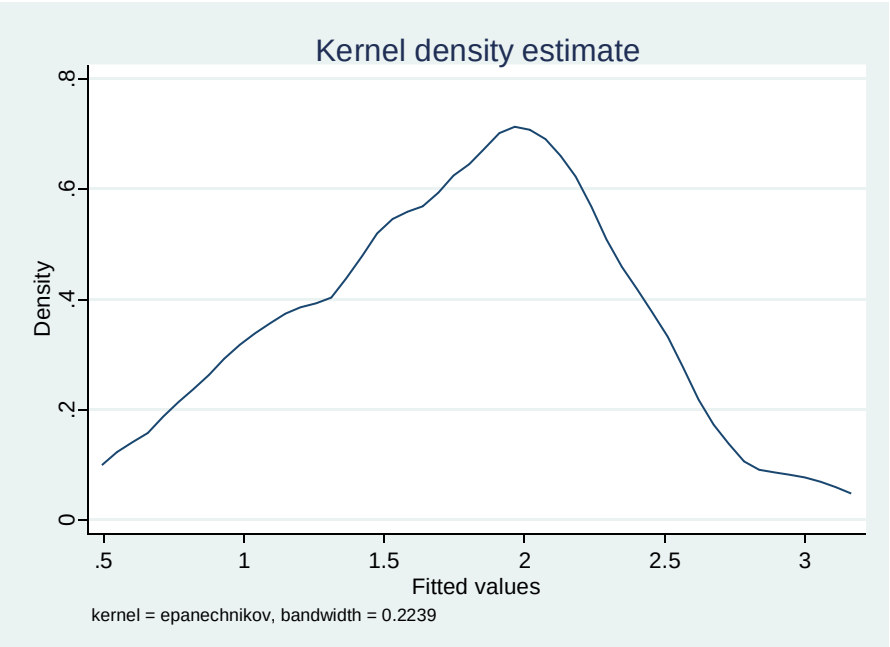
```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
          bs |      7.06    0.141563
         igb |      6.12    0.163271
         yor |      3.23    0.309466
         bgd |      1.93    0.518995
         hau |      1.41    0.709205
         brp |      1.12    0.891254
-------------+----------------------
    Mean VIF |      3.48

. reg eps bgd bs hau igb yor brp, robust

Linear regression                               Number of obs =      50
                                                F(  6,    43) =    3.81
                                                Prob > F      =  0.0039
                                                R-squared     =  0.2177
                                                Root MSE      =  1.1011

------------------------------------------------------------------------------
             |               Robust
         eps |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bgd |   .3647435   .1537057     2.37   0.022     .0547665    .6747205
          bs |  -.2909045   .0841967    -3.46   0.001    -.4607033   -.1211057
         hau |   .2045011   .2031781     1.01   0.320    -.2052465    .6142488
         igb |   .1951402   .0754763     2.59   0.013     .0429278    .3473526
         yor |   .0692846   .0893857     0.78   0.443    -.1109788     .249548
         brp |  -.1755293   .1308307    -1.34   0.187    -.4393747     .088316
       _cons |   3.447417   .5691003     6.06   0.000     2.299717    4.595118
------------------------------------------------------------------------------
```



EFFECT OF CORPORATE GOVERNANCE PRACTICE ON PERFORMANCE OF UPSTREAM SECTOR OF OIL AND GAS INDUSTRIES IN NIGERIA

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Abstract

This paper has been carried out to examine the effect of corporate governance practice on performance of upstream sector of oil and gas industries in Nigeria. Basic concepts relating to the subject matter were reviewed, empirical studies were equally carried out to have an understanding on the previous studies and the relevant theories were reviewed. The researcher used a non-survey method, as the study entails the use of annual reports & accounts of the petroleum marketing companies in the downstream sector of Nigerian. Ten out of the twenty-nine companies were sampled as fair population representative from which inferences was made to the general population. The secondary data used for the study was the 2017 annual report & account of the sample corporations which were obtained from relevant and trusted sources. The study adopted multiple regression analysis in the study to analyze data collected. From the analysis it was observed from the study that a significant relationship exist between board size & the financial performance in the upstream sector of oil & gas industries in Nigeria. The study further revealed that a positive and significant relationship exist between board composition & the financial performance in upstream sector of oil & gas industry in Nigeria. Lastly the study revealed that a significant relationship exist between audit committee & the financial sector of the oil & gas inclusion in Nigeria. Based on the research findings the study recommended thatcorporate board structure of oil and gas industries in Nigeria should be based on professional qualification, skills and experience to carry out the managerial functions. This will improve the managerial performance and therefore improve the management of the oil & gas industries in Nigeria. There is need for oil & gas managers to also make sure that the composition of the board is also congruent to organizational needs, such that the competencies, skills and ability advance organizational quest for an enhanced financial performance. Lastly it was recommended that there is need to ensure that audit committee of oil and gas industries in Nigeria is not limited to the board & senior manager alone, but also middle level managers & employees as well. This way, the entire organization will have a singular purpose for enhancing financial performance & is committed to doing so through structures and systems available at the oil and gas firms.

Keywords: corporate governance, financial performance, oil and gas industry, corporate executives, Board of Directors.

Introduction

Oil industry in Nigeria plays a significant role in promoting economic growth and development in Nigeria. In the domestic economy, the oil industry occupies a strategic position, as a major earner of foreign exchange in the country. It is the largest industry and the main source of Gross Domestic Product (GDP) generation. The major classification of the industry is the upstream which involves mineral rights acquisition, exploration, drilling, development and production of natural gas and crude oil. The downstream on the other hand is concerned with the transportation, storage, petrochemical distribution, and marketing of products. Foreign companies are the major are the major stake holders in the downstream and upstream of the oil sector and they have varied accounting practices. The upstream sector of the industry can be referred to as the single most important sector of the industry and the nation's economy providing 90% or more of total export. The sector is associated with risks such as long term period before investment can be recouped, political activity, high level of risk, civil unrest and border disputes.

There is equally an issue of opaqueness of multinational oil corporations in the sector as well as the problem of corruption within the system.

Firms adopt corporate governance as the mechanism which is used to manage the interest of their stake holders so as to the value of the firm and reduce conflicts in the agency. Corporate governance was described by Cadbury (1992) as the system by which organizations are controlled and directed. The significance of the role played by corporate governance has continued to increase as a series of corporate scandals and fraudulent activities has caused the destruction of shares holders wealth, loss of employee well being, record breaking bankruptcy filings and increase in the white collar crime (Solomon 2010). Bhagat and Bolton (2008) are of the view that the role of corporate governance took a new urgency with the consequences of the business collapse of Enron followed by series of accounting scandals. Hence, corporate governance takes the center stage in the support and enhancement of organizational performance. In the context of Asia, the Asian economic crisis in 1997 was observed to pass an important lesson; serious financial difficulties could be as a serious of poor corporate performance.

Searle (2010) accepted that the possible negative environmental and social consequences which will be attracted as a result of integrated activities of the oil and gas industry are far reaching. Lazonick (2010) share the same thought, he opined that the uncertainty on the environment where industries operate discourages financial commitment and the strategic planning needed for innovative enterprises development. Analyzing the shipping business perspective, the business is vulnerable, recurring, seasonal and volatile to political events and economic conditions (Syripoulos and Tsatsaronis 2012). As the activities in the oil industry increases, the risk to property, environment and humans are increasingly high. Thus, the practices of good governance are important in helping oil and gas companies to reach the desired financial performance through competition, ethics and sustainability. The importance of the oil industry to Malaysia is indicated by the realization of the state authorities regarding the importance of integrated oil. The oil and gas support services to support the activities in the upstream (Khalid 2012). The oil and gas industry has been observed to equally contribute significantly to the development of the domestic economy. This consideration is seen in the study conducted by Halliburton, which confirms that the sector has been the main growth support for the Malaysian economy, approximately contributing 20% of the nation's GDP (Abdullah 2012). This is

why it is import to explore the relationship existing between attributes of corporate governance and their effects on the efficiency of financial performance, especially in the oil and gas industry. Given the important contribution of the sector in the domestic economy in Malaysia and also considering the importance of good business judgment, this research investigated the effects of the attributes of corporate governance on the efficiency of the performance of organization using a sample oil & gas companies in Malaysia. An aid in interpreting the role played by corporate governance is through the provision of an example of technical efficiency. Studies on financial performance & corporate governance are based on the linear regression relationship & if any of them connects corporate governance to efficiency and the effect of corporate governance on the organizational financial performance.

In fact, the upstream sector of the oil industry includes exploration & production stages, including activities like studies on reservoir, exploration, seismic, operation, drilling production platform installation, engineering and design, and assembly and installation of wellhead equipment. With the facts that in the upstream firms are mainly focused on projects, in the downstream firms are process oriented, the upstream sector of the industry has its own nature and challenges in comparison with the downstream sector. For example, at the beginning of the project the upstream is faced with uncertainties, these uncertainties demands for careful management of the project for cost, time and risk aspects. Nevertheless, these firms enjoy high profit rate due to unsaturated nature of the market.
On the effect of corporate governance on financial performance of firms in Nigeria, Various studies have been carried out. Orbunde and Okereke (2016,) study use return on equity (ROE) to proxy firm financial performance on insurance industry as dependent variable and corporate Governance variable such as Board size (B.S), Board Composition & Audit committee (B.C) were used as independent variables. Also the studies of Orbunde, Uwaleke and Adigizey (2016), investigates the efforts of made by corporate governance on banking institutions financial performance in Nigeria using the non-executive directors & the Board size on return on investment/asset & (ROA) and sample ten banks in Nigeria while Orbunde and Yusuf Corporate Governance on the performance of banking industry in Nigeria using board responsibility & return on Asset (ROA), shareholders right and returns on Asset and level of transparency/disclosure and returns on interest, independent and dependent variables of their studies.

They study also examine debate on efficiency of corporate governance mechanism as a means of increasing firm's performance in UK and USA firms such studies include Florackis (2005), Ackins, and Syamailah (2014), Abor and Bickpe (2008), and Altiya and Robina (2007). This research seeks to add to the body of knowledge and fill the gap by investigating the effect of Corporate Governance practices pn the performance of upstream sector oil & gas industry in Nigeria.
The main objective of this paper is to investigate the effect of corporate governance practices on the performance of upstream sector of oil and gas industries in Nigeria specifically.

i. The study seeks to examine the three relationships between Board size (B.S) and Financial Performance of oil & gas companies in the upstream sector.
ii. To study the relationship between Board Composition & the financial performance of oil and gas companies in the upstream sector.
iii. To examine the existing relationship between Audit committee & the financial performance of oil & gas companies in upstream sector.

The study is based on the following research questions:

i. To what extent that the Board Size can influence the financial performance of oil & gas industries in the upstream sector in Nigeria?
ii. How has board composition influenced the financial performance of oil & gas industry in the upstream sector in Nigeria?
iii. To what extent can Audit committee influence financial performance of oil & gas industries in upstream sector in Nigeria?

Based on this research the following hypotheses were stated and tested.

Ho_1 There is no significant relationship between the board size and the financial performance in the upstream sector of oil & gas industry in Nigeria.

Ho_2 There is no significant relationship between board composition and the financial performance in upstream sector of oil and gas industry in Nigeria.

Ho_3 There is no significant relationship between Audit committee & the financial sector of oil & gas inclusion in Nigeria.

Literature Review

Conceptual Framework

In the literature there has been several definitions of corporate governance, for example Shleifer and Vishny (1997) defined it as the shareholders in an organization ensures that they are getting a return on their investment. Looking at it from a wider perspective, corporate governance involves the driving an organization a way that guarantees a return on investment for the shareholders and the owners of the business investment while equally meeting other shareholders expectation (Magdi and Nedareh 2002) cited in Kankpang & Duke (2011).

Corporate governance was also defined by Gillian and Stark (2000) as a system of factors, laws & rules that controls operations in an organization. An important and most upheld definition given on corporate governance was in a report in the committee which was chaired by Adrian Cadbury; his corporate governance definition was approved in several other discourse, this includes the final report of committee in 1998 on the aspect of financial performance of corporate governance. Thus, corporate governance is the system by which corporations are controlled and directed.

Corporate governance addresses ways of reducing and managing operational and financial risk by building transparency, integrity, & accountability of a company's management in the organization. Emphasis is placed by corporate governance on issues that are linked to the general control, direction & accountability of societies and corporations conception of scope of corporate accountability (Cornforth 2014). It has been observed that country's now develop their corporate governance codes (Nwanji& Howell 2004). This is specifically done in the private sector, where many companies have adopted & periodically publish different governance code policies. In recent business organizations, the shareholders are the main external stakeholders, customers, trade, debt holders, creditors, suppliers & communities affected by the stakeholders are the executives, board of directors & other employees. The essence of corporate governance I to make sure that the business is performing well and that there is accountability towards the stakeholders and mitigation of risk.

Key issues Considered in Corporate Governance

Shareholders Right: facilitating owner's participation in company meetings, voting on changes to the structure of the company, protecting owners right and important governance decisions that is board members and the remuneration of its members.

Stakeholders Right: company's impact recognition on broader interest groups like the customers, communities and employees.

Financial Transparency: *presentation of the organizations operating and financial results, the remuneration policy for senior executives and board members, and every other information required to evaluate the company performance and its management.*

Proper Accounting: accurate record keeping of all business transactions in order to avoid off-the-book-accounts or fiction entries, to make sure there is adequate internal controls which include safe custody of assets, and adopt a good accounting principles.

Information Sharing: provision of timely, accurate and reliable information to stakeholders, information on the performance of the company and use this exchanges to reinforce and to make sure the right behavior is adopted in the business.

Oversight: building of organizational structures and boards that is chairs and committees, that will make sure that individuals are responsible for and evaluation of dimension of a company's operations and accountability.

Review: providing reports on the progress of policy implementation in the system, and every remedial action that was taken when necessary.

Corporate Governance System in the Oil and Gas Industry

The oil industry is grouped into downstream, midstream, and upstream sector. The upstream sector is characterized by production and exploration of gas and crude oil. The midstream is referred to product storage and product transportation. The downstream sector involves crude oil refining and crude oil marketing. Publicly owned corporation dominate both sectors og the downstream (Standard and poors 2010 in Searle 2010). Marcel & Chatham House (2013) defined the following objectives for corporate governance in the oil & gas industries;

I. For the long-run, Attracting qualified investors
II. Through licensing, maximization of returns to the state
III. Earn, retain & manage public trust and their expectations
IV. Increase and improve benefit & local content to the broader economy.
V. Build capacity and support actors to carry out their role.
VI. Develop resources through ensuring the participation of national oil company
VII. Enhance accountability

The structure of governance consists of various dimensions of an organization which starts with core purpose definition for the company and details such as standard definition for procedures and policies. In addition, the support mechanism should equally be defined and it should be arrayed around it to

provide support in achieving effective control and governance. With respect to the development of oil and gas industries in emerging countries, there has been a dramatic increase in the number of mega-projects with huge budgets in these markets, but with these projects comes challenging environment, unavoidable obstacles of frontier exploration of oil & gas. Lack of infrastructures such as transport i.e. ports, roads, rails and airport are some of the problems faced by these markets. These infrastructures are not sophisticated as more established countries. The supply chain is also limited because these areas are relatively immature when it comes to the development of oil and gas. The project therefore needs to depend on the global market, supply and services for the companies to be able to provide materials and resources to help develop the maturity of the market.

International Corporate Governance Standards

The OECD principles of corporate governance are the main set of standards of corporate governance agreed at the international intergovernmental level. The principal overall framework is provided by these principles, it is within which international discussions on this topic take place including policy responses to the Enron and other corporate scandal cases. Five basic subjects are covered by the OECD principles:

1 Shareholders right protection;
2. Equitable treatment of shareholders, this includes full disclosure of all information & the prohibition of abusive self-dealing & insider trading;
3. Protection and recognition of exercise of rights of other shareholders.
4. Accurate and timely disclosure and transparency regarding issues that are important to the company performance, governance and ownership, this is expected to include and annual audit carried out by independent auditors.
5. A corporate governance framework that ensure strategic guidance of the company & effective management monitoring by board of directors and also the board is accountable o the company and the shareholders.

Oil and Gas Industry in Nigeria

The pioneering work of Nigerian Bitumen Company in 1908 was the first active exploration in Nigeria. The company was a German company but its activities abruptly ceased upon the commencement of the 1st world war in 1914. Rights to the exploration of oil were granted to two British companies in 1912; White shell Petroleum Company and D'Arcy exploration company in the Niger Delta but no significant quantity was discovered. Shell D'Arcy, a consortium of the Royal Dutch shell Company & D'Arcy exploration Company started exploration in 1937, they were given exclusive exploration and the production rights in Nigeria. The advent of the 2nd world war also interrupted activities and the resumed activities in 1946. Upon the resumption of activities the company reemerged in partnership with British Petroleum as Shell BP, thus, taking over the position of Nigeria's pioneer oil and gas company. After both wars, exploration activities was carried out under the authority of Mineral Ordinance which stated under section 6(1)(a) that no lease or license shall be granted to a British company registered in Great Britain and having its principle place of business within his majesty dominion…." The reason for this provision was to strengthen Shell BP's position over lands to which licenses & leases for the exploration of oil has been granted. Although the fundamental motive for the passage of the legislation was to further consolidate influence of the British in the economic activity in Nigeria. It is postulated that on equally important consideration was the need to avoid unrestricted competitive drilling in what was

at the time, a largely unregulated sphere of activity. Following the first crude oil discovery in commercial quantity in 1957 in Oloibiri in River state, the first oil export of Nigerian crude oil in 1958 and Nigerian independence in 1960, the impetus was gained by the Nigerian Petroluem law (Adedolapo 2005).

Nigerian Code of Corporate Governance

Corrupt practices in Nigeria have cause severe damages on the social fabric of the Nigerian society. Corporate governance is relatively a new subject in Nigeria and also in other developing economies. Hence, in 2003 the Nigerian code of corporation governance practices was developed. It was based on unitary board structure with emphasis on the triple constraints identified; the role played by the management and the board of directors, rights and privileges of shareholders, and the audit committee (Oyebode 2009).

Board of Directors

To make sure that the control and direction of the company is in the hands of the board of directors a formally schedule of matters is drafted. Agreed procedures should be provided to ensure the furtherance of their functions to take independent professional advice when necessary and the expenses should be beard by the company. All directors should be granted access to the services and advice of the company secretary, who the board has appointed and is responsible to the board to ensure that the procedures of the board are followed & that applicable regulations and rules are complied with. The board should decide on the removal of the company secretary. Access to the services and advice of other professionals should be granted to the board of directors, services and advice in areas where such will improve the quality of contribution of the directors to the general process of decision making.

Shareholders' Rights and Privileges

The directors acting on behalf of the company ensures that the general and the statutory rights of the shareholders are protected. The appointment of directors and the approval of their terms and conditions remains the responsibility of the shareholders. The venue of the general meeting for the vote and election of directors are expected to be carefully chosen so that majority of the shareholders can easily come and vote so that no shareholder can be disenfranchised because of the venue. At least 21 days' notice should be given before the meeting with details like the audited financial statement, annual reports and other information will enable them vote wisely on all issues. A separate resolution should be proposed by the board on the general meeting on all the substantial matters in a way that will enhance orderliness during the vote. Implementation of the all decisions reached at the general meeting should be ensured by the board. The board are also expected to make sure that there are equally treatment of all the shareholders; that no preferential treatment is given to any shareholder regards to information or other materials. The general meeting should be used by the board to communicate with the shareholders and encourage them to participate. Any shareholder who has more than 20% of the total share hould have a representative on the board except they have conflict of interest or they are in competing business that necessitated their exclusion. The minority should atleast have one director in the board who is representing their interest.

Audit Committee

Audit committees should be established by companies, with the goal of raising standards corporate

governance. The audit committees are expected not to act as a barrier between the executive directors and the auditors on the main board, or encourage the board to abdicate its responsibility in reviewing & approving the financial statement of the company. No dominant personality should be allowed to influence the audit committee, and they should not obstruct the executive management. Strong and independent people are expected to be part of the audit committee.

Corporate Governance Practice and Evaluation in Nigeria's Oil and Gas Companies

Voluntary corporate governance has been implemented by Nigeria as a developing country instead of taking a regulatory approach through encouraging companies on ways to enhance and improve their governance and disclosure of information. The SEC code of 2011 stated that "code is not made as a rigid set of rules; rather it is expected to be taken as a guide to facilitate effective and efficient corporate behaviors and practices. The release of financial information of corporations in Nigeria has been a statue in the companies & allied matters act, cap,c20, laws of the federation of Nigeria 2004 (CAMA), SEC (2011).

To evaluate the standard of corporate governance in Nigeria oil companies, we surveyed the applicable governance framework and the implementation of some indigenous companies engaged in oil & gas activities, with a particular reference to Oando plc. The company is dedicated to the promotion and protection of the interest of the shareholders. The code of business conduct & ethic was adopted by the company, the code defines the mission of the company with the framework of corporate governance. The code applies to all managers, employees, business partners and directors who are certified and trained to the provision of the code the company was initially joined. The company in 2009 introduced a yearly recertification exercise online for all the directors and staffs. This exercise acts as an annual refresher course for all the directors and staffs on the code of business & ethics of the company and it is compulsory. Other corporate governance policies in the company include; Anti-corruption policy, benefits and gift policy, divided policy, insider trading policy, process of board appointment and whistle blowing policy (Oando 2009). Practices of corporate governance in the company are based on the principles of transparency, accountability, integrity, respect and fairness. In order to ensure compliance on the statutory requirements of CAMA & the sec (2011) code, a policy thrust was approved by the company board of directors "the code of business conduct and ethics" this policy thrust guides the company on issue of corporate governance and to make it relevant it is reviewed periodically. Due to dual listing with JSE & NSE the company has been striving to meet up with the best international practices in the corporate governance in the interest of its stakeholders, hence the recertification exercise for all staff at all level is very important. The annual reports & accounts of the company have been examined so that we study the corporate governance practices which are obtainable in the company.

The oil companies in Nigeria where good corporate governance is not entrenched are basically those managed and controlled by government. For instance, the Nigerian Petroleum Corporation (NNPC). The governance issues connected to NNPC has intensified. As stipulated in the report titled "the NNPC oil sales; a case for reform in Nigeria (August 2015)" in recent years the situation in the governance of the corporation has been worst when the country needs to maximize returns from their transactions. More oil is sold via opaque & makeshift mechanism.

An increasing amount of oil is sold through transactions that are deviated from the usual oil sales process. These process are executed by senior officials through channels that lack oversight, due

process, transparency or consultation outside the corporation. They also practice the act of making companies pay royalties and taxes with oil rather than of money; the crude oil for product swaps; the strategic alliance agreement (SAA) for funding the Nigerian petroleum development company (NPDC), NNPC's main upstream subsidiary. It was recommended in the report that an explicit revenue collection structure should be built by the government for NNPC that will enable more predictable financing & rein in discretionary spending.

Theoretical Framework

Resource Dependency Theory

The dependency theory focuses on the role played by the board of directors in providing access to resources that are needed by the firm (Abdullah and Valentine 2009). The primary function odthe board of directors, according to this theory is to provide resources to the firm. The boards of director are seen as important resources of the firm. When the responsibility of providing resources are the functions of directors, several dimensions of the diversity of the director clearly become important such as experience, gender, qualification and the others. Abdullah & Valentine are of the view that resources are brought by the directors to the organization, resources like skills, information, business expertise assess to important constituents like the suppliers, public policy makers, buyers, legitimacy and also social groups. They also provide information, expertise, skills, and potential linkages with environment for the firm (Ayuso and Argandona 2007). This approach notes that the management could be supported by the board of directors in aspects where the firms knowledge is lacking or limited.

This theory suggest that the board of directors can be used as a mechanism to create links with external environment so as to provide support for the management in reaching the goals of the organization (Wang 2009).

Agency Theory

The main focus of the agency theory is connected to resolving problems that are expected to exist in the relationship of the agency; this means, between principals like the shareholders and agents of the principals such as the executives of the company. There are two main problems addressed by the this theory, these includes the problems that are see when the desire for of the shareholders or the principals and the agent are in conflict, and the shareholder or the principle is not able to confirm what the company executives are doing & the problems that are see as the shareholders & the company executives have distinct feelings towards risk. This is because of different tolerance to risk, shareholders & the company executives might both be compelled to take distinct actions.

Adam (1994) stated in his work that this theory can provide a rich & important work in the discipline of the internal audit, the theory of agency is of the view that internal auditing is in consonance with the other systems of intervention such as the financial reporting & external audit, supports cost efficient contracting among the two parties that is the owners & the managers. This theory will not only help in explaining these characteristics on the department of internal auditing, for example, the coverage of its activities and its size, like operational audit vs financial. This theory could be used to empirically test if the crosses sectional variations in internal auditing practices show case the different contracting relationship coming from the organizational form differences.

Stewardship Theory

Davis (1997) explicit that a steward takes care shareowner wealth through firm performance, in

lightweight of the route that thus, the steward's utility focuses of confinement are extended. During this purpose of read, stewards are directors making an attempt to {make sure| to confirm} and make advantages for the shareholders. During this manner, position hypothesis stresses regarding association being as stewards, combining their objectives as a bit of the association (Spencer, 2007). The position purpose of read recommends that stewards are consummated and persuaded once totally different leveled accomplishment is refined. The theory sees the urgency of association structures that change the steward and offers most conspicuous self-lead in lightweight of trust (Donaldson & Davis, 1995). It weighs on the position of specialist to act all the lot of self-representing in order that the shareholders' blessings are dilated. Once unsure, this may minimize the expenses went for checking and dominant representative conduct (Tracy, 2008).

Jain and Narang (2009) affirm that keeping in mind the tip goal to secure their reputations for being pioneers in affiliations, administrators are inclined to figure the firm to assist money connected execution and furthermore shareholders' blessings. During this sense, it's assumed that the affiliation's execution will clearly influence perspective of their individual execution. The relationship of the idea to the present analysis depends on the article that it's the responsibility of managers and administrators of deposit cash banks listed at African nation securities market to develop ways which will enhance share owner price. Policies of diversification, new development and operational potency are internal initiatives enforced by shareowner representatives to maximize shareholder price through dividends. Therefore, policies developed by banks at African nation Securities and Exchange Commission can enhance share owner price supported profits and dividends. Flexibility of the policies can change the banks to align their practices to the dynamic business setting for the advantage of the shareowner.

Empirical review

An important role is played by the level of corporate governance in attracting and holding foreign investors in an economy, for building the capital market and for restoring/maintaining the confidence of both foreign and domestic investors (Ahmed, Alam, Jafar and Zaman 2008). It was observed from a study conducted by Mckinsey & company and cited in Adems & Mehan (2003), 78percent of the professional investors in Malaysia expressed that they can investment in a well governed company. It was also observed from another study conducted by Mardjono (2005) who in his study tried to analyze the reasons for the failure of two big corporations Enron Inc& HIH insurance concluded that both firms failed because the key principles of corporate governance was violated and not because they were in bad business.

In according with the interest of this study, this section deals with how company compliance to the principles of corporate governance achieves certain benefits and growth opportunities, while citing several forms or study on the performance of firms. Brown and Cylor (2009) carried out a study on 51 corporate governance factors using 2,327 firms in the US. From their findings it was observed that principles of corporate governance are relatively more valuable, profitable and pay to shareholders more dividends. Their research findings is in accordance with the research findings of the cross sectional study which was conducted on German firms by Drobetz and Zimmermann (2004), their findings revealed that a significant and positive relationship exist between firms valuation and corporate governance practices. On corporate governance mechanisms, it is expected that a positive relationship should exist between the organization and the proportion of independent directors who sit on the board; this is believed on the conviction that unlike the internal directors, independent directors

are more equipped to challenge the CEO to achieve results in accordance with the organizational set goals and objectives (Sanda, Mikaila and Garba 2005).

Orbunde and Yusuf (2015) carried out a study on the impact of corporate governance on the performance of banking industry in Nigeria. From the study, the result revealed that board responsibility, shareholders right and transparency/disclosure is statistically significant on the performance of banking system with the regression coefficient respectively. Also in Orbunde and Okereke (2016), who carried out a study on the impact of corporate governance on the performance of insurance company in Nigeria, discovered that board size statistically significant also positive to the return on equity. It was also found that board composition is significant and positive to the return of equity. Finally, the result revealed that Audit Committee has a positive and significant relationship with Return on Equity of Insurance companies. Finally, in Orbunde, Uwaleke and Adigizey (2016), studied the Effect of Corporate Governance on Financial Performance of Banks in Nigeria. From the study the relationship between corporate governance and the performance of banks in Nigeria was observed to be significant as the unit change in the size of the board & also the relative size of the non-executives increases the return on assets.

Eyenubo (2013) conducted a study on the size of the board, he adopted regression analysis for 50 firms which are quoted in the Nigeria stock exchange during the 201-2010. From his study it was observed that bigger board size had a significant but negative relationship with incator of irms financial performance (NPAT). Finally, a study conducted by Uwuigbe (2013) using 15 listed firms in the banking and manufacturing sector in Nigeria s revealed that there is an insignificant and negative relationship between corporate governance mechanism and share prices. On the other hand it was observed that audit committee independence and the mechanism of corporate governance have a positive and significant correlation with share price. This means that the higher the shareholders number compared to the directors on the audit committee, the better the value of the company's share price.

Islam and Deegan (2008) studied the influence stakeholder power had on disclosure decision within a Bangladesh manufacturing company. From this research, they concluded that the executives considered only the interest of the most powerful stakeholders when producing the social environmental reports. Another research by Sotorrio and Sanchez (2009) investigating if information disclosed were the same for all stakeholders discovered that highly reputable firms in Spain did disclose separate information for its global stakeholders than that of its local stakeholders. Corporate social and environmental performance has become has become an essential aspect of company's reputation, which companies are constantly striving to improve. According to Gray et al. (1991), accounting model, the reporting of social and environmental information should be responsibility driven and not driven by demand. Lending support to Gray's argument, Richardson and Welker (2001) points out that social environmental reports would be beneficial to a broader group of stakeholders than just the primary audience, therefore firms should not consider every stakeholder when producing social environmental reports.

Methodology

The methodology adopted in conducting this study is explained in this section. The list of elements constituting the population was presented, sampling size and sampling technique used for the study to

obtain a fair representative of the population. The method used in data sourcing and how such data would be analyzed in tables was also explained in this section. Finally the method adopted for the analysis of data was also explained in section.

Research Design

The researcher used a non-survey method, as the study entails the use of annual reports & accounts of the petroleum marketing companies in the downstream sector of Nigerian economy. The researcher used the non-survey design with a view to actualizing the research objective which aims at assessing the impact of Corporate Governance on Financial Performance in the Nigerian petroleum marketing industry. The variables to be measured are Corporate Governance as independent variable and Financial Performance as dependent variable.

Population Of The Study

The aggregation of elements that the research focused on sampling from; are the top 25 oil and gas companies in the upstream sector of the Nigerian Stock Exchange as at 2017.

Sample Size and Sampling Technique

It would have been desired to study the entire population, nevertheless, considering the size of the population, research knowledge on the topic and they research approach, ten out of the twenty-nine companies were sampled as fair population representative with the intention of testing the collected sample and using the obtained result as a basis for the formation of opinion on the general population. The sampling ratio, therefore will be $^{10}/_{25}$ x 100 = 40%.

The sampling technique used by the research is probability sampling (simple random sampling); this is because, the method is unbiased and gives each member of the population equal chance of being selected. It also according to Muhammad (2006), a basic method assumed in statistical computation of social science research, and involves the following steps; creating a sampling frame and assigning random numbers to the elements in the population. Selecting elements using purely mathematical random procedure.

Method Of Data Collection

Secondary data sources were adopted by the researcher for this study, NSE data obtained on Corporate Governance and Firm Financial Performance are used in this research work from income statements, balance sheets and even minutes of meetings and attendance of such meeting by directors of the selected oil marketing companies to illustrate how strict they adhere to code of best practices.

Variables Of The Study

The variables of this study are Firms Financial Performance represented by accounting measure i.e. Return on Equity (ROE) as dependent variable and Corporate Governance as the independent variable represented by its proxies, Board Composition (BC), Board Size (BS) and Audit Committee (AC) the variables where introduced to help in making the analysis.

Independent Variable

In as much as there are several attributes of corporate governance, three are pointed out (BS, BC and AC) because of their significant impact on the dependent variable Financial Performance. Each of these measures gives different information about the companies.

Board Size: The board headed by a chairman, however, limiting the board size to a particular level is generally believed to have better effect in helping the discharging their assumed in statistical computation of social science research, and involves the following steps; Creating a sampling frame and assigning random numbers to the elements in the population. Selecting elements using purely mathematical random procedure.

Multiple Regression Analysis

Multiple regression is regarded as an extension of simple regression analysis, this is because in the multiple analysis more than one independent variable are used to determine the behavior of the independent variable. The variable that is being predicted, explained or determined by the mathematical equation is the dependent variable, while the independent variable is the variable which is used to predict or determine the dependent variable. This therefore means that any regression model which involves more than one independent variable is called a multiple regression analysis (Aminu 1995). The formula for multiple regression is given as;

Model Specification

This study adopted the models and variables proposed by Klapper and Love (2002), Kajola (2008) and modified model by Orbunde and Okereke (2016) which the corporate governance were proxies by board (B.S), Board Composition (B.C) and Audit Committee (A.C) while the dependent variables which is firm performance was proxies by Return on Equity (ROE).

The model specification shares are formulated to test the three hypotheses and they are as follows.

$Roe = B_0 + B_1 BS + U_1$-------1

$Roe = B + BBC + U_1$---------2

$Roe = B_0 + B_1 AC + U_1$-------3

Where:

Roe = Return on Equity

BS = Board size

BC = Board Composition

AC= Audit Committee

Roe = {(BS, BC, AC)}------4

$Roe = a+b_1BS + b_2BC + b_3AC + b_4$ -----5

BS: - Board Size

BC: - Board Composition

NED: - Non-Executive Directors

AC: - Audit Committee

ED: - Executive Directors

ROE: - Return of Equity (Shareholders Funds)

Results and Analysis

Descriptive Statistics

The descriptive statistics of the data collected for the study is presented in Table 1:

Table 1: Descriptive Results

	ROE	BS	BC	AC
Mean	1.77E+08	10.6	3.3	5.6
Std. Dev.	3.12E+08	1.65	0.48	0.97
Skewness	2.42E+00	0.21	0.87	-0.69
Kurtosis	7.32E+00	2.07	1.76	2.44
Jarque-Bera	1.76E+01	0.44	1.91	0.91
Probability	1.54E-04	0.80	0.39	0.63
observations	10	10	10	10

Source: Authors Computation, 2019 (Eview-7.0)

The descriptive statistics results showed that ROE has on the average value of 1.77 billion, BS has an average value of 10.6, BC averaged 3.3; while AC 5.6 as shown in Table 1.

The shape of the distribution is measured by the value of skewness and from the table above it is observed that ROE, BS, & BC are all positively skewed and they possess values which are greater than zero. This value suggests that the distribution tails to the right hand side of the mean. However, AC was found to be negatively skewed as captured by its value of -0.69 Variables with value of kurtosis less than three are called platykurtic (fat or short-tailed), while variables whose kurtosis value is greater than three are called leptokurtic (slim or long tailed). All the variables were found to be platykurtic (slim or long tailed).

Jarque-bera is a statistical test which determines if the series are normally distributed of not. From the table above the value revealed that the variables are not normally distributed. This is premised on the fact that all their probability value were found to be greater than 0.05

Unit Root Test Result

To make sure that there are no unnecessary fluctuations on the variables used in the model, the test of unit root is carried out to determine that stationarity status of the variables. This test was carried out using the Augmented Dickey Fuller (ADF) technique. Running regression with non-stationary data series produces spurious results that may not be reliable. Thus, the unit root test result is presented in the table 2 below;

Variables	ADF Test Statistic	order of Integration
ROE	4.855723 (-4.339330)*	*I(1)*
BS	-5.954827 (-4.284580)**	*I(0)*
BC	-4.399477 (-3.595026)*	*I(1)*
AC	2.333780 (-1.955020)**	*I(0)*

*Notes: ** and * indicate statistical significance at 5% and 1% levels, respectively*

Source: Authors Compilation (2019), E-views 10

From the table above it was observed that the Augmented Dickey Fuller test indicates that two of the variables (ROE & BC) were observed to be stationary at first difference & at 1% level of significance

respectively. They were found to be integrated at order one. However, BS and AC were found to be stationary at levels and at 5 percent level of significance. Since they were all found stationary at different orders, they satisfy the condition for using bound cointegration test.

Table 3: Results of Cointegration

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance	I(0)	I(1)
F-statistic	4.23589**	10Percent	2.37	3.20
K	3	5 Percent	2.79	3.67
		2.5 Percent	3.15	4.08
		1 Percent	3.65	4.66

*Notes: ** significant at 5%.*
Source: Researchers Computation, 2019 (E-views 11)

The co-integration test result shows that the F-statistic value of 4.23 is higher than the lower (I(0)) & upper bound (I(1)) critical value at the 5percent level of significance. This therefore means that the null hypothesis is rejected at the 5percent level of significance and concludes that there is a long run relationship. This therefore means that the variables are cointegrated. Thus, there is a long run co-integrating relationship between corporate governance and the financial performance of oil & gas industries in Nigeria.

Statistical Test of Hypothesis

The T-statistical tool was adopted in approaching the three hypotheses which were formulated in the beginning of the study. The study adopted 5percent as the level of significance for a two tail test. The decision rule states that the null hypothesis will be accepted if the critical probability value (P-value) is greater than the significance level which is 5percent (0.05), otherwise the null hypothesis is rejected.

Table 4: Regression Result on Corporate governance and Financial Performance

Summary Statistics					
Multiple R	0.9490		Durbin-Watson stat		1.8885
R-Square	0.6508		Standard Error		0.5009
Adjusted-R-Square	0.5234		Observations		10
ANOVA Output					
	Df	*SS*	*MS*	*F**	*P-value*
Regression	3	0.825595	6.15	4.317	0.0125
Residual	8	1.363214	2.12		
Total	9	2.188809			
Regression Output					
	Coefficients	*t-value*	*P-value*	*L-95%*	*U-95%*
Intercept	0.2587	4.2201	0.023	0.0813	0.3469
BS	0.2479	2.9214	0.005	0.6495	0.7997
BC	0.0951	3.8695	0.001	0.0441	0.7421
AC	0.1797	2.4849	0.013	0.0845	0.2669

Source: Researchers Computation, 2019 (Micro-fit, 18)

The overall significance of the model is examined using the F-statistics. From the result it was observed that the value of the f-statistics is significant. This is indicated by the high value of the f-statistics which is 4.32 & it is significant at the 5% level. That is the f-statistics value of 0.0125 > 0.05. The value of the R^2 which is discovered to be 0.6508 indicates that BS, BC & AC has a significant impact on the financial performance in Nigeria. It indicates that about 65.08percent of the variation in financial performance in Nigeria is explained by BS, BC and AC, while th remaining 34.92 % which is unaccounted for is absorbed by the stochastic term.

Durbin Watson (DW) statistic; to test the presence of serial correlation in the error terms, the Durbin Watson statistic was adopted. From the result it was observed that there is no presence of serial correlation among the variables. This was observed from the value of DW statistic which was seen to be 1.88. This means that the model estimates are unbiased and can be relied upon for policy decision.

Test of Hypotheses One:

H_{01}: There is no significant relationship between the board size and the financial performance in the upstream sector of oil and gas industry in Nigeria.

In table 4, the regression result revealed that the t-value for the relationship between board size and the financial performance in the upstream sector of oil & gas industry in Nigeria is 2.92 & its associating p-value is 0.0053. Since the p-value is less than 0.05 at 5percent significance level, it therefore falls in in the rejection region. The first null hypothesis ($H0_1$) is rejected. From the result it can therefore be seen that there is a significant relationship between the board size & the financial performance in the upstream sector of oil & gas industry in Nigeria.

Test of Hypotheses Two:

H_{02}: There is no significant relationship between board composition & the financial performance in upstream sector of oil and gas industry in Nigeria.

The result on the regression table (4) shows that the value of calculated t for board composition is 3.86 & its p-value is 0.001. since the p-value is observed to be less than the 5% significance level we therefore reject the second null hypothesis ($H0_2$) & then conclude that a significant relationship exist between board composition & the financial performance in upstream sector of oil & gas industry in Nigeria.

Test of Hypotheses Three:

H_{03}: There is no significant relationship between audit committee and the financial sector of oil & gas inclusion in Nigeria.

As observed from regression table (4) above we can see the t-value for the relationship between audit committee & the financial sector of oil & gas inclusion in Nigeria is 2.48 and the p-value is seen to be 0.013. Since the p-value is less than 0.05 at 5% significance level, it therefore falls in the rejection region. Hence we reject the last null hypothesis. The result therefore reveal that a significant relationship exist between audit committee & financial sector of oil and gas inclusion in Nigeria

Discussion of Findings

From the study, it was observed that a significant relationship exist between board size & the financial performance in the upstream sector of oil & gas industries in Nigeria. This implies that the financial

performance is influenced by the board size and that a large board increases the quality of decision made in the organization since they offer a wider array of perspective. These research findings are in agreement with the study findings of Yesuf&Mesut (2014) who in their study discovered that the size of the board is an important part of corporate governance in the quoted companies. Similarly, Eisenberg, Sundgren& Wells (2018) discovered in their study that an increase in the size of the board can be associated with an improvement in value of the firm.

The study further revealed that a positive and significant relationship exist between board composition & the financial performance in upstream sector of oil & gas industry in Nigeria. The implication of these findings is that organizations that have effectiveboard composition and attention of management and have a higher performance compared to those organizations with loosely definedboard composition and performance expectations. This is in agreement with Elewechi (2012) whose study found that board composition of corporate governance has positive and significant impact on financial performance since they do lay the foundation upon which firm's operations are executed.

Lastly, the result from the study showed that a significant relationship exist between audit committee & the financial sector of the oil & gas inclusion in Nigeria. The research findings is in-line with the findings of McColgan (2011) which showed that audit committee helps curb human tendency to exploit systematic weaknesses, in addition to authority vested in them by their organizations. This is to say that, audit committee of corporate governance through helps eliminate organization vulnerabilities to financial risks and by extension, enhance performance.

Conclusion and Recommendations

This study sought to determine whether the board size, audit committee & board composition of oil and gas industries in Nigeria had influence on financial performance. The study found that there exist a significant and positive relationship between board size, board composition and audit committee& financial performance of oil & gas industries in the country.

Based on these findings the study raised the following recommendations:

i. Corporate board structure of oil and gas industries in Nigeria should be based on professional qualification, skills and experience to carry out the managerial functions. This will improve the managerial performance and therefore improve the management of the oil & gas industries in Nigeria
ii. There is need for oil & gas managers to also make sure that the composition of the board is also congruent to organizational needs, such that thecompetencies, skills and ability advance organizational quest for an enhanced financial performance.
iii. Equally, there is need to ensure that audit committee of oil and gas industries in Nigeria is not limited to the board & senior manager alone, but also middle level managers & employees as well. This way, the entire organization will have a singular purpose for enhancing financial performance & is committed to doing so through structures and systems available at the oil and gas firms.

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Appendix

Table 5: Data Presentation

Names of Companies	BS	BC	AC	ROE
Conoil	13	3	6	17,892,936
Total Nig. Plc	9	3	5	28,225,501
Oando	12	4	6	1,040,175,904
MRS oil	10	4	7	62,190,318
Forte oil	8	3	6	147,237,816
Seplat Petroleum	11	3	6	234,863,665
Chevron	10	3	4	77,410,830
Schlumberger	10	3	4	11,236,810
Shell	13	4	6	124,164,585
Conoco Phillips	10	3	6	22,375,410

Note: Figure reported in Dollars are converted to Naira @ N305/$1.
Source: Website of sample companies NSE 2017

THE INFLUENCE OF BOARD INVOLVEMENT ON PRICE EARNING: EVIDENCE FROM NIGERIA

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Abstract

Investigation on the influence of board involvement on price earning was carried out using both the correlation and the multiple regression models to analyze publicly available data for a sample of 69 firms from 11 sectors quoted in the Nigerian Stock Exchange for the fiscal year 2011. This indicates that the research made use of cross sectional data. Several diagnostic tests have been applied to justify the validity of the results. The empirical investigations reveal that directors' shareholdings, firm's age and firm's leverage are significant. Good corporate governance standards are very essential to every organization and should be encouraged and practiced for the interest of the investors, shareholders and other stakeholders. From a developing economy, this paper is the first of its kind and offers evidence on the influence of board involvement on price earning. This research provides useful information that is of great value to policy makers, academia, corporate firms and other stakeholders.

Key Words: Board Involvement, Price Earning, Corporate Performance and Proper Management.

Introduction

Though corporate governance can mean different things to different companies, but irrespective of these differences, there is one common central theme binding these differences, that central theme is "The Proper Management of the Company".Board strategic involvement may also occur outside of formal meetings via informal advising or social ties between individual directors and the CEO, familial interactions between the CEO and relatives who serve on the board, and contributions by inside directors in their role as managerial employees (Fiegener, 2005).The importance of corporate governance cannot be overemphasized. Such importance is seen in the protection of the overall interests of corporate stakeholders, in such a way as to increase the level of trusts and confidence investors and financiers have on the company (Wickramasinghe, 2006), thereby creating a market for verifiable information to all stakeholders.

The board of directors, which has the power to hire, fire, and compensates senior management teams, serves to resolve conflicts of interest among decision makers and residual risk bearers. This economizes the transaction (agency) costs associated with the separation (specialization) of ownership and control and facilitates the survival of the open corporation as an organizational form (Baysinger& Butler, 1985). The board uses information from each of the top managers about his decision initiatives and the performance of other managers (Fama & Jensen, 1983).

It should be noted that board of directors play a central role in corporate governance (Chen & Wu, 2016); such focal role is the monitoring of management activities. The board is meant to meet often to

discuss matters important for the company, perform checks and balances,and ensure that effective control systems are in place to avoid malpractice by managersand other employees. Thus, any failure of the board not getting fully involved in the matters that concern the company progress will bring about failure on the company's performance.Hence, the objective of this research is to ascertain the influence of board involvement on price earning, where the independent corporate governance variables used in this research are proxies for board involvement. Whereas price earning is the measure of performance utilized in this research, which also is the dependent variable.

Literature Review

Since 1970's the issue of corporate governance has been the subject of significant debate in the US and all over the world (Afolabi, 2015).Poor corporate governance has been the downfall of many corporations in both developed and developing nations (Okike, 2007). This is a fact statement. Even though Nigeria experienced some corporate failures, it is not still limited to Nigeria and other developing countries. As it can be seen below, evidences of Okike's point that poor corporate governance also affected the developed countries.

Failure in corporate governance leads to failure in financial reporting. This is evidenced in the cases of *Perwaja Steel, Technology Resources Industries (TRI), Transmile, Megan, Malaysian Airlines System (MAS), Port Klang Free Zone (PKFZ), Enron and WorldCom (WC) (*Norwani, Mohamad & Chek, 2011).

The recent financial turmoil in Asia in the late 1990s and the massive collapse of Enron and WorldCom in early 2000s made shareholders and governments to develop interest in corporate governance (Norwani, Mohamad&Chek, 2011;Afolabi, 2015; Ehikioya, 2009; Senaratne & Gunaratne, 2008; Jackling & Johl, 2010; Agyemang & Castellini, 2013; Carver, 2010), which brought about Sabaness-Oxly Act of 2002. This Sabaness-Oxly Act of 2002 was enacted in order to protect shareholders, investors, and other stakeholders from fraudulent people, and also to act as guidelines to board members (He & Sommer, 2006). Corporate scandals in the global capital markets have elicited vigorous debate on corporate governance (Anderson, Melanson & Maly,2007).

Most importantly, fund managers are themselves agents whose interests are not aligned with their own investors (Marks, 1999). This is one of the major reasons why such managers are involved in the corporate scandals. This is in line with agency theory, where the principal is the shareholder and the agent is the manager. In order to gain agent's (manager's) commitment to achieve the goals set by the principal (owner) and to promote goal congruent behavior, agents need to be given additional incentives over and above his/her basic remuneration. On the other hand, Agrawal & Knoeber (1996) argued that agency problems arise within a firm whenever managers have incentives to pursue their own interests at shareholders expense. In situation like this, the board has to monitor such managers in order to protect the interests of the shareholders (Fama& Jensen, 1983). Furthermore, Dogan & Smyth (2002) made it clear that it is the board as a whole rather than the highest paid director that can be best regarded as the shareholders' agent. This is supported by Carver (2010) who said that the board should be the most vigorous shareholder activist in sight. This is true because if anything goes wrong in the company, the board is to be held responsible because they are the direct recipient of owners' authority vested with the responsibility for managing the firm and its activities (Carver, 2010).

From an agency theory perspective, a supervisory board should be dominated by independent non-executive members in order to generate effective monitoring of executives (Ramdani & Witteloostuijn, 2010). This argument is valid because, the impact of CEO duality depending on the firm simply means that in a company where there is CEO duality, the firm should ensure that there should be a strong independent element that will be the vice chairman that will help monitor the activities of the CEO in order to ensure that the CEO duality has impact on the firm (Iyengar&Zampelli, 2009).*Dharmadasa,* Premarthne & Hearth (2014) made this point clear by saying that CEO duality has no influence on firm performance. Furthermore, due to the fact that the non-executive members are not involved in management, makes them to be unbiased and best tools in the monitoring process (Senaratne&Gunaratne, 2008).

Firm's ageis measured as the number of years since its establishment (Ehikioya, 2009; Nwokwu, Dharmadasa, &Rathnasingha, 2018); firm's size is the total assets of the firm, measured as the naturallogarithm of total assets (Azeez, 2015; Ehikioya, 2009; Nwokwu, Dharmadasa, & Rathnasingha, 2018); board skills is measured as the number of board members with degree/qualification (Ehikioya, 2009; Nwokwu, Dharmadasa, & Rathnasingha, 2018); firm's leverage is measured as the total liabilities divided by total assets (Azeez, 2015; Ehikioya, 2009; Nwokwu, Dharmadasa, & Rathnasingha, 2018).

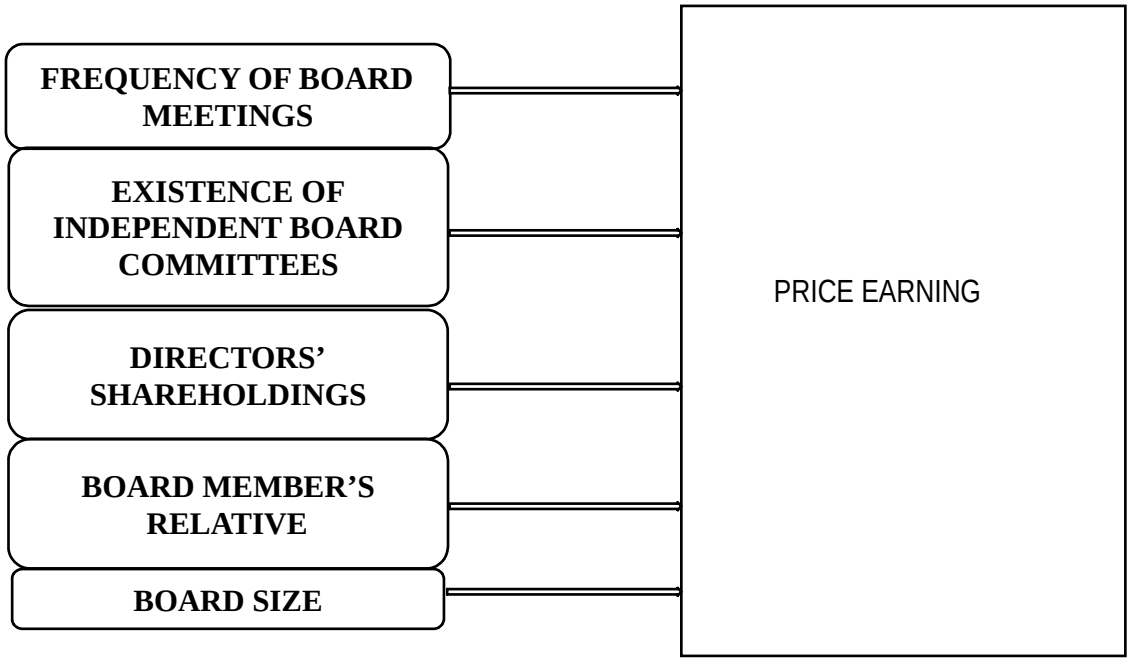

Figure 2.1: Research Framework

Source: Researcher's Construction.

H1. Frequency of board meetings does not have impact on corporate performance.
H2.Independent board committee does not have impact on corporate performance.
H3. Directors' Shareholding does not have impact on corporate performance.

H4. Board Members' Relatives does not have impact on corporate performance.
H5. Board's size does not have impact on corporate performance.

PE is measured as Price per Share (PPS) divided by Earnings per Share (EPS) (Ehikioya, 2009).

The Model
The multiple regression models are defined by the following equation:
$PEi = \alpha0 + \alpha1FREi + \alpha2INDBCi + \alpha3DSHAREi + \alpha4BRELATi + \alpha5BSIZEi + \alpha6FAGEi + \alpha7FSIZEi + \alpha8BSKILLi + \alpha9FLEVi + \mu i$……..(1)

Where:
PE: Price Earning, that is the performance measure
FRE: Frequency of Board Meeting
INDBC: Independent Board Committees
DSHARE: Directors' Shareholdings
BRELAT: Board Members Relatives
BSIZE: Board Size
FAGE: Firm Age
FSIZE: Firm Size
BSKILL: Board Skills
FLEV: Firm Leverage
μi: Error Term
The above measure is the proxy for performance.

Methodology
The quantitative method has been linked with the empiricist-positivist tradition. It seeks to rely on 'objective' data that are verifiable, and does not reflect the subjective value judgments of the researcher or research participants. Because of this commitment to objectivity, numerical or quantifiable data are considered as the most reliable, and therefore truly scientific (Uyangoda, 2015). In this section, the results of the analysis will be interpreted.

Descriptive Statistics
The below table 3.1is the descriptive statistics forprice earning.

	PE
Mean	3.049710
Median	0.850000
Maximum	25.00000
Minimum	-7.14
Std. Dev.	6.344095
Skewness	2.149528
Kurtosis	7.466032
Jarque-Bera	110.4785
Probability	0.000000

Sum	210.4300
Sum Sq. Dev.	2736.833
Observations	69

Table 3.1: Descriptive Statistics of Corporate Performance

Source: Author's Construction.

The findings and analysis of the results commenced by examining the data for certain corporate governance variable used in the empirical research. Table 3.1 presents summary of the descriptive statistics of the dependent variable. From the descriptive statistics, PE has a mean of 3.04 and standard deviation of 6.34. Meaning that on the average, the price earning is #3.04k. Descriptive statistics of exogenous variables are provided by table 3.2.

Table 3.2: Descriptive Statistics of Board Involvement

	FRE	INDBC	DSHARE	BRE	BSIZE	FAGE	BSKILL	FLEV
Mean	5.289855	3.811594	0.159135	0.173913	9.811594	36.55072	9.739130	0.554220
Median	5.000000	4.000000	0.061600	0.000000	9.000000	32.00000	9.000000	0.520500
Maximum	12.00000	6.000000	0.893500	1.000000	18.00000	117.0000	18.00000	1.521300
Minimum	2.000000	1.000000	0.000300	0.000000	5.000000	5.000000	5.000000	0.063400
Std. Dev.	1.863752	1.101808	0.206456	0.381812	2.936962	23.00865	2.893462	0.275184
Skewness	1.384200	-0.353064	1.457124	1.720618	0.930323	1.107770	1.003356	0.497798
Kurtosis	4.982928	2.990061	4.422937	3.960526	3.322628	4.588135	3.558992	3.550318
Jarque-Bera	33.33862	1.433810	30.23809	36.69856	10.25251	21.36352	12.47566	3.720427
Probability	0.000000	0.488261	0.000000	0.000000	0.005939	0.000023	0.001954	0.155639
Sum	365.0000	263.0000	10.98030	12.00000	677.0000	2522.000	672.0000	38.24120
Sum Sq. Dev.	236.2029	82.55072	2.898444	9.913043	586.5507	35999.07	569.3043	5.149395
Observations	69	69	69	69	69	69	69	69

Source: Author's Construction.

Correlation Analysis

Association of covariate and response variables is given by table 3.3.

Table 3.3: Correlation Analysis

Correlation Probability	FRE	INDBC	DSHARE	BRE	BSIZE	FAGE	BSKILL	FLEV	PE
FRE	1.00								
INDBC	(0.31)***	1.00							
DSHARE	0.03	-0.19	1.00						
BRE	-0.01	-0.03	0.03	1.00					
BSIZE	(0.43)***	(0.34)***	(-0.20)*	-0.05	1.00				
FAGE	0.12	0.08	(-0.26)**	(-0.23)*	0.00	1.00			
BSKILL	(0.34)***	(0.32)***	-0.19	-0.04	(0.98)***	-0.07	1.00		
FLEV	0.17	0.17	(-0.20)*	0.03	(0.36)***	0.20	(0.34)***	1.00	
PE	-0.04	-0.01	(0.36)***	-0.12	-0.03	(-0.36)***	-0.02	(-0.35)***	1.00

Source: Author's Construction.
***, ** and * indicate the significance levels at 0.01, 0.05 and 0.10 respectively.

According to the correlation analysis, probabilities of the association between FRE and INDBC, FRE and BSKILL, INDBC and BSIZE, INDBC and BSKILL, BSIZE and BSKILL, BSIZE and FLEV, BSKILL and FLEV, DSHARE and PE are all significant at 1% level, while DSHARE and FAGE is having significant association at 5% level.On the other hand, DSHARE and BSIZE, DSHARE and FLEV, BRE and FAGE are marginally having significant association at 10% level.

DSHARE is the only independent variable whose hypothesis is rejected because it correlates with PE, while FRE, INDBC, BRE and BSIZE are the stimulus variables whose hypotheses fails to be rejected because they are not correlated.

Regression Models and Diagnostics Tests

The results of the regression models and diagnostics tests are tested in this section.

Table 3.4:Breusch-Godfrey Serial Correlation LM Test

F-statistic	0.074887	Prob. F(2,57)	0.9279
Obs*R-squared	0.180831	Prob. Chi-Square(2)	0.9136

Source: Author's Construction.

According to Breusch-Godfrey Serial Correlation LM Test, probability of observed R square is 0.91. This is insignificant at 5%. It indicates that residuals are not correlated over the time or they are independent. This means that residual is independent. Hence, results are valid.

Table 3.5:Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.212225	Prob. F(9,59)	0.3051
Obs*R-squared	10.76801	Prob. Chi-Square(9)	0.2919
Scaled explained SS	23.09451	Prob. Chi-Square(9)	0.0060

Source: Author's Construction.

Probability of the observed R-square of Breusch - Pagan - Godfrey Heteroskedasticity Test is 0.29. This is insignificant. Therefore, variance of residual is constant. It indicates that residuals are having homoscedasticity. Accordingly, model is appropriate.

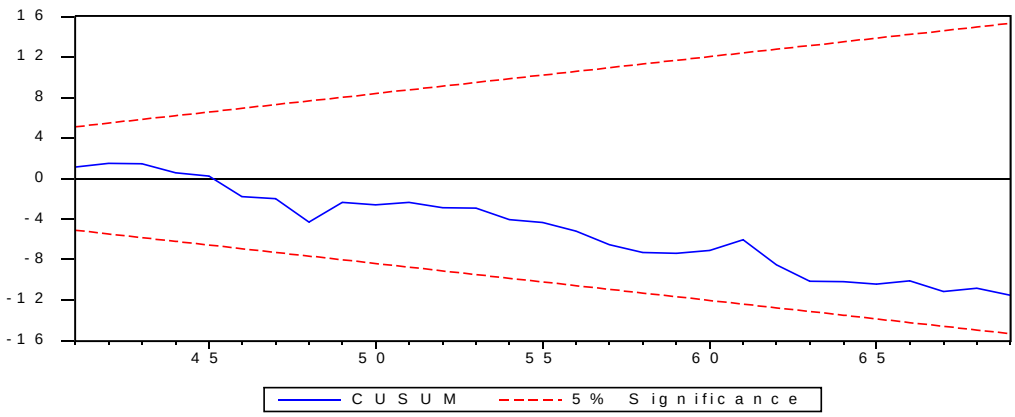

Figure 3.1: CUSUM Test

Source: Author's Construction.

The researcher tested the parameters stabilization using CUSUM test with respect to 5% level of significance. The curve behaves between the two (2) border lines. This indicates that the parameters (i.e. the constant and the individual beta values) of the regression models are stable. Accordingly, result is more valid. Furthermore, it also means that the model can be used for prediction because the model is valid.

Effect of Board Involvement on Price Earning (PE)

The effect of board involvement on price earning has been analyzed using multiple regression models. Result is provided by Table 3.6.

Table 3.6: Individual Effect of Board Involvement on Price Earning (PE)
Dependent Variable: Price Earning (PE)
Method: Least Squares
Sample: 1 69
Included observations: 69

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.163	3.878	0.815	0.418
FRE	-0.214	0.448	-0.478	0.634
INDBC	0.357	0.664	0.537	0.593
DSHARE	6.564	3.643	1.801	(0.077)*
BRE	-2.820	1.802	-1.565	0.123
BSIZE	1.107	1.310	0.845	0.401
FAGE	-0.069	0.034	-2.033	(0.047)**
BSKILL	-0.807	1.281	-0.630	0.531
FLEV	-5.410	2.703	-2.001	(0.050)**

R-squared	0.356	Mean dependent var	3.050
Adjusted R-squared	0.258	S.D. dependent var	6.344
S.E. of regression	5.464	Akaike info criterion	6.368
Sum squared resid	1761.428	Schwarz criterion	6.691
Log likelihood	-209.679	Hannan-Quinn criter.	6.496
F-statistic	3.630	Durbin-Watson stat	2.076
Prob(F-statistic)	0.001		

Source: Author's Construction.
***, ** and * indicate the significance levels at 0.01, 0.05 and 0.10 respectively.
Probability of F-test statistics is 0.001. This is highly significant at 1% level. Therefore, explanatory variables jointly influence on PE. As the P-value is highly significant, regression model is appropriate.

DSHARE is marginally positively significant with PE at 10%. This implies that hypothesis 4 is rejected. The researcher dropped FSIZE because it's perfectly correlated with BSKILLS. Therefore FSIZE is not available in the model, hence, no multicollinearity problem. FRE, INDBC, BRE and BSIZE are insignificant individually but influence jointly on PE.

The Durbin Watson test statistics is 2.07. This is between 1.5 and 2.5. Therefore, residuals are independent and the model is more appropriate.

Table 3.7: Relationship between Residuals and Explanatory Variables

Sample: 1 69
Covariance Analysis: Ordinary
Correlation

Probability	RESID
FRE	-2.20E-17
P value	1.00
INDBC	-2.52E-16
P value	1.00
DSHARE	1.68E-16
P value	1.00
BRE	-8.07E-17
P value	1.00
BSIZE	6.29E-16
P value	1.00
FAGE	1.36E-16
P value	1.00
BSKILL	-3.97E-16
P value	1.00
FLEV	-1.52E-16
P value	1.00

Source: Author's Construction.

Probability of each independent variable is 1.00. They are perfectly insignificant. Therefore, residuals are not correlated with independent variables, and residuals are appropriate.

Discussion of Findings, Conclusion and Recommendations

Using a cross-sectional data regression model on a sample of 69 firms listed in the Nigerian Stock Exchange for the fiscal year 2011. This study has examined the influence of board involvement on corporate performance in sub-Saharan Africa as evidenced by Nigeria. The results recorded that all the hypotheses were accepted except the hypothesis with regard to DSHARE.

The results showed adverse effect for frequency of board meetings on firm performance. According to both, resource dependence and agency theories, board members are to have unbiased boardroom meetings with reasonable number of frequency of board meetings in order to avoid external dependences and information asymmetry. These points are consistent with (Vafeas, 1999). However, having continuous board meetings and not having time to implement what have been discussed is of no use to the firm. Ultimately, the board members should work towards having few board meetings in a financial year and ensure that whatever good decision that has been decided by them should be implemented and importantly give some time to see and know if their decisions and actions are yielding fruits.

In as much as frequency of board meeting is necessary for the growth of the company, it should not be done in excess. In other words, board meetings should only be called for when the need arises and not anytime the board members feel like having meeting. The board members should have this in their minds before calling for a board meeting, that among themselves there are independent board committees meetings. And these independent board committees are set up in order to achieve smaller goals which are summed up to be the overall goal of the company. It should be noted that, these goals were delegated by the corporate board among the available independent board committees (Vafeas, 1999). Since these board committees are expected to achieve certain goals, it simply means that they will have their own separate meetings. However, all these should help reduce the frequency of board meetings, because, Kesner (1988) and Klein (1998) suggest that most board activity takes place not during board meetings but during committee meetings. In addition, "Monitoring" tasks like auditing and compensation of management are almost exclusively performed by committees. "Advising" tasks are also commonly accomplished through committees (Chen & Wu, 2016; Helland & Sykuta, 2004). In addition, when an organization set up a distinct strategic planning committee of the board, more formality occurred in the development of long-range goals and action plans, as well as in the monitoring of results (Siciliano, 1996). Also the independent board committees help to achieve smaller goals which are summed up to be the overall goal of the company.

The result of FRE is not significant with PE.PE has been operationalized with respect to price per share and earnings per share. Accordingly, FRE is not having significant association with price per share and earnings per share.

The results of the study have not shown any influence between independent board committees and firm performance. Though, the essence of setting up independent board committees is to encourage specialization and division of labour. But this act can also make board of directors to be too occupied thereby reducing their 100% efficiency and effectiveness, which will on the long run reduce the performance of the company. This result is supported by Chen & Wu (2016).They argued that board committees can cause information segregation and overloaded directors.

Though, independent board committee is an essential variable in corporate governance, the board members should be given some space to carry out their respective duties in order to experience corporate performance, and not be over burdened with frequency of board meetings and independent board committees meetings, if the firm really wants to increase their performance level.

The result of INDBC is not significant with PE.Accordingly, INDBC is not having significant association with price per share and earnings per share.

There is significant evidence that there is a need to encourage directors' shareholdings among board members in firms. This can be seen as result of their commitment in protecting the interests of investors, shareholders and other stakeholders by way of monitoring the activities of managers. Furthermore, this will create better incentives for the board members to undertake the monitoring process, and thus lead to superior performance. PE revealed that directors' shareholding is having marginally positive influence on corporate performance. This implies that an increase in directors' shareholdings will equally bring about an increase in the performance of the firm; also it means that a decrease in the directors' shareholdings will also lead to a decline in the company's performance. As a result, firms should at all times consider the shareholdings of directors in order to achieve performance.

DSHARE is positively significant with PE at 10% level. This means that DSHARE is marginally significant with PE. Accordingly, DSHARE is having marginal significant association with price per share and earnings per share.

It's recommended that Nigeria firms should place directors' shareholdings as priority when considering any of the corporate governance variables. The reason is that it's having both individual and jointly influence on PE.

It should be noted that DSHARE is the only independent variable that is significant with this measure of performance (PE). In other words, DSHARE is the only independent variable that is having marginal significant association with price per share and earnings per share. Also the hypothesis connected with DSHARE is the only hypothesis rejected in this research. Furthermore, DSHARE is the only independent variable with hypothesis that correlates with PE at 1% significance level.

It was also found that firms where a board member has a relative that acts on the same board tend to face challenges in instituting a coherent system of checks and balances, thereby creating the opportunity for some members to manipulate the activities of the board, thereby, leading to low performance (Ehikioya, 2009). These points are consistent with the findings that board members' relatives on board have no significant effect on performance. It was argued that having more than one relative on same board will adversely affect the performance of the firm. And the results of the analysis supported this argument. This point is supported by Ehikioya (2009), who observed that more than one family member in a board will result to adverse effect. This is true because if more than one family member are in the same board meeting, and they are not at peace with each other in the family, they might bring in the family grievances into the board meeting, and this will cause disagreement and disunity among board members. On the other hand, they can be at peace with each other, and they might use the unity existing among them to satisfy their greed by embezzling the company's money. From the above examples illustrated, it can be vividly seen that both scenarios do not favour the company, and as such will adversely affect the corporate performance of the firm.

The result of BRE is not significant with PE. Accordingly, BRE is not having significant association with price per share and earnings per share.

The regression model reveals that board members relatives on same board have an adverse effect on performance. On this note, the practice of having board members relatives on same board should be discouraged.

The analysis proves that, board size is not significant with PE. The result of BSIZE is not significant with PE. Accordingly, BSIZE is not having significant association with price per share and earnings per share.

Firm's age is having negative effect on corporate performance at 5% level with PE. The negative significant effect also means that as firm age decreases, firm performance will increase and as firm age increases, firm performance will decline. The implication of this is that when the firm starts to get older, the performance level will drop. This is as a result of when firms are getting older; there will be need to expand their businesses to other new areas. The existing funds are utilized for the new projects and it will affect the existing business negatively. This act will definitely slow down the performance level of the company, because the business is new in those areas and is like starting from the beginning. In other words this also means that in order for a firm to have high performance level, the firm should not be too young and also not to be too old, but should be in between. This scenario is in line with the production life cycle, whereby at the introduction and growth stages, the organization is not making much profit (i.e. performance) compared to that of maturity stage, and at the decline stage too, the firm is not having much profit (i.e. performance) compared to that of maturity stage which is the peak of performance for the company. However, high performance takes place at the maturity stage. At this point, it is required of firms to know when they have reached their maturity age (i.e. high performance level).

The analysis revealed that firm age is negatively significant with corporate performance. This implies that when the firm starts to get older, the performance level will drop. However, high performance takes place at the maturity stage. In order for a firm to have high performance level, it is expected that the firm should not be too young and also not to be too old, but should be in between. At this point, it is required of firms to know when they have reached their maturity age (i.e. high performance level), and to formulate and apply some business strategies that will help them to maintain it and even increase the performance level. This point is seen among firms that are more than 100 years in age, and they are still performing well.

The leverage of the firm has negative impact on firm performance with PE at 5% level. The implication of these results is that the more the firms are depending on debt to finance their businesses, the more they will experience low performance, and the less they depend on debt to grow their businesses, the more increase in performance they will experience. The result also revealed negative significance for firm leverage. This implies that firms are to be discouraged from accumulating debt because the higher the debt, the lesser the performance of the firm. Accordingly, FLEV is having significant association with price per share and earnings per share.

From the above, firms are advised not to solely depend on debts for their expansions and growth. They are advised to resort to debt as their last option, when other means of raising funds have failed them, and not to go for debt as their first option.

However, though some of the other independent variables are not individually significant with PE, but they are jointly having effect on PE. Therefore, it's of paramount important that those variables should not be taken in isolation; rather they should all be considered jointly in order for them to really have jointly effect on corporate performance.

Limitations and Further Research

The sample in this study was dictated by the availability of data and the choice of statistical analysis was determined by the period and industries covered. It would therefore, be desirable to extend the current study by complementing it with studies using other methods and selecting other countries.

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BOARD GENDER DIVERSITY AND FIRM VALUE OF QUOTED NON-FINANCIAL COMPANIES IN NIGERIA

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Abstract

The objective of this study is to provide insights into the relationship between gender diversity in the boardroom and Enterprise Value Added (EVA) of quoted firms in Nigeria for the period between 2007 and 2016. Due to the problem of endogeneity gender diversity and firm performance, we utilized instrumental variables with Two Stage Least Square (2SLS) regression analysis techniques to enable us obtain more reliable unbiased estimates.. Findings indicate that corporate boards of these companies are male-dominated and gender diversity showed a weak impact on firm value. Specifically, gender diversity as measured with Blau Index has a significant negative impact on firm value suggesting that an increase in female representation on the board decreases firm value of quoted companies in Nigeria. This finding is likely due to gender discrimination and ineffective decision-making process attributable to less female representation on the board of directors which is dominant among a typical corporate board in Nigeria. This evidence negates the Upper Echelons' Theory and the proposition of "a good relationship with stakeholder" offered by the Stakeholder Theory of effective corporate governance. Therefore, we recommend among others a gender policy mix which will pave way for a quota system obtainable among developed countries that enjoy positive outcomes from gender unbiased board.

Keywords: Board gender diversity, firm value, non-financial companies, Blau index

Introduction

In Nigeria it is a main precondition set by the Corporate Affairs Commission (the supervisory body) that a company maintain a minimum of two directors. The law also provides that directors are trustees

appointed to manage and direct their companies. It is therefore the basic task of a director to perform fiduciary duty and to apply diligence, skill and due care in carrying out these duties. Legally, a board of directors is a group of people charged with the responsibility to direct the affairs of a corporation. For a non-profit organisation, the board owes its allegiance to the shareholders – by extension, the board is responsible to the stakeholders, that is, all those persons who have a relationship with the organisation. The board is also accountable for the establishment of the overall goals and strategy for the firm. Another responsibility is to ensure that the internal controls are in order, and to maintain an appropriate control system that monitors the risks associated with the organisation's operations.

There are several ways to describe diversity within the board. An appointment process into boards that attempts to balance the proportion of males and females, douse conflicting views and improve the firm's values is described as board gender diversity (BGD). Board diversity could be delineated under nationality, ethnicity, age, gender, organizational membership and educational background (Campbell & Minguez-Vera, 2008). Further, Bear, Rahman and Post (2010) described board diversity as different resources the directors bring to the board and the gender composition of the members while Conyon and Mallin (1997) believe gender diversity within the board might affect the board's effectiveness and output, which as a result influences the firm's financial performance.

Usually, there are two schools of thought about gender diversity. The first school posits that women who have the experience, qualifications and competent skills should serve as directors. The second school argues that balanced gender diversity among company directors brings about improved governance and enhances the performance of a firm. The later position implies that female board membership should solely be to enhance performance; else firms would be involving in 'tokenism'; according to Kanter (1977), this is a practice of representing a minority or a small group on a board so as to give it a coloration of racial or sexual parity within the employees. This study will lean towards the second argument and set the main purpose of this study to empirically ascertain if the selection of females onto Nigerian non-financial organisations' boards can enhance enterprise value.

In a society that seems to be dominated by the male folks, especially in business, nothing appears wrong when a corporate board is made up of only men to the complete exclusion of women. This act makes it look like men show better knowledge, experience, skills, ability and talent to handle corporate issues over their female colleagues. The promotion of more women participation on boards can be divided into two classes: economic and ethical (Campbell & Mínguez -Vera, 2008; Isidro & Sobral, 2015). The ethical opinions suggest that it is immoral to exclude women from corporate boards because of gender; those companies ought to increase their gender diversity to attain a more reasonable outcome for society (Isidro & Sobral, 2015). The economic opinions suggest that companies perform with respect to the level of gender diversity within the board. This might explain why companies with heterogeneous boards in some cases perform better (Gordini & Rancati, 2017). Given the nature of this study, focus lies on the economic reasons.

The aim of this study is to find out if any significant relationship exists between firm value and gender diversity in the boardroom; and to ascertain any causal relationship between them. It is an ex-post facto research over a longitudinal period of ten years (2007 to 2016). We employed three gender diversity proxies: percentage of women on the board, presence of women on the board, and the Blau index of gender diversity.

This study will attempt to answer these questions: Do companies with women on the board perform better than companies whose boards are all male? To what extent does the percentage of women on corporate board affect firm performance? How does the Blau Index of gender diversity affect firm value? In response to the research questions, we present the following hypotheses: Companies with women on the board do not perform better than companies whose boards are all male. Percentage of women on corporate board does not have any significant effect on firm performance. There is no significant relationship between the Blau Index of gender diversity and firm value.

Many empirical evidences indicate that boardroom gender diversity enhances the firm value because of the different viewpoints and experience it presents. Nonetheless, some literatures draw a totally different conclusion. Notwithstanding the innate attraction of the claim that board gender diversity improves corporate performance, studies indicate otherwise. Findings of many academic researches on this area infer dominance of female board members neither much improves nor worsens a firm's performance.

Ponder two meta-analyses carried out on the topic to summarise earlier studies. Post and Byron (2014) reviewed the results from 140 studies with a combined sample of over 90,000 firms from above 30 countries of board gender diversity. Using a different approach, Pletzer, Nikolova, Kedzior, and Voelpel (2015) meta-analytically investigated the relationship between firm financial performance and female representation on corporate boards using data from 20 studies on 3097 companies published in peer-reviewed academic journals.

The findings of these two meta-analyses show that the relationship between company performance and board gender diversity is either non-existent (actually zero) or very weakly zero. Besides, there is nothing to show that including women on the board can change the company's performance. In all, research findings have not come up with any business template supporting or opposing the appointment of women to company boards. Appointment of women to boards should be based on gender equality not because board gender diversity improves company performance.

Four benefits that can accrue to a firm that has a more gender diverse board include: more responsiveness to the market; improved financial performance; chance to draw an extensive collection of talents; and the capability to strengthen its corporate governance policies (Dolder, Vinnicombe, Gaughan, & Sealy, 2012).

Most of the earlier studies used US and European data. There is scarcity of similar studies focusing on Africa therefore; what obtains in Nigeria is hazy. This study seeks to unveil the situation in Nigeria as the findings and inferences of other studies may not be relevant to Nigeria because of the difference between Western and African cultures.

We are motivated to carry out this study because there is no known corporate governance reform in Nigeria that advocates appointing women into the corporate boards that would enable them to participate in decision-making. This research could arouse interest in all that is concerned. Also, appointment of women into corporate boards is still voluntary in Nigeria; there is no legislation/practice that makes women board representation compulsory. This reason makes an empirical study worth carrying out. This study will lend empirical backing to any gender advocacy and help bridge the gender research gap.

This study intends to contribute to literature by providing empirical evidence based on the Nigerian perspective. With a focus on Nigeria, the findings of this study could guide government and regulators

to take appropriate measures in relation to gender board membership. Should there be a positive effect of board gender diversity on firm value, we suggest that the corporations and government can promote gender equality in boardroom in various ways to increase the firm value. The empirical finding of this research shows that boards of these companies are male-dominated and that gender diversity has no significant relationship with Enterprise Value Added (EVA). On the other hand, the study finds that gender diversity as proxied by the Blau Index has a significant but negative relationship with Enterprise Value Added (EVA). Overall, the findings are consistent with empirical results from other climes as there is no consensus outcome.

The remainder of the paper is structured as follows: The next section provides some prior empirical evidences related to gender diversity and firm performance in various countries. This will be followed by a discussion of some related theories to back up the study. Data and estimation models applied in the analysis will closely follow and a discussion of the empirical results with the conclusion drawn will be highlighted at the end of the study.

Previous Studies

A significant amount of research has been carried out on the effect of the presence of females on the board and top management teams of companies around the world. The results of the studies have been mixed. We review below some of the studies that have been carried out

Alvarado, Briones and Ruiz (2011) studied effects of board gender diversity on business performance. The study used a sample of companies quoted on the Madrid Stock Exchange for the period of three years, from 2005 to 2007. The study found that there are few women in decision-making positions in companies quoted on the Madrid Stock Exchange and that there is no significant relationship between gender diversity and business success.

Man and Kong (2011) examined the relationship between gender diversity in boardroom and financial performance using Tobin's Q as a proxy for financial performance. The population of the study is all the companies quoted on the Hong Kong Stock Exchange out of which a sample of 138 was selected for the financial year 2009. Four measurements of gender diversity were utilized: presence of female directors (dummy variable), the proportion of females on the board, Blau index and Shannon index. The study found board gender diversity has a significant but negative effect on financial performance.

Yasser (2012) carried out a study to determine the relationship between board gender diversity and the performance of firms in Pakistan. The study used a sample of firms listed on the KSE 100 Index firms for the period 2008 to 2010. The study used the two-stage least technique to analyze the data. The Economic Valued Added (EVA) was utilized a proxy for performance. The results indicate that twenty Five percent (25%) of the sampled companies have at least one female on the board and that only 3.33% of the companies have a female as the chief executive officer. In the main, the study found that board diversity has no significant effect on the performance of firms in Pakistan.

Al-Mamun, Yasser, Entebang and Nathan (2013) study examined the relationship between firm gender diversity and economic performance of quoted companies in Pakistani. The study used a sample of 30 companies for a period of three years from 2008 to 2010. The economic value added (EVA) was used as proxy for the measurement of performance. The study found that only females

were represented in only thirty seven per cent (37%) of quoted companies Pakistan and that only 7% of the companies have female chief executive officers (CEO). The study further found that there is no significant effects of presence of women on the Board and economic performance of quoted companies in Pakistani.

Abdullah, Chugh and Talukdar (2014) examined the effects of male and female CEO's on the financial performance in Yahoo, Inc. which appointed two female CEOs in the last five years prior to the study. The study used metrics to evaluate the financial performance of CEO: the event study and the economic value added (EVA). The study used data from CRSP, Value Line and Compustat. The study found no significant difference in the performance of female CEOs and male CEOs.

Joana and Pedro (2016) studied the effects of the ratio of female and the Top Management Team size on the profitability of 41companies quoted on the *Euronext Lisbon, Portugal, from* 2011 to 2015. The Spearman correlation analysis, the linear regression analysis and the Mann-Whitney test were utilized in analyzing the data. The study finds that is a positive and significant relationship between the number of women in top management and profitability (ROA). It was also found that companies with females in Top Management Team (TMT) perform significantly better than companies that have no females in top management.

Kılıç and Kuzey (2016) examined the effects of board gender diversity on performance. The population of the study included all companies listed on the Borsa, Instanbul. The study used an instrumental variables regression analysis technique to analyze the data obtained from 2008-2012. Return on assets, return on equity, and return on sales were used to proxy performance. The study found that there was male dominance on the boards of the sampled companies. The study further found is a positive correlation between presence of female directors and the financial performance of companies measured by the return on assets, the return on equity and the return on sales.

Andersson and Wallgren (2017) evaluated the impact of gender diversity on the boards of directors and the financial performance of firms. The study used a sample of 100 firms quoted in the Nasdaq Stockholm Stock Exchange for the time period 2013-2016. The study used the ordinary least square regression technique to analyze the data. The study used four variables to measure board gender diversity while the Tobin's Q was used to measure financial performance. The study found that the presence of females the top management (board) has a positive effect on financial performance.

Larsson and Olofsson (2017) carried out a study to compare the performance of companies with female directors on their boards and the performance of companies without female directors on their boards. The population of the study included all quoted companies in Swedish with a statutory domicile in Sweden. Out of the quoted companies, a sample of 94 was selected. The study covered a period of three years (2013-2015). The dependent variable, performance, was measured by five ratios: ROE, profit margin, ROCE, EBIT margin and EPS. Board size and company size were used as control variables. An independent samples t-test, correlation matrix analysis, and regression analysis technique were utilized to analyze the data. The study finds a positive and significant relationship between female representation in the boardroom and the ratio EBIT margin. Ton the whole the study found no relationship between the two variables.

Mandala and Iraya (2017) examined the relationship between gender diversity of boards and board composition on performance. The study used a sample of 98 financial institutions and secondary data was collected for a period of ten years from 2006 to 2015. Multiple regression analysis and generalized estimating equations were used to analyze the data. The study finds that both gender board diversity and board composition had no significant relationship with the performance of financial institutions.
Moreno-Gómez, Lafuente and Vaillant, (2018) investigated the impact of diversity of gender in the top management team on the performance of public businesses in Colombia. The study on the Upper Echelon theory and used a sample of 54 public businesses in Colombia for eight (8) years (2008-2015). The study finds that gender diversity has a positive and significant relationship with the performance of business. Specifically, the study finds that relationship between the diversity of gender at the top management level (chief executive officer, CEO) and subsequent performance increases when performance is related to the operational aspects of business operations (return of assets, ROA). Similarly, the study finds that impact of the presence of women on the board and subsequent performance is significant when performance is measured by shareholder- oriented measures like return on equity..

Theoretical Framework

A number of theories have been used to explain issues relevant to board gender diversity and corporate performance and they include: upper echelons theory, resource dependence theory, resource-based perspective, tokenism, critical mass theory, glass cliff theory, human capital theory, social capital theory, signaling theory, institutions theory, social identity, agency theory, and stakeholder's theory. I t has been asserted by some researchers that it is imperative to use multiple theories to establish a theoretical framework that can adequately explain the effects of gender board diversity and corporate financial performance (Kiel & Nicholson, 2003; Reguera-Alvarado *et al*., 2015). This study uses two theories in its theoretical framework: upper echelon theory and stakeholders' theory.

Upper Echelon theory

Hambrick and Mason (1984) laid the theoretical foundations which established '*the organization as a reflection of its top managers*' in what is known as the Upper Echelon Theory. The Upper echelons theory states that organizational results reflect the values and cognitive backgrounds of critical actors (top managers) in the organization (Carpenter, Geletkanycz, & Sanders, 2004; Hambrick & Mason, 1984). According to the theory, the perception of the top managers about their corporate environment go a long way to affect the strategic choices they make which eventually determine the organization's performance. The theory states further that the managers' fields of vision and for their perceptions of the corporate environment are limited by the managers' values and cognitive bases. Simply stated, the personal characteristics of top managers affect the portion or part of the environment they can perceive and it is what they perceive that determine the type of decisions they take which eventually influences the performance the organization. Flowing from the top echelon theory, the make-up of the Board and top management of an organization has a direct impact on the performance of the organization. Thus, companies with similar characteristics within the same may experience differing performance levels depending on the specific characteristics top management or board (Waldmana *et al*., 2004).

Gender is one of the specificities and personal traits associated with the board and top -management teams envisaged in the Upper Echelon theory and which affects the performance of organizations (Nishii *et al*., 2007). Thus women in corporate upper echelons (board and top management) have the effect of increasing the team's diversity, both in terms of the social structure and also human capital (Adams & Ferreira, 2009). According to Oppong (2014) introducing qualified females to an all-male board have the effect of increasing the board's cognitive variety. The higher the cognitive variety of the upper echelon, the greater the likelihood that it will consider more options and the more deeply it is likely to debate those options (Klein, 2017). According to Dezso and Ross (2012) and Robins (1974), the final product of this is better decision making and ultimately greater performance of the firm.

Stakeholders' Theory

The value of the company is a function of the extent to which it is able to satisfy the contracts the company has with its stakeholders (Cornell & Shapiro, 1987). According to Cornell and Shapiro (1987), the effective management of the various stakeholders is paramount to success of the organisation. Similarly, the board of directors of a company plays a critical role in the alignment of the plans of the management team with the goals of the various stakeholders. According to the stakeholders' theory, a gender diverse board will provide a better representation of the diverse stakeholders than a homogenous board. Through this gender diversity, the board becomes more aware of the needs of the various stakeholders and consequently strives to achieve them. (Harjoto *et al*., 2015). According to Brown, Brown and Anastasopoulos (2012) good corporate governance is an essential ingredient towards the achievement of high performance. According to them, good corporate governance includes a good relationship with the stakeholders which is embedded in the proposal by the stakeholder theory. Thus according to the agency theory, board gender diversity enhances communication with the stakeholders and ultimately results in higher performance.

Research Design and Data

In this study we investigate whether board gender diversity enhances firm value by adopting ex-post research design. We draw the sample of this study from non-financial companies quoted on the Nigerian Stock Exchange for the period 2007-2016. The sample consists of companies that were listed after 2007, but we excluded firms that were delisted during the period of investigation thus leaving us with a final sample size of 35firms and 350 firm-year observations. The related variables of the study are obtained from the annual reports of the entities which were used to examine the relationship between board gender diversity and firm value.

Instrumental Variables Regression

The Instrumental Variables Regression (IV Regression) analysis which offers a two-stage least squares (2SLS), estimators was employed to assess the impact of gender diversity on firm value. We provide the IV regression method, which fits an equation from a set of equation systems or an equation for which the functional form for the remaining equations is not specified as follows:

Where i represent the observations, Y is the dependent variable, y represents the endogenous regressors, X_1 and X_2 are the instruments, X_1 indicates the exogenous regressors, X_2 represents the excluded exogenous regressors and μi and vi are the error terms.

$$Y_i = y_i\beta_1 + X_{1i}\beta_2 + u_i \text{ and } y_i = X_{1i}\pi_1 + X_{2i}\pi_2 + v_i$$

Measurement of Variables

Dependent variables:

Firm value have been measured in a varieties of ways: Return on Invested Capital (ROIC) Tobin's Q in Javed *et al*., (2013); Ahern and Dittmar (2011); Dobbin and Jung (2011); and Economic Value Added in Yasser (2012); El Mir and Seboui (2008); Girotra and Yadav (2001) Hajihaand Ghasempoor (2012) and Mirsharafoddini (2014). However, in this study we focus on Economic Value Added since it has been rarely employed in related studies within the Nigerian context.

Economic Value Added (EVA) indicates whether operational profit is enough for cost of capital or not. It is computed as net operating profit minus the cost of capital and tax (NOPAT). Positive EVA is obtained from companies whose profit is more than capital cost rate average, which means that if net profit of a company is more than capital opportunity cost, company value and wealth of shareholders will increase. Furthermore, the value of EVA is threathened when management performance declines so that company value directly depends on management performance, while other measurement criteria of performance cannot perform this action Rahnamye, Rudposhti and Jalili, (2008). The whole idea is that value is created when the return on the firm's economic capital employed exceeds the cost of that capital. This variant of firm value was developed and trademarked by Stern Stewart and Co. as an internal financial performance measure and it helps to capture the true economic profit of a company.

Independent Variables.

In this study, female directors representation on the board acts as the independent variable. However, three proxies have been employed to measure gender diversity on boards of directors. Firstly, a dummy variable measurement is employed such that when at least one female director is present on the board the value of '1' is assigned or 0 otherwise. Secondly, we present board diversity as the percentage of female directors present on the board. However, Ararat *et al*., (2010); Campbell and Mínguez-Vera, 2008; argue that this measure of diversity is inappropraite since homogeneity in terms of gender may occur. Thirdly, the Blau index Blau, (1977) is used to measure the diversity of a board. Maximum Blau index value is achieved when the proportion of each category is at a maximum (Campbell & Mínguez-Vera, 2008). In addition, the Blau index ranges from 0 to a maximum of 0.5.

Instrument Variables.

We employ several variables including audit board committee size, board independence, firm size and leverage to control for their impact on firm value.

The studies of Randoy *et al*., (2009) and de Andres and Vallelado, (2008) documents that small member boards are more efficient at controlling against larger boards where various competencies and diverse backgrounds are displayed and carry the tendency of slowing down operational processes It is measured as the total number seated on the audit committee board.

Director independence is conceived as “outside directors” or as “non-executives” in prior literature (Hossain & Reaz, 2007; Ararat *et al*. 2010). This board characteristic serves as a check-and-balance mechanism, as well as a control mechanism on the discretionary behaviors of managers and on the actions of majority shareholders Yurtog lu (2003) Ararat *et al*., (2010). Other benefits of hiring independent directors includes; reducing conflicts of interest amongst the stakeholders and foster board effectiveness Rao *et al*., (2012) ensuring that managers act in the best interests of stakeholders

Khan (2010) which contributes to effective management through maintaining diverse views and adequately representing stakeholders interest. Board independence is typically determined as a percentage of independent directors to the total number on the board.

According to Lee (2009) Smith *et al*. (2006) Isidro and Sobral (2014) larger firms creates higher value compared to their smaller counterparts because of higher market power or efficiency gain. It is generally measured as the logarithm of total assets.
The higher the leverage, the closer it is to breaching debt covenants and exposing the firm to the risk of bankruptcy therefore determines firm-specific risks Abdullah (2014). Typically measured as a percentage of book value of total debt to total assets. It implies that high bankruptcy costs may be associated with a high level of debt.
Model:

$$EVA = ¶_0 + ¶_1 b\_gender\_d + ¶_2 gender\_d\_dummy + ¶_3 blau\_index + ¶_4 board\_indp + ¶_5 board\_audit\_com + ¶_6 debt\_asset + ¶_7 ln\_total\_asset + e_t$$

Where EVA = Enterprise Value Added

b_gender_d = Percentage of Women on the Board
gender_d_dummy = Presence of Women on the Board
blau_index = Blua Index
board_indp = Board Independence
board_audit_com = Audit Committee Board Size
debt_asset = Ratio of Debt to Total Asset (Leverage)
total_asset = Log of total Asset (Firm Size)
$¶_0$ = *Slope or Intercept of the Equation*
$¶_1$ *to* $¶_7$ *Beta/Coefficients of the variables to be determined*
e_t = *error or stochastic term*

In this study we employ panel data analysis due to its inherent advantages. (Gujarati, 2003; Ntim *et al*., 2013; Danso & Adomako, 2014; Mintah & Schadewitz, 2015; Mintah, 2015; Krause & Tse, 2016) documents that panel data analysis provides more degrees of freedom; less collinearity among variables; more cross-sectional and time-series variability; more efficiency; and accounts for more observable firm-level heterogeneity in individual-specific variables.

Summary Statistics
Table 1 Summary Statistics Results
Authors Computation 2019

The summary statistics above show that on the average most of the sampled companies have a positive Economic Value Added (EVA). THIS IS A strong indication that profit is well able to pay for its

```
. tabstat eva b_gender_d gender_d_dummy blau_index board_indp debt_asset ln_total_asset
board_audit_com b_ownership, statistics( mean median max min sd var cv sum )
```

stats	eva	b_gend-d	gender-y	blau_i-x	board_-p	debt_a-t	ln_tot-t	board_-m	b_owne-p
mean	30.51888	7.524602	.4542773	.1077876	63.35209	57.26246	6.927375	5.33432	12.48749
p50	32.89	0	0	0	66.67	55.62	6.91	6	.9722222
max	92.97	40	1	.42	93.33	168.2	8.7	8	84.44244
min	-186.06	0	0	0	0	12.42	5.09	2	0
sd	20.51142	9.682035	.498641	.0272421	16.23983	20.68499	.8174686	1.012125	20.90404
variance	420.7185	93.7418	.2486429	.0007421	263.7319	427.869	.6682549	1.024397	436.979
cv	.6720897	1.286717	1.097658	.0300093	.2563424	.3612314	.1180055	.1897384	1.673999
sum	10345.9	2550.84	154	307.74	21476.36	19354.71	2348.38	1803	4233.259

cost of capital. The variable proxy of proportion of women to men seated on corportae board reveal that only about 8% of the entire board is represented by women. This can be compared to studies in Malaysia by Bernama (2013) in the U.S by Carter *et al*. (2003) who reported a value of 9.6%, but far greater than the result obtaied in spain by Campbell and Minguez-Vera (2008) who reported a value of only 3.28%.

Furthermore, the diversity variable of women presence on the board indicates that only 54% of the entire sample nominated female representative on its corporate board. Specifically, the blua index indicates provides a clearer mis-match in female representation on corporate boards in Nigeria. Here the index provide a very low value of 0.1 which is so far away from the maximum of 0.5. it simply suggest that corporate gender diversification is still very low in this part of the globe hence there is need for a balance if the benefits of incorporating women on corportae boards will be achieved. The summary statistics reveal that director independence for the sampled boards is 63% while the maximum board committee size stayed at 5% during the period under review. The ststistics also reveal that most of the companies in the sample are the same in terms of total asset. The smallest company had about 5.5 billion in worth of total asset and the largest company in the sample had about 8.7 billion in total asst. however, on the average all the companies own about 7billion naira worth of asset. In the summary statistics we find that directors shareholding is about 12% indicating that over 70% of these companys shares are held in some other forms of shareholding.

Regression Analysis Results

We apply three measure of gender diversity: a dummy variable that takes a value of 1 when at least one female director is present on the board and 0 otherwise. Secondly, the percentage of female directors on the board is employed and thirdly, the Blau index of board diversity.

(1) b_gender_d = % of women on the board of directors
(2) gender_d_dummy = presence of at least one female director on the board
(3) blau_index = gender diversity

in the table below, instrumental variable (IV) regression analyses results on the relationship between board gender diversity and firm value among quoted non-financial companies in nigeria is presented. Proxy variables of gender diversity were used as the endogenous regressors, while leverage, audit committee size, firm size and directors independence were used as the instruments

Instrumental variables regression analysis with the two-stage least square (2SLS) regression methodology was conducted. Post-estimation analysis was performed in order to test for endogeneity and for over-identifying restrictions. We carry out the test of endogeneity to find out if the endogenous

regressor in the model is in fact exogenous. We also report the Durbin Wu–statistics Hausman Durbin (1954) and (Wu, 1974; Hausman, 1978) for the 2SLS estimator. The significant statistic test results show that the variables being tested must be treated as endogenous, while the null hypothesis reveals that the variables under consideration should be treated as exogenous. In addition, we perform the test for over-identifying restrictions to determine whether the instruments were uncorrelated with the error terms. Furthermore, we employ Sargan's (1958) and Basmann's (1960) chi-square test statistics for the 2SLS estimator to test whether the equation was mis-specified.

Table 2 2Stage Least Square Instrumental Variable Regression Estimates
Note ** represent 5% level of statistical significance
Authors Computation 2019
Tests of endogeneity

eva	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
board_audit_com	-6.641789	2.827626	-2.35	0.019**	-12.18383	-1.099744
b_gender_d	.1708372	.2358361	0.72	0.469	-.291393	.6330674
gender_d_dummy	3.147212	4.537973	0.69	0.488	-5.747051	12.04148
blau_index	-198.5441	60.75012	-3.27	0.001**	-317.6121	-79.47606
_cons	243.5039	66.68126	3.65	0.000	112.811	374.1968

Instrumented: board_audit_com
Instruments: b_gender_d gender_d_dummy blau_index board_indp debt_asset ln_total_asset

Authors Computation 2019
Tests of Overidentifying Restrictions
Authors Computation 2019

```
Durbin (score) chi2(1)          =  5.96101  (p = 0.0146)
Wu-Hausman F(1,331)             =  5.96031  (p = 0.0152)
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Regression Results

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Sargan (score) chi2(2) =  4.12977  (p = 0.1268)
Basmann chi2(2)        =  4.09416  (p = 0.1291)
```

The impact of b_gender_d, gender_d_dummy and blau_index on economic value added is provided in Table the table below. Accordingly, b_gender_d, which represent the percentage of women on the board is seen to have an insignificant positive relationship with firm value in the IV regression estimation (β = 0.17; *p* = 0.469). In addition, gender_d_dummy which indicates the presence of women on the board also reveal an insignificant relationship with firm value (β = 3.147; p = 0.488). However, we find a different relationship between gender diversity proxy of blau_index and firm value. This is a strong significant negative relationship with firm value (β = 198.54; *P* = 0.001) which implies that the contribution of women appointed into the board of directors in our sample is not encouraging and lends credence to prior studies which find mix relationship between firm performance and gender diversity. The test for endogeneity requires that we reject the null hypotheses. Thus, all gender diversity proxy included in the model must be treated as endogenous. This also implies that the IV regression

estimator such as the 2SLS more superior than the Ordinary Least Square (OLS) regression in this case.

The validity of the instruments was proved with over-identification analysis using the Sargan and Basmann tests. All the instruments used were valid, or the model was specified correctly in each estimator, as the test statistics were not statistically significant.

Discussion Of Findings

Although female representation in corporate governance is socially desirable, however, empirical proofs of a positive impact on firm value is still inconclusive. specifically, very few related studies have been done within the Nigerian context, perhaps due to the low number of female participation on corporate boards or partly due to the lack of readily available data.

In this study, we carefully align with prior study of Helland and Sykuta (2004) who noted that significant negative or insignificant coefficients for gender diversity variable must be interpreted with care, since we are not absolutly sure that female directors do hinder better performance of firms. Significant negative or insignificant coefficients might imply that female board members are employed simply as window-dressing agents among corporate boards in Nigeria. Common among related studies, we find that issues on gender diversity sterms from two discrete arguments: (a) women with competent skills, experience and qualifications deserve the opportunity to serve on corporate boards and (b) positive gender diversity amongst corporate directors results in better governance which invariably enhances firm performance.

In this study, we tow the line of the second proposition which implies that the representation of females on corporate board should serve solely to improve performance, otherwise firms will be engaging in 'tokenism', a practice of representing a small group or minority on a board in order to give an appearance of sexual or racial equality within a workforce, or match the demographic characteristics of the employees so as to meet up with social or legal expectations (Farrell & Hersch, 2005; Kanter, 1977). The outcome of our result can be linked to the fact that corporate boards in Nigeria engages in tokism. According to Carter *et al*. 2010; Patterson (1997) and Zimmer (1988) firms make a perfunctory gesture of inclusiveness towards minority groups such that if the nomination committee can argue that it is important to have females on the corporate board, it will be easier for them to build a business case about their competency to the shareholders. Therefore, accepting this perspective, female presence on boards would not guarantee efficient monitoring consequently, may not significantly affect firm value as obtained in this study.

Though the results of previous studies are ambiguous, the finding of this study is in line with some studies which supports a significantly negative relationship (Bohren *et al*., 2007; Darmadi, 2011). The reason may stem from the fact that many investors believe that women are emotional, aggressive, risk averse, less confident, not well educated and other invisible barriers, which are built by society to keep women in lower position. Again our result is in line with the opinion of Ahern and Dittmar 2011and Dobbin and Jung 2011 who argue that female directors expertise is less than her male counterpart. Hence, gender diversifed firms faces increased operating expenses and much borrowing in order to fufil its expenses. Here the cost of borrowing to finance operations reduces profit which consequently impact negatively on firm value.

Conclusion and Recommendations

This study therefore concludes that female representation in the boards of quoted non-financial companies in Nigeria are insufficient to make a significant positive impact on the firm value of these companies. This study therefore recommends among others a gender policy mix which will pave way for a quota system obtainable among developed countries that enjoys positive outcomes from gender unbiased board. In addition, female board members should be exposed to trainings, researches and hands-on experience to improve their competence which will positively affect their decision making processes and invariably, firm value.

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CORPORATE GOVERNANCE AND FINANCIAL REPORTING QUALITY OF PROBABLE DISTRESSED QUOTED MANUFACTURING FIRMS IN NIGERIA

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Abstract

Corporate governance attributes have been reputed to have effect on firms' financial reporting quality although the effects have been mixed. This is because good governance practices are believed to enhance transparency, integrity and credibility of firms' financial reporting. This study seeks to ascertain the nexus between the corporate governance practices of probable distressed quoted manufacturing firms in Nigeria and the quality of their financial reporting using selected corporate governance attributes. The Altman z-score was used to select probable distressed manufacturing firms numbering 25 comprising those firms whose scores redeemed to have fallen within Altman's "grey area". The panel regression result reveals that Board Independence can lead to improved financial reporting quality as a result of reduction in the level of non-discretionary accrual estimation errors. Also the study result shows that Board Activeness represented by regular meetings afford the management of firms the opportunity to have robust discussions that can reduce accrual estimation errors considerably such that it casts no doubt on the quality of financial reports. However, contrary to theoretical hypothesis, audit committee effectiveness tends to impinge on the quality of financial reporting because audit committee meetings may not benefit the firm in terms of quality decisions if the committee is not independent. The study concludes that good corporate governance practices downgrades the occurrence of accrual estimation errors, leading to more objective accruals which ultimately enhances financial reporting quality and therefore recommends that firms in Nigeria should ensure independence of the audit committee as well as endeavour to devote ampletime and attention to matters relating to the quality of financial reporting.

Keywords: Corporate governance, financial reporting, quality, probable distressed firm

Introduction

Organizations are established with the aim of effectively utilizing various available resources to meet stated goals, operate efficiently, effectively and productively towards securing a financially stable future. It is however regrettable to note that the corporate world is daily inundated with news of corporate governance failure, poor financial reporting which continues to poses serious challenges to the survival of the organizations. Governance relates to the efficient, accountable and transparent

administration of the affairs of institutions by management, and the steps taken to protect the interests of shareholders, creditors, regulatory bodies and the general public (Cabraa, 2007; Magdi & Nedareh, 2002). Corporate governance is a mechanism which specifies the rules for controlling and directing business decision making as it relates to the internal processes of firms (Gill, 2008; OECD, 1999). Certain factors such as corporate governance have influence on the quality of financial information disclosed by firms while transparent corporate governance practices promote capital market efficiency (La Rosa, Caserio&Bernini, 2019).

Zingales (2006) noted that the financial and operational health of a firm depends on the soundness of the governance structures and other elements, and the correlations between them. The occurrence of accounting scandals across the globe in the 90s which raised many criticisms about the financial reporting quality of businesses together with question of how newly privatized corporations are to be controlled so as to create a form of shareholder democracy gave rise to corporate governance (Biais & Perotti, 2002; Agrawal & Chadha, 2005; Brown, Falaschelti& Orlando, 2010). The quest to improve the credibility of financial reports of firms and protect stakeholders from earnings manipulation led to the establishment of corporate governance practices (Dechow, Sloan & Sweeney, 1996). In the last two decades, Nigeria has witnessed high rate of corporate collapses due to poor corporate governance inthe affected entities (Hamid, 2008). Lately, corporate governance has become a major determinant in the identification of company's strength and weakness and assists in improving the performance of the firm by providing opportunities for reallocating resources (Bhagat & Bolton, 2009). The credibility (accuracy and reliability) of the financial statements issued by firms affects the public, stakeholders' and prospective investors' perception of the firm. To obviate the chances of inaccurate financial disclosures firms must seek to strengthen control over managers and improve their reporting processes by instituting strong corporate governance structures (Karamaou & Vafeas, 2005; Firth, Fung & Rui, 2007; Petra, 2007).

The exactitude with which financial statements convey information about a firm's operation is referred to as financial reporting quality(Biddle, Hilary & Verdi, 2009). In the field of accounting, one of underlying assumptions recognized by the conceptual framework in preparing financial statement is the accrual concept which states that transactions, circumstances and events which have cash consequences should be recognized in the period they actually occurred and not necessarily when cash is received or paid by the enterprise. The primary objective of financial reporting is to provide high quality financial reporting information about entities useful for economic decision making (IASB, 2008). The United States Financial Accounting Standards Board (FASB) in paragraph 44 of its Statement of Financial Accounting Concepts No 1 posits that “information about enterprise earnings and its components measured by accrual accounting generally provides a better indication of enterprise performance than information about current cash receipts and payments” (FASB, 1978).But Dechow and Dichev (2002), posits that “the greater the magnitude of accruals, the lower accrual quality”. Thus, the more volatile cash flow and accrualsare, the lower the accrual quality. Earnings constitute a vital source of financial information conveyed to stakeholders by firms and the quality of earnings is a reflection of financial reporting quality. Strong corporate governance helps to build investors' confidence in the robustness of the financial reporting process (El-SayedEbaid,2013; Francis, La ford, Olsson & Schipper, 2004).

Corporate governance attributes have varied effects on the quality of financial reports globally because of differences in ethical inclination, legal system and corporate governance mechanism or codes. This may suggest that the effect of corporate governance variables on performance and survival of firms in Nigeria may also vary. Nigeria market is expanding by the day and corporate governance issue keep propping up, therefore, this study sought to investigate the association between corporate governance and the quality of financial reporting of probable distressed manufacturing firms. The study therefore hypothesizes that either probable distressed manufacturing firms in Nigeria are not likely to exhibit strong corporate governance practices or that probable distressed manufacturing firms in Nigeria are associated with weak governance practices and hence are characterized with poor quality financial reports. Corporate governance factors that are considered in this research include: board independence, board size, board activeness, audit committee and gender diversity.

Literature review and hypotheses development

This study adopted the agency theory to explain the relationship between financial reporting quality and corporate governance. Agency theory emanated from the pioneering work of Berle and Means (1932) who coined the concept of agency and used the term to describe how the interest of managers differs from those of the owners of the firm especially when ownership is separated from control. Jensen and Meckling (1976) describe the agency relationship as one in which the agent acts on behalf of the principal; making decisions for business, conducting the business operation as well striving to achieve set goals. The delegation of decision making to managers by shareholders may create gap between the agent and principal and increase agency problem and ultimately financial distress. But good corporate governance practices acts as checks and balances, including monitoring and control, reduces information asymmetry and synchronize executive management interests with those of the shareholders, thereby eliminating agency problems and reducing the likelihood of financial distress(Fama& Jensen, 1983; Walsh & Seward, 1990; Short, Keasey, Wright & Hull, 1999; Cheung &Chan (2004).

Financial distress

Financial distress has variously been identified as financial crises, financial confusion or financial turbulence in financial literature (Reza & Mahdi, 2016). Altman and Hotchkiss (2006) posits that corporate financial distress is an unclear concept which can be grouped into four generic constructs: insolvency, bankruptcy, failure and default. Financial distress refers to the inability of an entity to meet maturing financial obligations due to negative earnings in some consecutive years (Gilbert, 1990; Grice &Dugan, 2001), due to economic downturns, poor governance system, unforeseen events as well as the recession stage in the business cycle (Amira &Yalia, 2014; Boritz, 1991). The probability of financial distress increases as risks are shifted to shareholders by agents (Thorburn, 2004; Eberhart & Senbet, 1993; Maksimovic & Titman, 1991). However, financial distress might be temporal and hence may not lead to bankruptcy, but if the adverse financial condition persists, it may lead to bankruptcy or liquidation, thus all firms suffer financial distress before eventual demise (Wu, 2010). While early warning signals of financial distress can be detected from information on financial statement, Lee and Yeh (2004), argues that financial are ex-post in nature and may therefore not predict the future accurately but ex-ante information source such as corporate governance can give a clearer indication of troubled future.

Financial reporting quality

The reliability of some accounting information in terms of their characteristics in communicating vital information to the users is the central concept of financial reporting quality. The value of a financial report is a functions of its quality and high quality financial statement refers to a financial report that is not designed to confuse or mislead others including satisfying the characteristics of transparency, full disclosure and comparability (Eyenobo, Mohamed & Ali, 2017; Pounder, 2013;Elbannam, 2010; Jonas and Blanchet, 2000). Financial reporting quality describes the degree to which financial statement provides true and fair information about the financial performance and position of the reporting entity (Tang, Chen & Zhijun, 2008).

The role of estimation errors is critical in determining the quality of accruals (Darjezi, 2016). According to Dechow and Dichev (2002), accruals are most often based on estimates and assumptions which may not altogether be accurate, hence the quality of accrual and earnings may diminish depending on the size of accrual estimation errors… "More accruals indicates more estimation and errors of estimation, and therefore lower quality of accruals".The quality of financial reporting is a broad concept with series of diverse measureable attribute. The study therefore measured financial reporting quality by examining changes in working capital of probable distressed manufacturing concerns.

Corporate governance

Corporate governance became a subject of interest to researchers, scholars, government in Nigeria after the financial crises of late 2008 which culminated in the collapse of several firms across the globe(Babatunde&Akeju, 2016).Despite being a well-researched subject, there is still no single definition for corporate governance (Cohen, Krishmamoorthy & Wright, 2004). Corporate governance has been defined "as everything about the day–to-day operation of an organization in a way that guarantees that its owners or stockholders receive a fair return on their investment, while the expectations of other stakeholders are also met" (Magdi & Nedareh, 2002); "the system by which companies are directed and controlled (Deb, 2013, p.36) ". Corporate governance has also been described as an instrument for managing and controlling the activities of the firm with a view to creating value for shareholdersethically, legally and on a sustainable basis with emphasis on transparency and fairness to all stakeholders (Rahman & Islam, 2018; Zain-Aldin, 2011; Murthy, 2006).

Corporate governance attributes

Corporate governance has some unique characteristics that can help determine the effectiveness of organizations' governance practices. These characteristics are associated with both financial distress (Fich & Slezak, 2007; Ombaba & Kosgei, 2017) and quality of accounting information and hence financial reporting (Gois, 2014; Klai & Omri, 2011).

Board Size

Board size as an important determinant of the effectiveness of corporate governance is the total number of directors on the board in a given year (Jackling & Johl, 2009; Maere, Jorissen & Uhlaner, 2014).While studies (such as Larmouand Vafeas, 2010; Jensen, 1993; Lipton and Lorsch, 1992)support smaller board because it results in better financial performance, other authors (such as Bredart, 2014; Corbetta and Salvato, 2004) insist that larger boards are more effective due to a wider range of knowledge, skills, and expertise which in turn contribute to its monitoring and supervisory roles. A large board is believed to have the capacity to raises the disciplinary control over chief executive officers by compelling them to act more in the firm's interest thereby obviating the chances of

distress (Gales &Kesher, 1994). The study therefore hypothesizes that:
Hypothesis 1: Board size has no significant relationship with financial reporting quality of probable distressed firms in Nigeria

Board Independence
Codes of corporate governance in Nigeria states that board must comprise of both executive and non-executive directors; and for any board to be independent, at least two-third of the director must be non-executive (FRCN, 2018, 2016; SEC, 2013).Independent directors are regarded as directors who are not currently employed by the company or has no economic or psychological reliance on the management. Independent directors in the board ensure effective monitoring of chief executive officers, executive directors and management, this helps to improves the quality of reported financial information (Kantudu & Samailai, 2015; Hamid, 2009; Jensen, 1993;). However, Petra (2007); Bradbury, Mak and Tan (2006); Ahmed, Hossa in and Adams (2006); Ho and Wong (2001); claim that without requisite knowledge, the competence of the independent directors cannot be guaranteed and this can affect their ability to monitor the quality of financial reports including serving as effective deterrent to fraudulent financial reporting (He, Christopher & Ying (2009). The study therefore hypothesizes as follows:
Hypothesis 2: There is no significant association between board independence and financial reporting quality of probable distressed firms in Nigeria

Board Activeness
Board activeness entails the frequency at which board meetings are held and it is a vital determinant of how efficient and effective the corporation performs. Boards that meet regularly seems to be more effective in monitoring executive management as well as making decisions which ensures that the organization is run in the best interest of stakeholders (Kamardin & Haron, 2011; Lipton and Lorsh, 1992; Xie, Davidson &DaDalt, 2003).But frequency of board meeting can portray that the firm may be facing financial problems and even lead to poorer performances
(Chen, Firth, Goa &Rui, 2006); Vafeas, 1999; Jensen, 1993), thus the following hypothesis is formulated:
Hypothesis 3: There is no significant relationship between board activeness and financial reporting quality of probable distressed firms in Nigeria

Gender Diversity
The advancement of gender equality as well as female representation in corporate governance continues to dominate social and political debates in several climes (Pande& Ford, 2011). Advocates of greater representation of women on corporate board usually rely on two lines of arguments; the ethical and the business case of diversity (Robinson & Dechant, 1997). The ethical line of diversity argues that women should be considered for leadership position just for equality reasons not necessarily improvement in financial reporting quality and performance (Brammeer, Millington & Pavelin, 2007). Proponents of the business case of diversity argue that greater gender diversity in corporate boards raises the confidence of investors who expects increasing accountability, transparency from directors (Galbreath, 2011), but it can also be argued that greater gender diversity in company boards can generate more conflicting opinions resulting into delayed and ineffective decision making (Tajfel & Turner, 1985; Lau & Murnighan (1998),consequently, the study hypothesizes thus:

Hypothesis 4: Board diversity has no significant relationship with financial reporting quality of probable distressed firms in Nigeria

Audit Committee

Corporate governance codes in recognition of the important role of the audit committee, charges the committee with the ultimate responsibility of ensuring high quality financial statement and reporting. The effectiveness of an audit committee may not solely depend on its existence, but on other committee characteristics such as the level of committee independence, the financial expertise of members and the frequency of audit committee meetings. Thus, the effectiveness of the audit committee is determined in three ways: composition of independent non-executive directors, the proportion of financial experts and how frequent committee meetings are held annually.

The audit committee should consist of non-executive directors, with a reasonable number of independent directors. The existence of independent director in the board tend to assist in resolving disagreement between managers and reducing conflicts between management and stakeholders. Firms with independent directors are less prone to financial problems than those without independent directors (McMullen & Raghunandan, 1996;Fama& Jensen, 1983). However, the presence of independent non-executive directors (INEDs) does not guarantee fraud free reported earnings (Owen-Jackson, Robinson & Shelton, 2009).The literacy of audit committee members is of great importance to corporate governance. The United State Securities and Exchange Commission states that financial experts' attribute can be achieved through training and experience of: practicing auditors, chief finance officers or financial controllers and principal accounting officer of quoted firms including those holding similar positions or performing similar functions (Bedard & Gendron, 2010). However results relating to the effect of expertise of audit committee members on effectiveness is mixed. While Lin, Li and Yang(2006) reports that financial expertise of the audit committee members has no relationship with financial restatement, Saleh, Iskandar and Rahmat (2007) argues that financial expertise does not reduce earning management. Regular meetings provide the committee members and external auditor the avenue to discuss pertinent issues relating to the financial statements including the evaluation of compliance with financial reporting standards as well as express opinion about the firm's choice of accounting principles, estimates and disclosures (Kirk & Siegel, 1996).The study carried out by Farber (2008) shows that firms that reported more fraud cases were found to have held very few meetings compared to firms found to be less fraud infested, thus confirming the conclusion of Abbott, Parker and Peters (2004) who argues that frequency meetings is associated with less likelihood of restatement. We therefore hypothesize as follows:

Hypothesis 5: Audit committee has no significant relationship with financial reporting quality of probable distressed firms in Nigeria

Methodology

The study which was conducted using the financials of quoted manufacturing firms for the period 2012 to 2016 adopted the ex-post facto research design because the data used are already in existence. The sample size was determined by using the Altman Z-score to sieve 25probable financially distressed manufacturing firms from among the 54 manufacturing firms quoted on the Nigeria Stock Exchange as at April, 2018. Altman (1968) investigating the economic and financial ratio in the context of bankruptcy developed a model using financial statement ratios and multiple discriminant analysis to

predict bankruptcy for publicly quoted manufacturing firms. The model is of the form:

$Z = 3.3X_1 + 1.2X_2 + 1.0X_3 + 0.6X_4 + 1.4X_5$ ---------- (3.1)

Where:

X_1= Earnings before interest and tax / Total asset

This is a measure of the productivity of the firm's asset.

X_2= Net working capital/ Total asset

This is the measure of net liquid asset of the firm relative to total capitalization.

X_3= Sales/ Total assets

This is the standard measure showing sales generating ability of firm's assets.

X_4= Market value of equity/ Book value of debt

This measure shows how much the firm's asset can decline in value before the liabilities exceeds the assets and firm becomes insolvent.

X_5= Accumulated retained earnings/ Total assets

Where Z is an index of bankruptcy with a score of Z < 2.675 indicating that a firm has 95% chance of becoming delinquent within a year. Altman's result shows that in practice, z-scores between 1.81 and 2.99 should be treated as falling on"grey area". Bankruptcy would be predicted if Z < 1.81 and non-bankruptcy will be predicted if Z > 2.99 in actual use. Altman argues that likely bankrupt companies and non-likely bankrupt companies do not have the same financial profiles twelve months before bankruptcy and the different financial profiles are the key intuition behind the Z-score model. The sample size for this study consists of the manufacturing firms with Z-score of 2.99 and below (that is, those falling within gray area and likely to go bankrupt)

This study employed the panel data regression technique for estimation of the model. The adoption the technique in this study is based on the following justifications: (a) the data had time and cross sectional characteristics. Panel data technique enabled the researchers to study financial reporting quality (responding variable) and corporate governance (explanatory) variables over time and across the sampled listed manufacturing firms (cross-section); (b) The regression technique provides better result since it increases sample size and reduces the challenge of degree of freedom and (c) Panel regression obviates the problem of multicollinearity, including aggregation bias and endogeneity issues. The relationship between the criterion and predictor variables is expressed in the form of a bivariate regression thus:

The dependent variable of this study is Financial Reporting Quality (FRQ). The study model is specified as:

$$Yi = b_0 + S_{it=1}^{N} biXi + e \text{ .....} (3.2)$$

FRQ = f (CORGOV) ---------- (3.3)

This study used the Dechow and Dichew (2002), McNichol's (2002) model for the criterion variable {Financial Reporting Quality (FRQ)} employing accrual quality as proxy. The model which captures the elements of non-discretionary accruals measures accrual quality as the appropriate fit of working capital accruals taken into account as part of operating cash flow, where inappropriate fit results in weak accrual quality. The model is given as:

$FRQ = ?WC = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + ?_{it}$ ..... (3.4)

$?WC = ?AR_{it} + ?INV_{it} - ?AP_{it} - ?TP_{it} + ?OA_{it}$ ---------- (3.5)

Where;

$?WC$ = Change in working capital

CFO_{it-1} = Lag of cash flow from operations (previous year's cash flow)

CFO_{it} = Current year's cash flow from operations

CFO_{it+1} = Following year's cash flow from operations

$?AR_{it}$ = Change in accounts receivable

$?INV_{it}$ = Change in accounts receivable

$?AP_{it}$ = Change in accounts payable

$?TP_{it}$ = Change in taxes payable

$?OA_{it}$ = Change in other assets (PPE)

All variables are scaled by average assets.

Corporate governance (CORGOV) was measured by corporate governance variables which are: Board size (BS), board independence (BI), board activeness (BA), gender diversity (GD) and audit committee meetings (ACM).

For this research work, the econometric form of the model used for data analysis is given as:

$FRQ = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BA_{it} + \beta_4 GD_{it} + \beta_5 ACM_{it} + ?_{it}$ ---------- (3.6)

B0 = Regression Coefficient

BS_{it} = Board Size (number of directors on the board) of firm i in year t

BI_{it} = Board Independence (the percentage of independent directors on the board) of firm i in year t

BA_{it} = Board Activeness (the number of board meetings) of firm i in year t

GD_{it} = Gender Diversity (the number of female representatives on the board) of firm i in year t

ACM_{it} = Audit Committee Meeting on the board of firm i in year t

Results and discussion

Derivation of the value of the dependent variable: Financial reporting quality

The regression analysis is conducted to show the effects of the response variables on thecriterion variable. It should be noted that the dependent variable in the model is a latent variable which could not be measured on its own as it not directly observable. Consequently, the variable was measured using changes in working capital in the model formulated by Dechow and Dichev (2002) and McMichols (2002). The regression equation extracted from the regression result (Appendix II) is given below:

$FRQ = ?WC = \beta_0 + \beta_1 CFO_{it-1} + \beta_2 CFO_{it} + \beta_3 CFO_{it+1} + \beta_4 ?REVit + \beta_5 ?PPE_{it} + ?_{it}$ ..... (4.1)

$$?WC = -1575306 + 0.156CFO_{it-1} - 0.130CFO_{it} + 0.089CFO_{it+1} + 0.140?REVit - 0.045?PPE_{it} + 5528510 \text{ --------- } (4.2)$$

The values of the dependent variable (FRQ) was derived by substituting relevant figures in appendix II into equation 4.2 above.

Result

Table 4.3 shows the result of the relationship between the predictor variable and the criterion variable employing the ordinary least square (OLS) and generalized least square (EGLS) estimation. The GLS provides fixed and random effect results for the entire sample.

Table 4.3 Estimation result for the model

Source: Researcher's compilation (2019) from E-view 9.5 ** *@ less than 1%;* sig @ less than 5%; [ ] t-value;() Standard error; { }p-value*

Variable	Panel OLS	Panel OLS	Fixed effects	Random effects
C	14.743 [8.719] (1.691) {0.000}	14.743 [8.719]** (1.691) {0.000}	16.168 [15.957]** (1.013) {0.000}	14.743 [8.694]** (1.696) {0.000}
LNBS		-0.542 [-0.900] (0.603) {0.371}	-0.161 [-0.469] (0.342) {0.641}	-0.542 [-0.897] (0.604) {0.373}
LNBI		-1.958 [-1.012] (1.935) {0.315}	-2.134 [-2.921]* (0.730) {0.005}	-1.958 [-1.009] (1.941) {0.317}
LNBA		-1.870 [-2.475]** (0.756) {0.016}	-0.723 [-1.950]* (0.371) {0.057}	-1.870 [-2.468]** (0.758) {0.016}
LNACM		3.530 [5.442]** (0.649) {0.000}	0.350 [0.719] (0.487) {0.476}	3.530 [5.423]** (0.650) {0.000}
CORPG	14.3 [5.86] (0.32) {0.000}		0.350 [0.719] (0.487) {0.476}	0.350 [0.719] (0.487) {0.476}
R^2		0.35	0.99	0.35
ADJ R^2		0.30	0.98	0.30
F-Stat		7.347	113.21	7.347
P(F-stat)		0.000	0.000	0.000
D.W		1.557	3.01	1.557

Board independence and financial reporting quality

Based on the EGLS test, the fixed effects estimation reveals that the effect of Board Independence (BI) on firms' Financial Reporting Quality (FRQ) is negative (coefficient = -2.134) and significant at less than 5 % (t = -2.921; p=0.005) and this suggests that having more independent directors on the board reduces the accrual quality hence financial reporting quality will be higher. Although, this result is

contrary to the findings of Gois (2014) which revealed that board independence does not significantly effect financial reporting quality, it however suggests that having many INEDs on the board has the tendency to reduce the levels of accrual quality hence enhance financial reporting quality. The plausible reason is that INEDs can prevail on the board to dispense with accruals that are consider inimical to the interest of stakeholders.

Board activeness and financial reporting quality

From table 4.3, the panel OLS, fixed and random effects all show significant relationship between the criterion and explanatory variables. Based on the random effect estimation, Board Activeness (LNBA) has a negative (-1.870) and significant (t = -2.468; p = 0.016) relationship with accrual quality, suggesting that an active board has the tendency to reduce the levels of accruals thereby enhancing financial reporting quality. This result indicates that an active board affects financial reporting quality in a negative way. This result is in tandem with the conclusion of Vafeas (1999) who finds that the regularity of meetings which represent board activeness affects performance of firms negatively. The plausible reason for this is that regular meeting affords the board sufficient time to deliberate on the level of accruals and take necessary steps to bring it to a level that would not impinge the quality of financial reporting.

Audit committee effectiveness and financial reporting quality

Audit Committee Meeting (LNACM) as a surrogate for audit committee effectiveness shows a positive (3.530) and significant (t = 5.423; p = 0.000) relationship with the levels of accrual in contrast with the apriori expectation of the study. The test of hypothesis reveals that the LNACM has a significant positive effect on financial reporting quality. Thus an effective audit committee has the tendency of increasing the level of accruals and consequently reducing financial reporting quality. This result is however, contrary to the study's theoretical expectation. This may not be unconnected with the conclusions of Abott, Parker and Peters (2004) who posits that the effectiveness of an audit committee does not depend merely on the existence of the committee, but on certain desirable characteristics such as independence of the committee and the financial expertise of members amongst others.

The model parameters using the fixed effect estimate are as follows: coefficient of determination (R^2) = 98.65%, Adj R^2 = 97.78%. These values suggest that the model explains about 98% of systematic variations in financial reporting quality. The Fisher's ratio of 113.21 shows that the model is statistically significant at less than 1%. The data set passed the D-W test at 3.01.

Conclusion and Recommendations

Financial reporting quality refers to the extent to which the corporate financial report of an entity provides accurate information about the performance and position of that entity. Good corporate governance is reputed to enhance the quality of financial reporting in organizations. The following conclusion were drawn from the study results:

Firstly, the fixed effect estimation result reveals that the effect of board independence on financial reporting quality is negative and significant. The result agrees with the apriori expectation of the study and logical deduction that the presence of independent non-executive directors on the board of company can reduce the level of accruals and consequently enhance quality of financial reports.

Secondly, the robust result of the random effect estimation reveals that board activeness has negative and significant effect on financial reporting quality in line with theory which postulates that effective board ensures that the firm's activities are carried out in the interest of stakeholders.

Thirdly, the random effect estimation reveals that effectiveness of the audit committee has a positive and significant relationship with financial reporting quality. This is however contrary to theoretical expectations probably because other factors such as independence and financial expertise which ensures that the audit committee act in the interest of stakeholders may be lacking.
The study therefore concludes that indeed good corporate governance reduces firms' accrual to a level which is not detrimental to the overall interest of stakeholders and thus enhances the quality of financial reporting. Consequently, the study recommend as follows:

1. Firms in Nigeria should ensure that there are enough independent non-executive directors on the board to enhance their corporate governance practices and improve the quality of corporate financial reports.
2. During board meetings, quality time should be devoted to discussion on matters bordering on the quality of corporate financial reports to ensure that financial reports communicate accurate and reliable information to stakeholders

Finally, further studies should include factors such as independence and expertise in the audit committee variable to see if those factors can change the observed relationship between financial reporting quality and effectiveness of the audit committee. A comparative study can also be conducted between financially sound quoted manufacturing firms and probable distressed firms.

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APPENDIX I

ALTMAN Z-SCORE DATA AND PREDICTION

S/no	Company	Current Asset ?'000	Current Liabilities ?'000	Total Asset ?'000	Turnover ?'000	EBIT ?'000	Market Value of Equity ?'000	Book Value of Debt ?'000	Retained Earnings ?'000	Altman Z-Score Result	Prediction
1	Nestle	97,736,155	121,033,434	169,585,932	181,910,977	21,548,408	642,052,00	138,707,857	30,323,005	6.21	Non-Bankrupt
2	Cadbury	13,824,124	12,836,328	28,409,000	29,979,410	-562,871	19,326,697	17,352,267	6,366,306	2.01	Gray
3	Unilever	41,542,547	53,513,389	72,491,309	69,777,061	4,106,422	34,220,193	60,801,366	9,752,577	1.24	Likely to be bankrupt
4	Dangote cement	193,603,000	390,426,000	1,502,564,000	426,129,000	374,396,000	31,199,666,667	521,197,000	927,589,000	5.41	Non-Bankrupt
5	Dangote Sugar	141,909,778	95,709,740	175,936,048	167,409,161	20,759,524	172,996,033	101,351,298	62,264,226	3.71	Non-Bankrupt
6	Dangote Flour	54,102,367	40,424,498	76,605,288	83,671,078	11,588,399	96,569,992	47,811,011	-12,443,563	2.79	Gray
7	Guiness	47,869,835	67,109,622	136,992,444	101,973,030	-2,347,241	147,577,042	95,331,839	31,946,315	1.77	Likely to be bankrupt
8	Seplat	404,274,000	153,109,000	681,892,000	51,995,000	-29,261,000	191,571,151	290,831	106,670,000	395.7	Non-Bankrupt
9	Pz Cussons	47,925,250	27,430,174	74,130,174	69,527,537	3,148,196	26,234,967	22,468,811	9,395,851	3.75	Non-Bankrupt
10	Nigerian Beta Glass	22,650,286	6,990,457	33,184,130	19,091,192	5,215,253	43,460,442	7,495,624	14,667,990	5.99	Likely to be bankrupt
11	Presco	15,604,286	5,607,552	83,161,837	15,716,198	31,226,452	260,220,433	31,042,835	50,358,026	9.16	Likely to be bankrupt
12	Okomu Oil Palm	5,890,439	7,495,624	24,507,665	14,364,736	5,906,453	49,220,442	7,495,624	14,667,990	5.99	Non-Bankrupt

Honey Wells Flour Mill	22,257,649	44,213,225	76,046,576	50,883,780	-2,869,342	11,578,000	59,683,977	5,935,459	0.42	Likely to be bankrupt
Champion Brewery	2,166,255	2,208,173	9,961,240	3,864,943	681,284	5,677,366	2,290,380	-9,039,279	0.83	Likely to be bankrupt
Nigerian Breweries	74,558,034	144,856,800	367,639,915	313,743,147	39,622,914	330,190,950	201,834,373	96,319,782	2.33	Gray
Seven-Up Bottling	25,024,987	34,656,800	67,796,611	85,634,679	3,757,390	31,311,583	43,017,017	24,160,159	2.21	Gray
Friesland	54,908,859	54,731,207	72,857,269	123,749,286	19,963,190	166,359,917	56,569,399	15,449,491	4.67	Non-Bankrupt
May & Bakers	3,208,027	2,773,707	7,583,677	5,822,457	60,932	507,767	5,578,320	1,024,623	1.11	Likely to be bankrupt
Northern Nig. Flour Mill	1,081,103	375,277	1,739,760	979,038	-233,071	1,185,030	488,823	1,072,316	3.81	Non-Bankrupt
A. G. Leventis	8,039,057	8,744,524	18,268,284	9,861,180	-4,126,989	2,541,000	10,922,391	1,303,392	0.01	Likely to be bankrupt
University Press	1,714,815	688,898	3,139,184	1,471,938	70,207	585,058	779,379	1,006,466	1.83	Gray
Aluminium Extrusion Industry Plc	655,403	491,166	2,239,592	2,990,048	127,563	1,063,025	708,418	469,710	4.5	Non-Bankrupt
CWG	12,755,241	11,089,218	14,431,275	8,558,821	32,597	271,542	11.089,218	227,742	0.78	Likely to be bankrupt
Multiverse Plc	54,098	2,770,170	4,596,771	26,262	-584,118	4,867,650	3,993,515	-2,769,794	-1	Likely to be bankrupt
Grief Nig. Plc	566,472	381,423	722,490	999,150	37,597	313,308	384,906	316,264	3.13	Non-Bankrupt
Portland Paint and Product	1,253,813	993,793	1,754,321	1,971,170	7,502	688,000	1,054,107	408,292	2	Gray
Mc Nichols	134,390	145,202	475,141	1,093,805	70,181	584,842	173,603,436	109,464	2.99	Non-Bankrupt
Berger Paints	1,560,693	1,306,347	4,102,265	2,602,824	271,770	1,855,000	1,498,084	1,759,795	2.1	Gray

23	International Breweries	8,083,481	15,940,734	33,482,106	23,269,364	3,656,826	30,473,550	19,484,715	4,828,779	1.66	Likely to be bankrupt
30	Meyer Plc	345,119	768,784	2,205,516	1,091,000	-211,038	227,500,000	1,755,007	307,399	78.6	Non-Bankrupt
31	ChelleramsPlc	-1,587,852		12,460,091	16,556,045	184,461	1,537,175	10,799,061	-1,346,096	1.46	Likely to be bankrupt
32	Flour Mills	137,613,069	114,508,685	233,296,607	247,876,504	6,248,497	52,070,808	133,052,468	2,419,544	1.52	Likely to be bankrupt
33	Lafarge	98,343,560	175,987,341	502,490,905	87,198,416	19,888,762	165,739,683	197,504,069	119,825,320	1.1	Likely to be bankrupt
34	Premier Paints	63,898	282,163	318,532	280,267	-40,245	1,344,390	355,398	-273,502	0.71	Likely to be bankrupt
35	Thomas Wyatt Nig.	78,567	514,982	522,085	41,697	64,360	134,200,000	667,844	-427,317	110.9	Non-Bankrupt
36	Academy Press Plc	1,141,838	1,618,620	2,794,535	-1,779,944	-73,039	405,216	2,124,932	342,692	-0.64	Likely to be bankrupt
37	First Aluminium Nig. Ltd	-104,357		9,328,162	9,154,586	271,620	2,263,500	-4,284,607	-1,852,142	0.5	Likely to be bankrupt
38	Nascon Allied Industry	18,203,692	15,124,954	24,603,267	18,291,792	3,516,331	29,302,758	16,557,041	6,287,470	4.14	Non-Bankrupt
39	Ng Morisn	65,467	202,410	412,896	132,280	-78,585	251,094	269,420	45,897	0.91	Likely to be bankrupt
40	Paints and Coatings	2,129,891	-641,969	2,440,618	2,895,447	40,139	334,492	671,419	844,664	3.38	Non-Bankrupt
41	Secure Electronics	317,659	739,175	6,496,926	7,469,905	62,406	520,050	739,320	-3,260,246	1.17	Likely to be bankrupt
42	Vitafoam Nig.	7,398,160	7,975,618	13,345,546	12,189,558	522,757	4,356,308	8,723,509	2,565,725	1.56	Likely to be bankrupt
43	Julius Berger	156,459,416	109,452,546	252,398,409	119,813,392	-1,239,251	59,952,817	239,253,322	12,059,647	0.86	Likely to be bankrupt
44	BOC Gasses	1,347,462	1,081,553	3,630,953	1,983,769	121,457	1,465,181	1,458,252	1,964,579	2.1	Gray

45	Smart Product Nig. Plc	52,910	53,180	148,967	49,816	19,948	166,233	72,534	-27,882	1.89	Gray
46	MRS Oil NigPlc	62,006,446	54,070,179	81,364,815	109,635,054	2,287,347	19,061,225	59,200,974	22,036,847	2.86	Gray
47	Glaxosmith-Kline(GSK) Nig.	25,427,348	11,144,362	28,189,079	14,384,785	185,891	1,549,092	11,144,664	16,395,081	2.09	Gray
48	Studio Press Nig. Plc	4,202,836	3,645,055	10,173,624	10,254,095	470,447	3,920,392	8,214,856	1,174,549	1.87	Gray
49	Chemical and Allied Product(CAP) Plc	4,252,706	2,495,429	4,915,999	6,813,984	2,296,821	19,140,175	2,632,509	1,914,236	11.17	Non-Bankrupt
50	Briscoe	3,245,961	11,195,436	8,264,125	8,751,219	-3,059,416	19,140,175	11,633,454	-7,232,146	-1.56	Likely to be bankrupt
51	Learn Africa Plc	3,986,203	1,657,654	4,639,683	2,009,852	134,314	624,875	657,654	588,387	1.33	Likely to be bankrupt
52	CatixPlc	1,071,229	756,297	1,891,720	2,835,862	278,114	1,981,487	1,021,503	429,886	3.66	Non-Bankrupt
53	AshakaPlc	24,624,291	9,355,789	74,829,688	17,351,235	2,663,283	43,803,703	19,935,820	53,574,139	2.91	Gray
54	Austin Laz	542,336	14,895	1,760,775	217,428	-146,126	2,256,907	176,111	-180,042	8.3	Non-Bankrupt

APPENDIX II

FINANCIAL REPORTING QUALITY

S/N	FIRM	YEAR	? WC	CFOit-1	CFOit	CFOit+1	? REV	? PPE	FRQ
1	CADBURY	2014	513,443	6,621,476	1,419,524	3,781,283	-5,242,167	-796,544	4440091.4
		2015	1,076,160	1,419,524	3,781,283	-1,848,864	-2,693,392	-767,259	3175985.8
		2016	2,291,349	-1,848,864	-1,848,864	-1,471,631	2,154,216	-1,178,218	4128768.4
2	UNILEVER	2014	- 1,279,319	11,680,745	-1,824,795	15,589,947	-4,249,810	1,605,849	6732892.2
		2015	- 3,990,493	-1,824,795	15,589,947	5,991,506	3,467,439	2,538,140	2546312.1
		2016	- 6,319,900	15,589,947	5,991,506	5,935,307	10,555,313	1,903,267	7526679.1
3	DAGOTE FLOUR	2014	- 6,912,015	-38,593,236	-5,396,756	-3,859,337	8,624,756	-1,997,638	-411883.98
		2015	-14,804,392	-5,396,756	-3,859,337	4,962,170	4,389,681	-1,661,425	4743976.5
		2016	9,966,069	-3,859,337	4,962,170	5,873,857	47,577,057	2,645,779	9770566.5
4	GUINNESS	2014	12,526,697	24,298,137	19,157,202	39,686,775	-13,261,418	2,570,553	6813126.7
		2015	- 8,694,435	19,157,202	39,686,775	5,708,870	9,293,762	-2,929,331	3723482.8
		2016	- 6,690,856	5,708,870	5,708,870	22,660,383	-16,522,852	-521,090	3828658.5
5	HONEYWELL	2014	- 272,565	-1,794,855	6,431,524	5,602,147	9,374,923	1,116,322	4597954.3
		2015	- 6,228,936	6,431,524	5,602,147	10,131,641	-6,026,794	13,196,979	3692343.5
		2016	-20,331,291	5,602,147	10,131,641	-2,508,133	1,826,269	4,475,367	3341087.9
6	CHAMP BREW	2014	10,030,753	1,058,062	1,008,118	1,378,442	1,069,124	-395,283	4277352.8
		2015	841,187	1,008,118	1,378,442	514,682	199,462	73,724	4001686.7
		2016	756,949	1,378,442	514,682	196,219	363,098	-151,389	4176442
7	NIGERIAN BREW	2014	1,216,073	94,023,541	60,860,045	72,673,843	-2,000,000	40,203,491	15087885
		2015	-29,135,640	60,860,045	72,673,843	70,210,871	27,292,274	3,539,223	13910192
		2016	10,004,642	72,673,843	70,210,871	71,442,357	19,837,355	-6,112,147	15573556
8	SEVEN UP	2014	- 1,693,259	13,880,315	19,225,600	15,537,594	13,799,669	2,441,835	6824122.1
		2015	5,901,485	19,225,600	15,537,594	21,095,233	4,561,951	6,547,171	7154036.6
		2016	- 4,228,163	15,573,594	21,095,233	18,316,414	3,184,174	-1,904,559	5801954.7
9	AG LEVENTIS	2014	- 1,317,654	898,236	-163,180	2,234,283	476,811	2,330,787	4275261.5
		2015	1,315,303	-163,180	2,234,283	1,365,432	275,292	-1,038,300	3844079
		2016	- 4,340,616	2,234,283	1,365,432	-286,790	-109,474	-484,637	4105204
10	CWG	2014	- 622,287	1,253,449	365,743	481,699	-5,460,254	-104,282	3384323.8
		2015	- 1,469,370	365,743	481,699	1,126,537	-706,884	-71,392	3952149.7
		2016	- 46,363	481,699	1,126,537	-757,717	-5,329,777	-71,904	3071529.3
11	PORTLAND PAINT	2014	- 43,574	34,159	175,897	249,371	77,146	-555,154	3993642.6
		2015	- 251,253	175,897	249,371	96,077	-629,686	455,655	3848116
		2016	132,527	249,371	96,077	-257,587	-324,430	-18,120	3912085.8
12	BERGER PAINTS	2014	733,913	-165,600	-462,336	541,780	371,944	2,649	4087645.5
		2015	- 417,467	-462,336	541,780	758,941	-3,082,927	167,368	3439052.6
		2016	- 652,427	541,780	758,941	326,215	2,602,821	820,517	4295564.2
13	INTER BREWERIES	2014	854,625	-4,043,424	6,258,083	3,151,232	1,105,275	3,181,417	2800913.4
		2015	- 2,076,426	6,258,083	3,151,232	9,361,251	2,155,388	4,002,072	5474617.2
		2016	- 5,460,100	3,157,232	9,361,251	9,859,472	2,620,069	2,536,401	4358934.2
14	CHELLARAMS	2014	882,909	3,612,935	-741,067	-4,399,494	3,086,876	35,613	4652165.7
		2015	- 3,485,296	-741,067	-4,399,494	2,970,669	-2,855,928	-187,548	4282531

13	INTER BREWERIES	2014	854,625	-4,043,424	6,258,083	3,151,232	1,105,275	3,181,417	2800913.4
		2015	- 2,076,426	6,258,083	3,151,232	9,361,251	2,155,388	4,002,072	5474617.2
		2016	- 5,460,100	3,157,232	9,361,251	9,859,472	2,620,069	2,536,401	4358934.2
14	CHELLARAMS	2014	882,909	3,612,935	-741,067	-4,399,494	3,086,876	35,613	4652165.7
		2015	- 3,485,296	-741,067	-4,399,494	2,970,669	-2,855,928	-187,548	4282531
		2016	913,953	-4,399,494	2,970,669	1,949,325	-4,910,136	-41,039	2368613.6
15	FLOUR MILL	2014	3,546,639	-527,216	9,934,541	10,096,878	68,077,042	3,233,400	12863373
		2015	- 6,759,228	9,934,541	10,096,878	20,924,187	-21,701,883	10,156,941	2557324.9
		2016	- 5,726,170	10,096,781	20,924,187	-14,328,877	18,098,635	5,310,595	3827719.6
16	LARFARGE	2014	9,264,267	34,452,200	37,737,758	33,733,822	8,674,152	-2,974,435	8772379.7
		2015	9,890,716	37,737,758	33,733,822	-30,907,024	8,709,588	-1,903,073	4009152.9
		2016	9,483,988	33,733,822	-30,907,024	2,924,765	-27,359,829	-3,633,956	9827049.4
17	PREMIER PAINTS	2014	53,201	10,585	12,904	25,656	85,401	-10,166	3967874.7
		2015	- 65,587	12,904	25,656	17,423	-128,942	65,568	3932430
		2016	- 31,883	25,656	17,423	-2,670	-199,059	-13,533	3927444.4
18	FIRST ALUMINIUM	2014	- 342,869	872,165	770,123	713,195	511,156	153,356	4117280.9
		2015	570,165	770,123	713,195	928,994	1,576,615	-154,352	4290980.2
		2016	- 466,184	713,195	928,994	870,690	-1,324,047	426,610	3816620.6
19	VITAFOAM	2014	502,871	1,289,816	2,252,375	494,129	0	-6,540	3905878.3
		2015	963,408	2,252,375	494,129	-1,557,076	-364,754	-222,464	4060703.3
		2016	- 1,644,221	494,129	-1,557,076	2,215,188	-2,965,544	-157,705	4021780.3
20	BOC GASES	2014	- 146,879	536,523	581,141	296,327	121,278	834,076	3967171.9
		2015	114,636	581,141	296,327	399,140	-225,372	25,809	4008149.5
		2016	- 319,299	296,327	399,140	560,606	-3,755	-166,745	4004414.6
21	GLAXOSMITHKLINE	2014	1,165,034	4,996,026	1,378,889	5,138,681	1,337,452	1,297,537	5139525.2
		2015	- 1,909,653	1,378,889	5,138,681	1,010,812	113,581	331,948	3591208.1
		2016	1,381,664	5,138,681	1,010,812	-2,150,292	-16,249,923	-11,638,420	2680796.4
22	AUSTINLAZ	2014	- 111,996	-97,895	116,493	82,255	-51,602	-163,439	3930239.5
		2015	22,092	116,493	82,255	-44,702	-354,675	-163,439	3914405.5
		2016	62,015	82,255	-44,702	643,964	-43,627	-163,439	4030406.8
23	BRISCOE	2014	- 2,198,035	391,093	-737,864	3,234,944	-2,160,250	3,062,678	3957791.3
		2015	- 3,826,595	-737,864	3,234,944	2,050,409	-8,417,039	543,817	2397183.7
		2016	- 3,084,512	3,234,944	2,050,409	-217,189	-2,289,622	-185,506	3859773
24	ASHAKA CEMENT	2014	2,888,361	2,042,923	2,190,474	-1,197,691	-560,683	1,098,438	3752618.5
		2015	7,425,539	2,190,474	3,074,831	3,074,831	3,719,081	573,195	4663727.4
		2016	- 732,803	-1,197,691	2,136,261	2,136,261	-63,658	-362,003	3686155.5
25	MAY & BAKER	2014	174,349	1,188,479	748,151	846,145	645,510	-195,802	4215836.5
		2015	- 287,575	748,151	846,145	1,518,422	515,707	-210,816	4176742
		2016	36,119	846,145	1,518,422	875,007	889,012	1,193	4090091.4

APPENDIX IIIA
FINANCIAL REPORTING QUALITY AND CORPORATE GOVERNANCE

S/N	FIRM	YEAR	FRQ	lnFRQ	BS	BI	BA	GD	ACM
1	CADBURY	2014	4440091.4	15.306186	7	0	5	2	4
		2015	3175985.8	14.971129	7	0	5	2	4
		2016	4128768.4	15.23349	9	0	9	2	4
2	UNILEVER	2014	6732892.2	15.722515	7	0.29	4	2	4
		2015	2546312.1	14.750157	9	0.56	4	2	4
		2016	7526679.1	15.833964	10	0.3	4	2	4
3	DAGOTE FLOUR	2014	-411883.98	0	12	0	7	1	1
		2015	4743976.5	15.372386	12	0	4	2	3
		2016	9770566.5	16.094885	12	0	5	3	3
4	GUINNESS	2014	6813126.7	15.734362	14	0	4	2	5
		2015	3723482.8	15.13017	14	0	5	2	5
		2016	3828658.5	15.158025	14	0	7	3	4
5	HONEYWELL	2014	4597954.3	15.341122	12	0	5	0	4
		2015	3692343.5	15.121772	15	0	4	1	4
		2016	3341087.9	15.021807	15	0	4	2	4
6	CHAMP BREW	2014	4277352.8	15.268845	9	0	5	0	3
		2015	4001686.7	15.202227	9	0	4	1	3
		2016	4176442	15.24497	11	0	5	1	4
7	NIGERIAN BREW	2014	15087885	16.529403	15	0	5	2	4
		2015	13910192	16.448132	15	0	5	2	4
		2016	15573556	16.561085	15	0	5	2	4
8	SEVEN UP	2014	6824122.1	15.735974	13	0	5	0	3
		2015	7154036.6	15.783187	11	0	4	0	3
		2016	5801954.7	15.573705	11	0	4	0	3
9	AG LEVENTIS	2014	4275261.5	15.268356	8	0	4	0	4
		2015	3844079	15.162045	8	0	4	0	4
		2016	4105204	15.227766	8	0.25	5	0	4
10	CWG	2014	3384323.8	15.034665	8	0	4	1	1
		2015	3952149.7	15.18977	7	0	5	0	5
		2016	3071529.3	14.937686	9	0	4	1	4
11	PORTLAND PAINT	2014	3993642.6	15.200214	6	0	6	0	4
		2015	3848116	15.163094	6	0	6	0	4
		2016	3912085.8	15.179581	6	0	6	1	4
12	BERGER PAINTS	2014	4087645.5	15.22348	12	0.083	6	0	4
		2015	3439052.6	15.050707	12	0.083	6	0	4

13	INTER BREWERIES	2014	2800913.4	14.845456	10	0	4	1	4
		2015	5474617.2	15.515633	14	0	4	3	4
		2016	4358934.2	15.287738	10	0	5	1	4
14	CHELLARAMS	2014	4652165.7	15.352843	6	0	4	0	3
		2015	4282531	15.270055	6	0	4	0	4
		2016	2368613.6	14.677815	6	0	4	0	4
15	FLOUR MILL	2014	12863373	16.369895	15	0	5	0	4
		2015	2557324.9	14.754472	15	0.066	5	0	4
		2016	3827719.6	15.15778	15	0.066	5	0	5
16	LARFARGE	2014	8772379.7	15.987119	19	0	10	5	4
		2015	4009152.9	15.204091	17	0	7	5	3
		2016	9827049.4	16.100649	17	0	6	5	4
17	PREMIER PAINTS	2014	3967874.7	15.193741	8	0	4	0	3
		2015	3932430	15.184768	8	0	4	0	3
		2016	3927444.4	15.1835	8	0	6	0	3
18	FIRST ALUMINIUM	2014	4117280.9	15.230704	6	0	8	0	3
		2015	4290980.2	15.272026	6	0	7	1	3
		2016	3816620.6	15.154876	7	0	6	3	3
19	VITAFOAM	2014	3905878.3	15.177993	9	0	5	1	5
		2015	4060703.3	15.216867	10	0	5	1	2
		2016	4021780.3	15.207235	8	0	5	1	4
20	BOC GASES	2014	3967171.9	15.193564	6	0	4	0	3
		2015	4008149.5	15.20384	6	0	4	0	3
		2016	4004414.6	15.202908	9	0	4	0	3
21	GLAXOSMITHKLINE	2014	5139525.2	15.452471	16	0.125	6	1	4
		2015	3591208.1	15.093999	15	0.2	7	1	4
		2016	2680796.4	14.801624	13	0.23	8	1	6
22	AUSTINLAZ	2014	3930239.5	15.184211	6	0	4	1	3
		2015	3914405.5	15.180174	6	0	4	1	3
		2016	4030406.8	15.209378	6	0	4	1	3
23	BRISCOE	2014	3957791.3	15.191197	8	0	5	1	3
		2015	2397183.7	14.689805	8	0	5	1	4
		2016	3859773	15.166119	10	0	8	3	6
24	ASHAKA CEMENT	2014	3752618.5	15.137964	15	0	13	2	4
		2015	4663727.4	15.355326	13	0	6	2	5
		2016	3686155.5	15.120095	9	0	5	1	4
25	MAY & BAKER	2014	4215836.5	15.254359	7	0	4	0	3
		2015	4176742	15.245042	8	0	4	0	3
		2016	4090091.4	15.224078	8	0	5	0	3

APPENDIX III B
FINANCIAL REPORTING QUALITY AND CORPORATE GOVERNANCE

S/N	FIRM	YEAR	lnFRQ	lnBS	BI	lnBA	lnGD	lnACM
1	CADBURY	2014	15.306186	1.9459101	0	1.6094379	0.693147181	1.386294361
		2015	14.971129	1.9459101	0	1.6094379	0.693147181	1.386294361
		2016	15.23349	2.1972246	0	2.1972246	0.693147181	1.386294361
2	UNILEVER	2014	15.722515	1.9459101	0.29	1.3862944	0.693147181	1.386294361
		2015	14.750157	2.1972246	0.56	1.3862944	0.693147181	1.386294361
		2016	15.833964	2.3025851	0.3	1.3862944	0.693147181	1.386294361
3	DAGOTE FLOUR	2014	0	2.4849066	0	1.9459101	0	0
		2015	15.372386	2.4849066	0	1.3862944	0.693147181	1.098612289
		2016	16.094885	2.4849066	0	1.6094379	1.098612289	1.098612289
4	GUINNESS	2014	15.734362	2.6390573	0	1.3862944	0.693147181	1.609437912
		2015	15.13017	2.6390573	0	1.6094379	0.693147181	1.609437912
		2016	15.158025	2.6390573	0	1.9459101	1.098612289	1.386294361
5	HONEYWELL	2014	15.341122	2.4849066	0	1.6094379	0	1.386294361
		2015	15.121772	2.7080502	0	1.3862944	0	1.386294361
		2016	15.021807	2.7080502	0	1.3862944	0.693147181	1.386294361
6	CHAMP BREW	2014	15.268845	2.1972246	0	1.6094379	0	1.098612289
		2015	15.202227	2.1972246	0	1.3862944	0	1.098612289
		2016	15.24497	2.3978953	0	1.6094379	0	1.386294361
7	NIGERIAN BREW	2014	16.529403	2.7080502	0	1.6094379	0.693147181	1.386294361
		2015	16.448132	2.7080502	0	1.6094379	0.693147181	1.386294361
		2016	16.561085	2.7080502	0	1.6094379	0.693147181	1.386294361
8	SEVEN UP	2014	15.735974	2.5649494	0	1.6094379	0	1.098612289
		2015	15.783187	2.3978953	0	1.3862944	0	1.098612289
		2016	15.573705	2.3978953	0	1.3862944	0	1.098612289
9	AG LEVENTIS	2014	15.268356	2.0794415	0	1.3862944	0	1.386294361
		2015	15.162045	2.0794415	0	1.3862944	0	1.386294361
		2016	15.227766	2.0794415	0.25	1.6094379	0	1.386294361
10	CWG	2014	15.034665	2.0794415	0	1.3862944	0	0
		2015	15.18977	1.9459101	0	1.6094379	0	1.609437912
		2016	14.937686	2.1972246	0	1.3862944	0	1.386294361
11	PORTLAND PAINT	2014	15.200214	1.7917595	0	1.7917595	0	1.386294361
		2015	15.163094	1.7917595	0	1.7917595	0	1.386294361
		2016	15.179581	1.7917595	0	1.7917595	0	1.386294361
12	BERGER PAINTS	2014	15.22348	2.4849066	0.083	1.7917595	0	1.386294361
		2015	15.050707	2.4849066	0.083	1.7917595	0	1.386294361

		2016	15.273093	2.3025851	0.2	1.6094379	0	1.386294361
13	INTER BREWERIES	2014	14.845456	2.3025851	0	1.3862944	0	1.386294361
		2015	15.515633	2.6390573	0	1.3862944	1.098612289	1.386294361
		2016	15.287738	2.3025851	0	1.6094379	0	1.386294361
14	CHELLARAMS	2014	15.352843	1.7917595	0	1.3862944	0	1.098612289
		2015	15.270055	1.7917595	0	1.3862944	0	1.386294361
		2016	14.677815	1.7917595	0	1.3862944	0	1.386294361
15	FLOUR MILL	2014	16.369895	2.7080502	0	1.6094379	0	1.386294361
		2015	14.754472	2.7080502	0.066	1.6094379	0	1.386294361
		2016	15.15778	2.7080502	0.066	1.6094379	0	1.609437912
16	LARFARGE	2014	15.987119	2.944439	0	2.3025851	1.609437912	1.386294361
		2015	15.204091	2.8332133	0	1.9459101	1.609437912	1.098612289
		2016	16.100649	2.8332133	0	1.7917595	1.609437912	1.386294361
17	PREMIER PAINTS	2014	15.193741	2.0794415	0	1.3862944	0	1.098612289
		2015	15.184768	2.0794415	0	1.3862944	0	1.098612289
		2016	15.1835	2.0794415	0	1.7917595	0	1.098612289
18	FIRST ALUMINIUM	2014	15.230704	1.7917595	0	2.0794415	0	1.098612289
		2015	15.272026	1.7917595	0	1.9459101	0	1.098612289
		2016	15.154876	1.9459101	0	1.7917595	1.098612289	1.098612289
19	VITAFOAM	2014	15.177993	2.1972246	0	1.6094379	0	1.609437912
		2015	15.216867	2.3025851	0	1.6094379	0	0.693147181
		2016	15.207235	2.0794415	0	1.6094379	0	1.386294361
20	BOC GASES	2014	15.193564	1.7917595	0	1.3862944	0	1.098612289
		2015	15.20384	1.7917595	0	1.3862944	0	1.098612289
		2016	15.202908	2.1972246	0	1.3862944	0	1.098612289
21	GLAXOSMITHKLINE	2014	15.452471	2.7725887	0.125	1.7917595	0	1.386294361
		2015	15.093999	2.7080502	0.2	1.9459101	0	1.386294361
		2016	14.801624	2.5649494	0.23	2.0794415	0	1.791759469
22	AUSTINLAZ	2014	15.184211	1.7917595	0	1.3862944	0	1.098612289
		2015	15.180174	1.7917595	0	1.3862944	0	1.098612289
		2016	15.209378	1.7917595	0	1.3862944	0	1.098612289
23	BRISCOE	2014	15.191197	2.0794415	0	1.6094379	0	1.098612289
		2015	14.689805	2.0794415	0	1.6094379	0	1.386294361
		2016	15.166119	2.3025851	0	2.0794415	1.098612289	1.791759469
24	ASHAKA CEMENT	2014	15.137964	2.7080502	0	2.5649494	0.693147181	1.386294361
		2015	15.355326	2.5649494	0	1.7917595	0.693147181	1.609437912
		2016	15.120095	2.1972246	0	1.6094379	0	1.386294361
25	MAY & BAKER	2014	15.254359	1.9459101	0	1.3862944	0	1.098612289
		2015	15.245042	2.0794415	0	1.3862944	0	1.098612289
		2016	15.224078	2.0794415	0	1.6094379	0	1.098612289

Conference theme 11:

Issues in Finance and Stock Market Development

IMPACT OF LIQUIDITY AND LEVERAGE ON PROFITABILITY OF LISTED INSURANCE COMPANIES

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Abstract

The growth and survival of business houses center on liquidity, leverage and profitability. The dexterity to handle between the three domains is of paramount significance for the financial managers. The study explores the impact of liquidity and leverage on profitability of listed insurance companies in Nigeria. The study covered nine companies out of thirty insurance companies listed on the Nigeria Stock Exchange over the period 2006 to 2015. The study used correlational research design and multiple regressions as a technique of data analysis. The study concludes that current ratio impact negatively and significantly on return on equity of listed insurance companies in Nigeria. Also, Quick asset ratio, cash ratio and leverage impact positively and significantly on return on equity of listed insurance companies in Nigeria. The study recommend that managers of insurance companies should maintain a tradeoff between profitability and liquidity by analyzing their working capital requirements and the level of risk they are willing to accept when establishing the minimum and maximum target levels of both ratios to be maintained at all times. They should invest the excess in a viable investment for growth and development of the companies. Also, the companies should focus more attention on debt financing, since leverage was found to be influencing firm's profitability positively.

Keywords: Current Ratio, Quick asset ratio, Cash ratio,leverage, profitability

Introduction

Liquidity and financial leverage plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term obligations. A study of liquidity and leverage is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010). Dilemma in liquidity management is to achieve desired tradeoff between liquidity and profitability (Raheman and Nasr, 2007). However, liquidity requirement of a firm depends on the peculiar nature of the firm and there is no specific rule on determining the optimal level of liquidity that a firm can maintain in order to ensure positive impact on its profitability. The growth of financial liquidity may negatively influence the company's' profitability. If the company is too liquid in the static sense than it will affect negatively the profitability since some capital will be frozen in current assets. The liquidity of insurance

companies should usually be well planned since the frequency, timing and severity of insurance claims and benefits are quite uncertain (Levine, 2003). Insurance companies obtain their liquidity through underwriting, investment Income and asset Liquidation (Holden and Ellis, 1993).

Leverage is a practice which can help a business drive up its gains or reduce losses. Nowadays, almost no business is free from leverage but very few have struck a balance. Leverage is the amount of debt that the company used to finance its operations with the hope of making profit as well as continue growing in business. These two terminologies (liquidity and leverage) can be said to go hand in hand and both has its individual and combine effect on the profitability of a firm.

This study is motivated by the global financial crisis which affects the liquidity position and the overall business activities across the world. In Nigeria, where credit is either unavailable or expensive to obtain, there exist corporate issues that pertain to liquidity problem and consequently the operating performance of almost all the firms. Foreign currency shortage is also having seriously adverse impact, pushing up costs and prices of goods and services in the country. Therefore, financial managers are always expected when there is a liquidity problem, to investigate the current assets and current liabilities in order to make informed decision with regards to profitability of the entity. The significance of the insurance industry to the economy cannot be overemphasized. For one, it is an industry that employs thousands of Nigerians at present, for another, it has billions of naira as shareholders' funds but far more important is the fact that the industry provides the security and buffer that are needed against risk by businesses in the economy. Insurance companies are not only providing the mechanism of risk transfer but also helps to channel the funds in an appropriate way to support the business activities in the economy(Kwanbo&Gugong, 2013). However, the current business world without insurance companies is unsustainable because risky businesses have not a capacity to retain all types of risk in current extremely uncertain environment.

In Nigeria similar studies were also conducted on liquidity and corporate profitability such as Owolabi and Obida (2012), Ibe (2013), Kurawa and Abubakar (2014) and Akanet (2014). However, most of the studies conducted in Nigeria focused more attention on banking or manufacturing companies, for now few or none have examined the impact of liquidity and leverage on profitability of listed insurance companies despite its strategic importance to the Nigerian economy.

For some of the literatures reviewed such as Khadun and Madu (2014) usedvector auto regression (VAR) as technique of analysis and Eviews 7.0 as tool of analysis, Valnampy and Kajanathan (2013) and Rehman, Khan and Khokhar(2015) used statistical package for social sciences (SPSS), Panigrahi(2013) was mean, standard deviation, coefficient of variation, ratio analysis and Motaal's ultimate rank test as techniques of data analysis while Nimer, Warrad and Omari (2015),Ehiedu (2014) and Mathuva (2009) used ordinary least square (OLS) which was not in conformity with conventional assumptions of ordinary least square as various robustness test were not carried out to improve the reliability and validity of the statistical inferences derived as such having ani nadequate tool of analysis. This creates a methodological gap which this study intends to fill by means of generalized least square (GLS) and using STATA as tool of analysis. However, to improve the validity and reliability of the statistical result to be derived, robustness tests will be conducted.

Finally, little or no research has been conducted to provide empirical evidence particularly on the impact of liquidity and leverage on profitability of insurance companies in Nigeria to the best of the

researcher's knowledge.In view of the above-mentioned gaps,this study intends to fill the gaps highlighted aboveto provideempirical evidence on the impact of liquidity andleverage on profitability of listed insurance companies in Nigeria.Hence, this study seeks to address the question as to whether or notliquidity andleverage impacts on the profitabilityof listedinsurance companies in Nigeria?

The main objective of the study is to examine the impact of liquidity and leverage on profitability of listed insurance companies in Nigeria. Thus, the specific objectives are to:

i. investigates the impact of current ratioon profitabilityof listed insurance companies in Nigeria;
ii. examine the impact of quick ratio on profitability of listed insurance companies in Nigeria;
iii. determine the impact of cash ratio on profitability of listed insurance companies in Nigeria; and
iv. identify the impact of leverage on profitability of listed insurance companies in Nigeria

The following null hypotheses were formulated in concordance with the above set out specific objectives of the study to test the impact of liquidity and leverage on profitability of listed insurance companiesin Nigeria.

H_{01}: Current ratio has no significant impact on profitabilityof listed insurance companies in Nigeria.

Ho_2: Quick ratio has no significant impact on profitabilityof listed insurance companies in Nigeria.

Ho_3: Cash ratio has no significant impact on profitabilityof listed insurancecompanies in Nigeria.

Ho_4: Leverage has no significant impact on profitabilityof listed insurancecompanies in Nigeria.

Review of Related Literature

Barad (2010) defines liquidity as the ability to meet expected and unexpected demands for cash through ongoing cash flow or the sale of an asset at fair market value. Liquidity risk is the riskwhich arises when an entity will not have enough cash or liquid assets to meet its cash obligations. A firm in order to remain in existence and sustain its activities as a going concern must remain liquid and meet its obligations as and when they become due. A weak liquidity position poses a threat to the solvency as well as profitability of a firm and makes it unsafe and unsound (Bhunia, 2010). Liquid assets are those assets which can be turned into cash quickly with little or no loss of value. High liquidity produces flexibility for a firm or an investor in a low-risk position, but it also tends to decrease profitability. The quick ratio and current ratio are the two commonly used indicators to measure the company's liquidity.

Panigrahi(2013) state that when there is a poor management of working capital, funds may be unnecessarily tied up in idle assets. This will reduce liquidity of the company and the company will not be in a position to invest in productive assets like plant and machinery. It will also affect profitability of the company. Brealey (2012) argued that liquidity is the ability of an asset to be converted to cash quickly at low cost. He further said, that liquidity can be expressed in terms of liquidity ratiosnamely current ratio, quick (asset test) ratio and cash ratio. Debt is one of the tools used by many companies to leverage their capital to increase profit. However, the affectivity of debt to increase profitability varies between companies (Maher and Andersson, 1999).This means that the company's management can make use of the debt to increase the profit. It also can indicate the ability of company's management to maximize its operation on assets in making profit (Brigham and Ehrhardt, 2005).

Farlex Financial Dictionary (2012) defines profit as a company's total revenue less its operating expenses, interest paid, depreciation and taxes. Profitability Is therefore the capacity to make a profit. Profitability is measured through profitability ratios. According to Brealey (2012) profitability ratios

include Net Profit Margin, Return on Assets (ROA), Return on Equity (ROE) and Payout Ratio. For this study,profitability is defined as a business ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period. The ability of a firm to continue to exist as a going concern depends on its ability to generate profit or attract equity capital and additional investors.

Review of Empirical studies

Examining the relationship between current ratio and profitability in 29 joint stock companies in Saudi Arabia, Eljelly (2004) finds that there is a negative effect of current ratio on profitability which is in accordance with Panigrahi (2013) who conducted a comparative study on liquidity position of five leading Indian cement companies finds a negative relationship. Haq,Sohail, Zaman and Alam (2011) revealed a moderate relationship between current ratio and profitability. Khan, Jawaid, Arif and Khan (2012) finds a positive significant relationship which is in line with Wambu (2013) and Rehman, Khan and Khokhar (2015). Literatures review in this study are mostly in Saudi Arabia, Pakistan, Indian and Kenya and having different models and techniques used. From the foregoing, a negative impact of current ratio on profitability is predicted because too much investment in current asset reduces the chance of management to embark on project (long term investment) to generate more revenue hence, increase profitability.

In reviewing studies on the relationship between quick asset ratio and profitability, Lyroudi and Lazoridis (2000) revealed a positive relationship which is in accordance with the work of Umobong (2015) conducted on Pharmaceutical Firms in Nigeria.Saleem and Rehman (2011) and Nimer,Warrad and Omar (2015) found a significant influence relationship as one increase, the other reduces. Maina (2011) found a weak relationship. Panigrahi (2013) and Rehman, Khan (2015) revealed a negative relationship in their works. Akanet (2014) examined the cause and effect of relationship between liquidity and profitability on 5 listed Nigeria Deposit Money Banks for the period 2005 to 2011 found on significant relationship. Ehiedu (2014) revealed no definite positive relationship.Maina (2011) covered only three years, hence considered too short to enable generalization of findings.From the above, positive relationship is anticipated between quick asset ratio and profitability because as one increases, the other reduces.

In finding out the relationship between cash ratio and profitability, Garcia-Teruel and Martinez- Solano (2007), Owolabi and Obida (2012), Akanet (2014) revealed positive relationships in their studies, Velnampy and Kajananthan (2013) found no significant relationship while Khaldun and Muda (2014) revealed significant influence in their studywhich examined how profitability and liquidity ratios influence the growth of profit of manufacturing companies sector food and beverages listed in Indonesia stock exchange for periods 2010 to 2012 which covered only two years, hence considered too short to enable generalization of findings. The results are inconsistent and mixed.From the foregoing, a positive relationship is anticipated between cash ratio and profitability because insurance companies will have the opportunity to its indemnity claim as early as possible when arises. The ability to indemnify its client affect how individuals and corporate bodies will react and patronize. This goes a long way in boosting their investment.

Ezeoha (2008) amplified evidence on the negative relationship between leverage and profitability by finding a significant relationship for a sample of 71 firms listed on Nigerian Stock Exchange over a 17

years period from 1990 to 2006.Examined the profit profile of firms in Nigeria and analyzed the impact of leverage on profitability for the period 1999-2007. Akinlo and Asaolu (2012) found a negative relationship and Ahmad et.al. (2015) established a stochastic relationship between financial leverage and profitability of cement sector operating in Pakistan found a negative relationship. However,Alkhatib (2012) investigated *the determinants of leverage of listed companies in Jordanian found a significant relationship with profitability which is accordance with Ojo (2012) and*AlGhusin (2015).Waqas, Aasia, Farheen and Mohsion (2011) examined the relationship between the leverage levels, performance and profitability of the 19 Pakistanis firms within three sectors, commercial banking, cement and fertilizer sector starting from 2004 to 2010 found a positive relationship between leverage and profitability which is consistent with the findings ofGatsi, Gadzo and Akoto (2013), Obradovich and Gill (2013),*Gweyi*and Karanja (2014) and Awan (2014). The results are inconsistent and mixed.Literatures review in this study are most in Saudi Arabia, Pakistan, Indian, Kenya and other European Countries with few from Nigeria and having different models and techniques used hence the conflicting results which could be due to the differences between the countries.From the foregoing, a positive relationship is predicted between leverage and profitability because it could be suggested that expansion, increased sales and low debt ratios enhance firm profitability.

This study will be anchor on two key theories namely: The Pecking Order Theory and Trade- off Theory. Pecking Order Theory of Liquidity tries to capture the cost of asymmetric information and states that companies prioritize their sources of financing (from internal financing to equity) according to the law of least effort, or of least resistance preferring to raise equity as a financing means of 'last resort'. The pecking order theory is popularized by Myers (1984) when he argues that equity is a less preferred means to raise capital because when managers (who are assumed to know better about the condition of the firm than investors) issue new equity, investors believe that mangers think that the firm is overvalued and mangers are taking advantage of this over valuation. As a result, investors will place a lower value to the new equity issuance. Prior empirical studies buttress this.The Titman and Wessels (1988) study shows that more profitable firms will tend to use less external financing thus providing support for pecking order theory (Copeland, 1988). This is consistent with Pecking order theory. A determinant of cash holding from the perspective of pecking order theory has been supported by other researches. Sebastian (2010) examines liquidity and solvency and finds that corporate liquidity and solvency interact through information, hedging, and leverage channels.

The trade – off theory refers to the idea that a company chooses how much debt finance and how much equality finance to use by balancing the cost and benefits. The classical version of the hypothesis goes back to Kraus and Lichtenberger (1973) who considered a balance between the deed–weight cost of bankruptcy and the serving benefit of debt. An important purposed of the theory is to explain the fact that corporation usually are financed partly with debt and partly with equity. The empirical relevance of the trade-off theory has often been questioned by Miller (1977) for example compared this balance between horse and rabbit content in a stew of one horse and they are sure, while bankruptcy is rare and, according to miller, it has low deed – weight cost. Accordingly, he suggested that if trade off theory were true, firm ought to have much higher debt level than observed in reality. According to Ahmadinia, Afrasiabishani, and Hesami (2012), the static trade-off theory projects how a firm's optimal debt ratio is determined by a swap between the benefits and obligations of borrowing, hold the firm's assets and investment plans constant. The target debt equity ratio is estimated through a cost-benefit analysis of different levels of debt.

Therefore, the theory that underpins this study is Pecking Order Theory and Trade-off Theory as it focuses on determinants of performance/financial ratios and provides a frame work and a logical linkage between leverage (debt/equity), liquidity and profitability. This is also in accordance to the work of Ngwili (2014) and Umobong (2015

Research Methodology and Model Specification

A correlational research design was adopted in this study .The choice of correlational research design was based on the fact that it aims at investigating the relationship between variables and to estimate the impact of one variable (independent) on the other variable (dependent) to establish a causal relationship or otherwise among the variables(Denga and Ali, 1983).The data for this study were obtained mainly from secondary sources which were extracted from the annual report and account of listed insurance companies in Nigeria. The population of the study is all the 30 listed insurance companies operating in Nigeria as at 31st December 2015 constituted the population of the study. To arrive at the sample size, the first filter used was the year of listing of the insurance companies and any company listed after 2006 was disqualified. Therefore, 15 insurance companies were arrived at. The second was to filter from the 15 insurance companies that qualified those that had complete data for the period under consideration (2006-2015) and with that it was arrived at 9 listed insurance companies as sample size. The justification for choosing insurance companies to the best of our knowledge is premised on the fact that, it is still an area with paucity of studies. The study used the entire. This research work is descriptive and highly empirical as it embraces the use of regression analysis where ordinary Least Square Technique is employed. Multiple regressions were used for the analysis and STATA 13 was used to run the regression.

The equation below represents the model of the study using balanced panel data of ordinary least square. This equation is represented as follows:

$ROE_{it} = \beta_{0it} + \beta_1 CUR_{it} + \beta_2 QAR_{it} + \beta_3 CR_{it} + \beta_4 LEV_{it} + \beta_5 FS_{it} + e_{it}$

Where,

ROE = Return on Equity

CUR = Current Ratio

QAR = Quick Assets Ratio

CR = Cash Ratio

LEV= Leverage Ratio

FS = Firm Size

β_0 = Constant

β_1 to β_4 = Beta Coefficient

e = Error Time

it=Firm i at time t

Table 1. Variable Measurement and Definition

Variables	Definition and Measurement
Return on Equity (ROE)	Measured by Profit after Interest and Tax / Equity Capital X 100. Rehman, Khan, and Khokhar (2015), Saleem and Rehman (2011)
Current Ratio (CUR)	Measured as Current Assets divide by Current Liabilities.Rehman, Khan, and Khokhar (2015), Ngwili (2013), Gatsi, Gadzo and Akoto(2013),
Quick Assets Ratio (QAR)	Measured as Current Assets less other receivables and prepayments and stock divide by Current Liabilities. Rehman, Khan and Khokhar (2015)
Cash Ratio (CR)	Measured as Cash and Cash equivalent divide by Current Liabilities. Rehman, Khan, and Khokhar (2015)
Leverage Ratio (LEV)	Measured as Total Liabilities divide by Total Equity.Ngwili (2013)
Firm Size(FS)	A control variable measured as natural logarithm of the Firms total assets

Source: Author, 2016

Results and Discussion

This section deals with the preliminary analysis of the sample using descriptive statistics, followed by the presentation of result, analysis and interpretation of the data collected for testing the model used in the study.

Descriptive Statistics

The descriptive statistics for each of the variables were designed to show the Minimum, Maximum, Mean and Standard deviation, kurtosis and skewness. Descriptive statistics helps readers to understand the measures of central tendency, measures of variances associated with the variables of the study and the normality of the data used in the study.

Table 2: Descriptive Statistics

Variables	Obs	Mean	Minimum	Maximum	Std.Dev	Skewness	Kurtosis
ROE	90	0.0815	-0.922	0.5216	0.1795	-3.2019	18.7567
CUR	90	2.1864	0.1012	3.9859	1.1968	-0.2137	1.7250
QAR	90	1.7786	0.0727	3.9477	1.1690	0.1183	1.7734
CR	90	1.1835	0.00581	8.2803	1.5882	1.8165	6.4628
LEV	90	2.0310	0.1013	4.7781	1.5773	0.3725	1.6439
FS	90	16.8931	12.1721	21.3674	2.6151	0.1811	1.8258

Source: Author 2016. Extracted from STATA output 13

Table 2 reports that the profitability indices measured by ROE show mean values of 0.0815 with a standard deviation of 0.1795. This indicates that on average the insurance companies during the period yielded positive result. The 0.0815 indicates that ROE is approximately 8% when depleted with

equity during the period 2006-2015. The minimum value for the profitability indices reveals negative value of -0.922 for ROE, while the maximum values stand at 0.5216. The current ratio (CUR) shows a mean value of 2.1864 and standard deviation of 1.1968. This signifies that on the average, the insurance companies hold two times current asset more than the current liabilities to be able to meet its short-term obligation as at when due. The minimum and maximum values of CUR are 0.1012 and 3.9859 respectively.

The quick asset ratio (QAR) has a mean value of 1.7786 and standard deviation of 1.1690, suggesting that even if other receivables and prepayments are deducted from current asset still the companies averagely have more of current asset than current liabilities. The minimum and maximum values are 0.0727 and 3.9477 respectively. The cash ratio (CR) shows mean value of 1.1835 and standard deviation of 1.5881, suggesting that the average cash holding can cover its current liabilities one time. The minimum and maximum values are 0.00581 and 8.28 respectively.

The leverage (LEV) shows mean value of 2.031 and standard deviation 1.5774 on average, liabilities is two times more than equity of the firms. The minimum and maximum values of 0.1013 and 4.7781respectively shows that equity is 10% more than leverage while on the other hand, maximum value shows that some firms have 4 times of leverage more than equity. The control variable, firm size (as natural log of total assets) has a mean value of 16.8931 and standard deviation of 2.6151, and the range is from the minimum value of 12.1721 to a maximum of 21.3674.

Finally, the skewness statistics reveals that data obtained for ROE and CUR are negatively skewed, while QAR, CR, LEV and FS are positively skewed. On the other hand, the kurtosis statistics indicate that, all the variables including dependent and independent are not normally distributed. This might have some influences on the OLS estimators as well as the statistical inferences from the regression results. Similarly, the Shapiro-Wilk test for normal data is consistent with the skewness and kurtosis that the data are not normally distributed.

Correlation Matrix

The correlation matrix is used to determine the degree of association between independent variables and dependent variable. It is also used to identify whether there is relationship among the independent variables themselves, to be able to detect if multicollinearity problem exists.

Table 3: Correlation Matrix

Variables	ROE	CUR	QAR	CR	LEV	FS
ROE	1.000					
CUR	-0.2027*	1.000				
QAR	0.1015	0.7977*	1.000			
CR	0.2090*	-0.0751	0.0006	1.000		
LEV	0.4341	0.1171	0.3703*	-0.0574	1.000	
FS	-0.1348	-0.1792	-0.2610	-0.1012	-0.1029	1.0000

Source: Author 2016. Extracted from STATA output 13(Appendix A)

Table 3 shows the correlation coefficient of CUR and ROE is -0.2027; this indicates that there is a significant negative relationship between CUR and ROE. The negative relationship between the variables suggest that profitability (ROE) may increase when CUR increases and vice versa. It may further suggest that more current asset may suggest management inability to utilize its resources. This is because too much investment in current asset reduces the chance of management to embark on project (long term investment) to generate more revenue.

Moreover, the table also suggests positive association between QAR and profitability (ROE). This can be confirmed from the correlation coefficient of 0.1015. But, the statistical result is found to be insignificant. As such, the relationship's coefficient only shows direction of association therefore to predict impact; regression analysis must be carried out.

The correlation table also shows that CR has a significant positive relationship with ROE. This can be seen from the table where the correlation coefficient is0.2090. This suggests that CR has a significant positive relationship with profitability. That is when CR increases; ROE is expected to increase also.
The relationship between leverage and profitability (ROE) is also a positive association. This is because the correlation coefficient is 0.4341. Though, the relationship between LEV and ROE has shown a strong significant positive association between the two, therefore, there is likelihood impact of LEV on ROE. The coefficient further shows that if LEV increases the profitability of insurance companies in Nigeria may also increase. In addition, the relationship between size and profitability is found to be negative. This can be attested from the correlation coefficient of -0.1348. The correlation coefficient will not serve as a basis for generalization on the impact on profitability, as it only gives a degree of association between the dependent variables and the independent variables.

Excessive multicollinearity may be problematic which has a high chance of resulting in inefficient statistical result and by extension leading to incorrect inferences, which may lead to type 1 or a type 2 error. There is some level of correlation between independent variables themselves. To determine whether the presence of multicollinearity can bias the statistical result, further assessment was conducted by using tolerance value and variance inflation factor (VIF). The test reveals absence of multicollinearity, because VIF are consistently smaller than 10 while its reciprocal is consistently less than 1. The mean VIF for all the independent variables is 2.05. This shows that the statistical inference cannot be affected by the existence of multicollinearity (Cassey et.al., 1999).

Reliability and Validity Test

To avoid making wrong inferences, some robustness tests were conducted and also panel regression was used. These include OLS regression, GLS regression, random effect GLS regression, fixed effect (within) regression and Hausman specification test.
Before running regression, het test was conducted to see whether there is a presence of heteroskedasticity in the data. The Breusch-Pagan test for heteroskedasticity reveals the chi-square value of 55.27 and is significant at 1% level. This indicates the presence of heteroskedasticity in the data. It is for this reason that OLS technique has a high chance of resulting in inefficient statistical result and by extension leading to incorrect inferences. Since the data is panel in nature the study focuses on two techniques used to analyse panel data- random effect GLS regression and fixed effect GLS regression.

To decide between fixed or random effects the study ran hausmanspecification test which considered fixed effect (within) regression as the appropriate estimator of parameters on the bases that fixed effect correlated with the variables as the hausman test is statistically significant for the model. This can be confirmed from the chi-square value of 11.83 and a probability value of 0.0372. However, by extension the study ran for Fixed Effect- LSDV regression model. This model is arrived at by introducing dummy variables. The dummy variables have the ability to control firms' individual intercept or unobserved heterogeneity, that is, each dummy is absorbing the effects particular to each firm. Hence, result will be interpreted using Fixed Effect- Least Square Dummy Variables Model.

Summary of Regression Result

This table shows the regression result of the endogenous variable (ROE) and the exogenous variables of the study (CUR, QAR, CR, and LEV). The presentation is followed by the analysis of the relationship and contribution of all the independent variables to the dependent variable of the study and the cumulative analysis.

Table 4: Summary of Fixed Effects LSDV

Variables	Coefficients	t-statistics	p-value
CONS	0.5447	-2.62	0.011
CUR	-0.0867	-4.29	0.000
QAR	0.0938	3.94	0.000
CR	0.0254	2.60	0.011
LEV	0.0453	3.38	0.001
FS	0.0407	3.06	0.003
R^2			0.6004
Adj R^2			0.5320
F-stat			8.78
F-Sig			0.0000

Source: Author 2016. Extracted from STATA output

The value of the regression co-efficient for the intercept describe a particular return on equity denominator for Listed insurance companies in Nigeria, while the remaining co-efficient describe the impact of each explanatory variable on profitability (ROE) of Listed insurance firms in Nigeria.

An R^2 overall of 0.6004 indicates that 60.0 percent of the variation in return on equity can be explained by variability in Current ratio, Quick asset Ratio, Cash Ratio, and Leverage. This means that Current ratio, Quick asset Ratio, Cash Ratio, and Leverage occupy 60.0 percent in the factors that account for the return on equity of Listed Insurance firms in Nigeria and other factors account for the remaining 40.0 percent. It can be deduced that liquidity and leverage to a great extend influences the return on equity of Listed insurance firms in Nigeria.

The F-statistics also known as Fishers exact test have a value of 8.78 which is significant at one percent (0.000) indicates that the impact of liquidity and leverage on profitability model is fit. Hence, the outcome of the study can be greatly relied upon. The value of F-stat which is statistically significant at

% means that there is a99.0 percent probability that the association among the variables is not due to mere chance.

The regression result shows that current ratio as displayed in table 4 have a t-value of -4.29 and acoefficient value of -0.0867 with a significant value of 1% (0.000). This signifies that current ratio(CUR) hasnegative, strong and significant impact on return on equity of listed insurance firms inNigeria. This implies that for every One Naira (N1) increase in current ratio of the listed Insurance firmsin Nigeria, the profitability will decrease by Nine Kobo (9k). This provides an evidence of rejectingnull hypothesis one of the study which states that current ratio has no significant impact on profitability of listed insurance firms in Nigeria.

Quick asset ratio has a t-value of 3.94 and a coefficient value of 0.0938 with a significant value of 1%(0.000). This signifies that quick asset ratio (QAR) is strongly, positively and significantly affecting the profitability of listed Insurance firms in Nigeria. It implies that for every One Naira (N1) increase in quick asset test ratio of listed insurance firms, the profitability will increase by Nine Kobo (9k). This provides an evidence offailing to reject null hypothesis two of the study which states that quick asset ratio has no significant contribution on profitability.
The cash ratio has a t-value of 2.60 and a coefficient value of 0.0254 with a significant value of 1% (0.011). Thissignifies that cash ratio (CR) is strongly, positively and significantly impacting on the profitability of listed insurance firms in Nigeria. It implies that for every One Naira (N1) increase in cash ratio of listed Insurance firms, the profitability will increase by Three Kobo (3k). This provides an evidence of failing to reject null hypothesis three of the study which states that quick asset ratio has no significant contribution on profitability.

There is also a significant positive impact of LEV on profitability of insurance companies in Nigeria at 1 %(0.001) level. This is suggested by the t-value 3.38 that has a corresponding p-value of 0.01. This shows that when more liabilities are introduced into the business in relation to equity, the companies ROE will increase. Although, more leverage exposes firms to high risk but shareholders return tend to be high in a period of boom. The coefficient further shows that when leverage is increased by One Naira (N1), the ROE will increase by Five Kobo (0.4528k).
The firm size (FS) introduced as a control variable show that it has a significant positive impact on ROE at 1%.

Conclusion and Recommendations

i. Current ratio has significant negative impact on profitability of listed insurance companies in Nigeria which implies that for every decrease in current ratio, profitability will increase. Therefore, it is concluded that the lower the current ratio, the higher the profitability of insurance companies.
ii. Quick asset ratio has a significant positive impact on profitability of listed insurance companies in Nigeria. This means that as quick asset increases, profitability will increase too. Hence, it is concluded that the higher the quick ratio, the higher the profitability of insurance companies.
iii. Cash ratio has a significant positive impact on profitability of listed insurance companies in Nigeria indicating increase in profitability as cash ratio increases. Thus, it is concluded that the more the cash ratio, the more the profitability of insurance companies.

iv. Leverage has a significant positive impact on profitability of listed insurance companies in Nigeria. It is concluded that the more leverage, the better the profitability of insurance companies.

The result of the study reveals that one of the explanatory variable (current ratio) is significantly but negatively impacting on profitability of insurance companies while the three-other explanatory variable (quick ratio, cash ratio and leverage) are positively and significantly impacting on profitability of insurance companies.

Emanating from the findings and conclusions of this study, the following recommendations are offered:

i. The Management of listed insurance companies in Nigeria should try and make a balance between profitability and liquidity of their companies. This means they should maintain a tradeoff between profitability and liquidity by ensuring that optimum level of current ratios is fixed and maintained as a matter of policy and invest the excess of liquidity in other viable investment for growth and development of their firm since it was found to be significantly but negatively impacting on profitability.

ii. The study also recommends that the management of listed insurance companies in Nigeria should invest in liquid assets that are diversified, have residual maturities appropriate for the institution's specific cash flow needs, assets that are readily marketable or convertible into cash and have minimal credit risk.

iii. Corporate managers of listed insurance companies in Nigeria should especially focus more attention on debt financing since it was found that leverage is influencing the companies positively, explore opportunities for growth and diversification and management of investment portfolios in view of changing equity market conditions.

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THE IMPACT OF CASHFLOW ON INSURANCE FIRM PERFORMANCE IN NIGERIA

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Abstract

The broad objective of this study was to determine if the management of cash flow has any significant effect on the profitability of the insurance industry in Nigeria from 2012 to 2016. This work adopts the Panel Ordinary Least Squares (OLS) econometric technique using, balance panel data to estimate the empirical model. Return on equity (ROE) was used as proxy for firm performance/profitability which is the dependent variable, while Operating cash flow (OCF), Investment cashflow (ICF), Financing cashflow (FCF) and Underwriting risk (UR) were used as the independent or explanatory variables. The result revealed that Underwriting Risk (UR) and Investment Cash Flow (ICF) had positive and statistically significant relationship with ROE, while Operating Cash Flow (OCS) and Financing Cash Flow (FCF) had positive but not statistically significant relationship with ROE. It was recommended that the insurance industry in Nigeria should not only focus on the profit maximization perception, but also embrace methods that will certify effective and efficient cash flow management since its survival and sustainability depends on its cash flow management and profitability.

Keywords: Operating *Cashflow, Return on Equity, Investment Cashflow, Underwriting Risk and Financing Cashflow*

Introduction

Cash like the blood stream in the human body, gives vitality and strength to a business enterprise, though it holds the smallest portion of total current asset. Cash flow risks have long been one of the most essential factors while managing a variety of risks, particularly for the insurance industry, which faces unique underwriting risks not observed in other industries. As noted by Narkabtee (2000), "the importance of cash flows cannot be overemphasized mainly because the users of accounting information are particularly interested in the cash of the company that is published in its financial statements. Internally, managers need to know the current financial position of the firm, how to deal with financial problems and also control functions (Bodie, Kane and Marcus, 2004). In accordance with this view, Fabozzi and Markomits (2006) stressed that suppliers are always interested in a firm's liquidity because their rights are generally on a short term basis and in any case, the company's ability to pay is best reflected by the company's liquidity indicators. The difference between the two concept results in cash flow. Positive net cash flow induces that there is a prudent cash management under the three activities in the organization, which are operating, investing and financing activities.

The focus of this study is to investigate if cash flow impacts, on the financial performance of insurance firms in Nigeria, examine the relationship between cash flow from operating activities and the financial performance of insurance firms, ascertain the relationship between cash flow from investing activities and the financial performance of insurance firms and determine if cash flow from financing activities impact on the financial performance of insurance firms in Nigeria and also to have an insight to the underwriting risks in insurance industries in Nigeria.

Problems and Objectives

Cash is king. It is true for entrepreneurs and all financial managers. Cash is an inevitable part of any business in that it enhances the operation of any business. In an insurance industry, cash flow risk has long been one of the most essential factors while managing a variety of risks. The inability of insurers to maintain a good cash flow management leads to their insolvency. This occurs in insurance industries when outflows of cash overshadow inflows of cash which leads to deficit. A deficit status on the firm's financial statement discourages investors, creditors, and others. because it indicates the inefficiency of the firm to maintain a prudent cash flow management. Also, cash flows from investing, operating and financing activities can result to a negative net cash flow if not properly monitored which may impact negatively on the performance of the insurance industry. Negative net cash flows are mostly caused by low investment returns; inadequate premium charges, payment of invalid claims, and so on. Arif & Showket (2015) and Amal (2012) imply that liquidity risk had a positive and significant impact on performance of insurance companies. And also, the underwriting risk is the risk relating to the conclusion of insurance contracts and thus the risk that premium income does not adequately cover the claims that the insurance company is obliged to pay when damage has occurred, which may arise from an inaccurate assessment of the risks associated with writing an insurance policy or from uncontrollable factors. And as a result, the insurer's cost may significantly exceed the earned premiums which in-turn poses a threat to the insurance company's cash flow. Insurers are in a risk business, in the process of providing insurance and other financial services, they assume various kinds of financial risks. Hence this research intends to enlighten on the outcome or influence of these various insurance activities on the performance of insurance industries, when they are not properly managed. It gives an intensive view on how cash flow management can affect the performance of insurance industries either positively, negatively or indifferently.

The objectives of this research are as follows:

- To ascertain if cash flow management has any significant impact on insurance firm performance in Nigeria.
- To examine the impact of cash flow from operating activities on the performance of insurance industries.
- To determine the impact of cash flow from investing activities on the performance of insurance firms in Nigeria.
- To identify the impact of cash flow from financing activities on the performance of insurance firms in Nigeria.
- To find out the impact of underwriting risk activities on the performance of insurance industries.

Literature Review and Framework

The term cash flow is mostly used to describe payment that are expected to happen in the future, are

thus uncertain and therefore need to be forecasted with cash flows. It is however popular to use cash flow in a less specified sense describing payments into or out of a business, project or financial product. Cash flow in a business is used for the following reasons:

* To determine a project's rate of return or value
* To determine problems with a business liquidity
* As an alternative measure of a business profits when it is believed that accrual accounting concepts do not represent economic realities
  To evaluate the risks within a financial product

The net cash flow of a company over a period is equal to the change in cash balance over this period; positive if the cash balance increases (more cash becomes available), negative if the cash balance decreases. The total net cash flow for a project is the sum of cash flows that are classified in three areas

- *Operational Cash Flow:* Cash received or expended as a result of the company's internal business activities
- *Net Working Capital:* It is the cost or revenue related to the company's short term asset like inventory
* *Capital Spending:* This is the cost or gain related to the company's fixed asset such as the cash used to buy a new equipment or the cash which is used in refurbishing an old equipment. The cash flow for a company also includes three parts;

1. *Operating Cash Flow:* It refers to the cash received or loss because of the internal activities of a company such as the cash received from sales revenue or the cash paid to the workers.
2. *Investment Activities:* It refers to the cash flow reflecting the aggregate change in a company's cash position resulting from investment gains or losses and changes resulting from amounts spent on investment in capital assets, such as plant and equipment.

Financing Cash Flow: Cash flows from a company's financing activities like issuing stock or paying dividends.

In accounting, cash flow is the difference in amount of cash available at the beginning of a period (opening balance) and the amount at the end of that period (closing balance). It is called positive; if the closing balance is higher than the opening balance, otherwise called negative. Cash flow is increased by selling more goods or services, selling an asset, reducing costs, increasing the selling price, collecting faster, paying slower, bringing in more equity or taking a loan. All the above is similar to insurance industry cash flow but the elements of cash flow in insurance industries are somewhat different from that of other industries. For example, cash inflows in insurance industries are generated through underwriting activities, financing activities and investment choices and managing risk while cash outflows are claims payment, operating and administrative expenses, losses, e.t.c.
Cash inflows include the transfer of funds to a company from another party as a result of core operating, investments and financing.

Cash Flow, Profitability and Performance
Cash flow is a performance measure that measures the difference between cash inflow (i.e. sales remittance or actual sales), and cash outflows (i.e. purchases) net of the accounting measures (i.e. cost vs. expenses) and uncertainty and risk. So, cash flow is the less incentive (for managerial

manipulation) accounting performance measure, but doesn't account for liabilities, risk and uncertainties. Profit is a performance measure that accounts to a certain extent for uncertainty and risk, but is susceptible to the manipulation of earnings by the firms' managers. The relationship between cash flow and profitability depends on the used accounting rules and the degree of earnings manipulation of the firms' managers. If the firm cash flow and profit measure are highly correlated, you can very carefully and tentatively assume that the earnings manipulation of the firm is limited.

Cash flows are needed in order to be able to perform, though measurement of performance is not necessarily through cash flow. Most insurance companies fail because their cash flow is bad. In order for companies to perform, they need to be able to operate through sound financials and the cash flow is a primary financial indicator for firms. Companies need cash to function, for instance: pay salaries, cover operating costs and so forth: cash flow statements determine how efficiently or inefficiently cash is being used. Therefore, a positive cash flow statement is a good sign but it still needs to be monitored to ensure cash is being allocated effectively.

Cash flow can be considered as breathing for an organization while profit is like bleeding i.e. a firm can lack profits for sometime but when cash is gone, so is the organization (William Werther, 2013). Cash is a fact, profit is an opinion (Rappaport, 1999). Therefore, managers have to monitor their cash flow with great consciousness in order not to have a failing business and this is done through what is referred to as cash flow management.

The Concept of CashFlow Management in Insurance Industry

Management include the activities of setting the strategy of an organization and coordinating the efforts of its employees to accomplish its objective through the application of available resources such as financial, natural, technological and human resources.

Cash flow management can be summarized as the process of monitoring, analyzing and optimizing the net amount of cash receipts minus cash expenses (Ward, 2018). Net cash flow is an important measure of financial health for any business.

Approaches to cash flow management can be classified as conservative, moderate and aggressive. A conservative implies the minimum application of borrowed money, creation of provisions and large account balance. This approach can provide a high level of financial stability, but at the expense of profitability.

Moderate approach purports investment activities, the formation of a smaller amount of reserves and account than with a conservative approach. This approach can ensure the financial stability of the company, but allows for the risks associated with investment activities. The aggressive approach is the most risky and requires minimum reserves and account balance as well as investments in highly liquid assets.

Underwriting Risk

Underwriting is the process of selecting risk that have produced profits in the past or has the prospect of producing profit and rejecting those that do not meet the underwriting criteria of the insurer. Under a good underwriting of risk, the premium collected less the claims and expenses produces a profit for the insurer. Underwriting is also the process of determining if a risk is acceptable, and if so, at what rate such that it will be able to meet its contractual obligations to the policy. It is sometimes called premium

risk since it is a risk that the insurer is likely not to collect premium that would be sufficient to cover the claims. It is the first step in the insurance transaction process that entails evaluating the subject of insurance, whether a person, property or other entity and determining whether to insure it or not. The main purpose of underwriting is to avoid being a victim of adverse selection. Adverse selection is the tendency of an insured with a greater-than-average chance of loss to purchase insurance.

Underwriting risk refers to the potential loss to an insurer emanating from faulty underwriting. The same may affect the solvency and profitability of the insurer in an adverse manner. Insurance companies base their pricing on expected claim costs and the cost of issuing the policy, which may prove to be inaccurate. This may be due to poor assumptions, changing legal environments, increased longevity, higher than expect An unusual increase in net premiums written could indicate favorable business expansion if it is accompanied by adequate reserving, profitable operations, and stable products mix (NAIC, 2001). Insurers with less expected annual losses seem to have better financial performance due to the non-payment of high monitoring and claim handling costs.

Theoretical framework

The following theories are related to cash management and they include, the free-cash flow theory (Jensen, 1986), cash conversion theory (Gitman, 1974), Baumol model approach (Baumol, 1952) and the Miller-Orr model (Miller & Orr, 1996).

Free Cash Flow Theory

The theory asserts that management has the responsibility of holding cash to gain control over it in making investment decision (Jensen, 1986) when cash is readily available investment is easier by the managers. The management must always ensure that it invests in the activities which maximize the shareholders' returns. By holding sufficient amount of cash, the management is guaranteed in the investment in growth projects due to the availability of funds hence improved financial performance. Scarcity of funds means that the management will not be able to invest in any investment aimed at improving the welfare of the stakeholders.

Cash Conversion Cycle Theory

According to Gitman (1974) the larger the cash conversion cycle, the better the financial performance. Cash conversion is key in any business organization since the business organizations are able to know the amount of cash needed. Cash conversion cycle theory focuses majorly on the period of time the company takes to acquire raw materials and the cash inflows as a result of the sale of the goods.

Baumol Model Approach

According to Baumol (1952), Baumol model is a deterministic model of cash management which determines the optimal cash balances by the business entities. The Baumol model is based on the assumptions of certainty in the variables. The Baumol model approach is based on the argument that choosing an optimal cash balance is like deciding the economic order quantity for inventory.

This implies that the securities are converted from the earning according to the model, the optimal cash balance held has a direct significant impact on the financial performance.

The Miller-Orr Model Approach

The Miller-Orr Model approach majorly provides for cost efficient transactional balances and makes an assumption that the cash flows are certain, the cash between normally faced random fluctuations

between Upper bound and Lower bounds. The cash balances can hit the upper bound that implies that a business entity has excess cash which it can utilize to buy the marketable securities so that the cash balance is brought back to the optimal bound.

However, the cash balances can hit the zero mark which forces the management to return to the optimal bound. The management can accomplish this by selling and converting the securities into cash. The Miller-Orr Model is based on the basic assumptions which include; there is no specific underlying trend in the balances of cash over time and the optimal values of cash balances depends on the opportunity

cost and the degree of fluctuations in the market. According to this model, the optimal bound the cash is the better the financial performance.

The Impact of Cash Flow Management on the Performance of Insurance Firms

Mirie (2015) conducted a research on determinants of financial performance in general insurance companies in Kenya. The study comprised all the 23 general Kenyan insurance firms. The data was gathered from 22 general insurance companies on the variables of interest representing a 95.65% response rate. One firm was dropped from the sample as it had been placed under receivership as at the time of the study. The study used secondary data for the four financial periods, 2009-2012 and the study employed a multiple regression analysis model, leverage, retention ratio, equity capital, size, management competence index, ownership, age, liquidity & underwriting risk were independents variable and return on assets (ROA) was dependent variable. Based on the findings, financial performance was positively related to leverage, equity capital, management competence index and negatively related to size and ownership structure. The study did not find a relationship between performance and retention ratio, liquidity, underwriting risk and age; it means that financial performance was not significantly predicted by retention ratio, liquidity, underwriting risk and age.

Ogbonnaya, Ekwe & Uzoma (2016) assessed the relationship between cash flow and financial performance of listed banks in emerging economies using Nigeria as case study. Data was obtained from the annual reports and accounts of the selected banks and subjected to statistical analysis using correlation technique. The study outcome revealed that operating cash flow has a significant and strong positive relation with performance in the Nigerian banking sector.

The empirical studies above analysed about different aspect of insurance company performance and also cash flow impacts but none of them really bring the two terms together for research.

Also, none of the research above studied about Nigerian insurance company. Thus, the researchers have taken the above gaps into account for the study and this hence differs from those above, due to sample specification reasons.

Methodology

Literature reports contradictory and mixed outcomes about the relationship between cashflow management and financial performance of insurance firm in developed economies, very few tests the relationship in a developing economy.

The research design employed for the study is an experimental design. Secondary data were used in the study. According to Selltiz, Wrightsman and Cook (1976), research design is the arrangement of

conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Both time series and cross section data research design was adopted in the study because the data were collected at different times and across insurance firms in Nigeria.

Operationalisation and Measurement of Variables

The Dependent Variable- Performance Variables

The variables of performance measurement are essential in identifying the status or position of a firm and its ability to use its cashflow and/or financing options optimally to enhance its performance. The study will use some performance measures as dependent variables to measure firm performance.

Researchers have adopted some measures to measure or proxy firm performance by using indicators which express performance such as return on equity, return on asset, earning to stock price and gross profit margin ratio. However, we shall adopt in this study Return on equity (ROE) and/or return on assets (ROA).

Return on equity (ROE) measures the return that shareholders can obtain from utilizing the capital structure efficiently by the firm management. It is a profitability ratio used in measuring firms' ability to generate profits from its shareholders investments in the company. That is, return on equity is an indication of how much profit each naira value of common stockholders' equity generates.

Return on equity is measured by dividing net income after tax to book value of owner equity (Onalapo & Kajola, 2010). It is solved as profit after tax divided shareholder's equity.

The rationale for the adoption of ROE is the fact that it is an effective indicator of how effective management is at utilizing equity financing to fund their operations and grow the company.

Model Specification

The independent variable to be used in this study are operating cashflow (OCF), financing cashflow (FCF) and investing cashflow (ICF). (Baumol, 1952)

$ROE = \alpha_0 + \alpha_1 OCF + \alpha_2 ICF + \alpha_3 FCF + \alpha_4 UR + ?_{it}$

Where: ROE is return on equity

OCF is operating cash flow

ICF is investment cashflow

FCF is financing cashflow

UR is underwriting risk

Data Analysis Technique

The study adopts the Ordinary Least Squares (OLS) econometric technique using balance panel data to estimate the empirical model. The OLS technique is considered appropriate because it yields estimates that are best, linear and unbiased (BLUE). A value of R^2 close to 1 indicates that the model explains nearly all of the variability of the dependent variable about its mean value, while a value close to zero indicates that the model fits the data poorly.

Data Presentation And Analysis

The study examines the impact of cash flow management in insurance industry in Nigeria. In specific terms, it employs the ordinary least squares (OLS) balanced panel data multivariate regression

technique to analyze the individual and joint relationships between Return on Equity (ROE) (the proxy for insurance firm performance in Nigeria) with operating cash flow (OCF), investment cashflow (ICF), financing cashflow (FCF), and underwriting risk (UR) using E Views 8.0 econometric package.
The result of the ordinary least square (OLS) estimation for the Pooled/Panel Regression
Table 4.1: Ordinary Least Square (OLS) result for Pooled Data
Dependent Variable – ROE
Dependent Variable
Method: Panel Least: Squares
Date: 11/13/18 Time: 02:10
Sample: 2012 2016
Periods included: 5
Cross-sections included: 7
Total panel (balanced) observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.070704	0.063066	-1.121107	0.2711
UR	5.62E-08	1.38E-08	4.085756	0.0003
OCF	1.60E-08	1.29E-08	1.234773	0.2265
ICF	2.06E-08	9.97E-09	2.067714	0.0474
FCF	3.05E-09	1.02E-08	0.299399	0.7667

R-squared	0.405427	Mean dependent var	0.136320
Adjusted R-squared	0.326151	S.D. dependent var	0.267490
S.E. of regression	0.219578	Akaike info criterion	-0.062658
Sum squared resid	1.446431	Schwarz criterion	0.159535
Log likelihood	6.096509	Hannan-Quinn criter.	0.014043
F-statistic	5.114104	Durbin-Watson stat	1.344130
Prob(F-statistic)	0.002905		

Source: Researchers' Computation (2018) from Eviews output

The final regression equation becomes:

$$ROE = -0.0704C + 5.62UR + 1.60OCF + 2.06ICF + 3.05FCF + u \quad (4.1)$$
$$(1.121) \quad (4.085) \quad (1.234) \quad (2.067) \quad (0.299)$$

Results and Discussion Of Findings

From the equation above, the result shows that the coefficient of determination, R^2, is 0.40, and adjusted R^2 is also 0.32, which indicate that the independent variables explain over 32% of the systematic variations in real Return on Equity (ROE) within the period of study after adjustment for the number of variables. The Durbin Watson statistic (DW) is 1.5 (approx. 2.0) which indicates the absence of auto correlation among the explanatory variables of the model.

Similarly, the F-statistic of 5.11 is statistically significant at the 1% level (Prob. F- stat= 0.002). Thus, our cash flow management on insurance in Nigeria model satisfies appropriate diagnostic and statistical criteria and the results of the OLS regression are reliable and the influence of the explanatory variables on the dependent variable is significant.

The table above shows that the relationships between all the explanatory variables that is operating cash flow (OCF), investment cashflow (ICF), financing cashflow (FCF), and underwriting risk (UR) are positive. This implies that a unit increase in UR will increase ROE with about 5.6 units, while a unit increase in ICS will result in about 2.06 units increase in ROE. The result also shows that Underwriting Risk (UR) and Investment Cash Flow (ICF) are statistically significant at 1% and 5% level with probability values of 0.003 and 0.04 respectively. While Operating Cash Flow (OCS) and Financing Cash Flow (FCF) are not significant at either 1% nor 5% significant level.

H_o: Cash flow from operating cash has no significant impact on insurance performance in Nigeria.

H_o: Cash flow from investing activities has no impact on the performance of insurance firms in Nigeria.

Ho: Cashflow from financing activities has no impact on insurance firm performance in Nigeria

Ho: Cash flow from underwriting risk has no impact on insurance firm performance in Nigeria.

The broad objective of this study was to determine if the management of cash flow has any significant effect on insurance profitability in Nigeria from 2012 to 2016. Using *panel ordinary least square model, the findings from the investigation showed* that there is a statistical significant relationship between all the explanatory variables that is operating cash flow (OCF), investment cashflow (ICF), financing cashflow (FCF), and underwriting risk (UR) all had positive impact on cash flow management on insurance firms in Nigeria. The result also shows that Underwriting Risk (UR) and Investment Cash Flow (ICF) were statistically significant at 1% and 5% level with probability values of 0.003 and 0.04 respectively. Thus having significant positive effect on insurance performance in Nigeria. While Operating Cash Flow (OCS) and Financing Cash Flow (FCF) were not significant at neither 1% nor 5% significant level. Thus not having significant positive effect on insurance firm performance in Nigeria.

Conclusion

For the insurer to be able to manage its cash flow effectively and efficiently, he must be able to study its environment, analyze the situation, study the macroeconomic indicators and therefore choose a balanced and diversified asset portfolio which will ensure the sustainability, survival as well as the growth and development of its enterprise. From this study, we can conclude that inefficient cash flow management can pose financial challenges on insurance firm performance, which can easily wear down the industry's return base. The desire to maximize high return on investment can cause great illiquidity, which reduces the customers' loyalty and patronage. Therefore, any Nigerian insurance firm that has the aim of maximizing its return, must adopt optimum cash flow model for effectiveness and efficiency.

Policy Recommendations

Based on the findings the discussion so far, the following recommendations are hereby made by the researcher as follows:

1. The insurance industry in Nigeria should not only focus on the profit maximization perception but also embrace methods that will certify effective and efficient cash flow management since its survival and sustainability depends on its cash flow management and profitability. This will

help to reduces incidence of deficient and excessive liquidity as their effects are adverse.

2. The insurance industry in Nigeria should try as much as possible to invest the excess of liquidity at their disposal in different productive investment so as to increase the insurances' profitability and also take advantage of the time value of money..
3. The insurance industry in Nigeria should as much as possible try to work out a good portfolio mix which can be achieved by analyzing and studying the situation and choosing a balanced and diversified portfolio mix that will ensure the survival, stability, as well as the growth and development of the insurance industry in Nigeria

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APPENDIX

	COMPANY	YEAR	ROE	UR	OCF	ICF	FCF
1	AAICO INSURANCE PLC	2012	0.6952	4354839	3651501	-88299	9534481
2	AAICO INSURANCE PLC	2013	-0.0712	2730661	1037551	-1487375	8530240
3	AAICO INSURANCE PLC	2014	0.19497	3734076	15676905	-16248275	-4500
4	AAICO INSURANCE PLC	2015	0.12758	3679535	16444082	-17339307	1392650
5	AAICO INSURANCE PLC	2016	1.22748	12448233	2044955	-2561118	-503492
6	AXA MANSARD PLC	2012	0.1136	2825800	2947662	-3492144	971492
7	AXA MANSARD PLC	2013	0.14674	2451027	4019718	285173	1290109
8	AXA MANSARD PLC	2014	0.10643	3382444	3326426	1357443	-185488
9	AXA MANSARD PLC	2015	0.09546	2985704	2749920	-3527961	-942360
10	AXA MANSARD PLC	2016	0.15135	2946122	1190271	-2098318	-18033342
11	CUSTODIAN AND ALLIED PLC	2012	0.15521	2830016	1714826	1357389	1331531
12	CUSTODIAN AND ALLIED PLC	2013	0.18873	3995105	6929445	1391104	-19606617
13	CUSTODIAN AND ALLIED PLC	2014	0.18183	8603210	2349192	-763216	-11383663
14	CUSTODIAN AND ALLIED PLC	2015	0.16552	9398483	8477423	1148428	-10774747

15	CUSTODIANAND ALLIED PLC	2016	0.18176	12655099	6844093	-19808333	3972614
16	LASACO ASSURANCE	2012	-0.04556	128355	-840613	-299836	0
17	LASACO ASSURANCE	2013	0.04686	1405498	460635	-963446	0
18	LASACO ASSURANCE	2014	0.0313	1195823	1972671	-138929	0
19	LASACO ASSURANCE	2015	0.01756	1039245	2231910	677089	0
20	LASACO ASSURANCE	2016	0.12028	235156	-441007	-288646	0
21	LAW UNION AND ROCK INS PLC	2012	-0.37961	1414727	-19774	74019	0
22	LAW UNION AND ROCK INS PLC	2013	0.11636	1655801	308257	683159	1697236
23	LAW UNION AND ROCK INS PLC	2014	0.02999	1034847	715007	175960	2588203
24	LAW UNION AND ROCK INS PLC	2015	0.06301	1144386	-47377	192940	0
25	LAW UNION AND ROCK INS PLC	2016	0.11148	1254422	-88579	-999287	0
26	MUTUAL BENEFITS ASSURANCE PLC	2012	-0.17042	3137526	3406879	-3346271	-64303

27	MUTUAL BENEFITS ASSURANCE PLC	2013	0.25949	2572898	4613546	-2503421	164168
28	MUTUAL BENEFITS ASSURANCE PLC	2014	0.65792	5506212	5840841	3728133	117721
29	MUTUAL BENEFITS ASSURANCE PLC	2015	0.10801	3619015	1492312	-699848	14016106
30	MUTUAL BENEFITS ASSURANCE PLC	2016	-0.19542	4188027	3059252	-6635839	10734374
31	NIGER INSURANCE	2012	0.10561	3488226	1948009	-1812331	-114628
32	NIGER INSURANCE	2013	0.07677	4759819	2590612	-13112	-740024
33	NIGER INSURANCE	2014	0.08269	3090120	-1231692	30484	-864360
34	NIGER INSURANCE	2015	0.06933	3159343	-1833928	1962656	-224343
35	NIGER INSURANCE	2016	0.00489	888891	-715789	240008	-144436

EFFECT OF CAPITAL STRUCTURE ON PROFITABILITY OF SELECTED QUOTED AGRICULTURAL COMPANIES IN NIGERIA

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Abstract

This study investigated the effect of capital structure on profitability of selected quoted agricultural companies in Nigeria. The study specifically ascertained the extent to which capital structure ratios; debt, equity, debt-to-equity and capitalization ratios influence profitability of selected quoted agricultural Companies in Nigeria within the time frame of 12 years; (2006-2017). An ex-post facto research design was adopted involving time series panel data sourced from the annual financial statements of four selected quoted agricultural companies in Nigeria. The formulated hypotheses were tested considering the fixed effect model (FEM) multiple regression approach using ordinary least square (OLS) equation to estimate the influence of explanatory variables on explained variable with a control variable; assets tangibility to moderate the differences in the companies' assets with the aid of E-view 9.0 version. The study found that debt and debt-to-equity ratios exert negative and significant influence on profitability of quoted agricultural companies in Nigeria, while, equity and capitalization ratios have positive and significant effect on profitability of quoted agricultural companies in Nigeria. The implication of the findings is that quoted agricultural companies in Nigeria will be profitably sound with increased level of equity and capitalization ratios in their capital base vi-sa-vis their business operations. The study, therefore recommends that there is need for the quoted agricultural companies in Nigeria to increase their equity funding and capitalization ratio while they should reduce their debts and debt-to-equity mix in their capital structure base.

Keywords: Capital Structure, Profitability, Agricultural Companies.

Introduction

The relationship between capital structure and profitability performance in any company has been a focus of incredible milestone over the past decades. One of the main objectives of every business concern is profit maximization. But to attain such objective, companies' capital structure/mix is a factor not to be jettisoned with. This argument was supported by Mwangi (2014) who argued that most company managers lack adequate knowledge on the dynamics of capital structure as it relates to company's profit performance.

The term capital structure is generally described as the combination of debt and equity that make up

the total assets of companies (San and Heng, 2011). It is all about how companies finance their overall operations and growth by using different accessible sources of funds. Thus, it is the relative mix of various sources of capital utilized by the company and is a key consideration across the business world. The capital mix of a company can take many forms, but the most realistic is that which combines both a certain percentage of debt and equity in the structure and thus, the advantages of leverage (if any) are exploited (Ezeoha, 2011).

The term profitability is a subjective measure of how well a company can use its assets from its primary mode of business to generate revenues. It has to with the overall measure of a company's financial health over a particular period of time (Odita, 2012). Measures of profitability include the operating income, return on equity (ROE), return on investment (ROI), return on capital employed (ROCE), return on asset (ROA) amongst others that serve as important tools for the stakeholders to access the present position and the precedent performance of the company. This is consistent with the goal of the maximizing objective of the wealth or value of the firm (Abor and Biekpe, 2015). However, investors mainly consider profitability in the agricultural industry based on the analysis of profitability measure of ROA which has to do with the return on assets utilization of the companies (Olekule and Oni, 2014). Return on assets (ROA) as a profitability measure is one of the tools which indicates the financial strength, Weakness, opportunity and threat of a firm (Zeitun and Tian, 2008).

The existence of the link between a firm's capital structure and its profitability has been a seriously debated and researched area for several decades in finance, accounting and business management research. Some researchers are for more equity than debt while others are for more debt than equity. Many researchers have come up with different perspectives in their studies; while some revealed positive relationship, others revealed negative relationship between capital structure and profitability and some others discovered no relationship between the variables while some other got mixed results, hence, the findings are still contestable. This study fills the gap and adds to the body of existing knowledge by analyzing such kind of relationship here in Nigeria.

The difficulty facing quoted agricultural companies in Nigeria has to do more with the financing sources; whether to raise debt or equity capital, what would be the volume of debt-to-equity and their capitalization ratios in relation to their business operations and the level of their mixtures. The issue of finance is so important that it has been identified as an immediate reason for business failing to start in the first place or to progress. This is so because the rate at which capital is borrowed has serious implications on the profitability capacities of business concerns (Pandey, 2010).

Another issue of serious concern is that quoted agricultural companies in Nigeria are fragile and underperforming (NSE, 2015). This is because they engage in series of unrelated business activities prone to financial and business risk with low asset tangibility which is the book value of property, plants and equipment -total net (PPENT) scaled by total assets (Owolobi and Inyang, 2013). And as such, most banks find it uninteresting lending to them because of the high risk nature of their businesses. Unfortunately, most quoted agricultural companies in Nigeria face hurdles in sourcing funds and this has left many of them with poor capital structure which makes it difficult to achieve the ever increasing and differing stakeholders' objectives (Nassar, 2016). This constitute a serious concern because a company considered too highly-leveraged (too much debt versus equity) finds its freedom of

operations restricted by its creditors and/or may have its profitability hurt as a result of paying high interest costs. Of course, the worst case scenario would be having trouble meeting operating and debt liabilities during periods of adverse economic conditions. Similarly, a company in a highly-competitive business environment, if hobbled by high debt and low equity, may find its competitors taking advantage of its problems to grab more market share.

The link between capital structure and profitability of quoted agricultural companies in Nigeria has been the subject of national debate as government attention is always on food security not minding the earnings/returns of the companies in that industry.
From the foregoing, there are challenges based on the available empirical literature, hence, this study investigates the influence of capital structure on the profitability of quoted agricultural companies in Nigeria.

Conceptual Review

Capital Structure

Capital structure is one of the most sensitive issues of any organization, because it directly relates to competitive environment (Pandey, 2010). Capital structure is basically viewed by Appa (2013) as a company's financial framework. Primarily, it is a mix of debt and equity capital maintained by a company. It consists mainly of a combination of debt and equity as well as all other sources of finance such as retained earnings among others available to the company (Margaritis and Psillaki, 2007). Pandey, (2010) views capital structure as how a firm finances its overall operations and growth by using different sources of funds.
. The term capital structure is generally described as the combination of debt and equity that make up the total asset of a company (San and Heng, 2011). It is all about how companies finance their overall operations and growth by using different sources of funds. These different sources of capital are measured in ratios such as debt, equity, debt/equity and capitalization ratios. Capital structure ratios as represented by leverage ratios indicate the proportion of debt and equity in financing the firm's assets, Pandey (2010).

Profitability

Profitability is the level of performance of a firm over a specified period of times, expressed in terms of overall profit or losses during that time (Tian and Zeitun, 2007). It is measuring the results of a firm's policies and operation in monetary terms. These results are reflected in the firm's return on investment, return on assets and valued added (Abor, 2008). For a long time, profitability has been perceived only through its ability to obtain profits. Analysis of the determinants of profitability is essential for all the stakeholders, but especially for investors. This principle provides a conceptual and operational framework for evaluating business performance.

A company's profitability performance is directly influenced by its market position. It is often the measuring tool which indicates the financial strengths, weaknesses, opportunities and threats. Those measurements are return on assets (ROA), return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, price earnings ratio, growth in sales, market capitalization etc. According to the Business Dictionary profitability is the ability of a firm to generate net income on a consistent basis.

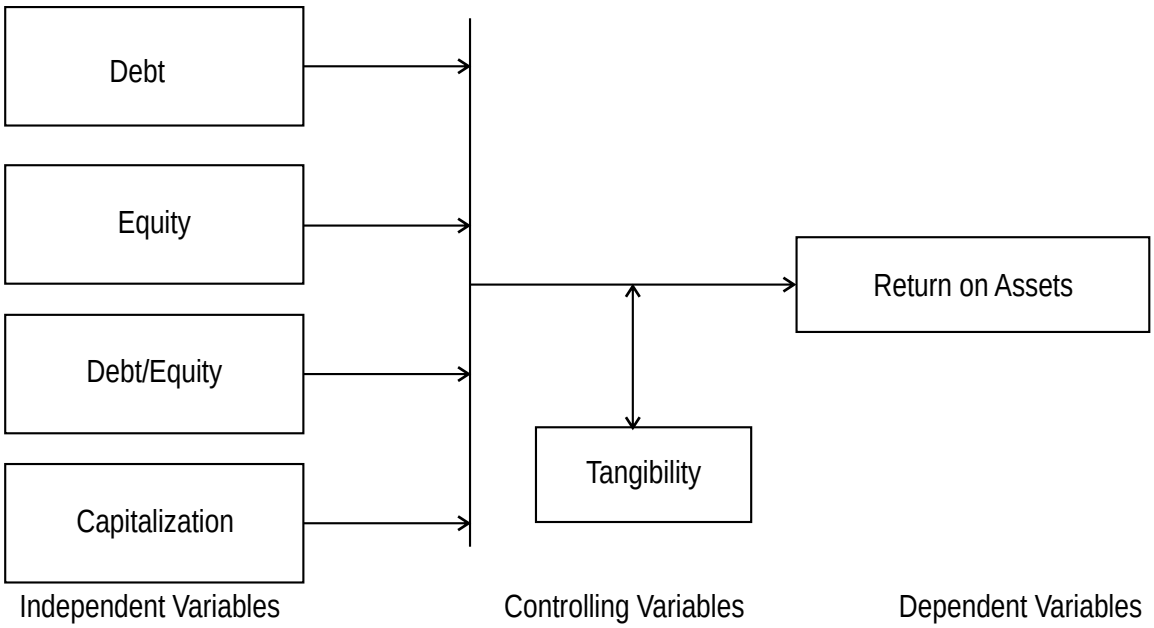
Ratio is used as a benchmark for evaluating the profit performance of a firm. Ratios help to summarize large quantities of financial data and to make qualitative judgment about the firm's profitability.

Capital Structure and Profitability

The relationship between firm profitability and capital structure can be explained by the pecking order theory (POT), which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants (Abor, 2007). Profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt).

Titman and Wessels (2008) agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratios since they are able to generate such funds from internal sources. As Myers (1984) explained, firms with the ability to generate acceptable amount of profit and earnings tend to use their own internal source of funds to finance their project.

Figure 1. Capital Structure Ratios



Conceptual Framework of Capital Structure Ratios and Return on Assets
Source: Researcher's drawing, 2019.

From the above conceptual framework figure, debt ratio, equity ratio, debt-to-equity ratio and capitalization ratio on the left hand side represent the independent variables (capital structure), the tangibility of the companies' assets as control variable, while profitability proxied with return on assets (ROA) on the right hand represents the dependent variable. The figure 1 above shows how the regression model; the relationship between capital structure and profitability proxied with ROA

involving assets tangibility as control variable (to moderate the differences in the companies' assets) was specified in next section. The essence of introducing control variable is to make the study's result more comparable to those of previous studies. Thus, the study controlled for the effect of debt ratio, equity ratio, debt-to-equity ratio, capitalization ratio and the level of profitability vi-sa-vis the companies' assets.

Quoted Agricultural Companies at Nigerian Stock Exchange (NSE).

Agricultural stocks are projected to continue lagging in performance at the NSE with most investors expected to continue going after liquid companies, whose business is not affected by uncontrollable factors like the weather. External factors such as the fluctuation of the local currency, economic downturns in export markets, and high costs of inputs affect the profits of agricultural companies and by extension the dividends they pay out. The five quoted agricultural companies in the Nigerian Stock Exchange (NSE) were covered. They are; Ellah Lakes Plc, FTN Cocoa Processors Plc, Livestock Feeds Plc, Okomu Oil Palm Plc and Presco Plc. But in the course of this study, we studied only four leaving Ellah Lakes Plc because of non availability some years financial reports.

The choice of quoted agriculture companies for the study among others is because companies in this sector have the potentials and capabilities of easily diversifying the Nigerian economy and boost the country's GDP as it has the human, social, land and market capital to drive the economy.

Empirical Review

Numerous studies have been conducted to explore the type of the relationships between a company's capital structure and profitability amongst of them are;

A study had been done by Abor and Biekpe (2015) on the influence of capital structure on profitability of listed companies on the Ghana Stock Exchange using a five-year period. The regression output showed that there is positive relationship between DR and ROE which measure the relationship between total debt and profitability. This indicates that companies which earn a lot are depending on debt as their key financing option. He also found out that there is significant positively interrelation between SDA and ROE and shows that companies which earn a lot use more short-term debt to finance their business.

Onaolapo and Kajola (2010) studied the effect of capital structure on profitability of firms listed on the Nigerian Stock Exchange. Using the general OLS regression to analyze collected data, the results indicated that financial leverage had a significant negative relationship on profitability, Return on Assets and Return on Equity of tested companies.

San and Heng (2011) conduct investigation on the relationship between capital structure and performance of Malaysian Construction sector. Ordinary least square model was used to estimate the regression equation and the results of the regression analyses carried revealed a mixed relationship between the variables investigated. While for the big companies, the result showed a positive relationship between ROCE and DR on one hand; and EPS and LDR on the other hand. However, a negative relationship was reported between EPS and DR in small size companies.

Uwalomwa and Uadiale (2012) did a study to basically investigate the relationship between capital structure and the profitability of listed firms in Nigeria. The annual reports for the period 2005-2009 were analyzed using the Ordinary Least Squares (OLS) model estimation to test the research

propositions stated in the study. The study observed that two of the explanatory variables in the study (i.e. short-term debt and shareholders' funds) have a significant positive impact on the profitability of listed firms in Nigeria. The study concludes that employing high proportion of long-term debt in firms' capital structure will invariably result in a low profitability of a firm.

Another study was done by Abiodum (2012) on the effect of optimal capital structure on manufacturing firms performance in Nigeria, used a sample of 10 firms from 2000 to 2009. The researcher used debt ratio as capital structure variable against company performance, and found that there is a relationship between the distribution of debt ratio and corporate profitability and their main conclusion was that the manufacturing industries was consistent with trade off theory. That means debt ratio has positive relation with corporate profitability.

Odita (2012) used regression and Pearson correlation to analyze the impact of capital structure on firm performance in Nigeria. He used performance measures of return on assets and return on equity while capital structure measures were debt ratios and controlling variables of asset turnover, firm size, age, asset tangibility and firm growth opportunity. His study results indicated a negative and significant relationship between profitability measures of return on assets and return on equity against debt ratio..

Nasreem, *et al.* (2013) also tested the relationship between firm's capital structure and profitability in Pakistan using a sample of 83 companies listed in Karachi stock exchange. Researcher used debt to equity ratio as a measure of capital structure while other ratios like earning per share, price earnings ratio; operating profit margin, return on asset and return on equity were used as proxies for firm performance. After analyzing data using regression model, the study found that profitability of a company was significantly affected by their capital structure and their relationship was negative in nature.

Appah, (2013) investigated the impact of capital structure on operating performance of thirty two firms quoted on the Nigerian Stock Exchange from 2005 to 2011 in a total of 224 observations by analyzing relationship between operating performance measures and capital structure variables. Total assets efficiency was used as control variable. The result revealed that capital structure variables have significant negative relationship with operating performance after the regression analysis. They recommended that performance of quoted firms can be improved using the optimal capital structure model.

Ogebe, Patrick, Joseph, Alewi and Kemi (2013), examined the Impact of Capital Structure on Firms' Performance in Nigeria. The study seeks to investigate the impact of capital structure on firm performance in Nigeria from 2000 to 2010. Using fixed effect regression estimation model, a relationship was established between performance and leverage of the firms over a period of ten years. The results provide strong evidence in support of the traditional theory of capital structure which asserts that leverage is a significant determinant of firms' profitability. A significant negative relationship is established between leverage and performance.

Masavi, Kiweu and Kinyili (2017) studied capital structure and profitability of agricultural companies listed in Nairobi securities exchange, Kenya. The study adopted longitudinal research design with targeted population being the six agricultural companies listed in NSE. The findings of the study

showed that an increment in debt ratio will lead to an increment in profitability, and debt-equity combinations increase will lead to a significant reduction in after tax profits of the companies and capital structure affects profitability.

Theoretical Framework

Since the Modigliani and Miller theory (1958) argue that under the perfect capital market condition, the company's profitability/value is independent from its capital structure. Since then, many theories such as Irrelevance Theory, Trade-Off Theory, Pecking Order Theory, and agency cost theory, market timing theory among others have been developed to explain the dynamics of capital structure of companies vis-a-vis their profitability. However, for the purpose this study, we underpinned the study with the Pecking Order Theory (POT)

The Pecking order theory was propounded by Myers and Najfuf in the year 1984. This theory advocates that companies should use the cheapest form of finance to run their operations first. In most cases, businesses adhere to hierarchy of financing sources and mostly prefer internal sources first and debt is preferred over equity due to information asymmetry between the firm and outsiders. Internal sources may not be efficient to meet certain financial decisions therefore the firm may consider external borrowing. Too much external borrowing affects financial decision. According to Goyal, (2003) Pecking order theory states that companies prefer internal funds, if available, and use debt or issue equity last. In line with Myers (1984), companies prefer internal sources to external finance due to asymmetric information.

The utilization of external financing sources are signals to information that a firm is not profitable, which can decrease stock prices. When external financing sources are obligatory, firms choose debts to equity because of lower information costs relate with debt. Issuing new stock, instead of acquiring new debt, signals the news that directors think firms? stocks are overpriced. Goyal, (2003) posited that the management of a company usually knows more about its company's business and financial information than average outside investors do and the company administration don't expect to issue new stock when they think the stock price is undervalued in the market. When the market is fairly priced or overpriced, management tend to issue shares. Thus, outside investors may interpret the declaration of a stock issue as a negative signal for the current stock price.
This theory is relevant to this study since agricultural firms operate in a financial environment that fits the Pecking order. If the agricultural firms must use outside financing, preference capital is to be used in the subsequent command of funding sources: convertible securities, debt, preferred stock, and common stock. An appropriate debt to equity ratio and current ratio needs to be maintained.

Methodology

The study adopted *ex-post facto* research design. This is because this design is employed when events or variables of the study are already in place (not manipulated or manufactured by the researcher) and are being studied retrospectively by comparing measures or scores obtained from the independent variables in order to find out the impact or effect of their independent variables on the dependent variable (Nwankwo, 2011). Thus, we conducted this study based time series panel data analysis covering the periods from 2006 – 2017.

The study focused on the influence of capital structure on profitability of quoted agricultural companies using four out of the five quoted Agricultural companies at the Nigerian Stock Exchange. The quoted Agricultural companies are; Livestock Feeds PLC, Okomu Oil Processors PLC, Presco Oil PLC and FTN Cocoa Processors PLC. The period of twelve years (2006-2017) covered in the study; we assume are adequate to uncover the effect of dynamics in capital structure mix and profitability of quoted agricultural companies in Nigeria.

The data used for the study depended on secondary sources and were based on historical cross-sectional time series panel data analysis covering from 2006 - 2017. The secondary quantitative panel data on the research variables were obtained from the published annual reports/financial statements of the quoted agricultural companies at the Nigerian Stock Exchange (NSE) using their websites for the data covering a period of 12 years (2006 - 2017). The period of 2006-2017 covered in the study adequately uncover the effect of changes in capital structure dynamics and profitability of quoted agricultural companies in Nigeria.

Analytical Technique

The panel data gathered were analytically estimated using the Multiple Ordinary Least Square (MOLS) regression techniques with the aid of E-view 9.0 econometric software to test the hypotheses and establish the effect of capital structure on corporate profitability. The descriptive statistical technique was used to examine and analyze the characteristics of the collected time series panel data (the dependent and independent variables). Correlation test was used to ascertain the strength and magnitude of the relationship between the dependent and independent variables, Diagnostic tests such as normality test and homogeneity tests were performed to ascertain the nature of the relationship that exists between the dependent and independent variables. While statistical tests such as F- statistic and Hausman test were carried out to test the overall significance of the regression equation and to select the model (fixed effect or random effect) that mostly suite/appropriate for estimation respectively. Hansen test and Jarque-Bera normality test were used for the validity and normality of instruments used.

Model Specification

To estimate the regression equation, the study adopted the general multiple ordinary least square (MOLS) regression model base in line with the specific objectives variables of the study. The regression model is specified thus;

$Y=a+bx\ldots \qquad (1)$

Profitability is a function of capital structure. However, in this study, we proxied Profitability with return on assets (ROA) and capital structure measured with capital structure ratios.

Therefore;

Return on Assets = Capital structure ratios (Debt ratio, Equity ratio, Debt/Equity ratio and Capitalization ratio).

To empirically express the relationship between return on assets and capital structure ratios of quoted agricultural companies, the base line model equation is specified thus;

$ROA = \beta 0 + \beta 1DBTR + \beta_2 EQR + \beta_3 D/ER + \beta_4 CAPR) + \varepsilon \ldots \qquad (2)$

Where;
ROA = Return on Assets of quoted Agricultural Companies. DBTR = Debt Ratio; EQR = Equity Ratio; D/EQR = Debt to Equity Ratio; CAPR = Capitalization Ratio and ε = Error term.

However, a model based on a panel structure provides the ability to analyse a dataset involving both time series (different periods) and cross sections (different entities) each with a dependent and possible multiple independent variables. The study involved observations of dataset from the four quoted agricultural companies in Nigeria between 2006 and 2017 (4 x 12 = 48) such that the study consists of 48 observations.
Thus, equation 2 above was restated to form a panel regression model as shown below;

$$Yit=\beta 0+\beta X_{it}+\varepsilon it \ldots \quad (3)$$

Where;
Yit is the Corporate Profitability, *i* over a given period of time, X_{it} representing the variables which can have effect on corporate profitability of the period of time.

To practically linearize equation (2) with (3), the functional equation (3) was expressed in multiple regression equation form and to control or moderate the effect of independent variables and make the equation robust, control variable; asset tangibility was introduced to control and neutralize the differences in the assets of the companies. Thus, the robust base line multiple regression equation becomes;

$$ROAit = \beta_0 + \beta_1 DBTRit + \beta_2 EQRit + \beta_3 D/ERit + \beta_4 CAPRit + \beta_5 TANGit + \mu i + \varepsilon it \ldots (4)$$

Where;
β_0 is the constant term, μ is the panel specific error and εit is the error term, while *it* is the coefficients which measure the impact of each variable over the period.
Where;
ROA = Return on Assets, DBTR = Debt Ratio; EQR = Equity Ratio; D/EQR = Debt to Equity Ratio; CAPR = Capitalization Ratio, TANG = Company's Assets Tangibility, $\beta_{1\text{-}5}$ = Coefficients estimated or the Coefficients of slope parameters.

Hypotheses
1. Ascertain the extent to which debt ratio affects profitability of selected quoted agricultural companies in Nigeria.
2. Establish the extent to which equity ratio affects profitability of selected quoted agricultural companies in Nigeria.
3. Examine the extent to which debt-to-equity ratio affects profitability of selected quoted agricultural companies in Nigeria.
4. Determine the extent to which capitalization ratio affect profitability of selected quoted agricultural companies in Nigeria.

Findings and Discussions
Robust Panel Regression Results

Series	Pooled OLS (1)	FE OLS (2)	Random E. OLS (3)
C	0.42647	0.40425	0.42529
	[0.0000]**	[0.0000]**	[0.0000]**
DBTR	-0.13097	-0.16400	-0.13686
	[0.1976]	[0.6362]	[0.2036]
EQR	0.15770	0.14717	0.05711
	[0.0001]**	[0.0030]**	[0.0001]**
D/EQR	-0.12158	-0.13309	-0.11968
	[0.0659]**	[0.0667]	[0.1869]**
CAPR	0.17649	0.18164	0.17723
	[0.0059]	[0.0048]	[0.0064]
TANG	0.25262	0.28281	0.26281
	[0.0023]**	[0.0321]	[0.0010]**
Observations	48	48	48
R-Squared	0.559	0.675	0.494
F-Value	6.3730	2.7187	6.1193
	[0.0001]	[0.0008]	[0.0001]
Hausman Test	0.273842	P-Value =	[0.0685]

Sources: Researcher's computation from E-view (version 9.0)
** indicates 5% level of significance.

From the four formulated and tested hypotheses of the study, the following are the summarized findings;

1. Debt ratio has negative and significant effect on profitability represented by return on assets (ROA) of quoted Agricultural Companies in Nigeria. This because the p-value of 0.6362 is greater than the 0.05 at 5% level of significance.
2. Equity ratio has positive and significant impact on profitability proxied with return on assets (ROA) of quoted Agricultural Companies in Nigeria. This is vouched by the p- value of 0.0030 which less than the 0.05 at 5% level of significance.
3. The level of debt/equity ratio has negative and significant influence on profitability proxied with return on assets (ROA) of quoted Agricultural Companies in Nigeria. The coefficient of D/EQR (-0.13309) and p-value (0.0667) evidenced the finding at 5% level of significance.
4. The level of capitalization ratio has positive and significant effect on profitability represented by return on assets (ROA) of quoted Agricultural Companies in Nigeria. The coefficient of capitalization ratio of (0.18164) and p-value of (0.0048) evidenced the finding at 5% level of significance.

From the test of hypothesis one, the result shows that the effect of debt ratio volume on profitability proxied with ROA of quoted Agricultural companies in Nigeria is – 0.16400 or – 16.4% indicating a negative significant effect or relationship. Also, F –Statistic computed value of 2.7187 is less than the theoretical table value of 8.57 at 5% degree of freedom. And at 0.05 or 5% level of significance, p -

value is 0.6362 which is greater than 0.05, hence null hypothesis (H_0) one which states that debt ratio has negative significant effect on return on assets (ROA) of quoted Agricultural companies in Nigeria is accepted.

In testing hypothesis two, the computed/estimated value of F- Statistic is 2.7187 at 5% degree of freedom is less than the theoretical table value of 8.57. while at 5% level of significance, the p –value is 0.0030 which is less than 0.05, thus, the second alternative hypothesis (H_1) which states that equity ratio has significant effect on return on assets (ROA) of quoted Agricultural companies in Nigeria is accepted by the study.

In hypothesis three testing, the estimated r^2 is 0.275, while the computed F- Statistic value is 2.7187 which is less than theoretical table value of 8.57 at 5% degree of freedom. Also, at 5% or 0.05 level of significance, the p- value 0.0667 which is also greater than 0.05 hence, null hypothesis (H_0) three which states that debt-to-equity ratio has no significant effect on return on assets (ROA) of quoted agricultural companies in Nigeria is hereby accepted by the study.

In testing hypothesis four, the F- Statistic computed value is 2.7187 which is less than the theoretical value of 8.57 at 5% degree of freedom. Again, the p – value of 0.0048 is less than 0.05 at 5% level of significance, thus, the fourth hypothesis alternative hypothesis (H_1) which states that capitalization ratio has significant effect on return on return on assets (ROA) of quoted agricultural companies in Nigeria is accepted by the study.

Recommendations

Based on the forgoing findings, the study therefore recommends the following;

1. That quoted agricultural companies in Nigeria should reduce the level of debts mixture in their capital structure since it has negative and significant effect on the companies' profitability.
2. That quoted agricultural companies in Nigeria should increase the level of the equity funding to a reasonable extent in their capital base so as to have full control and diversify the business operations of their companies in order to net reasonable financial returns in their business.
3. The study also recommends that debt-to-equity level of quoted agricultural companies in Nigeria should be reduced so that much of their financial resources will not be used in servicing loans since high debt-to-equity has negative and significant influence on corporate profitability of the companies.
4. More so, the study recommends an increase in the capitalization ratio of quoted agricultural companies in Nigeria.

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EQUITY PREMIUM PUZZLE AND THE NIGERIAN CAPITAL MARKET

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Abstract

The study empirically examines the equity risk premium puzzle in the Nigerian Capital Market for a period of 18 years. The equity all share index in the Nigerian Stock Market (ASI) and the Nigerian Treasury Bill Rate (TBR) from 2000Q1 to 2017Q4 were used to ascertain the existence or otherwise of equity risk premium puzzle. The All share index return was measured as the log of current price index as a ratio of lagged price index. Using the cointegration econometric technique and statistical tools such as descriptive statistics and graphs/charts, the empirical results generally reveal that equity risk premium puzzle does not hold in the Nigerian capital market within the period of investigation. This was specifically confirmed by the descriptive statistics results where the ERP was -7.531528. It was observed that Nigerian Treasury Bill Rate (TBR) consistently outperformed equity stock return across most of the quarters. The result of both cointegration tests also revealed that only the Trace test indicates any form of cointegration between the pairs; but the Max Eigenvalue test however shows no cointegration between the variables in both tests (Trace test and Eigenvalue test). The outcome of the results are therefore rather inconclusive, suggesting that generally long run co-movements cannot be established between returns/risk-free rate and ERP. Thus, the ERP cannot be confirmed in the study in Nigeria. The study recommends among others that, appropriate policy that will take into account these differences in investor's preferences and behaviours should be vigorously pursued. Doing so will definitely help in the design and development of the Nigerian stock market regulations in the area of new financial products. Also, the high level of risk aversion by Nigerian investors is a clear indication of the volatile nature of the Nigerian Security Market. The presence of volatility leading to investor's risk aversion also potent loss of confidence in the market. Therefore Nigerian market regulators must wake up and be alive to their responsibility by ensuring that volatility in the market is reduced to the barest minimum and confidence evaporation restored. It is only then and then, there could be a shift from treasury bills investment back to equity investment, and subsequently, the existence of ERP in the country.

JEL Classification: G1, G11, G12, C1
Keywords: Equity Premium, Financial Market, Econometric and Statistical Methods

Introduction

About three decades now, the issue of equity premium puzzle has remained in the front burner of

academic, finance and economics discus in journals and literature across the globe till date. The reason being that, it is a puzzle that still puzzles the global financial circuit and has attracted several research attempting to explain it in several countries-specific studies. Equity premium puzzle is a term coined by Mehra & Prescott (1985) to describe the improbably high risk aversion an investor must have to own bonds given the immense equity return premium offered by equity markets. In their study on the US market, they observed that between 1889 and 1978 the average risk free rate was less than 1% and while the average equity returns was 7%.The equity risk premium otherwise known as the equity premium is the return that an investor expects over and above the risk-free rate of return in exchange for investing in common stock instead of government bonds (Mehra & Prescott, 1985). In other word, it is the result of the risk-return trade-off, in which investors require a higher rate of return on riskier investments like common stocks (Mostovoy, 2008). The market risk-free rate is often quoted as the rate on longer term government bonds, which are considered risk-free because of the unlikelihood that the government will default on its loans; compare to those of common stocks that offer none or little guarantees. This is true because, companies all over the globe usually experience downturns and go out of business. If for instance, the return on a stock is 17% and the risk-free rate over the same period is 8%, then the equity-risk premium for the stock over the period is 9%. Whether or not this is worth the investment, is a function of the cost of stock, the risk relative to other stocks with similar returns, and the investor's own risk aversion.

According to Donadelli & Prosperi(2012), an important theoretical result in economic literature reveals that the average long-term equity-risk premium (ERP) exceeds its desirable level and does not reflect what equilibrium theory predicts. Mehra & Prescott (1985) and Mehra (2003) show that for the United States in the period 1889-1978 the ERP has been in excess of 6% per annum. According to their theoretical framework this leads to a level of relative risk aversion of 26, which does not exactly fit the normal range between 1 and 10 that the theory predicts. The difference between the return on stocks and the return on a risk-free asset is called the equity premium (or the equity risk premium, since it is thought to express the higher risk associated with risky securities). The fact that it is too large to be explained by standard economic models is called the e*quity premium puzzle (*Donadelli & Prosperi, 2012).

Despite the large and growing theoretical and empirical literature on equity premium puzzle, little attention has been paid to the possible policy implications in Nigeria. In order to enhance and deepen our understanding of the equity risk premium puzzle in the pricing of financial assets, we therefore deem it necessary to empirically investigate it within the context of the Nigerian financial market, and to see if the puzzle as claimed by Mehra & Prescott (1985) in the US truly holds in Nigeria. The current study became necessary given the various criticisms and refutations against Mehra & Prescott (1985) submissions that the equity premium does not exist, and that the puzzle is a statistical illusion: modifications to the assumed preferences of investors, and imperfections in the model of risk aversion. Furthermore, in line with the submission of Grétarsson & Snorrason (2011), that the very fact that the equity premium puzzle is yet to be resolved more than 25 years since it was first proposed, makes it an intriguing research topic among academia and finance experts. Attempts to resolving the puzzle have become a major research impetus in economics and finance. For instance, Abel (1990), Benartzi & Thaler (1995), Campbell & Cochrane (1999) all tried to resolve the puzzle by proposing alternative assumptions about the preferences of the Mehra & Prescot (1985) model. While Reitz (1988) again

modifies the probability distributions to take rare but disastrous events into account, Brown, Goetzmann& Ross (1995) focus on survivorship bias when it comes to resolving the puzzle while Constantinides&Duffie (1996), Heaton & Lucas (1997) directed their studies at the incomplete markets in an attempt to solve the puzzle (Grétarsson&Snorrason, 2011). Unfortunately, none of these studies have been able to fully resolve the observed anomalies. Hence, calculating this equity premium for a country like Nigeria which is not by definition a developed market should be able to remove such a bias that was criticized in the study of Mehra& Prescott (1985). Thus, this paper therefore estimates the equity premiums for Nigeria using the Mehra& Prescott (1985) estimation in order to see whether a puzzle exists for a country which can be considered a non-survivour or undeveloped market.

The rest of the paper is organized such that section two deals with the review of related literature and empirical literature, section three focuses on the methodology and model specification, section four addresses the empirical analysis and results and while conclusion and policy recommendations are in section five.

Literature Review

The literature review of this current study focuses on two main areas. The theoretical and empirical literature. While the theoretical aspect provides the theoretical foundation/issues underpinning the study, the empirical aspect opens our minds on the various works that have been done by other experts in an attempt to resolving the equity risk-premium puzzle postulated by Mehra& Prescott (1985). It is like the dividend policy decision issue that prompted Black (1976) to say that the harder we look at the dividend picture, the more it seems like a puzzle, with pieces that just do not fit together". The same applies to equity risk premium puzzle that is yet to be resolved in view of the enormous empirical findings and submissions.

The Concept of Equity Risk Premium Puzzle

Mehra & Prescott (1985) were the very first proponent of the equity risk premium puzzle. They posited that the equity premium (the return earned by a risky security in excess of that earned by a relatively risk-free T-bill), was an order of magnitude greater than could be rationalized in the context of the standard neo classical paradigms of financial economics *as a premium for bearing risk*. The idea of equity risk premium puzzle was plainly explained by Grétarsson & Snorrason (2011). According to them, it refers to the empirical fact that risky equity has been outperforming default free debt with about 6 percentage points for the U.S. market. The fact that the historical equity premium has been about 6 percentage points means that we have a puzzle on our hands. The puzzle stems from the fact that the perceived risk related to the equity returns is not high enough to explain these high returns. Investors would need to have unlikely high risk-aversion coefficients to have such high premiums. However, unless the risk aversion coefficient is large, a high equity premium is impossible since the growth rate of consumption just does not vary enough. Another striking aspect of the puzzle is that, although the risk aversion has been high, the risk free rate of returns has been extremely low over a long period of time. The equity premium puzzle could, just be simply called,"the risk-free rate puzzle" (Grétarsson & Snorrason, 2011).

The Wikipedia (2015) defines equity premium puzzle as the phenomenon that, observed returns on

stocks over the past century are much higher than returns on government bonds; adding that it is a term coined by Mehra& Prescott in 1985.

In our own opinion, based on extensive survey of the extant literature in this regard, equity risk premium puzzle is simply a term that seeks to explain the shocking results that challenged orthodoxy or established theory in the field of finance and economics relating to the observed return on equity and treasury bill rate over a long period of time in the United State. It was observed that the average returns on common stocks in the US for a period of 90 years (1889 to 1978) was far much higher than those of government bonds as measured by the risk free rate of return. While the average returns on common equity was approximately 7% that of government bonds was 1% with equity-risk premium for the common equity over the period at6%. Ordinarily, on the basis of economic theory, it is expected that the returns on government bonds/treasury bills which is less risky than the common stocks should yield the highest returns on investment to the investors, any time any day. But the result proves otherwise. Hence, it was coined a puzzle by Mehra & Prescott (1985), and has since attracted a lot of studies across the globe till date.

Resolving the Equity Puzzle Issue

Several attempts have been made by researchers across the globe on the basis of empirical and theoretical sides to the puzzle to resolve the observed anomaly in equity premium puzzle. However, none of these studies have been able to effectively resolve it (Grétarsson & Snorrason, 2011).

a) The Empirical Side of the Puzzle

The empirical side of the puzzle is based on four explanations. These include survivor bias, increasing the time period, taxes and mean reversion and aversion

i) *The Survivor bias*

This centers around finding factors that requires adaptations to the empirical side of the puzzle, which may involve looking for data that would result in the equity premium being smaller or the equity returns being riskier. Hence, Damodaran (2011) argues that, the historical equity risk premium data used for the U.S. is biased upwards because of a survivor bias, which was influenced by choosing one of the most successful equity markets of the 20th century. Arguing along this line, Brown, Goetzmann& Ross (1995) submitted that over half of the 36 existing and functioning stock markets during the 20th century undergo substantial disturbances or were completely destroyed. Therefore, employing the U.S. data alone in estimating the equity risk premium will amount to distorted premiums, since they are calculated on the basis of survivor, a country that has consistently been able to withstand the financial fluctuations throughout the past centuries (Grétarsson&Snorrason, 2011). Even though Dimson, March &Stauton (2002) have argued that the riskiness of the U.S. equities were underestimated, since the data does not account for some devastation that might have occurred within the period. Otherwise, the true equity risk premium would have been much lower.

Siegel &Thaler (1997) however objected to the survivor bias argument. According to them, the period used by Mehra & Prescott (1985) actually captured such factors like economic disasters, the stock market crash of 1929 and the consequent Great Depression. These catastrophes resulted in stocks losing almost 80% of their value and were not completely reclaimed until the end of World War II of 1945.

ii) *Increasing the Time Period*

With respect to increasing the time period as a check on Mehra & Prescott (1985) findings, Siegel (1992) investigation showed that, equity premium of 5.3%was 1.3% points lower than those of Mehra& Prescott (1985), and that real stock returns had fallen considerably in the short term fixed income market over time while the returns on equity had remained remarkably constant. The reason for the fall in the real returns on government bonds is because of higher default risk perceived by smaller firms in the 19th century and wrong expectations about the 20th century inflation rate (Siegel, 1992; Grétarsson & Snorrason, 2011).

iii) *Taxes*

The decline in marginal tax rate on dividends from 50% to 0% over a 40 year period after World War II, resulted in equity prices rising to about 1.8% more than the growth rate in GDP. Thus, adding the dividend yield to this expected price appreciation would generate returns similar to the observed equity risk premium (McGratten & Prescott, 2001). Thus, Damodaran (2010) argues that, the drop in the marginal tax rate was much smaller and can, therefore, not explain the high equity risk premiums observed.

iv) *Mean Reversion and Aversion*

As it relates to mean reversion and aversion, since the observed anomaly of the risk related to equity returns in Mehra & Prescott (1985) work is not relatively high enough to explain the high returns, Siegel &Thaler (1997) confirmed that the returns on fixed income assets do not follow any mean reversion, unlike stock returns. Whereas, standard deviation of stock returns with the square root of the time horizon and those of real returns of fixed income assets do follow a mean aversion process, since they decrease less than the square root of the horizon. Thus, equity premium puzzle seems to be an even bigger puzzle since fixed income securities appear to be riskier in real terms than stocks (Siegel &Thaler, 1997; Grétarsson & Snorrason, 2011).

b) *Theoretical Explanations to Equity Premium Puzzle*

The second explanation to equity premium puzzle is on the basis of the theoretical submissions in the literature. It includes the followings:

i) *Alternative preference structures*

The constant relative risk aversion function used by Mehra & Prescott implies that if investors are risk averse to changes in consumption across different states of nature at some specific point in time, they will be equally risk averse to changes in consumption across time. The study of Epstein & Zin (1989) equally confirmed this submission that individuals will always prefer lower and more stable levels of consumption and wealth that they can sustain over a long period of time to higher levels of consumption and wealth that will vary widely from time to time. Although their utility functions were able to explain both the low real interest rates and high equity premiums, the method was only able to explain about one-third of the equity risk premium (Grétarsson & Snorrason, 2011).

In the extant literature, two types of reference consumption levels that can characterized by time non-separable preference functions are identified. The first which is based on external criterion, entails comparing your own current consumption level to that of others. It is otherwise known as “catching up with the Joneses”. This means that Individuals do not only get satisfied from their own consumption but

also by knowing that their consumption level is higher than others (Campbell & Cochrane, 1995). The second is on the basis of internal criterion, which focuses on the individuals´ own past consumption level. This approach as enunciated by Constantinides (1990) modifies the utility function such that, satisfaction derivable from a given consumption by an individual can effectively be measured by comparing current period consumption to previous period's.

ii) Myopic loss aversion

According to Benartzi & Thaler (1995), myopic loss aversion is a combination of the investor's loss aversion and short-sighted investment horizon. Longer investment horizon will always make investors more willing to invest in risky equities. This issue is predicated on two main assumptions: (i) that investors are loss averse or more sensitive to losses than to gains. Losses are therefore assumed to hurt significantly more than the pleasure derived from gains. (ii) Long term investors are assumed to assess their portfolios regularly. Therefore, in an attempt to find out whether the myopic loss aversion can explain the equity risk premium puzzle (ERP), Benartzi and Thaler (1995) performed various tests in this regard by using simulation methods and concluded that, the size of equity premium was consistent with the previously estimated parameters of prospect theory if investors' portfolios are based on annually estimation (Grétarsson and Snorrason, 2011).

The Empirical Literature

In the empirical literature, several notable works have been carried out in an attempt to resolving the puzzle associated with equity risk premium. While some argue in favour of Mehra & Prescott (2005), others argued otherwise. For instance, Weil (1989) examines the implications for general equilibrium asset pricing of a recently introduced class of Kreps-Porteus non-expected utility preferences, which is characterized by a constant intertemporal elasticity of substitution and a constant, but unrelated, coefficient of relative risk aversion. The results from the analysis show that the solution to the equity premium puzzle documented by Mehra& Prescott (1985) cannot be found by simply separating risk aversion for in trtemporal substitution. If the dividend growth process is independently and identically distributed, the risk premium, is independent of the intertemporal elasticity of substitution, and thus is the same whether or not the time-additive, expected utility restriction is imposed.

Welch (2000) carries out two surveys with finance professors in 1997 and 1998, asking them what they thought the expected market risk premium would be over the next 30 years. He found an average arithmetic EEP of 7% above treasury bonds. But when he compared the result with that of August 2001, the consensus for the 30-year arithmetic EEP was 5500, much lower than just 3 years earlier. In an update published in 2008 Welch reports that the MRP used in class in December 2007 by about 400 finance professors was 5.8900 and 9000 of the professors used equity premium between 400 and 8.500.

In a related study, Akdeniz & Dechert (2006) combined dynamic programming methods to solve Brock's asset pricing model with a different parameterizations in order to determine higher equity premium relative to the different consumption patterns. Their empirical finding indicate that, equity premium can be higher in a production based asset pricing model than it is in the consumption based asset pricing model, *even* when the real output level is the *same* in bothmodels.

Jobert, Platania& Rogers (2006) employed the a Bayesian solution to the equity premium puzzle, that is, the inability of standard intertemporal economic models to account for the magnitude of the

observed excess return earned by a risky security over the return on T-bills. They concluded that coefficients of relative risk aversion lie in the interval (1,2) with high probability - in other words, there is no equity premium puzzle.

Erba & Mirakhor (2007) compute an average equity premium across a range of emerging markets which also include South Africa. Their findings show that equity risk premium is higher than the premium justified by risk aversion in equity premium puzzle. But the positive average premium they found could mask low or negative premium in individual countries (which are not reported); and, above all, their sample period, 1996-2005, is inappropriately brief for examining the equity premium (Dimson, Marsh& Staunton, 2008).

Kyriacou, Madsen & Mase (2008) investigate the equity risk premium for several countries using one century data. Their empirical analysis indicate that, the realized US equity premium is in line with the premium obtained elsewhere. Also, current estimates of the equity premium were close to those observed during the pre-1914 era. This again is a clear evidence of a current equity risk premium that is considerably lower than consensus forecasts (Welch, 2001).

Park&Kim (2009)empirically examine the existence of equity risk premium puzzle in Korea, as well as comparing same with that of the US. Using the Generalized Method of Moments (GMM), Hansen-Jagannathan bounds, and long-run risk approach, the empirical analysis revealed the existence of equity risk premium puzzle Korea. The study also find that low consumption growth volatility and asset returns contributed to the equity premium puzzle.

Hassan &Biljon (2010)empirically test for equity premium puzzle in the South African stock market over a period of 105-year, using the canonical inter-temporal consumption-based asset-pricing model under power utility. The empirical findings revealed that South African Stock Market produced an average returns of between 6% and 8% above bonds and cash; Even the maximum equity premium rationalized by the consumption-based model was 0.4%. The hypothesized model over the horizon was also seen to closely match the average risk-free rate, using realistic parameters for the coefficient of risk aversion and a positive rate of time preference.

Grétarsson & Snorrason (2011) conduct a study in Icelandic on the existence or otherwise of equity premium puzzle, using data covering a period of 15 years (1996 to 2010) and those of the U.S. for the period 1889 to 2010. The empirical investigation showed that, the recent financial crisis has had huge impact on the Icelandic equity market while the bigger U.S. equity market has not been so affected. It was also observed that, the default free debt has been outperforming the more risky equity in the last 10 years, which has not been the case in the last 100 years. Does this mean that the puzzle has vanished? However, when looking at the puzzle from an historical perspective the excessively high equity premium relative to risk-free short term debt still remains a puzzle.

The study of Donadelli & Prosperi (2012) on equity premium puzzle in a couple of developed and emerging economies, confirmed the existence of equity premium puzzle which eventually results to bizarre values of the coefficient of relative risk aversion. The study also indicates that,the key consumption model, the choice of appropriate riskless asset and lack of data, affected the robustness

of the findings with respect to estimations of the CRRA coefficients in the developed and emerging economies.

Ajao (2014)test for the existence of the equity premium puzzle in the Nigerian financial market. For the period 1985 to 2011. Using descriptive statistics and covariance analysis, the empirical results indicate that the equity premium puzzle did not exist in the Nigerian market during the period under consideration because our risk premium analysis shows a value of real equity return that is far less than risk free return. This implies that real risk-free investment offer higher returns to investors than equity investment in Nigeria during this period.

Methodology

Research Design

This study adopted the ex-post facto and longitudinal research design. The choice was premised on the non-controllability and non-manipulability of the specified variables used, which are the equity All share index in the Nigerian Stock Market (ASI) and the Nigeria Treasury Bill Rate (TBR) from 2000Q1 to 2017Q4. The All share index was converted to returns using:

ASIR = All share index return measured as log of current price index as a ratio of lagged price index.

$$R_t = \frac{pt}{pt-1} \quad \text{.....(1)}$$

TBRT = Risk free rate is taken as the 30-days Treasury bill rate in Nigeria.

It is given by;

Where:

Rt = Returns on all share index and treasury bill rate.

P_t = current price index.

P_t-1 = Lag of previous price index.

The choice of a proxy for the risk-free asset has been subject of many debates in the extant literature. A desirable risk-free proxy according to Donadelli and Prosperi(2012) should have zero risk of default, be traded in liquid markets, and have a duration similar to that of a risky investment. For these reasons the 10 years Treasury bond is often used in empirical studies of the ERP in the United States. For example, Drew et al. (2004) use the Germany Benchmark bond 10Y yield for Germany and the 1-month interbank rate for the United Kingdom as risk-free rate of return. However, the study of Damodaram (2008) opines that an investment can be risk-free only if it is issued by an entity with no default risk, and the specific instrument used to derive the risk-free rate will vary depending upon the period over which you want the return to be guaranteed. Hence, our 18 years Treasury bill returns is in line with the common time horizon sample of 2000Q1–2017Q4 in the Nigerian money market.To define the equity risk premium (ERP) in Nigeria, a rate that most closely approaches the money market rate is used. More specifically therefore, we made use of the Central Bank of Nigeria treasury bills reference rate.

Method of Data Analysis

The study made use of cointegration econometric technique and statistical tools such descriptive

statistics, graphs/charts and tables. The cointegrationhelps to established whether a long run relationship exist among the hypothesized variables. The descriptive statistics help to explain the behavioural patterns of the individual time series data in their level set used in the study. Relevant quarterly data for the assessment of equity risk premium were sourced from the Central Bank of Nigeria statistical Bulletin (2017). The data are all share index and the Treasury bill rates for a period of 18 years (2000Q1 to 2017Q4). The econometric and statistical analyses were subjected to excel application and Eviews 8.0 output software.

Empirical Analysis And Presentation Of Results

In this section, we perform the presentation and analysis of the data used for the empirical evaluation of equity premium puzzle in the Nigerian capital market. The analysis involves the use of statistical tools such descriptive statistics, graphs/charts and tables with the goal of providing estimated coefficients that are valid enough to test the hypothesized relationships in the study.

Descriptive Statistics

Table 4.1 below provides a descriptive statistics of the mean, median and standard deviation for the variable used in Nigeria for the period under investigation (2000Q1 to 2017Q4).The descriptive statistics result shows that average stock returns for the period (3.69 percent) is lower than the average Treasury Bill Rates value of 11.23 percent. This implies that the risk-free rate has generally been higher than the stock market returns in the financial market in Nigeria. A closer view of the summary statistics also reveals that stock returns have been more unstable than the Treasury Bill Rate. The maximum value of SR is much larger than that of TBR, while the minimum value of stock return (-36.88000) is negative. Though the skewness value of -0.304 indicates that SR values in the series generally hover around, the standard deviation value of 13.98 shows high degree of variability over the period in the study. The average ERP value is actually higher (in absolute terms) than the average SR. The J-B value for each of the series failed the significance test at the 5 percent level, suggesting that the series are normally distributed.

Table 4.1: Descriptive Statistics

	SR	TBR	ERP
Mean	3.694861	11.22597	-7.531528
Maximum	35.31000	22.71000	32.00000
Minimum	-36.88000	1.710000	-39.68000
Std. Dev.	13.97786	4.659699	14.02537
Skewness	-0.304352	0.033569	0.232914
Kurtosis	3.345670	2.562794	3.296957
Jarque-Bera	1.470022	0.586969	0.915539
Probability	0.479500	0.745661	0.632693

Source: Author's computation (2018)

Further demonstration of the existence of the ERP puzzle in the Nigerian market is tested based on cointegration test between stock returns and ERP on one hand, and between TBR and ERP on the

other hand. These long run tests reveal ERP if it indicates systematic co-movements between the pairs of variables. The result of both cointegration tests reveal that only the Trace test indicates any form of cointegration between the pairs. For this test, there is evidence of at least one cointegrating vector between the pairs of variables, indicating a long run relationship. The Max Eigenvalue test however shows no cointegration between the variables in both tests (Trace test and Eigenvalue test). The outcome of the results are therefore rather inconclusive, suggesting that generally long run co-movements cannot be established between returns/risk-free rate and ERP. Thus, the ERP cannot be confirmed in the studyfor the Nigerian case. This finding agree with those of Weil (1989), Jobert, Platania& Rogers (2006), and Grétarsson & Snorrason (2011) who did not confirm the existence of equity premium puzzle in their respective studies. The findings however disagree with those of Mehra& Prescott (2005), Akdeniz&Dechert (2006), Erba & Mirakhor (2007), Erba and Mirakhor (2007) who respectively confirmed the existence of equity premium puzzle.

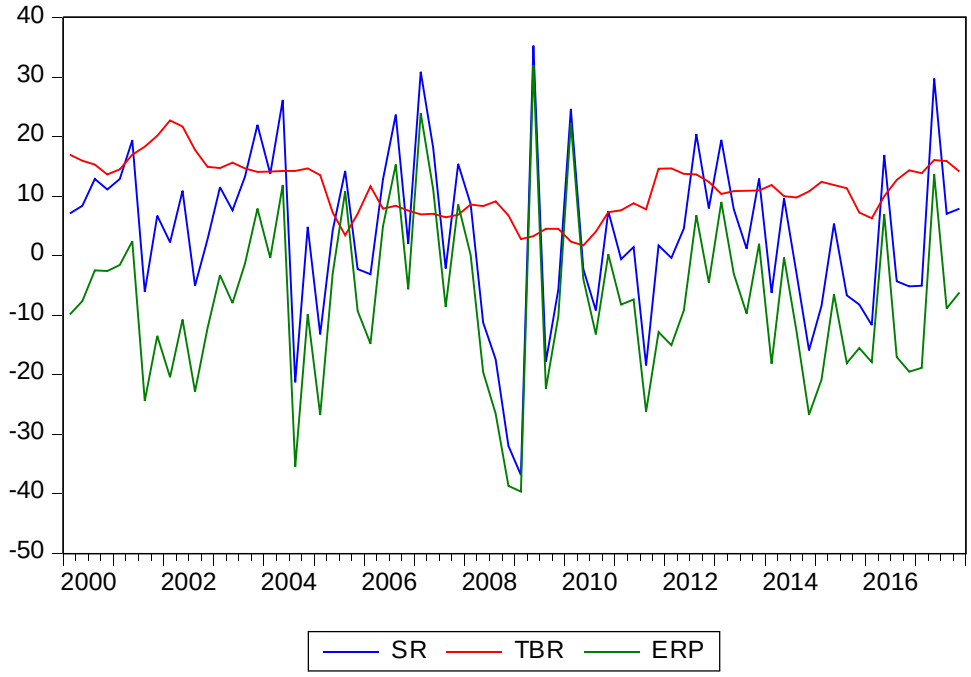
Table 4.2: Johansen Multivariate Cointegration Tests Results.

		Trace Test				*Maximum Eigenvalue Test*		
Variable	Null Hypothesis	Test Statistic	Critical Value	Prob.	Null Hypothesis	Test Statistic	Critical Value	Prob.
ERP= SR	r = 0*	17.15303	15.49471	0.0279	r = 0*	13.71228	14.26460	0.0610
	r = 1	3.440747	3.841466	0.0636	r = 1	3.440747	3.841466	0.0636
ERP = TBR	r = 0*	17.15301	15.49471	0.0279	r = 0*	13.71229	14.26460	0.0610
	r = 1	3.440717	3.841466	0.0636	r = 1	3.440717	3.841466	0.0636

Source: Author's computations 2018.

Now, Judging from the point of view of the graph in figure 1 below, one can vividly see or pinpoint at an intervals within the quarterly data from 2000Q1-Q4 to 2017Q1-Q4, the existence or non-existence of equity risk premium puzzle (ERP).Indeed, ERP was only found to exist in 2001Q2, 2003Q4, 2004Q2, 2005Q3, 2006Q2 and Q3, 2007Q1Q2 and Q4, 2008Q1, 2009Q2, 2010Q1 and Q4, 2012Q3, 2013Q1 and Q4, 2016Q2 and 2017Q2 respectively. The implication of this is that, these were the only 18 periods out of a total of 72 periods observations where total equity returns were in excess (higher than) the total returns from Treasury bill rate (risk-free rate). This can be notice from the graph in figure 1 where the Blue line (representing SR) cut across the Red line (representing TBR). It therefore follows that, the rest 54 periods (i.e. 72-18 = 54) were periods in which the Treasury bill rate (risk-free rate) consistently outperformed total equity returns. Also, the returns from Treasury bill rate (risk-free rate) was less volatile and fairly stable across the period, while those of equity returns were more volatile, with higher amplitude of 35.31000percent and lower as -36.88000 percent. Thus, with these results, we conclude that equity risk premium puzzle (ERP) does not exist in the Nigerian Capital Market in the period under consideration.

Figure 1: Graph of Equity Risk Premium Puzzle



Again, a close study of the above graph revealed that there was actually a puzzle between 2006 and 2008Q1 pro to the global financial crisis of 2008. In these periods, equity return consistently outperformed risk free rate return/treasury bill rate. Infact, the ERP was highest in 2007 with an average return of 23.98%. However, during the period of the financial crisis, equity risk premium completely disappeared. This means that, the global financial crisis seriously had negative effect on equity risk premium and thus, eliminated any signs of a puzzle in the Nigerian capital market.

One probable reason for the above scenario might be that, the period of financial crisis was considered as a highly volatile or risky period for any meaningful investment. Hence, investors who usually prefer safe investment environment decided to make a u turn to treasury bills whose rate was encouraging and considered to be almost zero risk free rate. Thus, at the very height of the financial crisis, there was a strong demand for treasury bills as people looked for it. The increased demand resulted in increased treasury bills prices and, therefore, decreased real equity rate returns. This finding was also corroborated by the study of Grétarsson&Snorrason (2011) for the US and Iceland.

Conclusion and Policy Recommendations

The study empirically examined the equity risk premium puzzle in the Nigerian context for a period of 18 years (2000Q1 to 2017Q4). Equity All share index in the Nigerian Stock Market (ASI) and the Nigeria Treasury Bill Rate (TBR) from 2000Q1 to 2017Q4 were used to ascertain the existence or otherwise of equity risk premium puzzle. The All share index return was measured as the log of current price index as a ratio of lagged price index. Using the cointegration econometric technique and statistical tools such as descriptive statistics and graphs/charts, the empirical results generally reveal that equity risk premium puzzle does not hold in the Nigerian capital market within the period of

investigation. This was specifically confirmed by the descriptive statistics results where the ERP was -7.531528. It was observed that Nigerian Treasury Bill Rate (TBR)consistently outperformed equity stock return across most of the quarters.The result of both cointegration tests also revealed that only the Trace test indicates any form of cointegration between the pairs; but the Max Eigenvalue test however shows no cointegration between the variables in both tests (Trace test and Eigenvalue test). The outcome of the results are therefore rather inconclusive, suggesting that generally long run co-movements cannot be established between returns/risk-free rate and ERP. Thus, the ERP cannot be confirmed in the study in Nigeria.

Policy Recommendations

On the basis of the findings from this study, the following recommendations are made for policy direction:

Firstly, Proper understanding of the policy implications of differences in investor's preferences and behaviours with respect to investment decisions is very important in this direction. The reason being that, it can help in the design and development of the Nigerian stock market regulations in the area of new financial products. Thus, appropriate policy that will take into account these differences in investor's preferences and behaviours should be vigorously pursued.

Secondly, since the shallow nature of the total number of the Nigerian equity listing, sectorial market concentration coupled with the high level of risk aversion as demonstrated by investors who generally preferred Treasury bill instruments to those of equity investments accounted for the non-existence of equity risk premium puzzle (ERP), market regulators must formulate the right policies that will help deepened the current structure of the market such that it can attract more investors and thus minimize investors' fear.

Finally, the high level of risk aversion by Nigerian investors in the studyis a clear indication of the volatile nature of the Nigerian Security Market. The presence of volatility leading to investor's risk aversion also potent loss of confidence in the market. Therefore Nigerian market regulators must wake up and be alive to their responsibility by ensuring that volatility in the market is reduced to the barest minimum and confidence evaporation restored. It is only then and then, there could be a shift from treasury bills investment back to equity investment, and subsequently, the existence of ERP in the country.

Suggestions for Further Studies

Thus, this study, in line with the submission of Park and Kim (2009) in South Korea, provides two main areas of policy concern with respect to the future and suggestions for further studies. First, we need to wait for more years until more data are added to have more observations in Nigeria. This is true because the history of equity returns data is very short in Nigeria when compared with that of the US and other developed economies; and the time span during which we have reliably collected data is even shorter. Hence, analyzing with a large sample size may add to the credibility of the study.

Secondly, aggregate consumption and consumption based asset pricing model could be employed as an alternative means to resolve the ERP in the Nigerian context. According to Park and Kim (2009), a

better understating of consumption behaviour will help resolve the equity premium puzzle and understand other asset market phenomena since asset pricing theory says that returns of any assets are determined through the relation to consumption and how much they contribute to consumption smoothing.

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CAPITAL MARKET INDICATORS AND ECONOMIC GROWTH

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Abstract

This work investigates the impact of Nigerian Stock Market performance on the economic growth of Nigeria using a 36-year time series data from 1981-2016. The study measures the relationship between stock market developments indices and economic growth.The dependent variable of the study was proxy by GDP while the independent variables were proxy by Aggregate bank lending (adopted as a proxy for financial intermediation), Market Capitalization (adopted as a proxy for market development) andturnover ratio (adopted as a proxy for market liquidity) and Inflation rate (adopted as control variable). The ADF test was employed for stationarity of data and the Multiple regression was used in analyzing the time series data. GDP was stationary at I(I) whereas all the independent variables were found to be stationary at I(0), results from the co-integration test show a T-value of 103.63 with significant value of 0.0129 showing that a long-run relationship exist between the dependent and independent variables. While in the short run, a 12% with 5% significance ECT value proved that there is a low speed of adjustment after shock and that ABL, MC and TR are the short-run adjustment mechanisms. Thestudy reveals that the capital market has impacted on economic growth of Nigeria via aggregate bank lending, market capitalization and turnover ratio. As it was observed thatAggregate bank lending, Market Capitalization, and Turnover Ratio played a significant role towards spurring economic growth in Nigeria. Therefore, the study recommends that the CBN should implement measures so as to encourage banks to improve in their financial intermediation and also to set the interest rates at a low level so that the public can afford to take loans from the banks without a high interest rate which will lead to growth through the real sector.

Introduction

The Nigerian economy like many is divided into so many sectors, these sectors include different ministries, government institutions and parastatals which are expected to enhance the economic well-being of its citizens. To be sustainable, economic growth must be constantly nourished by the fruits of human development such as improvements in workers' knowledge and skills along with opportunities for their efficient use: more and better jobs, better conditions for new businesses to grow, and greater democracy at all levels of decision making. Economic growth is one of the most pressing issue that require a concerted effort between businesses, government and society. Over long periods of time, economic growth comes mainly from one source: productivity, the value of goods and services each worker can produce in a unit of time. In turn, productivity comes from new ways of doing things: New ideas, new inventions, new products, new processes, new technology; new ways of organizing

companies; new and better skills among workers. Financial systems also contribute to economic growth by providing funding for capital accumulation and by helping the diffusion of new technologies.The capital market by the nature of its activities is among the most heavily regulated financial sector in both developed and developing economies (Sa'eedu, 2014). Globally, the stock market status gives a clear picture of the level of soundness of a country's economy, as it measures how stable a country's economy is to the extents that a stable economy may rely upon it. Osaze and Anao (1999) opined that, the cornerstone of a financial system anywhere is the capital market since it helps to provide the needed funds for financing businesses, economic institutions and activities, and also some of the government programs. Capital market as a vehicle for channeling investment opportunities played a vital role in achieving greater economic activities in Nigeria. Its major role is identifying alternative sourcing to where capital is lagging (Salmanul-farisi, 2013).

The formation of capital consists of savings that are accumulated out of either individual's current incomes or organizations current incomes (Sa'eedu, 2014).In other to achieve growth in an economy savings have to be allocated by way of identifying entrepreneurs first, and then funding them with the clear intention of the implementing newly invented products and new processes of production. This process is done only through financial intermediation, and this financial intermediation will only be possible if there are instruments as well as financial institutions such as banks and other not bank suppliers of loan (financial institutions that are well-developed, mortgage lenders and financial companies) in place, working together with a common purpose of promoting growth and development in an economy (Abu & Anthony, 2013).). The banking system remains an engine of growth in Nigeria being the supplier of credit which lubricates the economy's engine of growth by intermediating between the surplus and deficit savings unit, within an economy, banks mobilize and are expected to facilitate efficient allocation of national savings thereby providing the potentials for increasing the quantum of investment and hence national output. The present crisis of the Nigerian economy, and its persistence has forcefully raised the issue of what is fundamentally wrong with it. Despite the huge amount of domestic resources, both human and material, which Nigeria is endowed with, the poverty and suffering of the overwhelming majority of the people are intensifying.

Unemployment is growing higher leading to increase in poverty and hunger. One of the disastrous causes of this seems to be mismanagement, the adverse consequences which has befallen most Nigerians and future generations are likely to meet the same condition if present trends persist. looking back into the past, it could be observed that this present situation should not be our national and inevitable fate. Globally, business financing has become a major concern for both new and existing businesses especially with the tightening of both local and international financial markets, and the reluctance of investors to invest their funds in the capital markets. The Nigerian economy, which depends mainly on crude oil exports is moving slowly as a result of downfall in the prices of crude oil in the international markets (Saee'du 2014). Does this means that the stock exchange market has no impact to the economy of Nigeria? For this reason, researches have been undertaken to examine the impact of the capital market in financing these businesses which will lead to growth in the economy. Several studies to investigate the impact of the capital on economic growth have been undertaken, such as (Adamu & Sanni 2005, Abu 2009, Adegbaju& Henry 2008, Godwin 2012, Kolapo & Adaramola 2012, Khadijat, Fatima, Abdulrasheed & Sulu 2013, Edirin 2013, Echekoba, Gideon &chinedu 2013, Aigbovo 2014, Zainab 2015, Okoye, Nwanne & Taiwo 2016, Werema & Nikipula 2016, Hoque & Yakub

2017, Azubike 2017. But the scope of most of these literatures were before the global financial crisis, some are immediately after the global financial crisis while some are immediately before and after the Nigerian stock market crash. Stock prices on the stock market are continually changing on daily basis, for this reason time has passed and we cannot confidently rely on the results and recommendations of these past literatures because a lot of changes have taken place as a result of passage of time. As a result of passage of time, this study has also identified a gap called "time gap" to be filled by this research work.

The capital market played an important role when deposit money banks were obliged to raise a capital base of 25 billion naira, only the capital market came to their aid by raising shares for the public to take part of ownership in the banks. For this reason, the commercial banks are now part of the capital market, this paves another hole for this study to introduce another variable which literatures did not fill

Another important issue is during estimation and analysis process, considering the fact that the data for a macro study is a time series data, various studies such as Ohiomo & Godfrey (2011), Odetayo (2012), Alajekwu & Achugbu(2012), Abdul-khaliq 2013, Afolabi 2015 tend not to go for stationary test of the data employed before interpreting the ordinary least square statistics, while some of the studies such as,Odetayo (2012), Osuala, Okereke & Nwansi(2013), Jafer& Inoue (2014), Aighbovo & Andrew (2015), stop only at estimating the long run and short run causality test. This is another reason for scholars like the researcher of this current work to fill this gap.

The problem to be addressed by this study firstly, is to fill the time gap that previous studies did not. Secondly, is the introduction of a new variable which previous studies did not. Lastly is to fill the methodological gap which combine the long run and short run analysis that a lot studies did not. The main objective of this study is to investigate the impact of the Nigerian capital market performance on the economic growth of Nigeria. This will be achieved through the following specific objectives;

i. To determine the extent to which aggregate bank lending influence the Nigerian economic growth.
ii. To examine the effect of market capitalisation on the Nigerian economic growth.
iii. To evaluate the impact of stock market turnover ratio on the Nigerian economic growth.

been formulated in null form;

H_{01} Aggregate bank lending has no significant impact on the economic growth in Nigeria.

H_{02} Market capitalization has no significant influence on the economic growth in Nigeria.

H_{03}Stock market turnover ratio has no significant influence on the economic growth in Nigeria.

This study focuses on the Nigerian economy and the Nigerian stock exchange. The period of the study is 36 years (1981-2016). The dependent variable in this study is the Nigerian economy which is proxy by gross domestic product. The independent variable is the performance of Nigerian Stock exchange which is proxy by Aggregate bank lending, market capitalization and turnover ratio. The chosen dependent variable was adopted from the study of Abdul-khaliq (2013) while the independent variables market capitalization was adopted from the study of Kolapo & Adaramola (2012), the turnover ratio is adopted from the study of Uchenna, Nwanneka, Taiwoand Okorie (2016) whereas the Aggregate bank lending is a new variable that is introduced by this research work.

The findings of this study will be relevant to the following: Firstly, in terms of policy and practice, the security and exchange commission and CBN will use the findings of this research work when setting

policies that will be in favor of both the Nigerian economy.Recommendations fostered by this research work will assist the policy makers such as securities and exchange commission and Central Bank of Nigeria in making the right decision.

Furthermore, this study will also serve as information to investors on what is happening with their investments, it will aid investors when faced with decision problems; it will further benefit researchers (scholars) by serving as an evidence of the impact of Nigerian stock exchange on economic growth of Nigeria; It will further serve as an addition to the huge amount of literature undertaken by various scholars; It will serve as a guide to students of research when doing their research works; it will also serve as a platform for further research by scholars and academicians.

Literature Review

According to Al-fakhi (2006), the capital market is a network of specialized financial institutions, series of mechanisms, processes and infrastructures that in various ways facilitate the bringing together of suppliers and users of medium to long-term capital for investment in economic development project. Several attempts have been made to link the growth of capital market with the economy by previous research works. Levine (1991) has argued that the stock market development reduces both liquidity shock and productivity shock of businessmen to invest funds as well as enhancing the production capacity of the economy, thereby leading to higher economic growth. In the study of Bencivenga et al (1996), they concluded that a highly developed financial market (stock market) induces long run economic growth.

The real sector is the main driving force that moves the economy of every nation. It is the engine of economic growth and development. The real sector depends heavily on the banking sector for the provision of the required funds needed for investment purpose. Akinbohungbe (1996) and Adebiyi (2005) have argued separately that the capital market is very vital to the growth, development and strength of any country because it supports government and corporate initiatives, finances the exploitation of new ideas and facilitates the management of financial risk. The stock market is viewed as a complex institution imbued with inherent mechanism through which long-term funds of the major sectors of the economy comprising households, firms, and government are mobilized, harnessed and made available to various sectors of the economy (Nyong,1997). The development of the capital market, and apparently the stock market, provides opportunities for greater funds mobilization, improved efficiency in resource allocation and provision of relevant information for appraisal (Inanga&Emenuga, 1997).

Gary and Andrew (2002) made an attempt to investigate on Financial Intermediation in Nigeria. In their opinion, the savings/investment process in capitalist economies is organized around financial intermediation, making them a central institution of economic growth. Financial intermediaries are firms that borrow from consumers/savers and lend to companies that need resources for investment. In contrast, in capital markets, investors' contract directly with firms, creating marketable securities. The prices of these securities are observable, while financial intermediaries are opaque. They focus on the role of bank-like intermediaries in the savings-investment process. They also investigate the literature on bank instability and the role of the government. Finally, the study concluded that the Nigerian economy is enhance through financial intermediaries. This study is a pure explanation with no statistical inference.

Christopolousand Tsionas (2003) investigated the long run relationship between financial depth and economic growth, utilizing the time series data via panel unit root tests and panel co-integration analysis. In addition, they used threshold co-integration tests, and dynamic panel data estimation for a panel-based vector error correction model. The long run relationship was estimated using fully modified OLS. For 10 developing countries, the empirical results provide clear support for the hypothesis that there is a single equilibrium relation between financial depth, growth and ancillary variables, and that the only co-integrating relation implies unidirectional causality from financial depth to growth.

Alade (2010) investigated the impact of stock market performance on the growth of Nigerian economy. The study is an examination of the impact of the performance of Nigerian stock exchange on the economic growth of Nigeria from 1980-2010. An econometric methodology was applied as a tool of analysis. Considering the phenomenon under study, the ordinary least square was used as estimation tool because he believes it has advantages over other estimation techniques. The dependent and independent variables of the study are Gross Domestic Product, Market capitalization, Investment, Exchange rate and Interest rate. The result of the study revealed that the market capitalization is statistically significant at 95 percent significance level. The coefficient of multiple determination also revealed that variation in the dependent variable is 99% caused by the explanatory variables variation. The conclusion of the study is that the market capitalization is positively contributing to the Nigerian gross domestic product.

Nazir, Nawaz and Gilani (2010)attempted to examine the relationship between economic growth and stock market development in Pakistan for the period spanning 1986 to 2008. They examined the stock market development and economic growth relationship using the two major measures of stock market development, which are size and liquidity of the market. The economic growth was proxied by GDP per capita while stock market was proxied by FDI as % of GDP, Human development index of Pakistan, Market Capitalization, Total value of traded shares. Firstly, the study interpreted the descriptive statistics and then went ahead to test for stationarity of the data employed and finally the study went ahead to interpret the OLS analysis. The result of the study revealed that economic growth can be attained by increasing the size of the stock markets of a country as well as the market capitalization in an emerging market like Pakistan.

Okwu (2011) examined the impact of stock market development and economic growth in Nigeria for the period spanning from 1981-2008. He employed the multiple regression analysis model which was specifically on the basis of a functional hypothesized relationship between stock market development and economic growth. He proxied ratios of value of shares traded, market capitalization, gross capital formation and foreign private investment as capital market development indicators, gross domestic product were used as proxy for the explanatory variables, while growth rate of gross domestic product was proxied as the dependent variable. Results of the study revealed that market capitalization, gross capital formation, and foreign private investment exerted statistical significant impact on economic growth individually, value of shares traded exerted a positive but statistically insignificant impact on economic growth.

Biyan (2012) identified the role of Stock market to economic growth in Tanzania. To obtain the desired data, the study used a triangulation and descriptive research case study. The population intended used

for the study was chosen from stakeholders group of DSE from four categories which are; regulatory bodies representatives, corporate organization representatives, stock brokers and analyst, shareholders and investors. The sample size was 100 stakeholders from the four categories of DSE. Data collected was analysed with the assistance of the SPSS. The findings of the study revealed that both market capitalization and value of share traded have a small contribution to economic growth of Tanzania. The findings further revealed that the challenges which causes a drawback to the growth of DSE are lack of liquidity, low market capitalization, poor macro-economic high transaction costs, lack of adequate track – openness, lack of skilfully human resources, and lack of public awareness of DSE.

Ogechukwu and Chinyere (2013) investigated the impact of capital formation on economic growth in Nigeria. Data for the study were extracted from secondary source. To assess the impact of capital formation, the study employed Ordinary least square (OLS) technique. Phillip-perron test was used to confirm for the stationarity of the time-series data, Johansen co-integration test was applied to determine the order of integration while the speed of adjustment to equilibrium handled by ECM. The findings of the study discovered that capital formation has a positive and significant impact on growth process in the Nigerian economy. Whereas, security market showed a positive impact, while rate of inflation and rate of interest exerted a negative impact the growth process in the Nigerian economy for the period of the study, although the impact was statistically insignificant. The results showed that a long run relationship exist between capital formation and economic growth in Nigeria.
Thullah (2014) examined National Stock Exchanges (NSE) and National Economic Development in war-affected and disaster-stricken economies in the Sub-Saharan Africa. A panel data for thirty (30) SSA economies (1981-2012), comprising of selected macroeconomic variables viz: “Gross Domestic Product, Economy-wide Stock Capitalization and Economy-Wide Stock Monetization” was used to resolve the question “Does a formidable NSE enhance national economic development? Whilst the VAR was used to demonstrated co-movement within the short and long-run dependence, the PLSR technique evaluated structural dynamics amongst the variables.Both the VAR and PLSR affirmed a positive relationship between economic growth (GDP) and the variables Nation-wide Market Capitalization and Economy-Wide Stock Monetization. This result implies that, Nation-Wide Market Capitalization and Economy-Wide Monetization contributes to national economic development.

Afolabi (2015) empirically examined the impact of stock market on the economic growth of Nigeria spanning a period from 1992 to 2011. The stock market (independent variable) was proxied by Market Capitalization against some of the economy variables such as GDP, FDI, Rate of inflation, Total New Issues, Value of Transaction and Total Listed equities. Multiple regression analysis was adopted, the study found out that Capital market has an insignificant impact on the economic growth of Nigeria within the period of the study under review. The study failed to go for stationary test for the data employed, it also failed to take into cognizance market liquidity variable as part of the independent variables of the study, the turnover ratio or stock market traded ratio was supposed to be picked.

Nageri and Nageri (2015) studied the joint impact of capital market and corruption on Economic growth and development in Nigeria, using the Co-integration and VECM Analysis. GDP is the variable for the Nigerian economy, while market Capitalization of the Nigerian Stock Exchange and Corruption Perception Index on Nigeria are the independent variables of the study. The data covered a period of 16years (1996-2012). Results showed that market capitalization, corruption perception index and gross domestic products in Nigeria have long run relationship but has no short run relationship.

Uchenna, Nwanneka, Taiwo and Okorie (2016) examined the relationship that existed between stock exchange market development and economic growth utilizing a time series data from 1981 to 2014 on the dependent variable (economic growth) proxied by gross domestic product and the independent variable (stock exchange market) proxied by market capitalization, value traded ratio and turnover ratio. The vector error correction model was employed to take care of the short run dynamics of the study while the granger causality test was also employed to take care of the long run relationship of the variables. The results of the study revealed that market capitalization ratio and turnover ratio have a significant negative effect on economic growth in the short run (GDP) whereas in the long run, a positive impact is affirmed from value traded ratio as well as negative effect on rate of inflation on gross domestic product although it was not significant. In the long-run estimation, all the exogenous variables showed a significant negative effect on gross domestic product and that more than proportionate change in gross domestic product is achieved as a result of changes in market capitalization, value traded ratio and turnover ratio. The result from granger causality test revealed that a causal impact between market capitalization, value traded ratio and turnover ratio on gross domestic product exist.

A very recent study conducted by Azubike (2017) to look at the impact of the Nigerian security market on growth process in Nigeria spanning from 1981-2011. The economic growth (dependent variable) was proxied by GDP. Nigerian security Market (independent variable) was proxied by market capitalization. The study applied the ordinary least square (OLS) estimation method in order to avoid a spurious regression result, heteroscedasticity and autocorrelation covariance was also applied. The ADF unit root test was carried out to confirm for the stationarity of the time-series data. Results of the study revealed that the market capitalization, rate of interest, total number of listed securities, variety of deals and also the worth of foreign direct investment satisfy the economic apriori expectation of the study whereas the total number of issues and the value of deals was the opposite of the study apriori expectation. The stationarity checks revealed that the variables employed were all stationary at I(1) first difference. The ADF test showed a long-run relationship among the variables within the model of study. However, the time scope of the study is limited to 2011 which makes it obsolete and the analysis of the data employed by the study does not satisfy the time series data conditions as described by (Levine and Zervos 1996).

Methodology

This study investigates the impact of the stock market performance on the economic growth of Nigeria. This chapter describes the research method adopted in conducting the research. It presents logical information on procedure for the collection of data, techniques of data analysis, variable measurement and justification of method and technique.

Research Design

In an attempt to investigate the impact of the NSE on the growth of Nigerian economy, correlation and ex-post facto research designs have been adopted for the purpose of this study. The correlation research design is adopted because it makes it possible for the exploration of the relationships that exist between two or more variables

This study used secondary data collected over a period of 36 years from 1981- 2016. All the data were sourced from the Central Bank of Nigeria (CBN) statistical bulletin and National Bureau of Statistics.

In attempt to investigate the impact of the NSE on growth of the Nigerian economy which has the ultimate aim of improving the standard of living of an average Nigerian by increasing their income, this study applied the multiple regression technique

Model specification

$GDP_t = Bo_t + B_1ABL_t + B_2MC_t + B_3TR_t + B_4INF + U$

Where:GDP= Gross Domestic Product

ABL = Aggregate Bank Lending

MC = Market Capitalization

TR = Turnover Ratio

INF = Inflation rate (control variable)

= Constant

S/N	Variables	Measurement
1	Gross domestic product	This is the total money value of all final goods and services produced within the geographical boundaries of a country during a specified period of time, usually a year minus investment in other countries (CBN statistical bulletin, 2013). GDP = C + I + G + (EX – IM).
2	Aggregate bank lending	This is the total of bank lending to the real sector only (Abu & Anthony 2013).
3	Market capitalisation	This is the total value of all equity securities listed on the stock exchange.Current quoted price of shares multiplied by number of outstanding shares (Godwin, 2010).
4	Turnover ratio	This is the value of total traded shares divided by stock market capitalisation multiplied by 100 (Godwin, 2010).

Source: Author compilation of various literature definitions

Robustness Tests

In order to improve the validity and reliability of this study's findings, the following robustness test was conducted.

Unit Root Test: The pre-requisite for every time series data analysis is the stationary test. Thistest is conducted in order to ascertain the stationary of the time series data that is employed. To determine whether the variables are stationary or otherwise Augmented Dickey-fuller test is employed.

Theoretical framework

Based on the nature of this study, the theoretical framework intended to be used are; the Efficient Market Hypothesis (EMH) and Solow-swan growth theory.

Efficient Market Hypothesis which was developed by Fama in 1965 and used by Ewah, Sang and Bassey (2009) states that financial markets are efficient or that the prices on traded assets have already reflected all known information about the market, and therefore is unbiased because they

represent the collective beliefs of all investors about future prospects of the capital market. The theory points out that information about stock prices on the market floor is a very important factor that motivates investors because without information investors will not be able to monitor the developments in the stock market i.e investors (both existing and prospective) rely heavily on information that is provided about the stock market. The perception of investors, regulators, government and other interested parties is influenced by the available information they receive. This theory sets to explain the importance of information and that information should always be disclosed, information should be made available, information should be real and genuine, information provided should reflect the true nature of the market and there should be convenience and ease of acquiring the information.

The neoclassical growth theory which is also known as the Solow-Swan growth theory and exogenous theory of growth which is a long-run class of economic growth model. This theory of growth tries to identify the long-run economic growth through productivity, capital formation, growth in population and progress in technology (Solow & Swan, 1956). This theory of growth was propounded independently by Robert Solow and Trevor Swan in 1956 and over-rides all other theories of growth at that time such as the post Keynesian Harrod – Domar growth theory. Due to its mathematical characteristics attractiveness, the Solow-Swan theory of growth has proven to be a convenient point of start for numerous theories of economic growth. However, for the purpose of this research work, the neo-classical theory of growth has been utilised. This is known by the reason that the Endogenous theory of growth links human capital, stock market and innovation to accelerate economic growth unlike the exogenous theory of growth that puts much effort only on production and not on the growth of economy.

Data Presentation and Analysis

This section presents and discusses the results of data analysis that was conducted using both descriptive and inferential statistics. The descriptive analysis was carried out using summary statistics and correlation matrix while inferential analysis was carried out using the VECM (Vector Error Correction Model)Unit Root test, Johansen Co-integration test and Granger Causality test. Hence, the unit root test is a pre-requisite for co-integration, the reliability of the empirical results is assured.

Stationarity test

the pre-requisite for every time series data analysis is stationarity test as identified by Engle & granger (1997). This test employed to ascertain the stationarity of the utilised time series data, to determine whether the variables are stationary or otherwise Augmented Dickey-fuller test was employed.

Table 1.1 Result of Stationarity test (ADF)

	D(LNGDP)	D(LNABL)	D(LNMC)	D(LNTR)
ADF Critical Values	-3.086830	-6.735269	-7.234059	-4.794926
Level	-3.639407	-3.646342	-3.646342	-3.646342
1st diff	-2.951125	-2.954021	-2.954021	-2.954021
2nd diff	-2.614300	-2.615817	-2.615817	-2.615817
Stationarity Status	Stationary	Stationary	Stationary	Stationary
Order of Co-integration	I(1)	I(0)	I(0)	I(0)

Source: Authors computation from E-views output

From Table 4.3 above, the result revealed that the variable GDP is stationary at 1st difference I (1), while, ABL, MC and TR are stationary at levels. In other words, GDP, ABL, MC, and TR are integrated at levels I(0) and first order I(1) at 1%, 5% and 10% critical levels. It is clear from the result that the null hypothesis which says the series is not stationary are rejected at their first differences since the ADF tests statistics values are greater than the critical values at 5% significance levels. Thus, these variables (GDP, ABL, MC and TR) are stationary and integrated of same order, that is, 1(1). It is therefore mean that all the variables have unit root at level but stationary at first difference. This indicate a long-run relationship exist between the variables and they are co-integrated at lags length.

Co-integration test

Since the data employed is a time series data, the co-integration test is conducted in order to ascertain the long-run relationship that exist between the variables of the study under review.

Table 1.2 long-run test

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.597820	103.6248	95.75366	0.0129
At most 1 *	0.534664	72.65576	69.81889	0.0292
At most 2	0.432813	46.64593	47.85613	0.0647
At most 3	0.343633	27.36569	29.79707	0.0930
At most 4	0.206341	13.05052	15.49471	0.1130
At most 5 *	0.141645	5.193085	3.841466	0.0227

Trace test indicates 2 cointegratingeqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The result of the Johansen co-integration results depicted in the table above contains the result for both trace and Maximum Eigen value. Both the trace statistic and the Maximum Eigen value shows two co-integrating equations, hence the included variables are co-integrated and has a long run meaningful relationship existing among them.

Summary

This study has successfully explained the nature and importance of the Nigerian capital market and its relation with economic growth. The study seeks to investigate the impact of the Nigerian Stock Exchange on the real sector by setting out a target objective which will assist in testing the stated hypotheses formulated in null form. The study focuses on Nigerian stock exchange and the Nigerian economy from 1981-2016. The study proxy the dependent and independent variables with Gross domestic product, Aggregate bank lending, Market capitalization, All-share index, total listing and Turnover ratio. This study is primarily significant to economic planners and investors in order to move the economy forward to improve the standard of living of its citizens. Finally, this study has been systematically designed into five chapters for a comprehensive understanding.

The findings of this study revealed that there is a long-run relationship between the dependent variable; Economic growth (Gross domestic product) and the independent variable; Nigerian stock exchange (Aggregate bank lending, Market capitalization, All-share index, Total listing, and Turnover ratio). The results of this study also showed that some of the variables adopted by this study are integrated of order, I (0) at 5 percent level of significance and some are integrated of order I (I). The result of the test of non-stationarity of the residuals from the statistic regression in the economic growth equation proves significant at 1% and 5% level of significance, and at lags 1 and lag 2. Therefore, the results concluded that all the variables are co-integrated.

The result of this study showed that Aggregate bank lending is positively and significantly influencing Gross domestic product, Market capitalization also has a positive influence, All- share has a positive insignificant influence, turnover ratio also has a positive and significant relationship, while Total listing has a negative but insignificant influence on the Nigerian gross domestic product. The result confirms that there is positive relationship between the gross domestic product of Nigeria and, market capitalization, all-share index, and turnover ratio. The relationship is statistically significant at 5% and 10% respectively.

Recommendations

In view of the findings and conclusions of this study, the following recommendations have been proffered:

i. The Central bank of Nigeria should encourage deposit money banks to improve in their financial intermediation role in the real sector by setting an affordable interest rates on loans taken by investors who do not have access to finance their businesses for both new businesses and existing entrepreneurs for expansion and modernisation. This will help to increase the quantum of production output in the country.
ii. The government with particular reference to the security and exchange commission should ensure that their proactive in their surveillance role is improved in order to check practices such as adhering to guidelines that have been laid by CBN as well as ensuring that there is transparency in corporate governance which integrity of the market depends on, so as to provide confidence to prospective shareholders and improve investors' confidence. This will encourage more individuals and companies to raise capital in the market.
iii. The stock exchange market should create an avenue through any of the trending media where people will be enlightened on the activities of the market. Most of local investors do not invest in the capital market because they may be ignorant on what the market constitutes and what it's meant for.

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DETERMINING BANK SIZE IN THE NIGERIAN BANKING INDUSTRY: A PRINCIPAL COMPONENT ANALYSIS APPROACH

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Abstract

Bank size has been numerously measured by regulators, practitioners, researchers and other industry watchers. These measurements are to a large extent depending on the nature of the research being undertaken. Although, theoretically there has not been any reason to prefer a particular measure of size, each of the measurements of bank size has its strengths and weaknesses. The study is aimed at examining the different measures of bank size used by studies in Nigeria to arrive to a general measure applicable to studies without distorting the result of the studies. Principal Component Analysis is used to reduce the different bank sizes to obtain a principal component of bank size in the Nigerian banking industry. We adopted four variables used as proxy for bank size, the variables include, market capitalisation, total assets, gross earnings and number of employees. The study found that all the four variables load highly on the principal components, indicating that all the variables significantly indicate the size of a bank in Nigeria. However, total assets and gross earnings were found to be the best measure of bank size in the Nigerian banking system.

Keywords: Nigerian banking industry, bank size, firm size, principal components analysis, PCA

Introduction

Major stakeholders in the banking industry have been interested in the size of banks. Regulators concerned with the stability of the banking industry, designate some banks as Systematically Important Banks (SIBs) also called 'Too big to fail banks'.One of the criteria for determining SIBs is the size of the bank. The banking public also used the size of banks to determine which bank is their funds safe, researchers used the size of banks either as explanatory or control variables. Investors and other industry watchers use bank size in categorization.

However, bank size has been numerously measured by regulators, practitioners, researchers and other industry watchers. These measurements are to a large extent depending on the nature of the research being undertaken. Although, theoretically there has not been any reason to prefer a particular measure of size, however, a particular measure may relate to a unique aspect of size (Cooke, 1992). Each of the measurements of bank size has its strengths and weaknesses, for instance, one of the most popular measures total assets, suffers from asset valuation problems and does not account for differences in bank's individual business models(Schildbach, 2017). Other measures like revenues (gross earnings), total loans, total deposits, equity, number of employees, market capitalisation, and number of branches have their strengths and weaknesses.

Schildbach (2017) grouped the different measures of bank size based on the users of such measure. Market/cashflow-based used by investors and shareholders includes market capitalisation, revenues and net income. Accounting based indicators including total assets, shareholders' equity, total loan and total deposits while regulator based indicators include CET1/Tier 1 capital and risk-weighted assets. Using any of these indicators can produce completely different results.

Studies in the Nigerian banking industry have used different measures of bank size as either explanatory or control variables. Notables among them are total assets(Kumai & Hussaini, 2015), gross earnings(Yusuf & Abubakar, 2017), market capitalisation (Yusuf & Abubakar, 2014), total deposits(Enendu et al., 2013), total loan(Enendu et al., 2013), total equity(Oke & Poloamina, 2012), number of employees (Eriki & Osifo, 2015) and number of branches (Nteegah, Udeorah, & Owede, 2017). Studies have found that data set with multiple variables measuring same indicator mostly move in the same direction. This is because more than one variable might be measuring the same indicator(The MathWorks, 2007).There is therefore, the need to determine which of these or combinations of measure of bank size is most appropriate by examining how correlated or uncorrelated they are. The study is aimed at examining the different measures of bank size used by studies in Nigeria to arrive to a general measure applicable to studies without distorting the result of the studies.

Firm Size Indicators

Every measure of firm (bank) size has their pros and their cons, it is also important to note that no measure can aptly describe the firm size (Dang, (Frank) Li, & Yang, 2018). The choice of a particular measure may depend on availability of data or/purpose of the specific study (Dang et al., 2018; Hart & Oulton, 1996; Prowse,1992). Dang et al., (2018) surveyed 100 top empirical papers in finance, accounting and economic journals and found that total assets, total sales and market value of equity are the three most popular indicators of firm size used. While some of the studies used a multiple measure others used only one measure, number of employees as an indicator was also found among the papers. They also found that only three of the papers used the absolute measure of the size indicator adopted while the remaining 97 used the log form, possible to correct for the high skewness in the data. Forbes Global 2000 uses assets, sales, profit and market capitalisation in ranking all large companies in the world, Fortune 500 on the other hand use only sales and profits (Dang et al., 2018).

Market Capitalisation as Bank Size Indicator

It is believed to be one of bank size indicators that is not distorted due to different measurement rules. It however, measures the firm's condition in the equity market majorly it success rather than size (Dang et al., 2018; Schildbach, 2017). The underlying economic strength and relevance of a bank can be ascertained, however, the measure can be exaggerated by valuing far above or far below fair value (Schildbach, 2017).

Total Assets as Bank Size Indicator

Total assets is the most popular measure of firm size used, in the banking industry, it is the most preferred measure adopted by regulators. It measures the firm resources, they are comparable, straightforward definition and sum up the volume of a bank's activities (Schildbach, 2017). It suffers

from valuation bias, especially for some category of assets. Technological advancement and the evolution of one branch made possible by the internet superhighway have reduced the need for branch expansion, thus has limited the size of assets banks own.

Sales as Bank Size Indicator

Total sales represented by gross earnings in the banking industry measures product market competition and market size (Schildbach, 2017). They are reliable, easily observable and are not subject of complex valuation models. It however, can be misleading for banks engaging in non-banking activities or banks engaging in high risk and high yield activities (Schildbach, 2017).

Number of Employees as Bank Size Indicator

Prior to the advancement of internet technology, retail banking is labour-intensive which requires an extensive branch network with its compliment of staff (Schildbach, 2017). However, banks in emerging markets still maintain a considerable number of staff to drive their business through extensive marketing handled by their staff. One of the arguments against using the number of employees is the increased use of part-time employees and the outsourcing of some functions hitherto done by staff employed by the banks (Dang et al., 2018).

Principal Components Analysis (PCA)

According to Arsoy, Arabaci, & Ciftcioglu (2012) PCA is a basic multivariate statistical analysis used to obtain a smaller number of independent linear combinations of a set of variables while retaining as much information as possible from the original set of variables. PCA is designed to reduce the data with large numbers of interrelated variables at the same time retaining the variation in the present data set. PCA transforms data to new set allowing the first few retain most of the variation in the totality of the original variables (Jolliffe, 2002).PCA is believed to have been created before the Second World War, but it application in the Natural and Social Sciences started during the “Quantitative Revolution” and was popularised with the development of computers for carrying out statistical analysis(Jolliffe, 2002).

The goals of PCA are the extraction of the most important information from the original data, reduce the size of the data by retaining only important information, simplification of the description of the data set and analysing the structure of the observations and the variables. This is done by ensuring that the first principal component has the largest possible variance (Williams & Abdi, 2010).

Empirical Studies Using PCA

van de Leur, Michiel & Andre (2016) used PCA to confirm the correlation of different systemic risk ranking methods. The study found that only the first two principal components account for about 85% of the variation in rank.Shittu, Ahmed, & Ishak (2015) employed PCA in reducing four equity valuation multiples (EVM) of selected firms listed in Malaysia and found that three components explain 99% of the total variance in the variables. In a study conducted by Delen, Kuzey, & Uyar (2013), 26 financial ratios were analysed using PCA to obtain 11 manageable and meaningful factors. Cheng, Hong, & Scheinkman (2010) used PCA to determine a price-based risk score by analysing market beta, return volatility and exposure to ABX. They found that the first principal component explains over 70% variation in the three measures. Using PCA on 36 structural measures of corporate governance, Larcker, Richardson, & Tuna (2007) found that 14 dimensions adequately measured corporate

governance. Min & Lee (2005) used PCA to reduce the number of multi-dimensional financial ratios to two factors.Canbas, Cabuk, & Kilic (2005) used PCA to determine the number of financial ratios to be included in their models, they found that of the 12 financial ratios analysed only three explaining 78.833% of the total changes of financial conditions could be used in the model.

Kritzman, Li, Page, & Rigobon (2010) applied PCA in estimating the fraction of total market variance explained by some specific and known number of factors. Bruce & Dash (2009)used both data envelopment analysis (DEA) and PCA to examine online banking performance and identify the operational orientation for banks in Taiwan. The PCA results showed that only two principal components have eigenvalue of more than one and explains 76.52% of the cumulative variance. Bushman, Chen, Engel, & Smith (2004) used PCA in summarising individual governance metrics by grouping them. Serrano-Cinca, Fuertes-Callén, & Mar-Molinero (2005) used PCA to identify the differences and similarities existing between firms in terms of the 21 DEA models of efficiency.

Methodology

The population of the study includes all deposit money banks quoted on the Nigerian Stock Exchange. The choice of quoted bank is to ascertain the market price of their shares. There are 15 quoted deposit money banks in Nigeria as at 31st December, 2017, a census of the population is adopted for our study. The study covers the period 2005 2016 that is, 180 firm year observation. The period was selected as it is the period after the previous consolidation reform in the banking industry, which significantly affected the size of almost all the banks.

Principal Component Analysis is used to reduce the different bank sizes to obtain a principal component of bank size in the Nigerian banking industry. We adopted four variables used as proxy for bank size,the variables include, market capitalisation, total assets, gross earnings and number of employees. Since most of the papers adopting the above measure of bank size used the log form (See Dang et al., 2018) we therefore used the log form for our analysis. However, we also used the absolute values of the proxies to examine whether they produce significant different components.

Results and Discussion

Principal components analysis with direct oblimin rotation was conducted to know how four bank size indicators are related. These variables include; market capitalisation (MKCAP), total assets (TOTAS), gross earnings (GRERN) and number of staff (NOSTF). The PCA was conducted on the log form and the absolute value of these variables to assess the whether there is a significant difference between the variables in their absolute form and their log form.

Variables	MKCAP	TOTAS	GRERN	NOSTF	Variables	LNMKCAP	LNTOTAS	LNGRERN	LNOSF
MKCAP	1				LNMKCAP	1			
TOTAS	0.5438*	1			LNTOTAS	0.5871*	1		
GRERN	0.4612*	0.9710*	1		LNGRERN	0.5188*	0.9699*	1	
NOSTF	0.4339*	0.6675*	0.6385*	1	LNNOSTF	0.5152*	0.7843*	0.7630*	1

Table I
Correlation Matrix
* significant at 1%

Table I above presents the correlation between the bank size indicators in their absolute and log form. The correlation matrix showed that TOTAS, GRERN and NOSTF have a strong positive correlation with each other with the relationship between TOTAS and GRERN showing a close to a perfect correlation. MKCAP on the other hand showed a positive, but moderate correlation with the other variables. The same pattern is recorded in the correlation matrix of the log form of these variables. This indicates that the four variables selected for the analysis are correlated, thus, satisfying one of the underlying assumption for PCA. It also indicates that both the absolute values and the log form are similar, although, the correlation coefficients of the log form are generally higher than those of the absolute form.

Bank Size in Absolute Value				Bank Size in Log Form			
Factor	Eigenvalue	Proportion	Cummulative	Factor	Eigenvalue	Proportion	Cummulative
Factor1	2.88029	0.7201	0.7201	Factor1	3.05760	0.7644	0.7644
Factor2	0.63624	0.1591	0.8791	Factor2	0.57719	0.1443	0.9087
Factor3	0.45889	0.1147	0.9939	Factor3	0.33467	0.0837	0.9942
Factor4	0.02457	0.0061	1.0000	Factor4	0.03054	0.0076	1.000

Table II
Total variance explained by eigen value

From table II above, only one factor in both categories has eigen values greater than one. In the log form, this factor accounts for 76.44% of the variation in the components while 72.01% variation in the components was recorded for variables in their absolute form. This implies that 76.44% and 72.01% of bank size will be accounted for by the first principal components respectively. This also means the first principal components will explain about 76% and 72% of the total variance in bank size indicators.The other three factors contribute 24% and 28% respectively in explaining the total variance in bank size indicators. This indicates that all the four variables explain the total variance in bank size.

Table III
Factor Loading

Bank Size in Absolute Value		Bank Size in Log Form	
Variables	Factor1	Variables	Factor1
TOTAS	0.9549	LNTOTAS	0.9582
GRERN	0.9263	LNGRERN	0.9356
NOSTF	0.7988	LNNOSTF	0.8594
MKCAP	0.6872	LNMKCAP	0.7249

From the factor loading presented in table III above, all the variables loaded positively. Both the log form and the absolute values showed that all the variables loaded strongly on the factor. In both cases, total asset has the highest loading, closely followed by gross earnings then number of staff. Market capitalisation recorded the lowest loadings among the four variables in both the log form and the absolute value. However, the loadings in the log form are higher than loadings in the absolute form,

indicating that the log form of the four variables are more representative of bank size than the absolute value.

Table IV
Kaiser–Meyer–Olkin (KMO) and Bartlett's test results.

Bank Size in Log Form			Bank Size in Absolute Value		
Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0.733	Kaiser–Meyer–Olkin Measure of Sampling Adequacy		0.670
Bartlett's Test of Sphericity	X^2	578.029	Bartlett's Test of Sphericity	X^2	552.638
	Degree of Freedom	6		Degree of Freedom	6
	Significance	0.000		Significance	0.000

We adopted KMO to check for the adequacy of sample size. From the results presented in table IV, KMO for the log form was 0.733 while that of the absolute value was 0.67. KMO values between 0.7 and 0.8 are said to be good, those between 0.8 and 0.9 are said to be great, while values above 0.9 are superb. However, KMO values greater than 0.5 are considered okay(Kaiser, 1974). The KMO values for the two categories of bank size indicate that the sample size of the data used in this study is adequate enough to be used in factor analysis.

Bartlett's Test of Sphericity was used to determine whether the correlation matrix is not an identity matrix and that meaningful factors will be obtained for the factor analysis. The test results in table IV, showed a significant p-value as $p < 0.01$. This indicates that the correlation matrix is not an identity matrix, thus, has significant correlations among the variables. The results obtained from the two tests above implies that the data used is adequate and sufficient to carry out a factor analysis procedure.

Conclusion

PCA is aimed at reducing data with related variables by transforming the data to a new set while the retaining most of the variation in the totality of the original variables. The study examined four variables of market capitalisation, total assets, gross earnings and number of staff as indicators of bank size. The study found that all the four variables load highly on the principal components, indicating that all the variables significantly indicate the size of a bank in Nigeria. The implication of this is that, using either of the four variables as an indicator for bank size in Nigeria will not significantly affect the results. However, total assets and gross earnings recorded the highest loading indicating that they are the best measure of bank size in the Nigerian banking system.

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Appendix

	mkcap	totas	grern	nostf
mkcap	1.0000			
totas	0.5438*	1.0000		
	0.0000			
grern	0.4612*	0.9710*	1.0000	
	0.0000	0.0000		
nostf	0.4339*	0.6675*	0.6385*	1.0000
	0.0000	0.0000	0.0000	

```
. factor mkcap totas grern nostf, pcf
(obs=160)

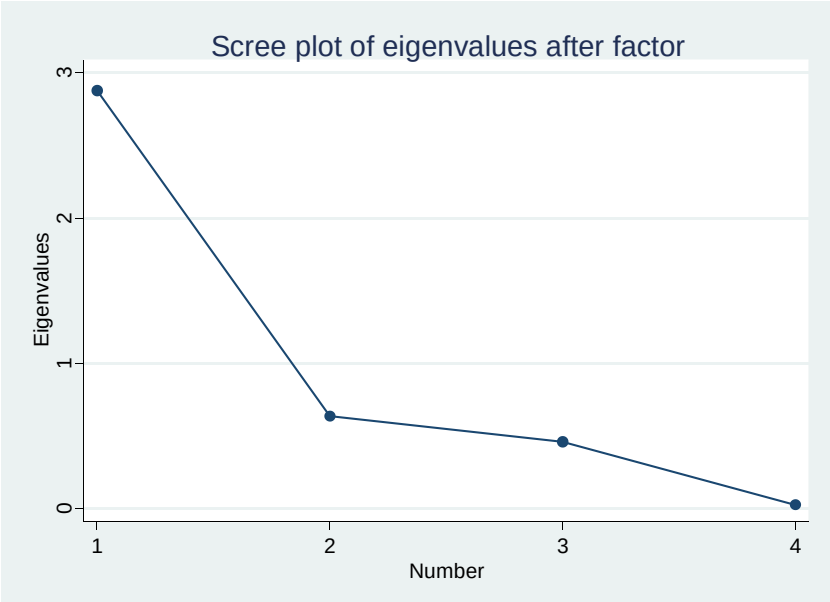
Factor analysis/correlation                      Number of obs    =        160
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	2.88029	2.24405	0.7201	0.7201
Factor2	0.63624	0.17735	0.1591	0.8791
Factor3	0.45889	0.43432	0.1147	0.9939
Factor4	0.02457	.	0.0061	1.0000

```
    LR test: independent vs. saturated:  chi2(6)  =  612.28 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
mkcap	0.6872	0.5277
totas	0.9549	0.0882
grern	0.9263	0.1420
nostf	0.7988	0.3619




```
    Determinant of the correlation matrix
    Det                 =     0.018


    Bartlett test of sphericity

    Chi-square          =           552.638
    Degrees of freedom =                  6
    p-value             =             0.000
    H0: variables are not intercorrelated


    Kaiser-Meyer-Olkin Measure of Sampling Adequacy
    KMO                 =     0.670
```

	lnmkcap	lntotas	lngrern	lnnostf
lnmkcap	1.0000			
lntotas	0.5871*	1.0000		
	0.0000			
lngrern	0.5188*	0.9699*	1.0000	
	0.0000	0.0000		
lnnostf	0.5152*	0.7843*	0.7630*	1.0000
	0.0000	0.0000	0.0000	

```
. factor lnmkcap lntotas lngrern lnnostf, pcf
(obs=160)

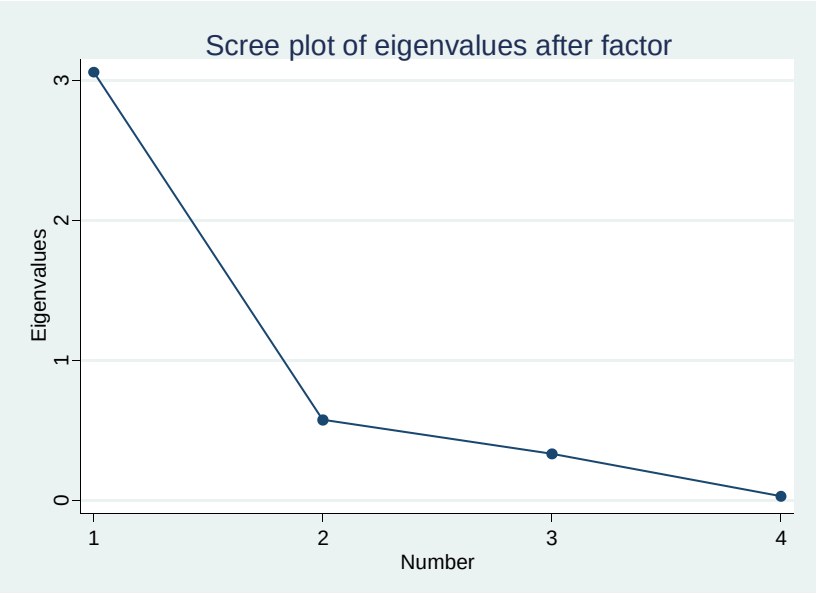
Factor analysis/correlation                      Number of obs    =        160
    Method: principal-component factors          Retained factors =          1
    Rotation: (unrotated)                        Number of params =          4
```

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	3.05760	2.48041	0.7644	0.7644
Factor2	0.57719	0.24252	0.1443	0.9087
Factor3	0.33467	0.30413	0.0837	0.9924
Factor4	0.03054	.	0.0076	1.0000

```
    LR test: independent vs. saturated:  chi2(6)  =  633.75 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances
```

Variable	Factor1	Uniqueness
lnmkcap	0.7249	0.4745
lntotas	0.9582	0.0818
lngrern	0.9356	0.1247
lnnostf	0.8594	0.2614



Determinant of the correlation matrix

Det	=	0.015

Bartlett test of sphericity

Chi-square	=	578.029
Degrees of freedom	=	6
p-value	=	0.000

H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy

KMO	=	0.733

DOES INTEREST RATE MARGIN AFFECT BANKS' PERFORMANCE IN DEVELOPING ECONOMY? THE NIGERIA EXPERIENCE

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Abstract

This study examines the consequence of interest rate margin on the performance of deposit money banks in Nigeria. The primary objective is to demonstrate how interest rate margin affects the performance of the deposit money banks in a developing economy using Nigeria as a case study. The data used in the study were obtained from the CBN within the sample period of 1980 to 2016 and was analyzed using error correction model approach. Profitability rate is the dependent variable while interest rate, deposit rate, monetary rate and lending rate were proxies for independent variables. The results show that all the independent variables had a significant effect on profitability rate in Nigeria for the period under review. The cointegration test revealed that the variables had a long run relationship with bank profitability in Nigeria within the sample period. The R^2 (0.87), showed that 87% of the changes in bank profitability was as a result of fluctuations in the explanatory variables. Based on these findings, it was discovered that the interest rate had a negative significant effect on the profitability and overall performance of the deposit money banks in Nigeria. Therefore, for profitability of the deposit money banks to be improved, there is the need to reduce the rate of interest as this will help attract individuals to get loans for investment purpose hence improve profitability.

Keywords: Interest rate, Bank Performance, Deposit money bank, Developing Economy.

Introduction

The financial systems of most developing economy are under pressure and stress as a result of the economic stun. These economic quivers largely manifest through indiscriminate distortions of financial prices via interest rates. The resultant effects perhaps lead to reduction of the real rate of growth and real size of the financial system vis-a-vice non-financial magnitudes (Davidson and Gabriel, 2004). In the Nigerian case for instance, Rasheed (2010), posit that Nigerian economy witnessed different sectors in 1970s through the mid-1980s due to regulated regime. From traditional, theoretical and empirical view points, banks have the potential and prospects for mobilizing financial resources and allocating them to productive investments which in return promote the performance of banks. Therefore, no matter the sources of income generation or the economic policies of the country, Deposit Money Bank would consistently play their traditional role of advancing loans to their numerous customers bearing in mind, the tripartite principles of profitability, liquidity and solvency guiding their

operations (Adolphus, 2011). These principles no doubt revolve around interest rate. Some authors prefer to use the term net interest margin when using ex-post data (difference between banks quoted lending rate and deposit interest rate) (see Enendu, 2003; Adolphus, 2011). For the purpose of avoiding ambiguity in this study, interest rate margin is defined in broad term as the ratio of difference between interest income and interest expenses to total assets for individual banks. Basically, high margin increases banks profitability and tends to decline the efficiency of financial intermediation process, and efficient financial intermediation is a necessary condition for the achievement of price stability of the monetary authority and growth of the economy.

This margin has remained relatively high over the years in Nigeria with adverse implications for savings mobilization and investment. This paper interrogates the controversial argument in interest rate. For example, a lower deposit rate encourages saving and therefore reduces bank deposit, resulting in scarcity of investible funds. On the contrary, high lending rates curtail borrowing and investment. In an economy like Nigeria where the bulk of intermediation is by the banks, the scenario could stifle investment and curtail growth in the economy. Under this condition, whether the banking system performance is safe or not is a big query.

Importantly, the big challenge is the persistent nature of the high interest rate and the controversies of its mechanisms. From the days of the Nigerian government deregulated interest rate in 1987 as part of the Structural Adjustment Programme (SAP) policy package; the official position was that interest rate liberalization among other things, enhance the provision of sufficient funds for investors especially manufacturing sector- the priority sector, who were considered to be prime agents and by implication promoters of economic growth, but the high interest rate has persisted. Under normal circumstance, high interest rate should spur the desire for bank vaults. Likewise, low interest rate should naturally discourage depositors. But most often times, this is not the case; hence this study seeks to examine how interest rates affect the performance of Deposit Money Banks in Nigeria. As such, this study is motivated to address the protracted question on whether interest rate margin affect banks' performance in developing economy in line with paper's earlier interrogation. Specifically, the study seeks to ascertain the effect of interest rate margin, monetary policy rate, lending rate and deposit rate on the performance of deposit money banks with Nigeria in focus.

Literature Review

Conceptual clarification

(a) The concept of Interest rates

According to Keynes (1923), cited in Jhingan (2000), interest rate is the reward for not hoarding but for parting with liquidity for a specific period of time. Keynes' definition of interest rate focuses more on the lending rate. Adebiyi (2002) defines interest rate as the return or yield on equity or opportunity cost of deferring current consumption into the future. Some examples of interest rate include the saving rate, lending rate and discount rate. Jhingan (2003), states that interest rate is the price which equates the supply of 'credit' or savings plus the net increase in the amount of money in the period the demand for credit or investment plus net 'hoarding' in the period. This definition implies that an interest rate is the price of credit which like other prices is determined by the forces of demand and supply (that is, the demand and supply of loanable funds).

Further, Interest rate is the amount paid per unit of time expressed as a percentage of the amount borrowed (Anyanwu, 1997). Therefore, the cost of borrowing money measured in naira per year per naira borrowed is the interest rate. When maturity and liquidity together with other factors are considered, many different financial instruments and so many interest rates will emerge (Anyanwu, 1997). Interest rate can either be nominal or real. Nominal interest rate can be measured in naira terms, not in terms of goods. The nominal interest rate measures the yield in naira per year, per naira invested while the real interest rate is adjusted for inflation and is calculated as the nominal interest rate minus the rate of inflation (Pandey, 1999)

According to Keynes, interest rate is the reward for not hoarding but for parting with liquidity for a specific period of time. His definition of interest rate focuses more on the lending rate. Adebiyi (2002) defines interest rate as the return or yield on equity or opportunity cost of deferring current consumption into the future. Some examples of interest rate include the saving rate, lending rate and discount rate. Ibimodo (2005) defines interest rate as the rental payment for the use of credit by borrowers and return for parting with liquidity by lenders. Like other prices, interest rates perform a rationing function by allocating limited supply of credit among the many competing demands. Interest rate, very often appears in monetary policy deliberations. However, Irving Fisher (1936) states that interest rates are charged for a number of reasons, but one is to ensure that creditors lowers his/her exposure to inflation. Inflation causes a nominal amount of money in the present to have les purchasing power in the future. Expected inflation rates are an integral part of determining whether or not an interest rate is high enough for the creditor. The real interest rates represents a fundamental valuation of temporary provision of capital (money) corresponding to a price level constant in time. It is also obvious from the above relation that if inflationary expectations change, nominal interest rates have to change aliquot at a constant real interest rate (Cottrell, 2005). The real interest rate concept is irreplaceable in the research into the mutual relations of inflation, because assuming that the creditors are rational, inflation and nominal interest rates influences each other. For similar reasons, the real interest rate is used in broader economic analysis.

Akinlo and Owoyemi (2012) investigated the determinants of interest rate spread in Nigeria using panel data for the period 1986-2007, for 12 Deposit Money Banks. Their result suggested that average loans to average total deposits ratio, remuneration to total assets ratio, cash reserve requirements and gross domestic product have effects on interest rate spread positively. However, their results also shows that non-interest income to average total assets ratio, treasury certificate and development stocks have a negative effect in interest rate spreads. In summary, their result suggested that a reduction in cash reserve ratio, as well as a reduction in bank overhead costs amongst others will help to moderate high interest rate spread in Nigeria.

(b)Interest Rate Charged on Borrowers

There are daily reports of how Nigerian banks rip off their customers through various charges and practices. Oftentimes, customers complain and cry out for appropriate regulatory intervention. Unfortunately, their complaints seem to fall on deaf ears because they are unaware of any positive regulatory action in response thereto. Emboldened by regulatory inactions and indifference (which suggest tacit approval), many Nigerian banks now engage in more exploitative practices. The categories of such predatory bank practices are unfolded daily.

Normally, when a customer secures a loan from a bank, the latter fixes a negotiated lending rate based on the prevailing interest rate approved by the apex bank. Any changes in the interest rate should be brought to the notice of the borrower except otherwise agreed. In Nigeria, the lending rate is rarely negotiated and when it is reviewed upwards by the CBN the average bank automatically applies the new rate to the outstanding loan without notifying the borrower (Okafor, 2011). Ironically, the same bank hides the fact of any downward review of the lending rate from its mostly uninformed customer, thereby illegally subjecting the customer to a higher interest regime.

Often, what the bank staff presents to a prospective borrower during loan negotiations as the total charges become hydra-headed once he swallows the bait. While processing loans, Nigerian banks impose on borrowers both "processing" and "administrative" fees which are duplicates. Again, they charge borrowers and corporate customers higher than what they pay lawyer to conduct searches at land and company registries. We believe that the interest rates Nigerian bank display at their offices and reports to CBN per section 23 of the Banks and Other Financial Institution Act (BOFIA), chapter B3, laws of the federation of Nigeria 2004) are different from what most of them impose on customers. To verify this, CBN may wish to randomly obtain and examine depositors/borrowers account statement from banks.

Synoptic Empirical Review

Quite a number of empirical studies have been carried out by different scholars on the effect of interest rate margin and bank deposits on different dimensions; some of these studies are reviewed below. Khat and Bathia (1993) used non parametric method in his study of the relationship between interest rates and other macro economic variables, including savings and investment. In their study, they grouped sixty-four (64) developing countries including Nigeria into three bases on the level of their real interest rate. Applying the Mann-Whitny Test, they observed that the effect of real interest was not significant for the three groups. Again, Tsuru (2000) argues that financial intermediation could affect the savings rate, and then capital formation and growth through its impact in four different factors: i) Idiosyncration risk, ii) Rate-of-return risk, iii) Interest risk, and iv).Liquidity constraints. A number of recent studies, however have shown that Deposit Money Banks have seem to improve banking system efficiency and thereby contribute to overall banking stability in developing countries (Levine and Loayza (1999), Barajas, *et al.* (2000), Classens, *et al.* (2000), Clarke *et al.* (2000) and Dages *et al.* (2000).

On the other hand the effect of bank credits in developing countries especially in Nigerian remains largely unexplored. As such, Das and Das (2002) discuss the effect of deposit interest rate and interest amount. They observed that the method of calculating the interest amount can substantially affect interest paid. Depositors should take into consideration the interest rate computation over and above the quoted nominal rates. Since 89% of the customers are depositors, a high degree of transparency is needed in regard to effective rates offered to customers. Enedu (2003) provided empirical evidence on the determinants of interest rate spread in a liberalized financial system for the period 1989-2000 by estimating ex-ante interest spread with balance sheet and income statement data from thirteen (13) banks in Nigeria in addition to some macro economic variables. It was found that macroeconomic as well as monetary policy/financial regulation factors were more important than banks' level factors. In fact, cash reserve requirement, GDP, risk premium, inflation rate, financial deepening, liquidity risk,

loan asset quality, Treasury bill rate and non-interest expense were the most important factors that influenced DMBs interest spread during the period of study.

Alao (2006) studies the differential impact of interest rate on bank's performance. The study reveals that according to the financial liberalization theory, we should expect that in economies with very low or negative real interest rate, a positive shock to interest rate would cause appositive effect on private investment which will in turn increase the profitability of banks. On the other hand, he notes that a higher interest rate, the borrowers will be eager to borrow; this will have a negative effect on both the bank in terms of its level of profitability and private sectors.

Similarly, Oluitan (2009) is of the opinion that policy makers should focus less of measures leading to increase in bank lending and concentrate more on legal, regulatory and policy reforms that boost the functioning of markets and banks. Mushin & Eric (2000) in their study on Turkey concluded the economic growth lead to financial sector development. However, the proponents of supply-leading hypotheses are of the belief that banks lending is a veritable tool for attainment of economic growth and development. Rasheed (2010) used Error Correction Model (ECM) to investigate interest rate determination in Nigeria. The study found that as the Nigerian financial sector integrates more with global markets, return on foreign assets will play a significant role in the determination of domestic interest rate. Again, Adofu and Audu (2010) used ordinary least square method to ascertain the assessment of the effect of interest rate deregulation in enhancing agricultural productivity in Nigeria. The study found out that interest rate play a significant role in enhancing economic activities and as such monetary authorities should ensure appropriate determination of interest rate level that will break the double-edge effect of interest rate on savers and local investors. Further, Nabar (2011) assesses how interest rate affects household savings in Chinese 31 provincial level administrative units between 1996 and 2009. A strong positive correlation between household savings and interest rates were established; suggesting that Chinese save to meet a number of needs (e.g.) retirement consumption and durables purchase. As such high savings rates enable them to meet their target savings.

Felicia (2011) used regression analysis to investigate the determinants of commercial banks lending behaviour in Nigeria. The study discovered that DMBs deposits have the greatest impact on the lending behaviour. Enyioko (2012) also looked at the Impact of Interest Rate Policy on Performance of Deposit Money Banks in Nigeria. The study observed that the current credit crises and the transatlantic mortgage financial turmoil have questioned the effectiveness of banks consolidation programme as a remedy for financial stability and monetary policy in connecting the defects in the financial sector for substantial development. Many banks consolidation have taken place in Europe, America and Asia in the last two decades without any solutions in sight to bank failures and crises. The study attempts to examine the performance of banks and macro-economic performance in Nigeria based on the interest rate policies of the banks. Akinlo and Owoyemi (2012) investigated the determinants of interest rate spread in Nigeria using panel data for the period 1987-2007 for 12 commercial banks. Their results suggested that average loans to average total deposit ratios, remuneration to total assets ratio, cash reserve requirements and Gross Domestic Product (GDP) impact on interest rate spread positively. However, the result also shows that non-interest income to average total assets ratio, treasury certificate and development stock have a negative relationship with interest spreads. In summary, their

result suggested that a reduction in cash reserve ratio, as well as a reduction in bank overhead cost amongst others will help to moderate high interest rates spread in Nigeria.

Anthony (2012), investigated the determinants of bank savings and bank credits on Nigerian economic growth from 1990-2006. The study adopted two impact model, Distributed Lag-Error Correction Model (DL-ECM) and Distributed Model. The empirical studies showed a positive influence of values of GDP per capita, Financial Deepening, Interest Rate Spread and negative influence of Real Interest Rate and Inflation Rate on the size of the private domestic savings. Also, a positive relationship exist between the lagged values of total private savings, private sector credit, interest rate spread, exchange rate and economic growth.

Theoretical Review

Two most influential theories of interest rate are Irving Fisher's classical approach, extended to laonable funds theory and liquidity preference theory, developed by John M. Keynes. Accordingly, interest rate is determined as the price paid by borrowers to a lender for the use of resources during some interval (Fabozzi *et al*; 1998). There is no single measure of interest rate in the economy. However, yield to maturity on assets is accepted by most economists as a measure of interest rate (Mishkin, 2001). Thus, individual may either consume or save their incomes. Individuals save when they consider future consumption, they consume less now to be able to consume more lately. The factors that influence savings decisions differ between individuals. First among the factor is income. With higher income, individual may save more, though the decision to save is determined not only by the level of income, but also by expectations about future income, marginal propensities to consume and save-preferences to interchange consumption and saving between time periods (Fabozzi *et al*, 1998).

Fabozzi (1998) are argues that nominal interest rate can be determine by the number of monetary units to be paid per unit borrowed and real interest rate as the growth in the power to consume over the life of a loan. If there is no inflation in the economy, there would be no different to individuals whether interest rate is nominal or real. Fisher was one of the first developers of the theory of interest rate and he was one of the first who introduced this distinction.

Fisher suggests that in long-run real interest rate is constant and expectations about inflation affect only nominal interest rates. Fishers' theory is very general and does not take into account many factors influencing the level of interest rate. The loanable funds theory extends Fisher's approach and incorporates into the analysis government actions, banks, bonds and cash investments. The results are similar to classical approach interaction of total demand for funds, negatively related to interest rate, and total supply of funds, positively related to interest rate determines the equilibrium interest rate and amount of savings or investments.

Basically, Keynes presupposes that money supply is not affected by the level of interest rate and government as the Central Banks control money supply in a country. The change in equilibrium interest rate may happen due to either supply or demand side changes. Main factors that affect the demand for money in liquidity preference theory are level of income and price level in the economy. Increase in income increases the demand for money due to higher liquidity of money. The same effect has an

increase in price level. Operations of Central Banks and Deposit Money Banks affect money supply too. As a matter of fact, Sachs and Larrain (1999), Mishkin (2001) state that Central Banks control monetary base, which is currency in circulation and reserves, through several tools such as open market operation, purchase and sale of bonds, discount lending to banking system, reserve requirements on deposits in the banking system and foreign currency market operations (CNB, 2017). Discount rate is especially important tool of influence on interest rates in the economy, since it does not only influence the price of credit resources for the banks, but also contains information on level of interest rates in the economy, so may be followed by commercial rates. The extent to which increase in monetary base may increase monetary supply is affected by the level of required reservation, currency/deposit and reserve/deposit ratios or money multiplier. The result of money supply increase on interest rate is ambiguous, since according to Mishkin (2001), this contains different effects on the interest rate namely:

- Liquidity effect
- Income effect
- Price level effect and
- Expected inflation effect.

Liquidity effect theoretically reduces interest rate by shifting money supply curve to the right, and new equilibrium is with lower interest and larger money supply. This effect though maybe followed by other effects which would reserve the fall in interest. Income effect through influence of the expansion on aggregate demand will tend to increase demand for money and the effect is clear: it will increase interest rate. Price level effect of the increase in money supply also increases the demand for money and consequently interest rate. This effect works in similar fashion as income effect. If economy produces at full employment, increase in money supply most likely will lead to increase in inflation, and this recalling Fisher's law will increase nominal interest rate. In practice, it is impossible to predict which effect is prevalent after money supply increase. This effect will differ in different economies or even in one economy during different stages.

Since, the theory is extended to loanable fund theory it becomes imperative to link the two theories for emphasis and comprehensibility. Loanable Funds Theory synthesizes both the monetary and non-monetary effects of the problem (saving and investment process) (Wesheng, *et al*, 2002). It assumes the interest rate is determined by supply of loanable funds and demand for credit. It recognizes that money can play a disturbing role in the saving and investment process and therefore causes variation in the level of income. The theory suggests that interest rate equate the demand and supply of loanable funds. Loanable funds are the sum of money supplied and demanded at any time in the money market. Loanable funds theory has implication on bank savers and borrowers and each side is well compensated at equilibrium, interest rate should be structured in a way every party feel comfortable (Emmanuelle, 2013).

Methodology

The Research Design adopted in this study is *ex-post-facto* research approach which involves historic secondary data generated with respect to the research variables of the study. The researcher sourced the data used in this study from individual banks which includes four (4) Deposit Money Banks namely Zenith Banks Plc, Access Bank Plc, First Bank Plc, and Union Bank PLC. These four banks were

selected out of 22 that are presently operating Nigeria, after the CBN capital reform in the industry. The Four banks were carefully selected based on the availability of data. Data from these banks were sourced from the statutory returns rendered to the Central Bank of Nigeria (CBN) and Nigeria Deposit Insurance Corporation (NDIC) on the electronic Financial Analysis and Surveillance System (eFASS). The secondary source was used because it requires the time series data of the interest rate and Monetary Policy Rate of DMBs which covers a period of thirty-seven years (37) from 1890-2016.

Description of Research Variables

The dependent variables and independent variables used in this study are described as follows: Performance in this study is measured by Profitability ratio. Profitability ratio is the ratio that measures the capability of a firm to generate profits out of the expense and the other cost incurred over a period of time. On the other hand, the independent variables of the study are as follows:

Interest Rate: Interest rate spread is one of the bank specific variables. It is broadly defined in this study as a ratio of the difference between interest income and interest expense to total assets for individual banks.

Monetary Policy Rate(MPR): Government in a bid to regulate the affairs of the economy would always us MPR as one of its instrument, which is defined as the rate at which CBN lends to DMBs and other clients (Affrev Ijah (2013).

Deposit Rate: Smith (1989), defined deposit interest rate as the average rate paid by DMBs to individuals or corporations on deposits. This definition is adopted in this study.

Lending Rate: This is the rate that banks usually meets their short and medium term financing. Kenneth Black (2017) defined lending rate as the charge that a lender charges borrower in other to make a loan, same definition applies in this study.

Model Specification

The model adopted in this has been modified by the researchers. However,

Due to the functional relationship, the model is specified as thus:

$PRTR = \alpha + \beta_1 INTR_t + \beta_2 MTPR_t + \beta_3 DPTR_t + \beta_4 LNDR_t + \mu$

The functional form stated above is transformed to accommodate the contemporaneous error (μ).

Where,

PRTR is profitability ratio, INTR is interest rate, MTPR is monetary policy rate, DPTR is deposit rate, LNDR is lending rate, α = alpha, β_1-β_4 = Coefficients of the explanatory variables, t = time series, μ = Error term.

Empirical Results

Descriptive Analysis

The descriptive analysis helps to show the characteristics of the data, it help to reveal if the times series data are normally distributed or not. Table one the descriptive nature of the data.

Table 1: Descriptive Result

	PRTR	INT	MTPR	DPTR	LNDR
Mean	11.37892	12.09000	17.52649	7.465135	6.149730
Median	10.53000	8.610000	17.59000	5.410000	6.720000
Maximum	23.24000	43.57000	31.65000	18.80000	11.06000
Minimum	5.270000	0.370000	8.430000	1.410000	0.320000
Std. Dev.	4.085584	10.85473	5.134234	5.077767	2.869145
Skewness	0.749743	1.426425	0.150020	0.756884	-0.423176
Kurtosis	3.444302	4.468714	3.328664	2.209563	2.324065
Jarque-Bera	3.770704	15.87280	0.305317	4.495941	18.08681
Probability	0.011776	0.000357	0.858423	0.015613	0.044809
Sum	421.0200	447.3300	648.4800	276.2100	227.5400
Sum Sq. Dev.	600.9118	4241.706	948.9730	928.2139	296.3517
Observations	37	37	37	37	37

Source: Researchers' Computation using E-view

From the above results, observing the skewness value of the variables, it could be seen that all the variables except lending rate are positively skewed with their coefficients been 0.749743, 1.426425, 0.150020 and 0.756884. Lending Rate then had a negative value of -0.423176, hence, skewed to the left. The variables also have a positive kurtosis as their values are above zero (0). Hence, they are platykurtic. From the period covered in the study, it can be seen from the table that the average points of the variables range from 6% to 17 for all the variables.

Diagnostic Analysis

a. Unit Root

The Augmented Dickey-Fuller (ADF) formula was employed to test for stationarity or the existence of unit roots in the data. The test results are as presented in table 2.

Table 2: Augmented Dickey Fuller Unit Root Test Trend and Intercept

Variables	Level	1st difference	Critical value (5%)	Order of integration	Remark
D(PRTR)	1.791266	3.601033	2.957110	I(1)	Stationary
D(INTR)	3.534265	4.713614	2.957110	I(1)	Stationary
D(MTPR)	2.339071	5.216471	2.951125	I(1)	Stationary
D(DPTR)	1.855294	6.009461	2.948404	I(1)	Stationary
D(LNDR)	1.944776	6.326867	2.951125	I(1)	Stationary

Source: *Researchers' Computation using E-view (See Appendix)*

From the table 2 above, all the variables Profitability Rate (PRTR), Interest Rate (INTR), Monetary Policy Rate (MTPR), Deposit Rate (DPTR), and Lending Rate (LNDR) were not stationary at level which necessitated the test at first differencing and at first differencing all the variables became stationary, as their various ADF values were greater than the 5% level of significance. As matter of fact, conducting cointegration analysis becomes paramount.

b. Autocorrelation

The presence of autocorrelation is generally unexpected by the researcher. It occurs mostly due to dependencies within the data. For this study the Breusch-Godfrey Serial correlation LM test was employed and the result is as presented in table 3.

Table 3: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.824835	Prob. F(2,30)	0.4480
Obs*R-squared	1.928544	Prob. Chi-Square(2)	0.3813

Source: Researchers' Computation using E-view

From the table 3, the result from the Breusch-Godfrey serial correlation test, revealed that the F-statistics was 0.824835, and had a p-value of 0.4480. Also the Obs*R-squared has a coefficient of 1.928544 and a p-value of 0.3813. It is observed that their p-values were significantly greater than the 0.05 level of significance. Hence, the study concludes that there is no autocorrelation within the series and therefore conclude that the result of the study is fit for policy formulation.

c. Normality Test

In statistics, normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed; in our results, it shows a good normality distribution. See appendix.

d. Heteroskedasticity

In testing for heteroskedasticity in this study the Breusch-Pagan-Godfrey test was conducted and the test is as given below;

Table 4: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.408796	Prob. F(4,32)	0.8009
Obs*R-squared	1.798768	Prob. Chi-Square(4)	0.7727
Scaled explained SS	1.163050	Prob. Chi-Square(4)	0.8841

Source: Researchers' Computation using E-view

From the table 4 above, it could be seen that the Obs* R-squared and the F-statistics had a p-value that is less than the 0.05 level of significance, as such the null hypothesis of heteroskedasticity among the series is rejected

Cointegration Test

Cointegration was used to test for long run relationship between the variables considered. Cointegration is said to exist if the values of computed statistics are significantly different from zero or if the trace statistics is greater in absolute value than the critical value at 5 percent level of significance. The model with lag 1 was chosen with the linear deterministic test assumption and the result is presented below. Johansen cointegration test for the series include PRTR, INT, MTPR, DPTR and LNDR.

Table 5:Cointegration

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.778105	136.5156	69.81889	0.0000
At most 1 *	0.768655	83.82133	47.85613	0.0000
At most 2 *	0.436841	32.58669	29.79707	0.0233
At most 3	0.245637	12.48990	15.49471	0.1349
At most 4	0.072232	2.624062	3.841466	0.1053

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Researchers' Computation using E-view

From the result in table 5, the Johansen cointegration indicates three cointegrating equation. Cointegration is said to exist if the values of computed statistics are greater than 5% critical value. From the trace statistics, four of the absolute values of trace statistics were greater than 5% critical values. In other words, the null hypothesis of no cointegration among the variables is rejected at 5% statistically significant levels. The test result shows the existence of a long-run equilibrium relationship among the variables, the need to further run ECM.

Error Correction Model

It has been pointed out that once there is a cointegration among the series, the error correction model will be employed to verify the dynamics of the short-run deviation to the long run equilibrium. The result is presented below;

Table 6: ECM result
Included observations: 37

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.004319	0.003076	1.403943	0.1700
INTR	-0.108930	0.044335	-2.456975	0.0103
MTPR	3.248420	1.090722	2.978229	0.0061
DPTR	152.1237	71.52630	2.126821	0.0264

LNDR	-389.3445	193.7032	-2.010006	0.0205
ECM(-1)	-0.532745	0.175321	-3.038683	0.0052

R-squared	0.878243	Mean dependent var	2503.994
Adjusted R-squared	0.849835	S.D. dependent var	5537.624
S.E. of regression	4032.079	Akaike info criterion	19.58455
Sum squared resid	4.39E+08	Schwarz criterion	19.81357
Log likelihood	-308.3528	Hannan-Quinn criter.	19.66047
F-statistic	19.16084	Durbin-Watson stat	1.841963
Prob(F-statistic)	0.000244		

Source: Researchers' Computation using E-view

PRTR = 0.0043 - 0.1089INTR + 3.2484MTPR + 152.12DPTR - 389.34LNDR

From the results, ECM was consistent by assuming a negative sign, fractional and statistically significant. It has a coefficient of 0.53; showing that 53% of the fluctuations at the short run are corrected at the long run. The R^2 is 0.87 and shows that 87% of the changes in the profitability rate are as a result of the changes in the explanatory variables, the remaining 13% are as a result of variables not included in the model but captured by the error term (μ).

Interest rate has a coefficient of -0.10; it shows that a 1% increase in interest rate will result to a decrease in the profitability rate by 10%. Interest rate was also statistically significant as the coefficient has a p-value which was less than the 0.05 level of significance. Monetary Policy Rate had a coefficient of 3.24; it shows that a unit increase in the monetary policy rate will result to an increase in the profitability rate by 3.24 units. It was also statistically significant as it had a p-value which was less than the 0.05 level of significance. Deposit rate also had a coefficient of 152.12; this shows that a unit increase in the deposit rate will result to an increase in the profitability rate by 152.12 units. The coefficient was also statistically significant as it has a p-value that was less than the 0.05 level of significance. Finally, Lending rate had a coefficient of -389.34; this shows that a unit increase in the lending rate will decrease profitability rate by 389.34. This conforms to the apriori expectation and was also statistically significant as it has a p-value less than the 0.05 level of significance.

The F-statistics was also statistically significant by assuming a coefficient of 19.1 with a p-value less than the 0.05 level of significance; this means that the explanatory variables jointly influence the profitability rate.

Conclusion and Recommendations

The study tried to verify the effects of interest rate margin on the performance of the deposit money bank, in the course of the empirical analysis, it was discovered that the variables employed for the study Profitability Rate (PRTR), Interest Rate (INTR), Monetary Policy Rate (MTPR), Deposit Rate (DPTR) and Lending Rate (LNDR) had significant effects on the performance and profitability of the deposit money bank. It is thus, advised that if the recommendation highlighted below are employed, it will stir the economy at large to efficiency and will also enhance the performance of the deposit money banks in Nigeria.

Recommendations

In line with the study findings, the following recommendations are made;

i. Firstly, it was discovered that the interest rate had a negative effect on the profitability and overall performance of the deposit money bank; it was observed that once the interest rate is high, investors tend not to borrow as they might not be able to pay back. Therefore, for profitability of the deposit money banks to be improved, there is the need to reduce the rate of interest as this will help attract individuals to get loans for investment purposes. Hence, enhance profitability.

ii. The lending rate of central bank of Nigeria to deposit money banks, needs to be reviewed to ensure that it conforms with the needs and aspiration of the people, as high lending rate will make funds unavailable within the economy and as well reduce the performance of the deposit money banks

iii. Policies that will encourage the rate of deposit in Nigeria, needs to be adopted as an increase in the deposit rate will avail fund to the deposit money bank, which they utilize to increase their profit.

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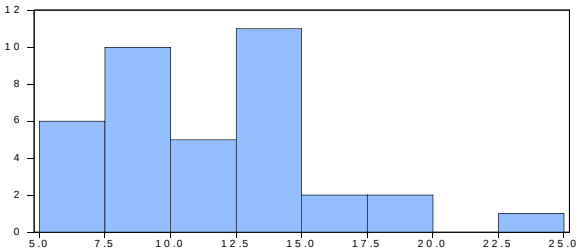
Appendix

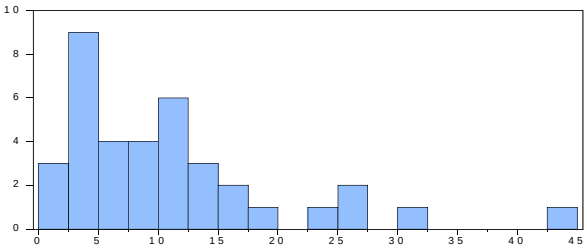
PRTR



Series: PRTR
Sample 1980 2016
Observations 37

Mean	11.37892
Median	10.53000
Maximum	23.24000
Minimum	5.270000
Std. Dev.	4.085584
Skewness	0.749743
Kurtosis	3.444302
Jarque-Bera	3.770704
Probability	0.151776

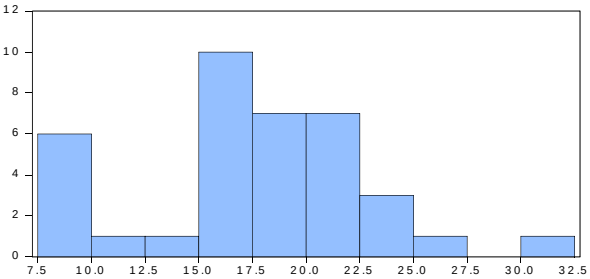
INTR



Series: INTR
Sample 1980 2016
Observations 37

Mean	11.03595
Median	8.610000
Maximum	43.57000
Minimum	0.370000
Std. Dev.	9.367375
Skewness	1.564573
Kurtosis	5.532997
Jarque-Bera	24.98675
Probability	0.000004

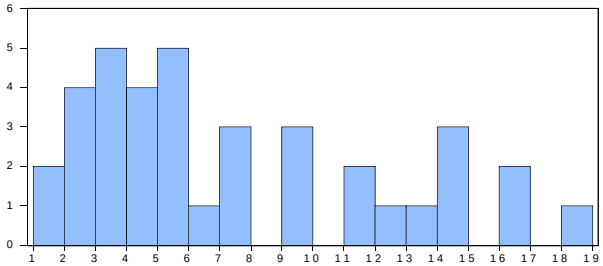
MTPR



Series: MTPR
Sample 1980 2016
Observations 37

Mean	17.52649
Median	17.59000
Maximum	31.65000
Minimum	8.430000
Std. Dev.	5.134234
Skewness	0.150020
Kurtosis	3.328664
Jarque-Bera	0.305317
Probability	0.858423

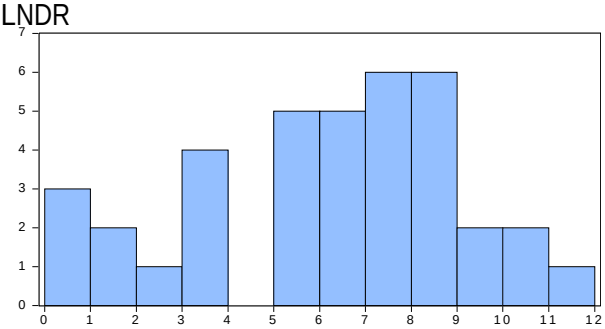
DPTR



Series: DPTR
Sample 1980 2016
Observations 37

Mean	7.431622
Median	5.490000
Maximum	18.80000
Minimum	1.410000
Std. Dev.	4.837219
Skewness	0.734455
Kurtosis	2.328471
Jarque-Bera	4.021669
Probability	0.133877

LNDR



Series: LNDR
Sample 1980 2016
Observations 37

Mean	6.149730
Median	6.720000
Maximum	11.06000
Minimum	0.320000
Std. Dev.	2.869145
Skewness	-0.423176
Kurtosis	2.324065
Jarque-Bera	1.808681
Probability	0.404809

MEDIATING VARIABLES OF STOCK RETURNS' DETERMINANTS AND COMPANIES' STOCK RETURNS: A RESEARCH AGENDA

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Abstract

The paper explored the mediating variables of determinants of stock returns and companies' stock returns. It specifically proposed a mediation model of stock returns' determinants to add value to the body of literature. It explained factors which an investor could use in making an investment decision when investing in financial assets. Efforts were made in the past since the 1950s to prescribe a factor or factors that could explain financial assets (like stock) returns. Ranging from Capital Asset Pricing Model (CAPM) single factor to multifactor model proposed by Asset Pricing Theory (APT), it has not yet been resolved on which among firms' specific factors or macroeconomic factors could be an investor's decisional factor in deciding on a risk-return prospect of stock. The paper explained conceptually what could be intervening variable (s) (Mediator (s)) of the relationship between the determinants of stock returns and companies' stock returns. Content analysis was employed in collecting data for the study. The findings indicated that firm financial performance, firm value and stock market performance could be mediators. It is recommended that the mediation model developed to be tested empirically.

Keywords: Mediator, Stock Returns, Stock Returns' Determinants, Firm Value, Financial Performance, Stock Market Performance

Introduction

Mediation is a process of establishing a stimulus-response relationship in a causal indirect interaction of a predictor and outcome variables in a research. Mediating according to Madhavan (2018) is an act of building a process that serves as a link between a sensory input and a response which is not directly connected with the process. Mediator modifies the way sensory control acts. Supportive evidences in the literature indicate that a mediation analysis is a prominent research analytical tool used in the field of psychological research (Mackinnon, Fraichild and Frits, 2007). It is equally employed in other field of studies such as marketing studies (Hadi, Abdullah & Sentosa, 2016), human resources management studies (Karabay, Tezergil & Koise, 2014) and host of other field of studies (Namazi & Namazi, 2016) such as education, medicine and pure science but very few studies such as Maringka, Moeljadi, Djazuli. & Ratnawati, (2016) and (Ngha, Khang, & Thanh, (2018)) are reported using mediation analysis in the field of financial management studies. Namazi & Namazi, (2016) argued that a potent way for enhancing business research designs to provide more realistic and accurate findings is to insert an appropriate moderator or mediator variable that relate to the studies. Researches on the stock returns determinants in the field of financial management are such that attract huge debate on

which use of right factor (Mediator/Moderator) can influence the outcomes of the studies which may help in explaining a factor investors' decision about purchase of financial assets.

The 1950s is a turning point in the development of modern finance. Many studies were conducted in search of a factor that can explain financial assets' returns. The investment risk-return studies had emphasized on that the expected return on investment was the factor that used to be considered by the investor. This goes with the popular financial adage which says that the higher the returns of investment the higher the risk and as such investment decision is the function of expected return. Investors' interest in the financial asset is built on the expected rate of return from an investment. Scholars theorized on the behavior of financial assets prescribe that there is a functional relationship between expected return and risk of investment. Risk of investment is a variance on the actual returns around the expected return. De Jong (2011) argued that risk in finance is measured in term of standard deviation of an assets or stock return thereby the more it spreads from the return, the higher the deviation which result in the level of uncertainty. The high level of uncertainty in the financial asset/stock return the more the likelihood an investor may condition ones' investment decision solely on the concept of expected returns.

Markowitz (1952) develops a mean-variance model, a model of portfolio choice in which he rejects the notion that the expected return of financial asset is a major factor in the investment decision. He argued that the investors should have just paid attention to the balance between the risk and return on investment. This led to the development of the efficient frontier (EF). EF assists the investor to achieve optimal level of investment. He stated that the optimal portfolio of financial assets was a function of having diversified assets with negative correlation-a reduced covariance. He was argued that the rational investors were risks averse. They saw the expected return as desirable and risk (variance) of investment as undesirable. But, investing in two assets with similar highest returns (non-diversified assets) without analyzing the risk profile may not mitigate the total risk. Investors minimize the market risk only by constructing a diversified investment portfolio. The diversified portfolio is financial assets with the negative correlation. Technically, Markowitz (1952) introduced a factor (diversifiable portfolio) to consider in investment decision. Saito, Savola, and Fama (2013) were of the view that the concepts of diversifiable portfolio and non-diversifiable portfolio were what Sharp (1964) explored as non-systematic risk and systematic risk respectively in his Capital Asset Pricing Model (CAPM).

Introducing a single factor as a criterion of investment decision was first appeared in the work of William Sharpe in 1964 followed by the work of John Lintner in 1965 that developed a model popularly called Capital Asset Pricing Model (CAPM). The model was built on the risk-return trade-off in the investment. It argues that the optimal portfolio of financial assets is a function of combination of risk free asset and risky asset. The risky asset which took the attention of investors is made up of systematic risk (Market risk, unavoidable risk) and unsystematic risk (firm-specific problem, avoidable risk). CAPM proposed that the expected return on the financial assets increased with risk. The unsystematic risk was related to a specific firm and could be avoided. The systematic risk, on the other hand, was related to a market and was unavoidable and as such it becomes a major factor in investment decision. Later study of Stephen Ross in 1976 introduced a multifactor approach (Assets Pricing Theory, APT). APT helps in explaining the factors to consider in investment decision. A multifactor model of Asset Pricing as reported by Saito, Savola, and Fama (2013) is supported by the

many studies such as Lakonishok and Shapiro in 1986 and Fama and French in 1992, 1993, 1996, and 2004.These efforts of Harry Markowitz in 1952, William Sharpe in 1964, John Lintner in 1965, Stephen Ross in 1976 and followed by the works of Lakonishok and Shapiro in 1986 and Fama and French in 1992, 1993, 1996, and 2004 were done with a view to propose determinants of investment or factors to consider by investors when buying financial assets. Yet, there are many contradictions and arguments on which factor can explain an asset price.

Olaidi and Bolade (2015) reported that in an effort to establish the link between fundamental factors and stock returns changes, many researchers investigated thoroughly various determinants of stock returns such as dividend per share (DPS), Retained Earnings (RE) and so on. These factors are classified as internal or external factors. External factors are categorized into: stock market, economic, political and environmental factors. Similarly, in the literature, it was reported that the determinants of stock returns can either be firm-specific factors or macroeconomic factors.

Ross (1976) justified that determinants of stock returns could best be explained by multiple factors. Although, literature did not come to the agreement on which factor (s) best explains stock return changes, reevaluations of these factors can determine investors' decisional factor to consider when investing in the financial assets. The available studies on asset pricing models employed varied factors in developing the models. They try to come up with a factor or factors that can explain stock return changes, but it is not yet found a study that has tested moderating or mediating variables in the study of stock return changes. Some studies in finance that have reported testing mediation (Maringka, Moeljadi, Djazuli, & Ratnawati, 2016) or moderation (Ngha, Khang, & Thanh, 2018) and both (Hsu, Wang & Hsu, 2012) in order to give clear picture on the relationship between independent variables and dependent variable in the field of finance were not on stock return changes. Mackinnon Boxe and Baraldi (2012) argue that theories across many substantive disciplines do focus on mediating processes as explanations for how and why antecedent variable relates to the outcome variable. Thus, business psychology should not be an exception. Namazi & Namazi, (2016) argued that a potent way to enhance business research designs, and thus to provide more realistic and accurate findings, is to insert appropriate moderator and/or mediator variables relating to studies. It is on this assertion that this paper aims at exploring mediating variables of the relationship between the stock return determinants and stock return changes to be able to build a mediation model of factors influencing financial assets pricing.

Purpose of the Paper

The aim of the paper is to explore mediating variables of the relationship between the stock returns' determinants and companies' stock returns. This is specifically to propose a model for mediated determinants of stock returns.

Literature Review

Review of Related Literature

Maringka, Moeljadi, Djazuli, & Ratnawati (2016) examined the effect of variable characteristics of firms and stock return mediated by the firm financial performance. They found firms' specific factors to have no significant effect with stock return. There was evidence of direct significant effect of firms' financial performance with stock return. The indirect effect of firm performance and firms' specific factors is

insignificant. Firm financial performance mediated the relationship. However, their methodology failed to either show the guideline employed or the methodological tool used in the study. Ngha, Khang, & Thanh, 2018 also conducted a moderation analysis study in the field of finance. They studied the moderating effect of debt and dividend policy on the overinvestment and firm financial performance. They found a negative relationship between debt and dividend policy and firm financial performance. Overinvestment and firm performance were found to be negatively correlated. They discovered that the relationship between firm performance and overinvestment was moderated by the use of debt and payment of dividend. This study, however, suffered some methodological setbacks.

Mediation Analysis and Moderation Analysis

Baron and Kenny (1986) popularized the causal steps approach which had resulted use of both mediator (ME) and moderator (MO) variables in the field of business psychology. This resulted in many researchers like Namazi and Namazi (2016), Mackinnon, Boxe and Baraldi (2012), Edwards and Lambert (2007), Hayes (2009), Hadi, Abdullah and Sentosa (2016), Mackinnon, Fairchild and Fritz (2007) and Kremar, Kieman, Essex and Kupfer (2008) to develop interest in mediation analysis. This had resulted in various numerous studies in different fields of knowledge in an effort to explain scientific models consisted of mediation and moderation analyses. According to Mackinnon, Boxe and Baraldi (2012) many theories in business research postulate a mediator (M) as that factor which transmits the effect of a predictor variable (X) to an outcome variable (Y) in a causal sequence such that X causes M and M causes Y. An observational variable serves as a predictor or antecedent variable in a mediation model. Theories across many substantive disciplines focus on mediating processes as explanations for how and why an antecedent variable is related to an outcome variable. The mediation model is a longitudinal model in that X precedes M and M precedes Y. A mediation model can be a single mediator or multiple mediators.

The multiple mediators according Mackinnon, Boxe and Baraldi (2012) make the model so complex which may result to type 1 error rate to increase rapidly. They suggested that even if multiple mediators are employed in the model, they should be interpreted with caution. They argued that it would be wise to evaluate one mediator at a time even if they were multiple. Namazi and Namazi (2016) argued that by exerting Mediator (M) in the research, the issue of “How” and “Why” in the relationship between independent and dependent variable become more important to the researcher than the independent variable. The researcher's interest now is focused on the Mediator variable M, not on the independent variable' X. They, therefore, stated that the causal steps approach to testing intervening variables. A mediation effect would be the same regardless of the data analysis method. Hayes (2009) argued that causal steps approach had enjoyed heavy criticism on multiple ground.

Namazi and Namazi (2016) reported the Baron and Kenny (1986) proposition on the steps for identifying and testing mediator in the causal effect approach. They argued that Baron and Kenny (1986) had stated that the preceding steps (1-4) should be tested in terms of statistical significance in the mediation analysis. Kenny (2014) pointed out that statistical significance testing has some weaknesses. He, therefore, suggested that the preceding testing via zero and none zero coefficients would be better analysis. Namazi and Namazi (2016), however, identified the statistical tools which are used in testing mediation analysis among them are: multiple regression, structural equation modeling (SEM) without latent variables, joint test of significance, sobel test (Delta Test), bootstrapping method and monte-carlo method.

Mackinnon, Boxe and Baraldi (2012) developed a proposition on the choice of mediating variable which was found to be relevant in this paper. They argue that methods of choosing mediators take two instances. They are either when there is substantial prior research on the topic or when little prior research is available on the topic. If there are substantive prior researches on the topic requiring mediation, they propose literature review to determine conceptual theory and action theory links. The approach step is to start with building the study based on a psychological theory of the process or to build the research on the prior mediation analysis as provided in the literature. But if there is little prior research on the subject matter, the steps commence with the searching for correlation of the outcome measures to determine the conceptual theory links. Secondarily, the researcher shall conduct focus groups studies and other qualitative studies to establish the links. As the last resort, common sense or intuition can be used to choose a mediator. Thus, mediator is a variable that specifies how the association occurs between the independent variable (IV) and dependent variable (DV). Its effect is only tested when there is a significant direct effect between the IV and DV. It indicates that the effect of an IV on a DV is transmitted through third variable, (Edwards and Lambert, 2007).

However, the moderation is an interaction which occurs when the strength or direction of the effect of a predictor variable on an outcome variable varies. A moderator in a research study is a variable that interacts with the predictors and the outcome to change the degree or the direction of the relationship between IV and DV to either high, medium or low level. It is an independent variable that affects the strength of the association between the predictor and outcome variables. The moderation analysis is involved in the study on individual differences or situational conditions which influences the strength of the relationship between a predictor and an outcome, (Edwards and Lambert, 2007). A moderator is a qualitative or quantitative variable that affects the direction or strength of the association between predictor and outcome variable, (Baron & Kenny, 1986).

Determinants of Stock Returns

The studies on the determinants of stock returns are many. Review of literature shows that the studies conducted on the stock returns are based on the institutions, industry or country of the study. The focus of this paper is on both firms' specific factors and macroeconomic factors that determine stock returns from the industry perspectives specifically variations of company's annual stock price.

Firm Specific Determinants of Stock Returns

Mutende, Mwangi, Njihia and Ochieng (2017) argued that firm characteristics were companies' demographic and managerial variables which in turn comprised of firms' internal environment such as firm size, leverage and liquidity. Some studies do select one factor like Capital Asset Pricing Model (CAPM), some uses 3 factors, French and Fama 3 factor model and others employ multi-factors like Arbitrate Pricing theory (APT) to evaluate stock return's determinants. Olaidi and Bolade (2015) studied previous price of the Shares (PPS), Earning Yield (EY), Price-Earnings ratio (PE), Firm age (FA), Profitability, Investment (changes in equity), Dividend per share (DPS), and Growth Domestic Product (GDP) on the changes of share price of listed companies in Nigerian Exchange Stock Exchange (NSE). They found companies earning per share, previous price of share and the payment of dividend to have significantly related with the companies' share price. Ajao and Igbinosa (2014) also tested and compared the position of *three factor model and the Capital Asset Pricing Model in the NSE. They found* that market beta, firm size (market equity) and firm book-to-market equity ratio (BE/ME) were significant factors determining stock returns.

However, Goodarzi (2017) compared the strength of accounting data versus market-based data in explaining the determinants of stock return of companies listed in Tehran Stock Exchange during 2004-2014.He found that accounting data such as Return on Asset, size, Return on Equity and leverage had the relatively low explanatory power compared with the based-market data. No significant relationship existed between size and return stock. Tahir, Sabir, Adam, and Ismail (2013) also found that among the *Market Capitalization (MC), sales Growth (SG), Earnings per Share (EPS) and Book to Market value (BMV),* MC, BMV, EPS have positive significance effect on of stock return of firms listed in Karachi Stock Exchange. Sales growth is positive but statistically insignificantly related to stock return. Malhotra and Tandon (2013) in India examined firm specific factors and their findings revealed that companies' book value, earning per share and price-earnings ratio are significantly positively related with firm's stock price while dividend yield is significantly negatively related with the market price of the firm's stock.

Among many studies (Almumani, 2014; Inyiama & Helen, 2015 and Wang & Luo, 2013) reported in the literature that had used firm-specific factors in explaining stock returns, they used share price as a proxy of stock return. The units of analysis were companies drown from a specific industry. Only Olowoniyi and Ojenike (2012) were found to have used dividend payout as a proxy of stock returns. None of the studies was reported to have studied firm-specific factors relationship with stock market performance proxied by All-Share Index (ASI) except Olaidi and Bolade (2015) that used Growth Domestic Products (GDP) to examine stock return changes proxied by a share price. Theoretically, however, one can observe that external economic environmental factors do equally shape the behavior of the firms' stock return. Therefore, Menike, Dunusinghe and Ranasinghe (2015) employed both macroeconomic and firm specific variables to explain firm's stock returns.

Macroeconomic Determinants of Stock Returns

Since the celebrated work of Ross (1976) which resulted to the emergence of Asset Pricing Theory (APT), various researches had emerged in the literature using multi-factors determinants of stock returns. Basci, and Karaca (2013) found that Exchange rate, Gold, Import and Export to have had a significant relationship with Turkish Stock Exchange ISE 100 Index and concluded that they are determinants of stock returns. Izedonmi and Abdullahi (2011) in testing APT in the Nigerian Stock Market discovered that inflation, exchange rate and market capitalization had no significant relationship with the NSE stock returns (ASI). To them, the multi-factor APT model with macro-economic variables failed to explain the effect in the Nigerian stock market stock returns. In the *Stock exchange of Mauritius (SEMDEX),* Gowriah, John and Keshav (2014) examined the *money supply, interest rate and inflation used as proxies for monetary policy and budget deficit used as a proxy for fiscal policy on* stock return index (*SEMDEX). The result showed a short run significant relationship between money supply and stock price and there was neither a significant short term nor a long term relationship between budget deficit (fiscal policy) and stock price.*

Moreso, Ibrahim and Musah (2014) studied monthly data series on inflation (INFL), the exchange rate (EXR), broad money supply (M2), interest rate (INTR), index of industrial production (IIP) to explain Ghana Stock Exchange index (stock return). The findings showed evidence of long-run relationship between stock returns (proxy by the official measure of the Ghana stock exchange (GSE) performance – GSEI) and macroeconomic fundamentals. Margaret (2012) studied Nigeria All-Share Index (ASI),

the two measures of money-the narrow money (M1) and broad money (M2), Interest Rate (INT), Exchange Rate (EX-R), Industrial Production Index (IPI) and Federal Funds Rate (FFR). She found that only exchange rate policy variable have an influence on the Nigerian stock market volatility with a negative coefficient but statistically significant indicating that higher volatility in the exchange rate dampens stock market activities. Osisanwo and Atanda (2012) also discovered that Nigerian stock market performance had no significant relationship with the determinant variables. Muibi, Osi, Evans and Seun (2016) who investigated the direction of relationship between Nigerian stock trading volume and macroeconomic variables for the period 1985 to 2014, had found that the exogenous (Independent) variables had long run equilibrium relationship with the volume of transactions in the Nigerian stock exchange. The money supply was having a strong positive significant relationship with stock volume. The interest rate and exchange rate were having a negative and significant relationship with an endogenous (dependent) variable. Income and foreign direct investment were, however, positively not significantly related to the trading volume.

Many studies conducted on the macroeconomic variables and stock return did provide mix results. In the same market using different periods, different findings were recorded as in the case of NSE market. Izedonmi and Abdullahi (2011) found, for example, in Nigerian Stock Exchange (NSE) that macroeconomic variables are insignificantly related with the stock return (proxy for ASI) which is similar to the findings of Osisanwo and Atanda (2012). But, Osisanwo and Atanda (2012) in Colombo Stock Exchange, Sri Lanka*, found* macroeconomic factors to have influenced the stock market development. Some studies found some macroeconomic variables influencing stock return and other variables are not like in Al-qudah (2012) at Amman Stock Exchange in Jordan who found balance of payments, number of employees and the size of the company are significantly affecting the stock returns while the rest of variables are not.

Firms' Financial Performance

Firm performance is a companies' ability to achieve planned financial results measured against its intended outputs. It involves achievement of firm's financial objective in an efficient and effective manner to increase shareholders wealth. This means using resources efficiently and effectively assists in achieving results related to shareholder return, market performance and operational performance. The financial performance objective measures show whether a firm's strategy implementation and execution has contributed toward bottom line improvement of the business and are relating to profitability measurements (Mutende, Mwangi, Njihia, & Ochieng, 2017 and Chandrapala-Pathirawasam, 2013). Abubakar, Sulaiman, and Haruna, (2018) were of the view that firm financial performance is a determinant of an organization's income or profits. It shows increases in value of the business which is evidenced by the appreciation in the entity's worthiness. Its measures fall into investor returns and accounting returns. Abubakar, Sulaiman, and Haruna, (2018), however, argued that in a wider perspective, four (4) major groups of accounting ratios were used to measure financial performance which were Profitability ratios, Leverage ratios, Liquidity ratios and Efficiency ratios. Chandrapala-Pathirawasam (2013) concluded that researchers did use Return on Asset (ROA) to measure the financial performance of companies. Mutende, Mwangi, Njihia, and Ochieng (2017), on the other hand, argued that no financial performance measures were universally appropriately accepted and as such multiple measures should, therefore, be used. This has made some researchers to use return on assets (ROA), return on equity (ROE), Tobn Q, Dividend Yield (DY) and so on to

measure the financial performance. Thus, they concluded that in the operationalization of firm performance, the use of multiple indicators approach would be superior to the use of only a single indicator. However, Idekwulim (2014) argued that a Return on Capital Employed (ROCE) was a superior measure of the firms' financial performance. It captured the contribution of all capital providers to the business.

Chandrapala-Pathirawasam (2013) argues that a business environment is broadly divided into an internal or controllable environment where firm-specific factors do determine the firm's financial performance but in external uncontrollable environment, industry specific factors and macroeconomic factors do contribute to identifying the differences in the financial performance of firms among different industries, markets and environment. Many studies (Almumani, 2014; Inyiama & Helen, 2015 and Wang& Luo, 2013) were conducted on the firms' specific factors that influenced financial performance of companies. Some researchers examined the effects of macroeconomic factors on the firm financial performance. They found the factors significantly correlated with the firm's financial performance (Osisanwo & Atanda, 2014, Jahur, Nasrul-Quadir, & Khan, 2014, Nwakoby & Bernard, 2016 and Ekene, 2016). This justifies that a firm financial performance can serve as a mediator between the determinants of stock returns and firms' stock returns (Baron and Kenny, 1986).

Firm Value

According to Setiadharma and Machali, (2017) and Putu, Moeljdi; Djumahir and Djazuli (2014), firm value is the perception of an investor in the success rate of a firm which is often affiliated with the stock price. A high stock price creates a high firm value. A high firm value does not only show the credibility of the firm performance but also the firm prospect in the future. The Proxy of firm value is measured by price to book value (PBV). Many proxies were employed in measuring Firm Value (FV). In his study, Willian (2015) recommended Tobin Q as the best measure of Firm Value. Literature reported that Tobin's Q was measured by Book Value (BV) of assets - BV of equity + market value of equity ÷ BV of assets. Its drivers are: asset tangibility, firm size, capital structure, ownership structure, institutional ownership, independent commissioner, the audit committee, profitability, working capital and leverage, (Setiadharma & Machali, 2017, Kausar, Nazir & Butt, 201, Vural, Sokmen & Cetenak, 2012, Mule, Mukras, Nzioka & Maloba, 2015 and Willian, 2015). This implies that firms' specific factors empirically are related with firm value proxied by the Tobin Q. It is equally theoretically indicated that macroeconomic factors are related to the firm value such as inflation which it known to have always influenced the value of the asset positively or negatively. This implies that Firm Value (Tobin Q) can serve as a mediator between the determinants of stock returns and firms' stock returns (Baron and Kenny, 1986).

Stock Exchange Performance (Market Stock Returns)

A market index is a quick measure to judge the overall direction of the market and the scope of its movement. It is a representative of the entire stock market - like the NSE all-share index. The Nigerian Stock Exchange (NSE) All-share Index (ASI) is a total market (broad-base) index reflecting a total picture of the behaviors of the common shares quoted on the market. ASI was established in January 1984. The year serves as the base year (January 3, 1984, is 100). Only common stocks (ordinary shares) are included in the computation of the index. The index is value-weighted that is computed daily. The highest value of 66,371.20 was recorded on March 3, 2008. Studies are conducted that test

the relationship between macroeconomic factors and stock market returns/performance proxied by the All Share Index (ASI), (Nwakoby & Bernard, 2016, Jahur, Nasrul Quadir, & Khan, 2014, Zhou, Zhao, Belinga, & Gahe, 2015 and Asekome & Agbonkhese, 2015). There is hardly a study on the relationship between firm-specific factors and stock market performance. But, it is theoretically established that external economic environmental factors such as inflationary changes and interest rate changes to influence the behavior of companies' financial performance and by extension their stock returns. Since the NSE has been calculating industry-specific ASI, it is very likely that the relationship between firm-specific factors and industry-specific ASI can be established. Therefore, the determinants of stock returns can cause stock exchange performance. This implies that stock exchange market returns/performance proxied by ASI can serve as a mediating variable of the relationship between the determinants of stock returns and firms' stock return.

Methodology of the Study

The paper employed qualitative content analysis method of collecting data. It allows detail examination of published documents for synthesis and evaluation. Journals' articles from accounting and financial management, business newspapers, government documents on finance, CBN financial analysis reports, NSA financial reports and bulletin and accounting and financial management textbooks served as a means of collecting relevant information.

Results and Discussions

Improvement on the predictive power of the multi-factors explanation of the stock return as proposed by Ross (1976) in Asset Pricing Theory is made possible by exploring mediating variables that can fit the model of determinants of stock return. The literature presents that mediator is introduced between independents variables (predictors) and dependent variable (outcome) in order to transmit the effect of a predictor variable (X) to an outcome variable (Y) in a causal sequence such that X causes M and M causes Y. The position of the literature is that firm-specific factors and macroeconomic variables cause stock returns proxied by the share price of a specific industry. Similarly, many studies have found that macroeconomic variables cause stock returns proxied by ASI in some markets. This implies that market returns/market performance can mediate the relationship of both firm-specific factors and macroeconomic factors with stock returns proxied by the share price of companies. The literature has also shown that in some markets, macroeconomic factors are insignificantly related to stock returns and in the other market, they are significant. Therefore, stock exchange market performance can be a mediating/moderating variable of firm-specific factors/macroeconomic factors and stock returns.

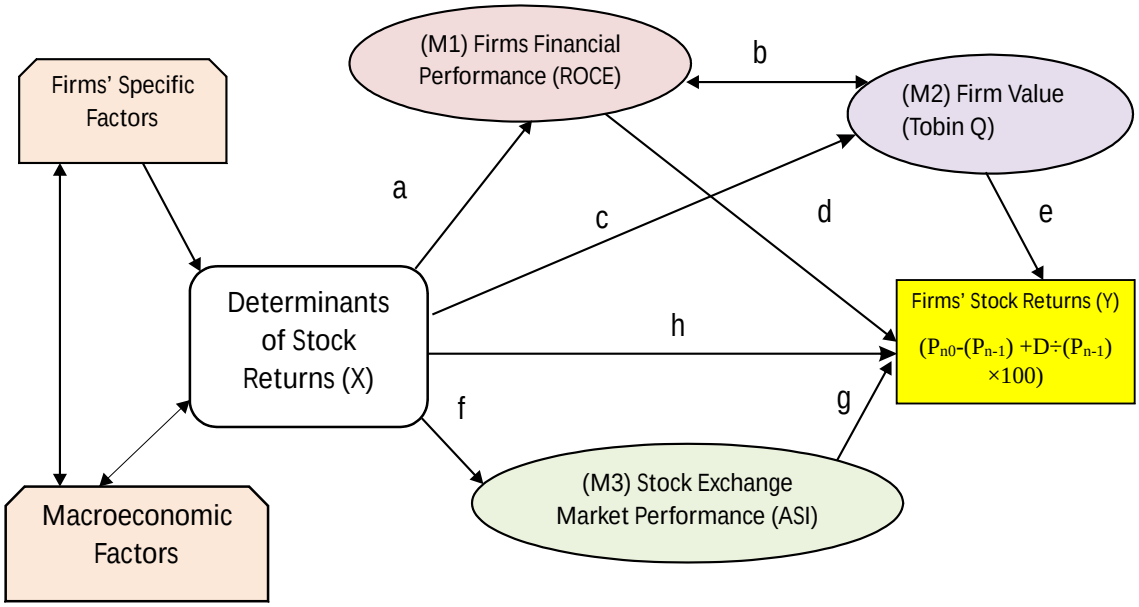
In addition, the literature informed us that firm-specific factors/macroeconomic factors predict companies' financial performance or a firm value. These factors that explain a firm's value or a financial performance equally predict firms' stock returns (Putu, Moeljdi; Djumahir and Djazuli, 2014, Chandrapala-Pathirawasam, 2013 and Abubakar, Sulaiman, and Haruna, 2018). This justifies that firm financial performance and firm value can be tested as mediating variables.

Therefore, the Stock Exchange Market Performance, the Financial Performance and the Firm Value can mediate the relationship between firm-specific factors/macroeconomic factors and stock returns (Baron & Kenny, 1986 and Namazi & Namazi, 2016). It is also in agreement with Mackinnon, Boxe and Baraldi (2012) proposition on the choice of mediating variable.

Proposed Model

In line with the argument put forward in the paper, this model is, therefore, proposed for possible empirical testing.

1.4 Diagram: Multiple Mediation Models of Determinants of Stock Returns



Source: Researcher's Work (2018)

From diagram 1.4, the model of multiple mediation multi-factor variables is presented. The model is a function of a direct and an indirect effect to produce a total effect. The direct relationship of X to Y is (Path h). It is well established in the literature the X (determinants of stock returns) cause Y (firms' stock returns). The proposed mediating variables result in the indirect relationship of X to M to Y. There are a number of paths in the model that may likely establish an indirect relationship. The relationship of X to M1 to Y (Path a & Path d) is a possible indirect effect (simple mediation). The relationship of X to M1 to M2 to Y (Path a, Path b & Path e) is a multiple mediation case which can also establish an indirect effect. The effect of X to M2 to Y is a simple mediation (Path c & Path e) which can lead to an indirect effect. The effect of X to M3 to Y is also a simple mediation analysis (Path f & Path g) that can result in an indirect effect. Therefore, The model 1.4 presents three simple mediation models (Path a & Path d; Path c & Path e and Path f & Path), one single-step multiple mediators model ((Path a and Path d) and (Path f & Path g); (Path c & Path e) and (Path f & Path g) and multi-steps multiple mediators model ((Path a, Path b and Path e) and (Path f & Path g). The sum of these indirect effects plus the direct effect result to the total effect expected to achieve. The total effect occurs in either partial mediation or full mediation otherwise, the variable is not a mediator of the relationship between X and Y.

Conclusion

The paper aims at exploring the mediating variables of the determinants of stock returns and companies' stock returns. This is specifically to propose a mediation model that can add value to the

body of the literature and explain the factors which an investor can use in making investment decision to invest in financial assets. The paper's findings indicate that three (3) factors: the Stock Exchange Market Performance, the Financial Performance and the Firm Value qualify to be mediating variables in line with guidelines prescribed in the literature. It is resolved that various options can be employed to test the model. The model 1.4 can be tested using structural equation model (SEM) in line with the literature guideline. Other options are that there are three (3) simple mediation models that can be tested in separable analysis using either two-step regression analysis, joint test of significance, Sobel test (Delta Test) or bootstrapping method. Similarly, there are also options of using either single-step multiple mediators' model or multiple steps multiple mediators' model to be tested using SEM.

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S/N	VARIABLES OF THE STUDY	MESUREMENT	AUTHORS
ENDOGENEOUS VARIABLE			
1	COMPANY' STOCK MARKET RETURN	CSMR= Pn-(Pn-1)+D over Pn-1× 100 While 1) Pn = Price of the stock in current Year 2) Pn-1 = Price of the stock in last Year 3) Current Dividend	Goodarzi, A (2017) Tahir, S.H;Sabir, H.M; Adam, T & Ismail, A (2013)
	Stock Return	Rt = Ln (Pj t /Pjt – 1) Where Ln = natural logarithm Pj t = current price level Pjt – 1 = last years price level	Olpara, G. C (2010)
EXOGENEOURS VARIABLES			
	COMPANY'S SPECIFIC VARIABLES		
1	Firm Size (FS)	Natural logarithm of sales/Premium Firm size (FS) Natural logarithm of total assets	Salawu, R.O & Agboola, A.A (2008) Lee, C (2014)
2	Book to MKT Value ratio (BMV)	BMV=the ratio of book value of the firm stock to Market value of the firm stock. Whereas the book value of stock is calculated by deducting the total assets from its total liabilities. Negative Book to Market value of the firm for any particular year is ignored for the purpose of analysis	Goodarzi, A (2017) Tahir, S.H;Sabir, H.M; Adam, T & Ismail, A (2013)

3	Dividend per Share (DPS)	DPS = Dividendt,n÷No. of outstanding shares	Malhotra, N.M & Tandon, K (2013)
4	Dividend Payout (DP)	DP = EPS t,n ÷DPSt,n	Malhotra, N.M & Tandon, K (2013) Almumani, M. A (2014)
5	Tangibility of assets (TOA)	Book value of fixed assets to total assets	Salawu, R.O & Agboola, A.A (2008)
6	Price Earnings Ratio (PE)	PE=Market value per share of common/Earnings per share	Wang, J, Fu, G & Luo, C (2013)
7	Earnings per Share ratio (EPS)	EPS = net earnings after tax/ No. of outstanding shares	Tahir, S.H;Sabir, H.M; Adam, T & Ismail, A (2013)
8	Liquidity ratio (LIQr)	LR=Current assets/current liabilities	Wang, J, Fu, G & Luo, C (2013)
9	Firm growth (FG)	Firm growth (FG): (Premium of current year – premium of prior year) ÷(premium of prior year)	Lee, C (2014)
10	Capital Structure	Leverage (LEV1) = Total Debt/Total Assets Leverage (LEV2) = Long-term debt/Total Assets Leverage (LEV3) = Short-term debt/Total assets.	Salawu, R.O & Agboola, A.A (2008)
	MEDIATOR VARIABLES		
1	Firm Value (Tobin's Q)	Tobin's Q= market value of equity + book value of debt / total assets	Vural, G ; Sokmen, A.G & Cetenak, E.H (2012); Mule, R.K; Mukras, M.S; Nzioka, O.M & Maloba, M.H (2015) and Willian, A.P (2015)

ISSUES IN FINANCIAL MARKETS' DEVELOPMENT IN SUB-SAHARAN AFRICA: LESSONS FROM DEVELOPED ECONOMIES

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Abstract

For some time now, development of financial markets in developing countries of the world has been saddled with a lot of controversies. Furthermore, observations from many studies showed contradictory views which have made debates on the subject matter inconclusive. In view of this, the general objective of this study is to examine financial and stock market developmental issues in developing African countries. It specifically intends to highlight strategies to strengthen financial and stock markets in African countries, among others. The study adopted table content analysis and descriptive statistics in its methodology. The study discovered that in spite of all the gains derivable from financial market development, the intensity of financial sector reforms implemented in some developing countries have not brought about a reasonable increase in the size and depth of their financial systems, among others. The implication of this is that capital market development in these developing countries would continue to suffer setbacks with their attendant consequences on economic growth. The study concluded that the presence of strong and virile financial and stock markets cannot be overlooked in any economy. It therefore recommended, amidst others, the promotion of institutional investors as well as development of appropriate business and investor friendly policies.

Keywords: Finance, Stock market, Developmental issues, African countries.

Introduction

International financial markets have grown very rapidly in the recent times (Yartey & Adjasi, 2007). Both of them have undergone significant modifications and become increasingly integrated as a result of their being progressively deregulated, internally and externally, in leading economies. The leading economies have also internationalized the financial markets. They have introduced financial products that create room for riskier and larger financial investments as well as the emergence and increasing role of new actors in the markets (Gosh, Hughes & Singh, 1992). Echekoba, Ezu and Egbunike (2013) indicate that financial markets have improved consistently since 1997. The strength of the markets was enhanced both domestically and internationally by buoyant capital flows across the national boundaries. Stock market development, in relation to growth, has continued to attract significant attention in the finance literature (Levine&Zervos, 1996, 1998;Atje&Jovanovic, 1993;Anyanwu, 1998; Okwu & Obiakor, 2011; Yartey & Adjasi, 2007 and Obiakor, 2006, among others).

Two schools of thought are prominent in literature regarding the relationship between stock market development and economic growth. While one school of thought embraces stock market- led growth, the other argues in the contrary.

While developed economies have explored their stock markets through resource mobilization in order to boost their economic growth and development, evidence on the impact of stock markets on growth in some African countries is not yet clear (Demirguc-Kunt & Levine, 1996;Yartey&Adjasi, 2007).The business enterprises in developing countries generally lack long-term capital. The business sector in many of those economies rely significantly on short-term financing, like overdrafts, to fund long-term capital - a situation which exposes them to risks. Such companies need some medium for raising an appropriate mix of short – and long – term capital, since finance is the life-blood of business (Demirquc – kunt & Maskimovic, 1998; Adenuga, 2010).

Statement of the Problem

Studies on the impact of stock market development on economic growth of African countries have so far ended with inconclusive and conflicting results. A number of them observe that financial development boosts economic growth through its impact on growth rate of savings, investment and growth. This position of study done by Mckinnon (1973) is supported by Alilee (1984), Greenwood and Jovanovic (1993), Levin (1991), Montiel (1995), Beesi and Wang (1997), Demirguc-Kunt and Levin (1996), Levine and Zervous (1996), Ezekwesili andAlajekwe (2012) and Popoola (2014), among others. The World Bank (1994) confirms that stock market development does not merely follow economic development but makes available the means for predicting future rates of growth in capital productivity and percapita GDP.However, some studies emergewith contrary results.They find that stock market development might not have any effect on economicgrowth. Authorsof such studies include Buffie (1984), Burkett (1987) and Irving (2004). Singh (1994) argues that stock markets are not likely to perform efficiently in developing countries because of the huge costs involved and poor financial structures. According to Irving (2004), the link between stock exchanges and the overall socio-economic development is not only tenuous but also non-existent or harmful. Specifically, Irving warns African countries againstdevoting their lean resources and efforts to promoting stock exchanges. He charges thenations to focus their attention towards addressing endermic problems such as high poverty levels, inadequate social services and underdeveloped infrastructure. On the other hand, the results of studies byAllen and Gale (1999), Boyd and Prescotte (1986) and Stiglitz (1985) show preference for banking sector development. The studies find banking sector development as capable of playing some essenial role in promoting economic growth and as being more effective than stock market development in terms of resource allocation.In addition, Bossone (2000), Tsuru (2000), Levine (1997) and Geltter (1988) cited in Adigwe, Nwanna and Ananwude (2015) contend that the functions performed by stock markets (such as capital mobilization, assisting in resource allocation, monitoring managers and facilitating risk management) are even capable of having some adverse effects on economic growth. Furthermore, some studies in South Africa (Odhiambo, 2009 and Ndako (2009) have different findings. WhileOdhiambo (2009) asserts that stock market development Granger cause economic growth,Ndako (2009) holds a direct opposite opinion: economic growth Granger cause stock market development. Interestingly, both studies were carried out in the same country and with similar time series data. Also, Ake and Ognaligcio (2010) find that stock exchange has no effect on Cameroonian economic growth.

It is against these inconsistencies and inconclusiveness of findings on the impact of financial and stock market development on the economies of developing countries that this study is carried out with the intention of updating the literature on the subject matter as the debate on finance/growth relationship rages on and therefore offers a vacuum for future research.

Objectives of the Study

The main objective of this study is to examine financial and stock market developmental issues as they relate to developing nations in Africa. Specifically, the study intends to highlight:

1. the trends and features of stock market development in Africa
2. the financial and stock market developmental issues in Africa
3. the characteristics of financial environment in Africa
4. how financial and stock markets in African countries can be made more functional.

Review of Related Literture

Conceptual Review

Financial Markets

Financial markets comprise money and capital markets (Okafor, 1983). All over the world, financial markets are significantly affected by hedge funds, the use of which has paved way for trading activities involving large number of dealers.

Money Markets

Money markets consist of financial institutions and other dealers in short term money and credit (Adekanye, 1986). It is a market for borrowing and lending money for three years or less (Echekoba, Ezu & Egbunike, 2013).

Capital Market

This is a market where governments and companies raise long term finance to trade securities on the bond and stock market (Okafor, 1983). It consists of the primary market for the distribution of new issues amog investors and the secondary markets where existing securities are traded. Capital market is a wider concept which includes the stock market for buying and selling financial products. While the stock market permits investors and banking institutions to buy and sell financial instruments, a capital market may trade in other financial securities such as bonds, derivative contracts and commodity futures.

Stock Markets

Stock markets arefinancial markets for the buying and selling of long-term debt or equity- backed securities (Oke&Adrusi, 2012 cited in Panshak& Shinqil, 2010). It is a tool for the mobilization and allocation of savings among competitive uses and acts as a barometer for economic performance. Stock market is that segment of the financial system which facilitates the channeling of long-term funds from surplus to deficit economic units and stimulates capital formation as well as socio-economic development.

Kenny and Moss (1998) consider stock markets as enhancing the operations of the domestic financial system in general and the capital market in particular. The determination of the overall growth of an economy depends on how efficiently the stock market carries out its function of capital

allocation(Popoola, 2014). However, Kenny and Todd (1998) argue that stock markets are not a necessity for economic growth. They use Germany as an example of an economy that utilized banks almost to the complete exclusion of stock markets, and had significant economic growth.

Economic Growth

Economic growth is defined as an increase in the capacity of an economy to produce goods and services when comparing one period of time with another(Aiguh, 2013) . It is a positive change in the output or production of a nation. It can be calculated as a percentage increase in the gross domestic product of a given country (Adigwe, Nwanna & Ananwude, 2015). Economic growth of a country has a direct relationship with economic state of affairs which comprises a number of variables such as index of industrial production, inflation rate, money supply, exchange rate, private investment, foreign direct investment and many others regarded as the back bones of an economy.

Theoretical Review

Mckinnon-Shaw (1973) Hypothesis

The Mckinnon and Shaw (1973) hypothesis states that financial liberalization and stock market development would enhance economic growth through their effects on the growth rate of savings, investment and consequently, economic growth (Adigwe, et al, 2015). When financial markets are repressed (that is when there are low and administered investment rates, domestics credit controls, high reserve equipment and concessional credit practices), savings are discouraged, the efficient allocation of resources is retarded, the segmentation of financial markets is increased, investment is constrained and economic growth rate is lowered. In summary, the claim in this hypothesis is that a low or negative real rate of interest discourages savings and hence, reduces the availability of loanable funds, constrains investment and lowers the rate of economic growth. This study is anchored on this hypothesis.

Efficiency Market Hypothesis (EMH)

The efficient market hypothesis, popularly known as the random work theory, was developed by Fama (1965). It is one of the theoretical exploits of capital market economic growth nexus. It is a framework for investigating the efficiency of the capital market. The EMH predicts that market prices incorporate all available information at any point in time.It posits that stock prices at any time fully reflect all available information about the worth of the firm and that there is no opportunity for one to earn excess profits (more than the entire market) by using this information that has very significant implications for both investors and financial managers. Efficiency in the market is tested by whether the stock prices incorporate all available information at the time. One of the major limitations of this theory is its inability to recognize human influence on the stock-related information.

Contextual Review

Stock market development evolution in sub- Saharan Africa: trends and features

According to Yartey and Adjasi (2007), the African capital markets have developed tremendously since the early 1990s.Before 1989, only five stock markets existed in sub-Saharan African. However, by the year 2007, there were already twenty five stock exchanges in existence, namely the Botswana Stock Exchange, the Ghana Stock Exchange, the Cairo and Alexandria Stock Exchange (Cameroon), The BRVM – Bourse Regionale das Valeurs Mobilieres: The West African Regional Bourse (Cote d'Ivoire

and comprising of eight French speaking West African countries, Nairobi Stock Exchange (Kenya), Nigeria Stock Exchange, Gambia Stock Exchange, The Stock Exchange Mauritius, Casablanca Stock Exchange (Morocco), Maputa Stock Exchange, Maurituis Stock Exchange, (Nozambique), Tohannesbunrg Securities Stock Exchange, (South Africa), Khatoun Stock Exchange, (Sudan), Swaziland Stock Exchange, Tanzania Stock Exchange, Tunis Stock Exchange, Lusaka Stock Exchange (Zambia), and Zimbabwe Stock Exchange Except for South Africa, the majority of the African Stock Markets doubled their market capitalization between 1992 and 2002. The total market capitalization for African stock markets increased from US $113,423 million to US $244672 million between 1992 and 2002 (Yartey&Adjasi, 2007). Excluding South Africa and Zimababwe that had total listed companies of 792,207, 403 and 79 respectively,the capitalization of all exchanges in the sub-Saharan Africa was less than $13 billionby the end of 2000 (Aderibigbe, et al, 2015).

Inspite of the rapid development of stock markets in Africa, they have a number of issues to contend with. For instance, the stock markets have the challenges of immaturity; trading occurs in only a few stocks that account for a reasonable part of the total market capitalization.Serious informational and disclosure deficiencies exist for the stock not actively traded.There are inadequate regulartory authorities, illiquidity, and smallness in size of the stock markets and others. Yartey and Adjasi (2007) assert that the Swaziland Stock Market had liquidity as measured by the turnover ratio of as low as 0.02% in comparison with about 29% in Mexico.
Inspite of the problems of small size and low liquidity, these stock markets were considered to have performed very well in terms of return on investment. For instance, Yartey and Adjasi (2007) posit that the Ghana Stock Exchange was the world's best performing market at the end of 2004 with an annual return of 144% in US dollar term compared with 30% return by Morgan Stanley Capital International Global Index (Databank Group 2004), within Africa itself, five other exchanges – Uganda, Kenya, Egypt, Maurituis and Nigeria – were among the best performers in 2004.

The indicators of stock market development number of listed companies, market capitalization as a percentage of GDP, value of Grade as a percentage of GDP and turnover) show that apart from being small in size, African stock markets had few listed companies and long market capitalization. As at 2007, the average number of listed companies on sub-Saharan African markets excluding South Africa, was 39 compared with 113 when Egypt and South Africa are included. Market capitalization as a percentage of GDP was as low as 1.4 in Uganda. The Johannesburg Securities Exchange had approximately 90% of the contained market capitalization of the whole of Africa. With South Africa and Zimbabwe excluded, the average market capitalization for the African continent was about 27% of GDP in contrast with other emerging markets like Malaysia that had a market capitalization ratio of about 161% (Yartey & Adjasi, 2007).

Prior to the global financial meltdown, Africa had developed and expanded the stock market sector. Inspite of their smallness in size and low liquidity, many African markets provided dramatic returns to investors over time. According to Massa (2009), in 2004 six African countries (Ghana, Uganda, Kenya, Egypt, Maurituis and Nigeria) were among the world's ten best – performing stock markets. In 2005, Egypt, Uganda and Zambia were in the top five. Malawi performed best in the whole world. However, the global financial crisis hit some of the key drivers of stock market development in Africa. Brambila, Marcias and Massa (2009) report that there were tighter credit conditions and gloomy

growth prospects worldwide, increased risk aversion which reduced foreign investors' urge for investment in African markets asa result of the financial meltdown. Foreign direct investment (FDI) slowed down in 2008. Portfolio equity flows dropped alongside the sharp fall in equity prices.

In mid 2010, the market capitalization of the entire Africa was only about $569 billion, while the net investment flows to sub-Saharan African countries was about $500 million (Salami 2013). Owing to this trend, Salami (2013) calls Africa a second generation emerging market. According to Salami (2013) cited inAderibigbe, Adegboye, Osayi, Okorie and Iyang (2015),Africa could be called a frontier market by investors. 'Frontier market' is a term used for a subset of emerging markets that have small financial sectors and/or have low annual turnover or liquidity but demonstrates a relative openness to and accessibility for foreign investors. Generally, those financial sectors are in the early stages of financial development (Salami, 2013)

The role of financial markets in Econonic Development

An economic theory provides that there is a strong positive link between financial development and economic growth. According to Tau (2015), financial systems play a strategic role of intermediation between lenders and borrowers. Consequently, financial markets are important channels for investors as they provide saving mechanisms that enable borrowers to find the required finance. Financial development has some indicators, namely banking system, stock market and bond market measures. Financial development takes place when financial markets and intermediaries stream line information asymmetries, enforcement and transaction costs.

There are four direct opinions regarding the financial system which have been keenly debated, namely, the bank-based financial structure, market based financial structure, the financial services-based financial structure and the law and finance –based structure(Mahonye &Ojah cited in Tau,2015).The proponents of bank-based financial structure argue that banks are capable of mobilizing capital, identifying and seleccting projects that are with positive cash flow, monitoring the use of funds and managing risk. Based onthe nature of the services banks render, they maintain long-run relationship with firms and do not disclose information about them prematurely to the public market(Levine, 1997).Consequently, Rajan and Zingales (1999) maintain that banks can influence the firms to repaytheir loans . This financial structure has beeen criticized for failing to recognize non-banking financial instiutions which play no less significant role. The supporters of market-based financial structure claim that it is a model that provides for risk- sharing as investors hold diversified portfolios. This implies that the information about firms is reflected in share prices. The law and finance theory of financial structure is propounded by those that buy the idea that the legal infrastructure has greater influence on the institutions and standards governing legal rights and enforcement of contracts (Demirguc-Kunt & Maskimovic,1996). The advocates of the financial services structure claim that banks and stock markets complement each other in promoting economic growth. Generally, it is accepted that efficient financial intermediaries play a significant role in the growth of an economy(King &Levine,1993; Levine & Zervos, 1998; Levin, Loyasa & Beck,2000). Nevertheless, according to Tau (2015), literature indicates that efficient capital allocation can be achieved through either bank-based or market-based systems. Which of the two is superior is still a subject for debate.

Determinants of stock market development

The stock market developments are determined by a number of factors, namely real income level, saving rate, gross domestic investments, private capital flows, financial intermediary development and portfolio investment (Sin–Yu, 2016). Other factors include macroeconomic stability, institutional quality and shareholder protection (Yartey & Adjasi, 2007). Yartey and Adjasi (2007) contend that stock market development can be promoted in Africa through the autonomous of the trading system and by changing the legal status structure and governance of the stock exchange from a non- profit, protected interest to a profit- oriented venture.

Foundations of the relationship between financial development and economic growth

The theories on the nexus between financial development and economic growth date back to the works of Schumpeter (2012), Gurley and Shaw (1960), Mckinnon (1973) and Shaw (1973) as cited in Ngongang (2015). According to Ngongang (2015), Schumpeter (2012) asserts that the smooth functioning of the banks stimulates technological changes. It does this through the identification and financing of entrepreneurs. Schumpeter (2012) argues that the necessary conditions for achieving this objective is for financial intermediaries to ensure that the five main functions listed by Levine (1997, 2004) are met. Gurley and Shaw (1960) stress the importance of financial innovations in financial development and explain that new financial assets present fewer risks. King and Levine (1993) and Levine (1993) also emphasize the important role of the banking system and the financial market in the development of the economy. For these authors, there is a correlation between GDP and size of the financial system, (Beck & Levine, 2003; Corporale, 2004; Shan&Jianhong, 2006 cited in Ngongang, 2015).

Financial Market Developmental Issues in Africa

a. Issue of stock market integration.

Some suggest that the stock markets in Africa should be regionalized as a way of addressing the issue of illiquidity which they encounter. As of now, however, the markets still face the constraints of disparities in the level of economic development, absence of uniform regulatory and accounting standards, lack of currency convertability and others. There is the need for the harmonization of legislations such as bankruptcy and accounting laws, just as it is advisable to liberalize trade regimesas a precondition for successful regional approaches.

b. Issue of demutualization.

The absence of demutualization of stock markets creates room for governance and profitability challenges.Yartey and Adjasi (2007) consider demutualization as a step to be taken after the African stock markets have consolidated the gains on technological and regulatory reforms.

c. Challenges of Institutional Development

There are challenges which hamper institutional development of African stock markets, namely, underdeveloped financial sector, small and illiquid stock markets with infrastructural bottlenecks as well as weak regulatory institutions. Others include over-dominance of the financial markets by commercial banks, inefficiency, undue intervention by government in credit alleviation to preferred economic sectors, immaturity, low market capitalization, non-implementation of robust electronically trading system and non-adoption of central deposition systems, among others.

d. Inefficient Financial Environment

The financial environment in Africa is characterized by low savings, absence of intermediation, fragmented markets and informal financial system, lack of financial innovation and ill-designed safety

nets.Under this kind of environment, it is difficult for African countries to meet their financial goals (Afful&Asiedu, 2014; Neube, 2007; Yartey&Adjasi,2007).

e. Institutional and Infrastructural Indicators in African Stock Markets

The indicators ofstock markets in African countries include existence of market regulators and a governing law, nature of clearing and settlement, the settlement cycle, existence of an international custodian foreign investor participation, exchange control, future of trading systems and existence of central depository. Yartey and Adjasi (2007) assert that the main institutional and infrastructural bottleneck on African stock markets is the use of slow manual systems. Although some of the stock markets are gradually adopting the electronic trading system, a substantial number of them still use manual clearing and settlement. In addition, many of the markets lack central depository system; some of them restrict foreign participation (Yartey&Adjasi, 2007).

Stock Market and Economic Growth

According to finance theory, the stock market is expected to enhance economic growth by providing a boost to domestic savings and increasing the quantity and quality of investment (Singh, 1997). It is supposed to ensure that past investments are most efficiently used through the takeover mechanism. Efficient stock market is equally expected to minimize the information costs through the generation and dissemination of firm specific information which efficient stock prices disclose. Further, stock market liquidity ought to minimize the downside risk and costs of investing in projects which do not pay off for a long time. Nevertheless, the critics of the stock market argue that stock market prices do not really reflect the underlying fundamentals accurately when speculative bubbles are presenting the market (Binswanger, 1999). They claim that stock market liquidity may influence corporate performance negatively because very liquid stock market tends to encourage investor myopia. They point out that the actual operation of the pricing and takeover mechanism in efficient stock markets lead to short-term and lower rates of long term and investments. Yartey and Adjasi (2007) observe that the criticisms of stock marketing are further magnified in the case of developing countries, most especially the sub-Saharan African economies. They arise from the fact that the developing economies have relatively weaker regulatory institutions and higher macroeconomic volatility. The critics opine that the higher degree of price volatility on stock markets in developing countries reduces the efficiency of the pricing signals in developing investment resources. This explains why many of those critics have questioned the importance and relevance of stock market in promoting economic growth in African nations.

Empirical Review

Bartov (1992) cited in Popoola (2014) examined the link between stock process and expected earnings using the earnings expectation models for predicting expected earnings. Atje and Jovanoic (1993) carried out a cross – country study of stock market and economic growth over the period 1980 to 1988. They found a significant link between average economic growth and stock market capitalization for 40 economies.Levin and Zervos (1996) investigated the conception between stock market development and long-run economic growth using pooled cross – country time series regression on 41 countries from 1976 to 1993. The study followed the methodology of Demirguc – Kuat and Levine (1996) by putting together some measures such as stock market size, liquidity and integration with world markets and the index of stock market development. Irving (2004) conducted a study where results showed that the relationship between stock exchanges and socio-economic development did

not exist otherwise it could be harmful. Huang (2006) found that while financial systems in developed countries were dominated by stock markets those in emerging markets were less developed and inefficient. In the same direction, he observed that corporate governance standards in emerging nations were low. He showed evidence of a link between financial openness and financial development. After some prodigious studies, Romosele (2013) found out that countries having relatively liquid stock market in 1976 grew much faster over the next 18 years than countries with illiquid markets even after adjusting for differences in other factor that affect growth such as education levels, inflation rates and openness. The studies also showed that in promoting economic growth a liquid stock market complemented a strong banking system, implying that banks and stock markets provided different bundles of financial services to an economy. Saltani, Ochi, and Saidi (2014) used the generalized moments (GMM) on a sample of 11 countries of the region of MENA 4 to examine the effect of financial development on economic growth during the period 1995 – 2011. They found that financial development was harmful to economic growth in that region. Emmanuel (2007) examined the connection between financial development and economic growth from the point of view of 22 countries of sub-Saharan African countries during the period 1960 – 2002. The author considered that the positive and significant link between the indicators of financial development (i.e. the ratio of money supply M2 to GDP and the ratio of credit to the private sector (GDP) and the growth of GDP per capita is ambivalent. In addition the causal relationship varies between bi directional and undirectional moving from financial development to economic growth. Alajekwu and Achugbu (2012) investigated the role of stock market development on economic growth of Nigeria using a 15 year time series data from 1994 – 2008. The method of analysis used was ordinary least serious techniques. The results of the study show that market capitalization and value traded ratios have a very weak negative correlation with economic growth while turnover rate has a very strong positive ratio. The implication of the result according to authors is that liquidity has the propensity to spur Economic growth in Nigeria which stock market capitalization has a strong positive correlation with stock turnover ratio.Mohtadi and Agarwal (2001) examined the relationship between stock market development and economic growth. The study covered 21 emerging markets and a period of over 21 years and found that relationship exists between the two both directly and indirectly by boosting private investment behavior. The study of Azarmi, Lazar and Jeyapaul (2005) examined the link between stock market development and economic growth for 10 year period (1981 – 2001) around the Indian market liberalization event in order to establish whether the Indian stock market is a casino or not. The authors found that stock market development was not associated with economic growth during that period and that the relevance of stock market development to economic growth is a function of the economic policies prevalent in the economy of study. Hasun, Wachtel and Zhou (2007) used panel data from the Chinese provinces to study the role of legal institutions, financial deepening and political pluralism on growth rates. They found that the development of financial markets, legal environment awareness of property right and political pluralism are associated with strong economic growth. Yartey and Adjasi (2007) examined critical issues and challenges of stock market development in sub-Saharan Africa. The study found that stock markets have contributed to the financing of the growth of large companies in some African countries. It found in conclusive evidence on the effect of stock markets on economic growth in African nations but acknowledged that the value of stockstraded seems to be positively and significantly connected with growth. Dragola, Catarama and Semeneces (2008) cited in Alajekwu and Achugbu (2012) investigated the relationship between capital market development and economic growth in Romania, using regression technique and VAR models. The study found that capital market

development is positively correlated with economic growth with a feedback effect. However, the authors observed that strongest connection is from economic growth - suggesting that financial market development follows economic growth. Ezeoha, Ogamba and Onyiuke (2009) examined the nature of relationship that existed between capital market development and economic growthin a country with a high degree of macroeconomic unavailability and whether the stock market plays a uniform role in attracting both domestic and foreign investments under such economic situation. The study shows that the development of the stock market in Nigeria over the years spurred growth in domestic private investment flows but was unable to do so in the case of foreign private investment. In addition, it found that the development in Nigeria's banking system rather had a destabilizing effect on the flows of private investments. Tachiwou (2010) examined the impact of stock market development on growth, using the regional stock exchange of the West African sub-region; it found that stock market development positively affects economic growth in West African monetary union both in the short and long run. Ogwumike and Salisu (2017) examined the short and long-run and the causal relationship between financial development and Economic growth in Nigeria from 1975 to 2008, using the bound test approuch. The study found apositive long-run relationship between financial development and economic growth in Nigeria. Financial intermediation, credit to private sector stock market and financial reforms were found to be exerting significant positive effect on economic growth. The study's analysis of the short run dynamics discloses that about 40% of the resulting disequilibrium is captured each period which indicated minimal shifts from the equilibrium. The study also carried out some VAR Granger causality test whose results lend support to the supply – leading hypothesis. Saltani, Ochi and Saidi (2014) employed the generalized moments(GMM) on a sample of 11 countries of the MENA region to investigate the effect of financial development on economic growth. Financial development was found to be harmful to economic growth inthat region. Crromosele (2013) from financial studies that the countries having some relatively liquid stock market in1978 grew much faster over the succeeding 18 years than those countries with illiquid stock markets, even after adjusting for the differences in other factors (such as education levels, inflation rates and openness) that affect growth. Cromosele also found that in promoting economic growth, a liquid stock market complimented a strong banking system. The implication is that banks andstock markets provide different bundles of financial services to an economy.

Methodology

This study employed table content analysis and descriptive statisticsin its methodology. The materials used for the review study were extracted from relevant journal publications and working papers.The scopeof the study was limited to developing countries particulally the sub-Saharan African nations.

Observations

The researchers observed that there is the need for developing countries,especially those in the sub-Saharan Africa, to address a number of nagging issues and challenges confronting their financial markets if they are to reap the targetted benefits. The major issues and challenges include stock market integration, demutualization (to overcome the governance and profitability problems) and impediments to institutional development(such as smallness, illiquidity, infrastructural bottlenecks, weak regulatory institutions and others).

Summary, Conclusion and Recommendations

Available literature has demonstrated that financial and stock markets have been very important sources of finance for funding the growth of companies all over the world. Nevertheless, African financial and stock markets are not developed at the same pace as a result of a host of issues and challenges which they can overcome only with time, if they take the right steps.

Literature has revealed that for some years now the world stock markets have accounted for a significant grown and that emerging markets have accounted for a reasonable amount of the boom. Countries, especially in developed economies, have benefited from financial and stock market development through increased aggregate investment, increased productivity of investments and in other ways. Some authors have identified income level, banking sector development, domestic savings and investment as well as stock market liquidity as important determinants of stock market development.

Based on the observations, the study recommends as follows: -

1. The involvement of institutional investors in the stock exchanges of developing countries should be pursued with vigour as such investors are usually at the forefront of promoting efficient market practices.
2. The regulation and supervision of the financial system should be strengthened as they contribute significantly in determining both the stability of the market and the extent of service it provides. Anther justification for strengthening these regulation and supervision is to protect investors from the potentially opportunistic behavior of insiders.
3. More efforts need to be made to attract capital flows and encourage foreign participation. Private capital flows (which include foreign direct investment, remittances and portfolio investment) are essential for stock market development. Generally, developing countries are still found wanting in this direction.
4. Public awareness on the functioning of the stock market should be intesified as doing so would promote stock and financial market development in developing countries.
5. Other financial instruments appropriate for the local market should be developed by financial intermediaries. Financial inclusion should be promoted by encouraging financial institution to extend credit even to the rural poor.
6. Developing economies should endeavor to stabilize their macroeconomic environment in order to balance inflationary pressures and interest rate offered on domestic saving.
7. The governments in developing countries should develop appropriate business and investor-friendly policies to stimulate their economies.
8. More than 70% of existing business ventures are located in the informal sector in Africa (Afful & Asiedu, 2014).Consequently,efforts should be intensified to integrate such enterprises to the formal sector and then to the stock exchange where they can access funds from domestic and international investors.
9. Stock market regulators in developing countries should maintain state of the art Technology, like automated trading and settlement system, electronic fund clearance, continued dematerialization of physical transfer of shares. They should also maintain transparency and fairness in transaction, dealings in the stock exchange and safety of the investments in order to ensure that investors have confidence in the markets.

10. The stock exchange markets in developing countries should be modernized, expanded and developed as deeper, broader and better functioning stock markets could stimulate investment opportunities.
11. Finally, African stock markets should integrate into wise reform to mitigate political challenges and seek for public sector investment with support from international financial institutions and donors.

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STRATEGIC MANAGEMENT ACCOUNTING TECHNIQUES USAGE, STRATEGIC CHOICES, AND PERFORMANCE OF FINANCIAL INSTITUTIONS IN NIGERIA

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Abstract

The paper examined the impact of strategic management accounting (SMA)techniques' usage and strategic choices on the corporate performance of financial institutions in Nigeria. Based on the administration of questionnaire to 156 top management employees of 13 deposit money banks in Benin metropolis, Edo State the paper examined whether SMA dimensions (17 SMA techniques usage and accountants' participation in strategic decision making)and strategic choices(strategic pattern, emergent strategy and market orientation) affect the performance of deposit money banks. The findings from the multiple regression analysis showed that whereas SMA techniques usage had a significantly negative impact on corporate financial performance, accountant participation in strategic decision making, strategy pattern, deliberate/ emergent strategy and market orientation had a significantly positive impact on the banks' performance. Therefore, the paper recommended that management of financial organizations should improve their usage of SMA techniques, involve accountants in the strategic decision making process and employ more emergent and market oriented strategies in order to improve their performance.

Key words: Strategy management accounting, techniques, usage, accountants' participation, strategic choices, strategic patterns, performance

Introduction

In a period of globalization, strategic management is considered as the best accounting practice employ by business organization in a competitive environment (Abdel-Aziz & Saed,2014). Corporate performance and long term business survival depends on competitors' business and other control factors of the business environment. Corporate performance depends on the competence of an organization to transform the resources within the firm in an efficient and effective manner to achieve organizational goal (Nwadukwe & Court, 2012).Therefore, strategic management is proposed as a key process to achieve organizational vision, strategy and objectives in a business environment. Strategic management accounting (SMA) is a process of using management accounting systems in making strategic decision and controlling activities by managers of corporate organizations (Cinquini & Tenucci, 2010). It involves the introduction of management accounting techniques into strategy management..

Fowzia (2011) concluded that SMA practices recognize the challenges facing management of organization relating to customers, market, decision and activity. The author argued that SMA practices are taking a new shape in industries owing to market competitiveness. SMA integrates external and internal, with financial and non-financial information. It includes cost management approaches such as quality costing, target costing, life cycle costing, value chain analysis, activity

based management, balanced score card etc. Bromwich (2001) says that SMA provides benefits that also to building and sustaining competitive advantage. It has been suggested that SMA strategic product costing and performance measurement, analyzes firm's product markets and competitive market forces, and assesses the organizational strategies over a long time frame (Horngren, Datar & Foster,2005). SMA techniques have evolved owing to the pursuit for efficiency and productivity of businesses (Aksoylu & Aykan,2013)

The business environment of the 21st century seems to be very different from the past. The new competitive landscape has greater uncertainty, dynamism and volatility caused by increasing technological developments, increasingly rapid diffusion of information and new technologies (Chesbrough, 2003). The present day business organizations are exposed to a competitive business environment which is influenced by technological and political changes (Nikolaos, Dimitrios& Georgios,2011).The complex business environment makes the customer's demands quality service rendering, flexibility, and speed are concerned, putting as a result the emphasis on improving customer services. The increasingly competitive marketplace brings about innovation concerns and the exploitation of business opportunities in achieving a successful business goal in the immediate future (Nikolaos, Dimitrios & Georgios, 2011). The rapid growth of global economics, changes in technologies, market competitions, and ever changing business environment have caused banks to struggle for profitability and growth (Chai & Entebang, 2014). SMA techniques provide organizations with appropriate information for decision making in changing internal and external environment (Yap, Lee, Said & Yap, 2014).Besides, SMA is gaining prominence due to the inability of the traditional management accounting to produce dynamic information for the business in today's competitive environment (Browmich & Bhimani, 1989; Guilding, Cravens & Tayes,2000)

Although most Nigerian studies have considered strategic management and organization performance and found significant relationship particularly in the banking sector (Adeyemi, 1992, Dauda, Akingbade & Akinlabi 2010, Muogbo,2013;Ofoegbu & Joseph 2013, Owolabi&Makinde, 2012,Olanipekun, Obioro, Akanni, Arulogun & Rabiu,2015), only a few studies have examined the impact of SMATs on corporate performance in Nigeria. Again,while there are studies which have examined the impact of management accounting tools and techniques, and SMAT on organizational performance (Al-Khadash& Feridun,2006,AbdulHussien & Hamza,2012, Cinquini & Tenucei,2010,Fowzia,2011, Yap et al,2014), a gap exists as there are no known studies which have investigated the relationship between SMATs usage, strategic choices and performance among Nigerian banks. Similarly, strategic choices have been found to have positive and significant relationship with performance (Carraresi,Mamaqi, Albisu & Banterle, 2011;Gado,2013). For instance, Gado (2013) found a stronger correlation between strategic choices and performance of textile industry concluding that strategic choices willturn again the ailing industry. Carraresi et al (2011) found that strategic choice based on innovation had a positive effect on performance.

Therefore, the objectives of the paper include: (1) to examine the impact of the usage of SMA techniques on corporate performance of Nigeria banks (2) the impact of accountant's participation in the strategic decision making on corporate performance of Nigerian banks and (3) to investigate impact of strategic choices on performance of Nigeria banks. The rest of the paper is divided into four sections. The immediate section reviews the literature and develops the hypotheses about the

relationship between SMA technique usage, accountants' participation in the strategic decision making, strategic choices and corporate performance. Section three is the methodology while section four dwells on the data analysis, hypotheses testing and discussion of the results. The last section is the conclusion and recommendations. The paper contributes to the extant literature by examining the impact of SMAT usage and strategic choices (by considering the three dimensions)on corporate performance of financial institutions in Nigeria.

Literature Review and Hypotheses Development

SMA Techniques Usage and Corporate Performance

Strategic management accounting covers entire operations allowing accountants and other business managers to tend towards an outward-oriented perspective as opposed to an inward-oriented perspective (Kırlı & Gümüş, 2011). Fowzia (2011) examined the relationship between SMA techniques with business strategy and strategic effectiveness of 70 Bangladeshi companies. He found that the overall adoption rate was low to the medium level. Activity based costing, target and strategic costing have significant impact on their strategic effectiveness. Yap, Lee, Said and Yap (2014) found low level of adoption of SMA techniques by Malaysian unlisted companies. Mahama (2006) examined management control systems, cooperation and performance in strategic supply relationships. The empirical results showed that greater management accounting usage and corporate performance were positively related. Similarly, Agbejule (2005) investigated the relationship between management accounting systems and perceived environmental uncertainty on managerial performance. The empirical result showed that the use of broad scope information has a significant positive effect on performance in prospector companies than in defender companies.

Ajibolade, Arowomole and Ojikutu (2010) document from their study on management accounting systems, perceived environmental uncertainty and companies' performance in Nigeria that the increasing usage of SMA information for decision-making enhances effective organizational performance. Al-Mawali, Zainuddin and Kader (2012) showed that the level of usage of customer accounting information has a significant positive influence on organizational performance in Jordanian service sectors.Al-Mawali (2015) conducted a study on the SMA usage, environmental uncertainty and organizational performance in Jordanian quoted companies. The empirical results show that SMA usage has a significant positive affect on organizational performance. Aksoylu and Aykan (2013) examined the compliance of medium and large-size enterprises with SMAT as well as the effects of SMAT on the perceived performance of businesses using 202 accounting in Kayseri, Turkey. They found that 16 out of the 17 SMAT had above average usage and there were more than 50% compliance with 12SMATs.Besides they found that SMAT usage had a positive and weak significant effect on the perceived performance. Similarly, the SMAT sub-dimension of strategic costing, customer and competitor-oriented techniques had a significantly positive but weak effect on perceived performance.

Chenhall and Langfield-Smith (1998) found a significant relationship between SMA tools and business performance in 140 manufacturing companies selected from the largest companies in Australia. Cadez and Guildings (2008) found a weak relationship between usage of SMA tools and 7-dimensional performance measures of the top 500 Slovenian. They found that “the application of SMA systems is not necessarily related to superior performance, but that superior performance is a product of an appropriate match between the contingent factors (business strategy, degree to which adopted

strategy is deliberately formulated , market orientation and firm size." Said, Hui, Othman and Taylor (2010) found a medium level relationship between usage of SMA tools and financial/service quality performance of 109 Malaysian companies. Sener and Dirlik (2012) found a medium level relationship between SMAT usage and perceived performance of the top 500 and second largest 500 industrial companies in Turkey. Abdul Hussien and Hamza (2012) study on SMA techniques in Romanian showed that major SMA techniques employed were activity-based costing, value chain analysis, bench marking and balance scorecard.

The SMA dimensions are made up of SMA techniques and accountants' participation in strategic decision making (Odia,2018a).Cadez and Guildings (2008) classified the SMA techniques into five namely; strategic costing, strategic planning, management and control, strategic decision making, competitor accounting, and customer accounting. These five major techniques are sub divided into 17 techniques. The use of these techniques bring strategic ideology to management accounting practice in Table 1 shows the 17SMATs and the categories.

Table 1. Categories of SMA Techniques

SMAT CATEGORIES	SMAT
1.Strategic Costing	1. Attribute costing 2. Life-cycle costing 3. Quality costing 4. Target costing 5. Value chain costing 6.Activity based costing
2.Strategic Planning, Control and Performance	1. Benchmarking 2. Integrated performance measurement like Balanced Scorecard
3.Strategic Decision Making	1. Strategic cost management 2. Strategic pricing 3. Brand valuation
4.Competitor Accounting	1. Competitor cost assessment 2. Competitor position monitoring 3. Competitor performance appraisal
5. Customer Accounting	1. Customer profitability analysis 2. Lifetime customer profitability analysis 3. Valuation of customers as assets

Source: Cadez and Guildings (2008)

Hypothesis 1 :SMATs Usage has no relationship with performance of Nigerian banks

Accountants' participation in Strategic decision making and Corporate Performance

Strategic accountants are accountants that are involved in strategic and proactive ways of analyzing companies business issues based on the data than the conventional way of carrying out their financial and operational functions (Coad, 1996).The duties of the management accountants' role is to provide useful information to managers for strategic decision making process and the accountants are not been participating in decision-making processes in the organization. Although accountants perform

mainly the traditional roles of corporate police, number crunchers and score keepers, they are taking up the modern roles as business partners and adviser, strategists, consultants and so on today and also impart significantly on organization's performance (Odia & Oke, 2018; Odia,2018c).
Hypothesis 2.There is no relationship between accountants' participation in the strategic decision making and performance

Strategic Choice and Corporate Performance
Strategic choice is a selection of the best strategic option that helps achieve organization's objectives. Relevant strategic options are evaluated based on their sustainability, feasibility, acceptability and they are ranked in order of their potential to achieve desired objectives. A positive relationship have been found between strategic choices and organizational performance (Junqueira et al, 2015)
Hypothesis 3: There is no relationship between strategic choice and corporate performance

Strategic Pattern: (Defenders vs Prospectors)
Miles and Snow (1978) listed four major strategic typologies to include: prospectors, defenders, analyzers and reactors. Prospectors are causers of change in the industry. Firms following this strategy always seek for new products, and market opportunities and see how the can continue to bring more innovations to the industry. They are creators of utility (Miles & Snow, 1978).Defenders are almost opposite to the prospectors. The strategy of a defender is to offer relative stable set of service and ensure efficiency in the market (Narrow market). The defender looks at providing efficiency at the lower cost (Miles & Snow, 1978). Porter (1996) affirms that prospectors are more concerned with strategic position while defenders are concerned with operational effectiveness. Palmer and Bromwich (2000) concluded that accountant participation in decision making process will be greater in organization applying a prospector's type strategy.
Analyzers tend to match prospector and defenders. They are not risk takers as they only move into the market after prospectors have proven the viability of the market. They are like copycats. They live by imitation and have that ability to respond to leading prospectors, but are more efficient E.g. IBM (Miles & Snow, 1978). Reactors are firms without a consistent strategy; they are either here or there it always difficult to categorize them clearly. In general most of them perform poorly as they are reluctant to commit themselves to a specific strategy (Miles & Snow, 1978).Reactors are firms without a consistent strategy; they are either here or there it always difficult to categorize them clearly. In general most of them perform poorly as they are reluctant to commit themselves to a specific strategy(Miles & Snow, 1978).Cinquini and Tenucci (2010) found that both defender and cost-leader-type of strategy are more willing to use SMA techniques in addressing cost information.
Hypothesis 3a: There is no relationship between the strategy patterns and performance

Degree of Deliberate/ Emergent Strategy
A deliberate strategy is a conscious intended course of actions which involves discussions on a strategic action. It involves debating and deliberation of the strategy to pursue. On the other hand emergent strategy is a strategy form as a result of the ambiguous nature of strategic decisions in other to imply flexibility. Bromwich (2000) is of the view that deliberate strategy formulation orientation leads to greater accounting participation in strategic decision making processes. Fisher (1995) also that since strategic deliberations involves decision of what type of product/market innovation to be pursued and also timing of product market, there is a tendency that the prospectors organization are best suited under this dimension of strategy because most prospectors decision are more deliberating in nature

but not the same in the case of the defenders organization as the focus only on operational and efficiency seeking level (Davilla,2000).

Hypothesis 3b: There is no relationship between degree of deliberate and emergent strategy, and performance of banks

Degree of Market orientation

This philosophy tends to explain the level of dedication and concentration an organization puts in place in other to fulfill its primary goal by satisfying their customer needs or creating superior values for its customers.It includes introducing new or different things in order to respond tomarket conditions.It requires "being more sensitive about the opportunities against the competitors whose market orientation level is lower" (Micheels& Gov,2010).Guildings and Mcmanus (2002) found a positive association between market orientation and customer accounting.They believed that manager with high market orientation perform well and better than their rivals as they see market orientation to be consistent with higher level of market performance.Tutar,Nart and Bingol (2015) found that proactive market, entrepreneurial and technology orientations were positively related to innovative capabilities and market performance.

Hypothesis 3c: There is no relationship between degree of market orientation and performance of Nigerian banks

Methodology

The population consists of top management employees of 13 commercial banks in Benin Metropolis, Edo State. Given a population of senior staff population of 432 in 2016 (See Table 1).To determine our sample size using Yaro Yamane, a total two-hundred and eight (208) employees copies of questionnaire was administered to staffs of money deposit banks in Benin metropolis in Edo State, Nigeria. But only one-hundred and fifty-six (156) copies of questionnaire were duly filled and returned, representing a response rate of (75%). The high response rate was attributed to the fact that the researcher had contacts in the study area that facilitated in the data collection process.

Table 1: Sampled Population of respondents

Bank	No.of Branch	Supervisors	Senior Staffs	Middle Managers	Branch Managers	Total
First Bank	5	10	39	10	5	69
Eco bank	8	11	19	24	8	70
Fidelity	6	24	6	6	6	48
Diamond	6	13	15	0	6	40
GTB	2	9	12	4	2	29
UBA	10	20	21	11	10	72
Access	2	6	6	13	2	29
Union	6	25	15	15	3	64
Sterling	1	2	5	2	1	11
TOTAL	46	120	138	85	43	432

Source: Field Survey (2016)

The Research Instrument

The questionnaire was constructed based on Cadez and Guilding (2008), Cinquini and Tenucci (2010) and, Aksoylu and Aykan (2013) to cover the objectives and hypotheses of the study. The questionnaire was divided into two parts. Parts one contains the background information of the respondents. Part two was classified into four sections. Section one consist of questions rated on a 5-point scale on the usage of the 17 SMA techniques. Section two consisted of questions rated on a 5-point Likert scale on accountants' participation in strategic decision making. Section three consist of questions on strategic choices which was made of type of strategy, degree of deliberate and emergent strategy, and market orientation. Section four consist of questions on a 5-point Likert scale on corporate performance. The Cronbach Alpha testsof reliability conducted using SPSS 21.0 showed values which exceeded the recommended minimum of 0.700 as follows: strategic management accounting techniques usage 0.732; accountants' participation in strategic decision making 0.801;strategic choices 0.755 and corporate performance 0.744.

Models Specification

Based on Cadez, and Guilding (2008), Cinquini and Tenucci (2010) and Aksoylu and Aykan (2013),themodels are depicted as follows.

$CPERF = \alpha 0 + \alpha_1 SMATU + \alpha_2 ACCTP + \alpha_3 SCHOICE + U_t$---------- (1)

$CPERF = \alpha 0 + \alpha_1 SMATU + \alpha_2 ACCTP + \alpha_3 STRATYPE + \alpha_4 EMESTR + \alpha_5 MKTORIENT + U_t$---------- (2)

Where:

CPERF=Corporate performance,

SMATU = Strategic management accounting techniques usage

ACCTP= Accountant participation in strategic decision making

SCHOICE = Strategic choices

STRATYPE = Strategy type

EMESTR = Deliberate and emergent Strategy

MKTORIENT = Market orientation

Ut = Error term

α_0 = constant.

α_1, α_2, α_3= coefficients of the explanatory variables.

Operationalization and Measurement of Variables

Corporate Performance Corporate performance consisted of 4 financial and non-financial items :(1) Return on Investment (2) Return on Assets.(3) Customer satisfaction and (4) New product development. It was measuredon a 5-point ordinal scale

Strategic Management Accounting Techniques (SMAT) Usage:Following Guilding et al (2000),Cadez and Guilding (2007,2008) andCinguini and Tennucci (2010),the measure of the degree of SMA techniques usage wasstructured on 5-point scale from Not at All (1) to Great Extent (5)

Accountant Participation in Strategic Decision Making: It addressed the question of how changing organizational discipline enhances accountant's participation in strategic decision making process. The five statement was are structured on 5-point Liker scale based on Cadez and Guilding (2008b).

Strategic Choices: The strategic choices comprise:

(1) Type of business strategy (strategy pattern).Following Miles and Snow (1978), Snow and Hrebiniak (1980) and Shortell and Zajac (1990), the instrument asks which of the two description

(defender and prospectus) best describes the financial institutions. Besides, following Golden (1992) and Abernethy and Brownell (1999), the respondents were asked to place strategy types along a five - point from "1" (defender) to "5" (prospector).

(2) Degree to which strategyis deliberately or emergent formulated. Three statements based on Mintzberg (1987) and used by Cadez and Guilding (2008b) was used to measure this variable

(3) Degree of market orientation was measured using Guilding and McManus (2002) on a 5 point scale using four statements.

The responses from the administered questionnaire were analyzed using descriptive statistics, percentage, correlation and multiple regression analyses. While the Pearson correlation matrix was used to examine the relationship between the dependent and independent variables, and following prior study such as Cadez et al (2007, 2008) andCinquini et al (2010), the multiple regression method was employed to testthe hypotheses if the independent variables had significant impact on the dependent variable. The Variance Inflation Factor (VIF) of less than 10 showed the absence of multi-collinearity among the variables.

Data Analysis and Discussion of Results

The purpose of this study was to examine the impact of strategic management accounting techniques on corporate performance of financial institutions.

Demographic Characteristics of Respondents

The demographic characteristic of respondents is presented in Table 2.

Table 2: Demographic Characteristics of Respondents

Category	Frequency	Percentage (%)
GENDER:		
Male	104	66.7
Female	52	33.3
AGE:		
20 - 25 years	87	55.8
26-30 years	53	34.0
31-35 years	15	9.6
36-40 years	1	0.6
41 Years and above	-	-
MARITAL STATUS:		
Married	14	9.0
Single	40	25.6
Separated	55	35.3
Widowed	43	27.6
Divorced	4	2.6
EDUCATIONAL QUALIFICATION:		
OND	31	19.9
HND/BSC	95	60.9
MASTERS	27	17.3
PHD	3	1.9

WORK EXPERIENCE		
0-5 years	51	32.7
6-10 years	71	45.5
11-15 years	14	9.0
16 years and above	20	12.8
POSITION:		
Supervisor	65	41.7
Senior staff.	59	37.8
Middle management	31	19.9
Branch manager	1	0.6

Source: Author's Compilation, 2017

Table 2 shows the demographic characteristics of respondents. It would be revealed from the above table that 104 (66.7%) were males and 52 (33.3%) were females. This implies that majority of the respondents were males. On the basis of age, 87 (55.8%) of the respondents were 20-25 years, 53 (34.0%) of them were aged 26-30 years, 15 (9.6%) of the respondents were aged 31-35 years and 1 (0.6%)respondent was 36-40 years. This shows that majority of the respondents were aged 20-25 years. On marital status of the respondents, 14 (9.0%) were married, 40 (25.6%) of the respondents were single, 55 (35.3%) of the respondents were separated, 43 (27.6%) of the respondents were widower/widow and 4 (2.6%) of them were divorced. This means that majority of the respondents were separated and single. Based on educational qualification, 31 (19.9%) of the respondents possessed OND certificate, 95 (60.9%) of the respondents possessed either HND or BSC degree, 27 (17.3%) possessed master degree and 3 (1.9%) of respondents had doctorate degree. This means that majority of the respondents were either HND or BSC degree holders

Usage of SMAT

Table 3a shows the response regarding the 17 SMATs. A mean of below 2.50 indicates that there islow usage of all the SMATs by financial institutions. However, brand valuation, life cycle costing, competitor's cost assessment, integrated performance measurement and strategic costing are the five topmost SMATs used by them. The least SMATs used by the banks include: Quality costing, target costing, value chain costing, bench marking, competitor performance appraisal, and customer accounting (valuation of customer asset and lifetime customer profitability analysis).

Table 3a. SMA techniques usage.

SMATs	Mean	Rank
Attribute Costing (AC)	1.62	8
Life Cycle Costing	1.73	2
Quality costing	1.44	15
Target costing	1.44	15
Value chain costing	1.44	15
Benchmarking	1.56	12

Integrated performance measurement	1.71	4
Strategic costing	1.70	5
Strategic pricing	1.68	6
Brand valuation	1.75	1
Competitor cost assessment	1.72	3
Competitor position monitoring	1.62	8
Competitor performance appraisal	1.51	14
Balance scorecard technique	1.61	10
Customer profitability analysis	1.67	7
Lifetime customer profitability analysis	1.58	11
Valuation of customer asset	1.56	12

Source: Field Survey (2017)

Again, a comparison of the usage of SMATs in other countries like Italy, USA, Slovenia and Australia from prior studies in Table 3b revealed that the usage of SMATs in Nigeria is lower than the usage in Italy and the USA. There seems to be much low usage of SMAT regarding quality costing, targeting costing, value chain costing and bench marking, competitor position monitoring, competitor performance appraisal in Nigeria compare to the other countries. Strategic costing, strategic pricing and brand valuation is also very low in Nigeria.

Table 3b: Comparison of Strategic Management Accounting Techniques (SMAT) Usage

S/N	Study	This study	Rank	Cinquini, et al (2010)	Rank	Craven &Guilding (2001)	Rank	Cadez&Guildings (2007)			
	Country	Nigeria		Italy		USA		Slovenia	Rank	Australia	Rank
	Sample size/respondents	208/156		215/92		915/120		388/134		298/26	
	Scale Used	1-5[a]		1-5		1-7		1-7		1-7	
A	SMAT and Usage	Mean		Mean		Mean					
1	Attribute Costing (AC)	2.27	8	NA		NA		NA		NA	
2	Life Cycle Costing	2.42	2	2.92	11	2.73	10	2.90	10	2.21	8
3	Quality costing	2.02	15	4.12	4	3.07	9	4.31	2	1.67	10
4	Target costing	2.02	15	3.62	6	3.19	7	3.64	8	2.00	9

5	Value chain costing	2.02	15	3.43	8	3.15	8	3.90	6	2.63	7
	ABC/ABM	NA		3.27	9	3.54	6	NA		NA	
6	Benchmarking	1.56	12	3.61	7	4.59	2	3.92	5	4.36	2
7	Integrated performance measurement	1.71	4	3.17	10	4.00	5	3.94	4	2.83	6
8	Strategic costing	1.70	5	NA		NA		NA		NA	
9	Strategic pricing	1.68	6	NA		NA		NA		NA	
10	Brand valuation	1.75	1	NA		NA		NA		NA	
11	Competitor cost assessment	1.72	3	3.95	5	4.09	4	3.38	9	3.96	4
12	Competitor position monitoring	1.62	8	4.44	3	4.93	1	4.31	2	4.40	1
13	Competitor performance appraisal	1.51	14	4.69	2	4.50	3	4.47	1	4.04	3
14	Balance scorecard technique	1.61	10	NA		NA		NA		NA	
15	Customer profitability analysis	1.67	7	4.86	1	NA		3.90	6	3.50	5
16	Lifetime customer probability analysis	1.58	11			NA					
17	Valuation of customer asset	1.56	12			NA					

a- Mean based on five scale of GE=Great Extent- 5, M=Moderate-4, SE=Small Extent -3 , VS=Very Small-2, NA=Not at All-1
Converted to a 7-point scale based on Dawes (2002) in order to compare results.

Accountants participation in Strategic Decision Making

Table 4 shows that accountants' participation in the strategic decision making include mostly in some small measures: evaluating options, generating options, developing details about options, taking necessary actions and problem identification and objectives proposition. The low mean values indicate a low level participation. This supports Odia (2018c) that the roles of the management accountants are mainly traditional but are gradually tilting towards the modern roles involving participation in strategy formation and decision making.

Table 4. Accountant's Participation in Strategic Decision making

S/N	ITEMS	CT	MT	UN	ST	NA	Mean	Rank
B	Accountant's Participation in Strategic Decision Making involves:	(%)	(%)	(%)	(%)	(%)		
1	Identifying problems and proposing objectives in your organization	-	-	4(2.6)	13(8.4)	114(73.1)	1.16	5
2	Generating options	-	7(4.5)	23(14.7)	36(23.1)	90(57.7)	1.65	2
3	Evaluating options	1(0.6)	1(0.6)	31(19.9)	37(23.1)	86(55.1)	1.69	1
4	Developing details about option in your organization	2(1.3)	1(0.6)	17(10.9)	49(31.4)	87(55.8)	1.60	3
5	Taking the necessary actions to put changes into place	-	6(3.8)	4(2.6)	45(28.3)	101(64.7)	1.47	4

Note: CT=Completely True, MT=Mostly True, UN= Undecided, ST= Slightly True, NA=Not at All

Strategic Choices

Table 5 shows the strategy type with an overall mean of 3.86 tends towards the prospector's type. Besides, the emergent strategy and market orientation was very low.

Table 5. Strategic Choices

C	Strategic Choices	1	2	3	4	5	Mean
i	Types of Strategy: Defender (1) ---------- Prospector (5)						
1	Your organization uses business strategy	35(22.4)	1(0.6)	4(2.6)	27(17.3)	89(57.1)	3.86
	ITEMS						
ii	Deliberate or Emergent Strategy	SA	A	UN	D	SD	
1	Strategic decision makers usually think through everything in advance of strategic action in your organization	-	1 (0.6)	2 (1.3)	42 (26.9)	111 (71.2)	1.31
2	Strategic intention are seldom realized with little or no deviation in your organization	2(1.3)	2 (1.3)	11 (7.1)	44 (28.4)	96 (61.9)	1.52
3	Strategic actions are usually develop in the absence of strategic intention in your organization	2 (1.3)	4 (2.6)	11 (7.1)	41 (26.3)	98 (62.8)	1.53
iii	Market orientation						
1	Your organization has a strong understanding of their customers	1 (0.6)		9 (5.8)	39 (25.0)	107 (68.6)	1.39
2	The functions in your organization work closely together to create superior value for their customers		1 (0.6)	4 (2.6)	49 (31.4)	102 (65.4)	1.38
3	Your organization has a strong market orientation			6 (3.8)	49 (31.4)	101 (64.7)	1.39
4	Management in your organization thinks in terms of serving the need and wants of well-defined markets chosen for their long term growth and profit potential for the organization	1 (0.6)	1 (0.6)		61 (39.1)	93 (59.6)	1.44

Note: SA=Strongly Agree, A=Agree, UN=Undecided, D=Disagree, SD=Strongly Disagree

Corporate Performance

Table 6 shows that performance are below average. The performance indicators included return on investment, return on assets, customer satisfaction

Table 6. Performance

S/N	ITEMS	EX	AB	A	BA	VP	Mean	
D	Performance	(%)	(%)	(%)	(%)	(%)		
1	Return on investment (ROI)				21(13.5)	135(86.5)	1.13	
2	Return on assets (ROA)			3(1.9)	39(25.0)	114(73.1)	1.29	
3	Customer satisfaction			5(3.2)	35(22.4)	116(74.4)	1.29	
4	New product development		4(2.6)	3(1.9)	49(31.4)	100(64.10	1.43	

Note: EX=Excellent, AB= Above Average, A=Average, BA=Below Average, and new product development VP=Very Poor

4.6. Test of Hypotheses

4.6.1.Descriptive Statistics

Table 7 shows the descriptive statistics for the performance and other independent variables including their mean and standard deviation.The mean for SMATU of 2.902 shows that the SMATs are moderately used by financial institution.The accountant's participation in the strategic decision making is also very low with a mean of 1.59.The strategy type gravitates towards prospector's type with a mean of 3.86.The performance is equally low at a mean of 1.29.

Table 7: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Dev	Actual Range	VIF
SMATU	158	1.00	6.17	2.9022	1.26460	1-5	1.241
ACCTP	158	1.00	4.00	1.5976	.80904	1-5	8.831
STRATYPE	156	1.00	5.00	3.8590	1.62421	1-5	10.703
EMERSTRAT	156	1.00	3.67	1.4530	.62670	1-5	3.855
MKTORIEN	156	1.00	2.75	1.4006	.52107	1-5	3.750
PERF	156	1.00	2.25	1.2853	.41197	1-5	------

Source: Author's computation

Correlation Matrix

Table 8 revealed the Pearson correlation matrix between SMAT usage, strategic choices and organizational performance. The correlation coefficient of SMATU had a moderate and negative correlation with PERF (perf= -0.448). This means that the SMATs usage leads to a decrease in organizational performance. The medium and weak relationship between SMAT usage and performance tend to support the prior findings by Said et al (2010), Cadez and Guiding (2008), Sener and Dirlik (2012) and Aksoylu et al (2013).

However, accountants' participation in strategic decision making had a positive and moderate correlation with performance (PERF =0.423). This shows that active participation of accountant in strategic decision making would lead to an increase in organizational performance. Also for strategic choices, whereas emergent strategy and market orientation had positive coefficients that were strongly correlated with organizational performance (perf = 0.708,perf=0.845), the strategy type or pattern is negative and moderately correlated with performance (perf = -0.446)

Table 8: Correlation Analysis

Variable	SMATU	ACCTP	STYPE	EMERSTR	MKTORIEN	PERF
SMATU	1.000					
ACCTP	-0.177	1.000				
STRATYPE	0.192**	-0.941***	1.000			
EMERSTR	-0.351***	0.662***	-0.729***	1.000		
MKTORIEN	-0.414***	0.647***	-0.699***	0.833***	1.000	
PERF	- 0.448***	0.423***	-0.446***	0.708***	0.845***	1.000

Source: Authors' (2018)

Regression analysis

The regression results are presented in Table 9below:

Table 9. Regression Results

	Model 1	Model 2
Variables	PERF	PERF
C t-value p-value	3.75*** (7.02) 0.000	-0.383 (-1.511) 0.133
SMATU	-0.24 ** (-1.99) 0.048	-0.026 * (-1.859) 0.065
ACCTP	0.27*** (3.67) 0.003	0.085 (1.362) 0.175
SCHOICE	0.16 ** (2.15) 0 033	-

STRATYPE	-	0.119 *** (3.661) 0.000
EMERSTRAT	-	0.114 ** (2.250) 0.026
MKTORIEN	-	0.705 *** (11.782) 0.000
R^2	0.122	0.771
R^{-2}	0.104	0.763
F- Stat p-value	7.001*** 0.000	100.774 *** 0.000

Source: Author's computation

The results in Model 1 and 2revealed that SMATU had a negative and a significant impact on corporate performance. This means that SMAT usage would lead to decrease in corporate performance. The results in Model 1 showed that accountants' participation in strategic decision making had a positive and a significant impact on corporate performance at 1% level of significance. The positive coefficient of 0.27 means that accountants' participation in strategic decision making and corporate performance was positively and significantly related to performance. The regression results also showed that strategic choices (SCHOICE) had a positive and a significant impact on corporate performance at 5% level of significance. The positive coefficient of 0.16 accounted for 16% increase in corporate performance. Therefore this means that strategic choices and corporate performance were positively and significantly related.

In Model 2 where the strategic choices were disaggregated into strategy types or patterns, deliberate/emergent strategy and market orientation, SMATU stills had a significant and negative impact on PERF while ACCTP is positive and insignificantly associated with PERF. The strategic choices- STRATYPE, EMESTR and MKTORIENT are all positive and significantly associated with PERF.

Discussion of Results

The multiple regression results revealed that SMA technique usage had a negative and a significant impact on corporate performance at 5% level of significance. The result is not consistent with the findings of Al-Mawali (2015),Chenhall et al (1998)and Aksoylu et al (2013)that SMA usage has a significant positive effect on organizational performance. Therefore, we reject hypothesis one (H_1) that SMAT usage has no relationship with corporate performance of Nigerian banks.

Accountants' participation in strategic decision making had a positive and a significant impact on corporate performance at 1% level of significance. The result is consistent with the findings of Ofoegbuand Joseph (2013) that a significant relationship exist between organizational performance

and those organizations that encourage employee to be involved in their decision making. The study therefore suggested that we should reject the null hypothesis two (H_2) that accountant participation in strategic decision making does not have a direct association with the performance of Nigerian banks. Strategic choices had a positive and a significant impact on corporate performance at 5% level of significance. The result is consistent with the findings of Carraresi ,Mamaqi , Albisu and Banterle (2011). Gado (2013)Fiberesima et al (2013) and Dauda et al (2010). Therefore, we reject the null hypothesis (H_3) that strategic choices do not have a direct impact on the performance of Nigerian banks.

Therefore, a summary of the key findings indicates that : 1. SMA techniques usage are very low and they have a negative and a significant impact on performance. 2. Accountants' participation in strategic decision making is low and had a positive and a significant impact on the performance of Nigerian banks, and 3. Strategic choice (strategy pattern, deliberate/emergent strategy and market orientation) have positive and significant impact on corporate performance.

Conclusion and recommendations

The paper examined strategic management accounting techniques usage, strategic choices, and performance of Nigerian banks in Benin metropolis, Edo State. It concludes that SMAT susage is low and they have negative and significant impact on the performance of money deposit banks in Benin metropolis while accountants' participation in strategic decision making and strategic choices had positive and a significant impact on corporate performance respectively. Therefore, based on the findings, the following recommendations were put forth:

1. Management of financial institutions or banks should be concerned with the types of SMA techniques employed because of its adverse effect on corporate organizations.
2. They should involve accountants more in decision making process in order to improve performance of the organizations.
3. Management of banks should employ the best strategic options and market orientation strategies that would enhance their performances.

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WORKING CAPITAL MANAGEMENT AS PREDICTORS OF CORPORATE PROFITABILITY IN SELECTED NIGERIA MANUFACTURING FIRMS

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Abstract

The most important area of financial management is working capital, in view of the fact that working capital management is used in daily activities of a firm. The objective of this paper is to examine working capital management as predictor of corporate profitability of selected quoted consumer goods firms in Nigeria. Secondary data were used in this study and were analyzed at two levels: univariate and multivariate levels. Analyses were performed by fitting two multiple regression models. The dependent variable was corporate profitability measured by return on asset, while the independent variable was working capital management proxy by account payable, account receivable, cash conversion cycle and liquidity ratio. Three related variables: sales growth, stock turnover and debt ration were selected for statistical control in the study. The study reveals statistical significant influence between account payable, account receivables, cash conversion cycle, liquidity ratio and debt ratio. The study recommends that managers of consumer goods firms should manage the working capital of their firms efficiently and strife to reduce the firm's cash conversion cycle period to have higher profit, since the lesser the CCC the greater the profitability, and this increases firm profitability by reducing the amount of money invested in working capital management.

Keywords: working capital, company's profitability, consumer goods firms, manufacturing firms, management.

Introduction

Commercial activities are considered to be the condition that distinguished economy growth nationwide. Managing business effectively and efficiently is one of the key indicators in national economy. Independence of variables quantities between working capital and profitability of a company is analyzed for the management of cash conversion cycle management. Working capital also represented by a company's net investment in current assets necessary to support its daily business. Working capital always changes its form and is sometimes referred to as working capital. According to(Qazi, Shah, Abbas&Nadeem, 2011) working capital management is a tactical focus on maintaining an adequate amount of capital to assist a business while reducing investment in these areas. The aim in working capital management is to be certain that there is enough cash in hand to pay for liabilities whenever due for payment. In the word of (Shahid and Saad, 2010) WCM is an important corporate

financial decision. According to (Ahmed, 2014) the great significance or value that have direct impact on profitability of an organization is working capital management. As high cost is associated with the funding of working capital, there is a balance pressure to keep funding levels low. The recent goal is achieved by closely monitoring the turnover levels for accounts receivable, investor and account payable and taking action when the turnover levels vary from expectations. Supplementary device is used to monitor working capital levels is the short term and medium term cash forecast which allows management to know when unusual high or low cash levels are expected in the company.

Nzioki, kimeli, Abduho, and Nthiwa (2013) also opined that administration of current assets and current liabilities is working capital management which deals with the management of current asset and current liabilities and directly affects the liquidity and profitability of the company. Owolabi and Alu(2012) statedthat working capital is the total money an organization readily held in hand to run the business; it can be a different between the resources an organization held in cash or can be convertible into cash. Working capital is defined to be resources which firms have at hand to meets up with its daily activities of the affairs of the business. It is the ability to meets up with its short-term obligation as they fall due and also provided measures of business liquidity. Foe an organization to meets up with the activities of the company smoothly, sufficient amount of working capital is extremely absolutely necessary. According to (Naj, 2010) opined that maintaining good will in an organization is one of the advantages of working capital management, loans can be source for on easy favorable terms from the bank, maintaining solvency of the business is also an advantages, at the same time, enables concern face dilemma in time of distress, especially when depreciation set in. But create an environment for security self-assured and overall competent in a business. (Borad, 2016) assert that a WCM advantage ensure liquidity, enables un-interruption in operations, strenghten profitability, advance financial health and value addition to the firm. According to (Borys, 2016) WCM is to be more adjustable, expand the firms and invest in new product and services. (Kar, nd) argued that WCM assist in the course of solvency of the business by producing continues flow of production. (Naj,2010) stress the advantages to be the rate of return on investment fall with insufficient working capital, outrageous working capital lead to overall inefficiency in an organization as more working capital means aimless fund that earn no profit and inadequate working capital cannot pay short time liabilities in time. (Sagner, 2016) assert intended result of management of working capital make easy exploitation of fixed asset advantageously for reassurances of the company's long term success and attainment of long term objective of maximization of stakeholders funds. Inadequate management of cash may result in loss of not only the cash concessions but that of goodwill as well owing to nonpayment of payables by fixed time. Poor inventories may be the significant reason of manufacturing delays and it may force the company to procure raw materials at higher prices likewise facility of credit sale is also extremely important for increase of sales. It is been perfectly experienced that on so many occasions company's break-down occurs owing to insufficient working capital

According to (Charitou, Elfani, and Lois, 2010)opined that preventing the wasteful use of a resources of a firms enhanced profitability and reduced volatility which leads to reduction in failure risk and thus, better the firms value. Every business needs enough resources that will be used to improve quality of their profit and performance, despite various studies Ademola, 2014: Akoto, Vitor, and Angmor, 2013: Falope andAjilore, 2009) there is still need to expand knowledge of the relationship between 2010 to 2015 because the time frame period analyses in previous studies has become obsolete in recognition of current change and development in the national economy, there is need to update knowledge of the relationship in Nigeria, hence this study. The objective of the study is there for to

examine Working capital management as predictors of corporate profitability in selected Nigeria manufacturing firms between 2010 -2015.

Literature Review

Several studies have examined the subject matter and distinct conclusions researched. Some analyze the aspect of cash conversion cycle only while others, studied only working capital components with different methods use in their analyses, however most of the conclusion of the researchers are negative relationships. (Salman, Folajin, and Oriowo,2014) in their study of working capital management and profitability of listed selected manufacturing companies in Nigerian stock exchange between 2005- 2013, panel data methodology was adopted and method of analysis is that of Pearson correlation moment coefficient and multiple regression and results showed working capital has negative and significant relationship with the return on asset and return on equity at 5% significant level. Working capital in an organization is a key factor to advance profitability in any organization to the highest level

Owolabi and Alu, (2012) studied the effective working capital management and profitability of selected quoted manufacturing companies in Nigerian. Trends analyses of financial statement of the company audited from 2006-2010 were used, involving an Ex-posit factor research design and multivariate analyses were used to test research hypotheses. The result of their findings indicated that at the levels of company's profitability, every working capital component was affected at a varying rate. All component of working capital has its own advantages and disadvantage in achieving a quality profit in any organization(FalopeandAjilore, 2009) analysed working capital management and corporate profitability: evidence from panel data analysis of listed companies on non-financialfirms for the period of 1996-2005. The study utilized panel data econometrics in a pooled regression and founding shows a significant negative relationship between net operating profitability and found no significance variations in the effects of working capital management between large and small firms. The net operating of the firms needs to be more focused on in order to have a positive influence of the firms profitability

Akoto, *et al*. (2013) in their study working capital management practices and profitability, evidence from Ghanaian listed manufacturing firms. The study use secondary data of listed 13 manufacturing firms in Ghana from 2005-2009 using panel data and founds significant negative relationship between profitability and account receivable days, other working capital component significantly, positively influence profitability. Mangers should be able to reduce the firms account receivable date to the shortest period in order to increase the firms profitability continually(Muyiwa and Gathogo, 2016) evaluate effect of working capital management on the profitability of manufacturing firms in Nakuru town, Kenya. The study uses primary data with structured questionnaires distributed to 156 employees attached to the account/ finance and management section. While stratified random sampling was used to draw 62 respondents, the study revealed significantly and positively relationship between working capital management and firm's profitability. This study is inconsistence with other studies because of the primary data use and the methods of analyses adopted. However, the inconsistence with other study also includes the different industries in which the studies is being carried out

Makori and Jagongo (2013) examine working capital management and firms profitability of manufacturing and construction firms quoted on Nairobi securities exchange, Kenya from 2003-2012.

Person's correlation and ordinary least squares regression model were applied to find the relationship between working capital management and firm's profitability. An even panel data of five manufacturing and construction firms listed on the Nairobi security exchange was used and founding's indicated negative relationship between profitability and numbers of days account receivable and cash conversion cycle. The numbers of days granted to the customers to pay back their debt should be reduce and the cash conversion cycle should also bed reduce, this will equally increase the firms profitability

Ani, Okwo, and Ugwunta (2012)in their study examine changes in working capital management on profitability of top five Beer Brewery firms in the world for a period of 12years from 2000-20011, multiple regression equation were applied to a cross-sectional time series data of five world leading beer brewery firms after ensuring that the data are stationary and co-integrated. The outcome of the analysis clearly pinpoint that working capital management as represented by cash conversion cycle, sales growth and lesser debtors collection period have impact on beer brewery firms profitability.

Ademola(2014) in his study investigate relationship between working capital management and profitability of selected quoted food and Beverages manufacturing firms in Nigeria. The study used secondary data between (2002-200), the data were analyzed using descriptive statistics, correlation analysis and multiple regression analysis and descriptive design was adopted for the study: the study found that there is relatively strong positive and significant correlation between working capital management and profitability that are positive, but insignificant relationship exists between cash conversion cycle and profitability and recommend that quoted food and beverages manufacturing firms in Nigerian should consider reduction to possible minimum level of cash conversion cycle. The implication of these results shows management of working capital can also enhance company's profitability

Hailu and Venkateswarlu (2016) attempts to explain effects of working capital management on firms profitability, the study focus on manufacturing company in Estern, Ethopia from 2010-2014, the research is analyzed using panel data regression, and the result showed that a longer account receivable and inventory holding periods are associated with lower profitability. result of the funding's challenge manager to create value by reducing their firms number of days account receivable and inventories equity. (Samson, Josiah, Bosun-fakunle, and Erekpitan, 2012) in their study, investigated the impact of working capital management on the profitability of small and medium scale enterprises in Nigeria: secondary data was collated from financial statement and was analyzed using the multiple regression analysis and results revealed that working capital management has an impact on the profitability of small and medium scale enterprise in Nigeria.

Gill, Biger, and Mathur (2010) investigated the relationship between the working capital management and the firms' profitability for a sample of 88American manufacturing companies listed on the New York Stock Exchange for the period of 3 years from 2005-2007 and found statistically significant relationship between the cash conversion cycle and profitability, measured through gross operating profit. The researcher used cross sectional yearly data and applied co-relational and non-experimental research design. (Lazaridi and Tryfonids, 2010) investigated the relationship between corporate profitability and working capital using a sample of 131 companies listed on Athens stock exchange for the period of 2001-2004 and result shows that there is statistical significance between profitability.

In the work of (Nzioki, kimeli, Abduho, and Nthiwa,2013) effect of working capital management on the profitability of manufacturing firms listed on Nairobi Security Exchange. Diagnostic research design was adopt and the study targeted the nine listed manufacturing firms trading on the Nairobi Security exchange, multiple regression and correlation analysis was carried out to determine the relationship between component of working capital and the gross operating profit of the firms and result revealed that gross operating profit was positively correlated with cash conversion cycle.

Qasi*et al*.(2011) analyzes the correlation of working capital on the profitability of oil and gas and automobile industry with reference to Pakistan. Different statistical tools are applied to analyze the significance of the variables. So, the method of coefficient of correlation is adopted. Regression analysis is applied for testing the model reliability and significant relationship between variables and results of the research showed positive trend of working capital on profitability of the firms. Policy adopted by management to add value to the firm should be focused on, in order to strike an equality between working capital and the firms profitability(Almazari,2014) investigated the relationship between working capital management and the firm profitability for Saudi cement manufacturing companies for a period of five years from 2008-2012. The result showed positive relationship between current ratio and profitability.

Ponsian, Chrispina, Tago, and Mkiibi(2014) find out the effect of working capital management on company profitability. The study adopts quantitative approaches to test a series of research hypothesis with a sample of three manufacturing companies listed on Dar es Salaam stock exchange is used for period of 2002-20012, data is analyze using person correlation and regression analysis and result shows that, there is a significance relationship between working capital management and profitability if a firm.

Igbal, Ahmed, and Riaz(2014) examined the relationship between working capital management and profitability: Evidence from Pakistan.A database was built from a selection of approximately 50 financial-reports that were made public by publicly traded companies of Pakistan between January 1, 2009 and December 31, 2009. The selection is drawn from a random sample of manufacturing companies. Out of approximately 50 financial-reports announced by public companies between January 1, 2009 and December 31, 2009, only 10 financial reports were useable and selected for the research and data analyzed. Founding's showed positive relationship between working capital management and profitability

Gills, et al (2010b) in their study examine the relationship between working capital management and profitability. A sample of 88 American firms listed on New York Stock Exchange for a period of 3 years from 2005 to 2007 was selected. Founding reveals statistically significant relationship between the cash conversion cycle and profitability, measured through gross operating profit. It follows that managers can create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level. The study contributes to the literature on the relationship between the working capital management and the firm's profitability. The study applied co-relational and non-experimental research design. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships

Ailemen and Folashade (2014)in their study investigate the relationship betweenworking capital management and profitability using Nestle Nigeria Plc. and Cadbury Nigeria Plc. as casestudies. The study used correlation and regression analysis to analyze data. Quick ratio was used tomeasure liquidity, current ratio, trade receivable collection and trade payables payment periods wereused as efficiency variables to capture the working capital management policy adopted by thesecompanies while return on equity was used as the profitability variable. Liquidity and efficiency variableswere correlated against return on equity. The study found a negative relationship between the liquidity,two of the efficiency ratios and return on equity for Nestle Nigeria Plc. Foundlings showed positive relationshipbetween the liquidity, efficiency ratios and return on equity of Cadbury Nigeria Plc.

Materials and Methods

Data Source and Sample

The study utilized secondary dataextracted from annual reports and accounts of selected manufacturing companies quoted on Nigeria Stock Exchange. The annual reports covered the period of 2010 to 2015. The four studied companies were selected in a two-stage random sampling process. In stage one, all the quoted companies were grouped according to industrial sector. The selected sectorsare Industrial and Consumer sectors. In stage two, three companies were randomly selected from the Consumer sector, while one company was randomly selected from the Industrial sector. The justification for selecting more firms from the consumer sector was the dominance of consumer-sector firms in the population of firms quoted on the Stock Exchange. Data on working capital, corporate profitability and other relevant variables were then extracted for each selected firm.

Research Variables

The dependent variable in the study was corporate profitability, measured by return on asset, while the key independent variable was working capital management, proxied by account payable, account receivable, cash conversion cycle, and liquidity ratio. Three related variables, namely, sales growth ratio, stock turnover ratio, and debt ratio were selected for statistical control in the study. The selection of the variables was guided by literature (Falope*et al*., 2009; Owolabi & Alu, 2012; Daniel & Ambrose, 2013; Osundina, 2014; Muya & Gathogo, 2016; Hailu &V enkateswarlu, 2016).

Data Analysis

Data were analysed at two levels. At the first level, univariate analyses were performed using ratios to describe change in the research variables. At the second level, multivariate analyses were performed by fitting two multiple regression models. The models fitted are:

$$y = b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e_i .....(Model\,1)$$

$$y = b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e_i .....(Model\,2)$$

Where:

y is return on asset

X_1 is account payable, X_2 is account received, X_3 is cash conversion cycle, X_4 is liquidity ration, X_5 is sales growth ratio, X_6 is stock turnover ratio, X_7 is debt ratio b_0 is the intercept, b_{1-7} are the regression coefficients, e, is the random error component.

Model 1 attempts to explain corporate profitability by account payable, account receivable, cash conversion cycle, and liquidity ratio, while Model 2 explain corporate profitability by adding the control variables to the explanatory variables in the first model. Multiple regression analysis was appropriate for the study because there were more than one predictors of the outcome variable (Rawling, Pantula& Dickey, 1998). The model adequacy was determined by the coefficient of multiple determination (R^2) and analysis of variance for the regression. Data analysis was performed using Stata version 12.

Results

Table 1 describes the accounts of the selected sugar firm. As shown in the table, the firm at the beginning of the studied period had return on asset of 0.16151. This not only captures the profitability of the firm, but was also the highest return on asset in the period studied. The return on asset was lowest in the year 2011 with a ratio of 0.10823. The firm however experienced marginal increases in the return on asset in the subsequent years. The firm did not make much profit in the studied period. Its account receivable peaked in year 2012 (84.85507), but thereafter declines consistently throughout. In contrast, the account payable of the firm increased consistently except in the year 2013. The trend of the stock turnover ratio was inconsistent. It decline between the years 2010 and 2012, but peaked in year 2013, after which it decline consistently from 12.15603 to 2.62112 in year 2015.

Table 1: Raw data extracted from selected sugar firm

Year	Return on asset ratio	Account Receivable Period	Account Payable Period	Stock Turnover Ratio	Cash Conversion Cycle	Liquidity Ratio	Debt Ratio	Sales Growth Rate
2010	0.16151	24.17108	49.73155	4.78775	56	2.36828	0.46949	9.20531
2011	0.10823	23.95197	65.79584	4.65110	53	1.85881	0.56300	18.37065
2012	0.13775	84.85507	115.39582	4.08586	28	1.97659	0.68370	033456.
2013	0.13050	68.92100	113.40074	12.15603	9	1.34207	0.45913	3.60076
2014	0.13225	53.92100	120.79481	2.83104	5	1.04044	0.44598	-8.04481
2015	0.11805	53.10598	127.64190	2.62112	16	1.07568	0.43338	6.53912

Source: Author's computation based on Firm Annual Report and Accounts

The firm reported positive ratio for the firm all through the year period between 2010 and 2015 respectively. Liquidity ratio analyses the ability of a firm to pay off both its current liabilities as they fall due as well as their long term liability as they become current, if the value is greater than 1(one) it means the short time obligation are fully covered. However, the liquidity ratio of the firm fall within the ideal ratio of 2:1 in the year 2010, but fail, though at above the ratio of 1:1 in most years during the period of the study 2010-2015. The highest liquidity ratio was only recorded in 2010 while the lowest was recorded in 2014. Debt ratio finds out the percentage of total assets that are financed by debt and helps in assessing whether it is sustainable or not. If the percentage is too high, it might indicate that it is too difficult for the business to pay off its debts and continue operations. The firms debt ratio recorded highest debt in the year 2010 with ratio (0.68370), which indicate that the firm has being using debt to finance its business during period, but recorded the lowest debt in 2015 with (0.4338), while the least sales growth rate of (0.33456) was recorded in the year 2012 but fall into negative sales in the year

2014 with a ratio of (-8.04481) and ended the period with growth of (6.53912) in the year 2015 means the sales growth ratio increase positively during that period.

Table 2 describes the accounts of the selected cement firm. The cement firm recorded highest return on asset in the year 2011 with the ratio of (1.626779) and lowest ratio in the year 2010 which means the firm performed better in all the remaining year except that of 2010, the account receivable of the firm shows that the firm has more to receive and more to pay in the account payable while the stock turnover only recorded the highest ratio in 2012 and lowest in the year 2014 (1.04044). the cash conversion cycle of the firm recorded negative ratio in the year 2012 (-85) and 2011 (-130) respectively, but have the highest liquidity ratio in the year 2010 with ratio of (2.36828) and lowest in the year 2014 with a ratio of (2.03336) meaning the firm has been borrowing to finance its business in all the years, but did not borrow in the year 2010. The debt ratio increase from (0.47391) in year 2010 to (0.24256) in year 2011, but make a huge sale in the year 2010 with ratio of (56.06490) and recorded the lowest sales in the year 2014 with ratio (1.41433).

Table 2: Raw data extracted from selected cement firm

Year	Return on Asset Ratio	Account Receivable Period	Account Payable Period	Stock Turnover Ration	Cash Conversion Cycle	Liquidity Ratio	Debt Ratio	Sales Growth Ratio
2010	0.79514	20.50215	22.19388	3.38039	44	1.29753	0.47391	56.06490
2011	1.62679	2.97938	11.99106	3.28439	48	0.73186	0.24256	16.46343
2012	1.59488	19.29265	194.90202	8.09218	-85	0.91079	0.37654	26.50916
2013	1.47952	9.70308	210.56183	2.36954	-130	0.90544	0.34761	29.39251
2014	1.11381	14.57643	25.77682	2.03336	98	0.58855	0.39892	1.41433
2015	1.19651	8.56893	230.77828	2.10642	-126	0.82681	0.41966	25.55565

Source: Author's computation based on Firm Annual Report and Accounts

Table 3 describes the accounts of the selected salt firm. The firm recorded the highest ROA only in the beginning of the year 2010 meaning the firm only make high profit in that year and recorded little profit in the year 2011-2015 which means the firm did not do well in those years. The account receivable period shows the firm has less to receive and more to pay, the highest receivable is (109.4793) while the highest account payable is (229.05695) in the year 2015. The CCC is high in the year beginning 20120 (2.44754) and very low in the year 2014 (1.05167) her in the year 2015and the lowest ratio was recorded in 2014, they have more liquidity in the year 2014 (1.05716) and very low in the year 2014 (1.05176) but increase with a meager in the year 2015 to (1.17781). The firm in all the year with the highest debt ratio of (0.56500) and lowest of (0.34017) in 2010, the highest sales growth was recorded in the year 2015 with the sales of 943.79924) and lowest in the year 2010 (1.44470).The firm has low profit in all the years, but the account receivable shows that they have much to receive and longer days to pay back their debt most especially in the year 2014 which they have ratio (183.55021) but higher liquidity ratio and the CCC is also very high only in the year 2011 and 2012, meaning they borrowed in the other years to finance their business but their debt ratio is low and they also make huge sales in the year 2014 and recorded lowest in the year 2013.

Table 3: Raw Data extracted from salt firm

Year	Return on Asset Ratio	Account Receivable Period	Account Payable Period	Stock Turnover Ration	Cash Conversion Cycle	Liquidity Ratio	Debt Ratio	Sales Growth Ratio
2010	1.49281	27.63288	15.47834	5.51158	55	2.44754	0.34017	1.44470
2011	0.35747	12.27950	21.54444	6.40250	45	1.89763	0.42394	8.85657
2012	0.40283	54.57608	84.29227	9.48198	9	2.07960	0.38467	38.55167
2013	0.42495	37.70133	72.92564	7.23622	12	1.49265	0.39703	19.21044
2014	0.33030	23.49457	98.96188	6.52786	4	1.05176	0.49766	3.81353
2015	0.28059	109.47939	229.05695	6.97831	61	1.17781	0.56500	43.79924

Source: Author's computation based on Firm Annual Report and Accounts

Table 4 describes the accounts of the selected brewery. The firm recorded the highest return on asset (ROA=0.55499) in 2010 with consistent decline in the ROA through 2011 to 2015. The account receivable period shows a mixed trend within the studied period. It increased between 2010 and 2011, decline in 2012, and then increase in 2013 and 2014, before declining in 2015. The liquidity ratio was highest in 2011, but declines in 2013.

Table 4: Raw Data extracted from Brewery firm

Year	Return on Asset Ratio	Account Receivable Period	Account Payable Period	Stock Turnover Ration	Cash Conversion Cycle	Liquidity Ratio	Debt Ratio	Sales Growth Ratio
2010	0.55499	30.35210	139.84043	3.73765	-14	5.53298	0.56376	22.67994
2011	0.41255	53.52370	140.12304	4.08612	6	5.67056	0.56321	13.07172
2012	0.35786	31.36548	127.20375	0.35999	18	2.738556	0.60644	2.12275
2013	0.10449	45.12072	167.32931	5.18757	-54	0.62873	0.06197	-3.02850
2014	0.07556	63.23552	187.31101	4.47393	-39	0.92297	0.65947	791.69571
2015	0.06123	47.75605	183.55021	2.58483	-74	0.72692	0.60455	8.51060

Source: Author's computation based on Firm Annual Report and Accounts

Results

Table 5 presents the effects of the explanatory variables on corporate profitability

Variable predicting return on asset	Coefficient	Standard Error	p? |t|	95% Confidence Interval
Account receivable	1.372	3.24	0.001	1.133-1.663
Account payable	-1.480	-21.8	<0.001	-1.613, -1.347
Cash conversion cycle	0.447	4.70	<0.001	0.260-0.634
Liquidity ratio	0.358	3.75	<0.001	0.171-0.545

Table 6: Regression analyses of variance

Source	Sum of Squares	Degree of freedom	Mean Square	Statistics:
Model		4		F(4, 18) = 3.18 Prob ? F = R-squared = 0.4411 Adj R-squared = Root MSE =
Residual		18		
Total	64630.6087	22	2937.75494	

Regress:roa3 arp5 app6 stockccc8 lr9

roa3	Coef.	Std. Err.	T	p? |t|	[95% conf.	Interval]
arp5	-1.481391	.6942582	-2.13	0.048	-2.946147	-.0166338
app6	.1944182	.3689093	0.53	0.605	-.5839123	.9727487
Stock	1.245107	4.309012	0.29	0.776	-7.846114	10.33633
ccc8	.539567	.4088711	0.13	0.897	-.8086859	.9165993
lr9	-.0369982	.0749919	-0.49	0.628	-.1952174	.1212209
Cons	92.12642	39.51511	2.33	0.032	0.756823	175.496

Source	Ss	Df	MS	Numbers of obs= 23
Model	2696.5407	7	4072.50901	F(5, 17) = 2.43 Prob ? F = 0.0773 R-squared = 0.4173 Adj R-squared = 0.2459 Root MSE = 49.068
Residual	37662.068	15	2408.20304	
Total	64630.6087	22	2937.75494	

Discussion

This study has ascertained the influence of working capital management on corporate profitability of selected Nigeria manufacturing firms: examine the relationship between working capital management on corporate profitability from 2010-2015, and identified the general predictions of working capital management on corporate profitability across selected manufacturing firms in Nigeria. The study made contributions to literature on corporate profitability of manufacturing firms in Nigeria by advancing uponprevious study like (OwolabiAlu 2012, Falope and Ajilore 2009, Ailemen and Folashade 2014, and Ponsian*et al.,* 2014) who did not examine the sales growth, debt ratio and liquidity ratio respectively.In this research paper, we take corporate profitability as dependent variable and independent working capital management as independent variable. Previous research predict significant relationship between account receivables and corporate profitability (Muyiwa and Gathigo , 2016) (Akoto*et al.,*2013) and (Ani*et al.,* 2012), our result is in line with these findings. The result findings indicated that Low collection of account receivable leads to low profitability. However, credit giving to customer can easily be reduced by the managers in order to reduce the credit payment period. (Aileman and Folashade, 2014) and (Ponsian*et al.,* 2014) found non-significant relationship on the days of account payables. We found significant relationship between these variables statistically.

Qasi et al (2012) and Almazari (2014) examine the relationship between liquidity and profitability and founds positive trends of working capital on profitability. We found significant relationship in our study. (Makori and Jagongo, 2013) founds negative relationship between cash conversion circle and profitability, our findings reveals profit significant relationship between the variables. The differences in our founding's is as a result of different firms study from different industries, however the methods of analyses use is also differed in each studies.

Evidence from the study reveals that table 1 shows positive relationships among all the variables in all the years. But only have a consistent decline in year 2015 which is the sugar firm. While table 2 also have a positive relationship among the variables but make extra ordinary sales in year 2011 and lowest sales in year 2014.

Table 3 which is the cement firms recorded higher ROA only in year 2010 and little profit in the remaining year which means the cement firms has more to pay than to received and recorded highest sales in the year 2015. It was evident in the study that the general factors that extent influence working capital management on corporate profitability is insufficient cash in hand to pay for liabilities whenever due for payment.

Limitations of Study

The study focus on selected manufacturing firms in Nigeria, secondary data was employed and estimation are limited to the control variables while sample was limited by the working capital ratio which restrict the analyzed samples. Further research is needed in order to see whether working capital management has any influence on corporate profitability of manufacturing firms in Nigeria using primary data with a large sample size. Also other working capital component should be included in their variables

Contribution to Knowledge

The study contributes to the literature on the influence of working capital management on corporate profitability of the consumer goods firms

Conclusion and Recommendations

Manufacturing sector of the economy plays a vital role in the economic growth of Nigeria. Firm's managers can create value or profit for their companies and shareholder by correctly handling of the cash conversion cycle and keeping differently each component of working capital to optimum level. The manner in which working capital is managed by consumer goods firms will have a significant impact on corporate profitability of those firms. Managers should strive to make sure there are sufficient cash in hand to pay for their debts whenever is due for payments, as less profitability firms wait longer to pay their debts using the advantages of credit period granted by supplier. Manager should reduce cash conversion period and collect receivables earlier than later in other to realize cash promptly to run the firms profitably as long conversion cycle has negative impact on net operating profitability of a firms. Organization management should ensure the development of adequate and efficient working capital policy for the organization and work on their working capital by managing it more efficiently which can be achieved through upgrading quality asset and write-off obsolete inventories. Finally, there should negotiation for payment extension through the stakeholders like providers of funds in order to use the available funds for other firms operation that will yield more and quality profit before payment period elapse. Further research is required to cover the period from 2016 till date.

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EXTENT OF COMPLIANCE WITH THE PROVISIONS OF BANKS AND OTHER FINANCIAL INSTITUTIONS ACT 2004, BY LISTED DEPOSIT MONEY BANKS IN NIGERIA.

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Abstract

The study examines the extent of compliance with the provisions of banks and other financial institutions act (BOFIA) by listed deposit money banks (DMBs) in Nigeria. Thirteen out of the fifteen listed DMBs were used. The study covered a period of nine years, from 2008 to 2016. Data was generated from secondary source and analysed using compliance index. Twenty seven provisions drawn from fifteen sections of BOFIA were used in the study. The result shows that there is a strong level of compliance with provisions of BOFIA by the listed sampled DMBs (99% on the average). The study recommends that Central Bank of Nigeria (CBN) should ensure that DMBs are monitored regularly at least once in every month in order to attain full compliance level (100%).

Keywords: DMBs, compliance, BOFIA, compliance index, CBN

Introduction

A well regulated financial system institution enhances financial stability. Thus, the listed deposit money banks (DMBs) in Nigeria are regulated by accounting standards, circulars and statutes. These include the International Financial Reporting Standard (IFRS), the International Accounting Standards (IAS), the Central Bank of Nigeria's (CBN) circulars and regulations, the Bank and Other Financial Institutions Act (BOFIA) Cap B3 LFN 2004, the Companies and Allied Matters Act (CAMA) Cap 20 LFN 2004, the Nigerian Deposit Insurance Corporations Act of 2006 (NDIC Act 2006), the Central Bank of Nigeria Act (CBN) of 2007 and the Investment and Securities Act (ISA Act 2007). These standards are enacted in order to enhance corporate accountability, promote competition between corporations, provide sufficient information for the user's decision making and also shield users from corporate fraud (Asada, 2010). The legal frameworks or statutes governing accounting practices are amended from time to time due to the environmental influence on accounting. Similarly, Lawrence (2013) posits that, though there are numerous regulatory codes in the country, there is the need to enforce such regulatory requirements by the government in order to yield a notable change in the system.

Despite the statutes and standards governing financial reporting and bank supervision by the CBN in Nigeria, it is disheartening that corporate scandals and systemic crises still bedevil the country (Dogarawa, 2012). Taking a cursory look at the financial crisis in the Nigerian banking sector, such as Savannah Bank, Wema Bank and Spring Bank, the liquidation of 26 banks in 1997, the operational licences of 50 banks were revoked between 1994 and 2006 (NDIC Annual Report & Statement of

Accounts of 2006). Therefore, this reveals the extent of the importance of nationwide compliance with the requirements of the BOFIA by listed DMBs in Nigeria and also the need for the level of compliance to be highly regulated by the bodies responsible for such in the country.

It hopes that the findings of this study will assist the management of Nigerian banks and other corporate organisations towards preparing and presenting financial information in line with the provisions of the BOFIA. It is also hoped that government regulatory agencies such as CBN, NDIC, the Security and Exchange Commission (SEC) and Financial Reporting Council (FRC) benefit from its outcome. From the findings of the study the aforementioned regulatory bodies become aware on whether the provisions issued in the BOFIA are being complied with by the listed DMBs or there is the need for the enforcement of such laws.

The main objective of the study is to assess the extent of compliance with provisions of BOFIA by the listed DMBs in Nigeria over a period of nine years from 2008 to 2016. To achieve the stated objective therefore, the study seeks to answer the research question (To what extent do DMBs in Nigeria comply with the provisions of BOFIA?) The banking industry is chosen as the most suitable industry for this study due to the fact that it plays vital roles towards national economic growth and development. The study focuses only on the BOFIA amongst other existing statutes because it specifically addresses the banking industry where as other laws are applicable also to other industries.

Literature Review

Limited studies were conducted on the level of compliance with provisions of the BOFIA in Nigeria and on compliance with other mandatory requirements both in Nigeria and outside the country. Most of the studies were conducted on compliance with the provisions of accounting standards. Thus, empirical review is made on compliance with provisions of BOFIA and on compliance with accounting standards.

Tower, Hancock and Taplin (1999), conduct a study on compliance with IAS by listed companies in six Asia Pacific countries. A total number of sixty (60) annual reports from Australia, Hong Kong, Malaysia, Philippines, Singapore and Thailand are analysed in order to produce compliance indices. Data is analysed using univariate and general linear model. The result revealed that the lowest compliance rates were found with IAS 7, 22 and 28.

Kantudu (2003), carries out a study in Nigeria on why financial reporting must continue to be regulated in the country by CAMA, BOFIA, SEC Act, and the SAS. Primary data is used for the study and it is concluded that deregulated financial reports may lead to the inadequate disclosure of information to shareholders and also lack of uniformity between firms, which will consequently make comparison difficult amongst them.

Akhtaruddin (2005), examines corporate mandatory disclosure practices. The Independent variables of the study are; profitability, company age, Industry type and Company size. The data was analysed using univariate and ordinary least square. It is concluded that firms do not comply fully with disclosure requirements.

Al-Shammari, Brown and Tarca (2005), study the investigation of compliance with international accounting standards by listed companies in the Gulf Co-Operation council member states (United

Arab Emirates, Bahrain, Kuwait, Oman, Saudi Arabia and Qatar). Sample of 137 companies are used and they conclude that the level of compliance increased over a period of time from 68% in 1996 to 82% in 2002.

Kantudu and Tanko (2008), study the level of compliance with the requirements of accounting standard (16) by quoted companies in Nigeria. They use secondary data and analysed using qualitative grading system. Five quoted insurance companies were selected. It was concluded that the level of compliance was 76.9% as such, there was no total compliance to SAS16 by quoted insurance companies.

Alfaraih, Mishari (2009) examines compliance with IFRS and the value relevance of accounting information in emerging stock markets in Kuwait. He analysed the data using descriptive statistics, compliance index and multiple regression analysis. The author concludes that even though most of the KSE listed firms complied with most of the IFRS compulsory disclosures, none comply fully in 2006 fiscal year. Also, there is a positive relationship between firm age, leverage, profitability, size and the level of compliance with IFRS.

Al Mutawaa and Hewaidy (2010), (in Kuwait) examine disclosure level and compliance with IFRS. They study sample of 48 non-financial companies with 101 disclosure items. The variables used are profitability, company size, company age leverage, liquidity, type of industry and type of auditor. They find that the level of compliance was 69% and also company size and industry type have a positive relationship with IAS.

Abiola and Ojo (2012), study the compliance with regulatory financial reporting requirements by Primary Mortgage Institutions (PMIs), where they investigate the relationship between such compliance with the performance of these institutions. Primary data is used which is analysed using simple percentage and regression. It is concluded that PMIs significantly comply with regulatory financial reporting requirements.

Dogarawa (2012), examines banking under the banks and other financial institutions Act over a period of one year (1992). Twenty one merchant banks and twenty commercial banks randomly selected were surveyed in order to examine whether they comply with (BOFIA, Sec 27) the requirement to publish their annual reports within a period of four months after the end of their accounting year. The data is generated from secondary source. The study conclude that there was a total of 45 contravention cases, which included delay in the publication of the annual report, incomplete disclosure of the penalties paid or none disclosure of the sum paid as fine by banks.

Ormin, Tarfa and Saidu (2013), study compliance with the requirements of CAMA and BOFIA in financial reporting on some selected quoted Nigerian banks, by examining the influence of banks' attributes of size, profitability and age on compliance over a period of seven years (2004-2010). The data is generated from secondary sources and is analysed using multivariate regression analysis. The result revealed that, quoted banks significantly comply with the requirements of CAMA and BOFIA

Yiadom and Atsunyo (2014), examine compliance with IFRS by listed companies in Ghana. They constructed a checklist, which is used to compute index of compliance and consequently determine

level of compliance with the IFRS. Annual reports of 31companies are used for the year 2010. They analysed the data using descriptive statistics and multiple regression and conclude that corporate attributes of profitability, industry type and auditor type significantly affect level of compliance with IFRS while the impact of size, internationality and leverage is insignificant.

Volkan and Oguzhan (2014), investigate the level of compliance with international financial reporting standards (IFRS) by listed companies. Sample of 168 companies are used where they study the financial statements of the year 2011. Compliance index is developed with a compliance check list of 215 items and the data was analysed using descriptive statistics (mean, median and standard deviation), regression analysis and also Pearson correlation coefficients matrix. The result shows that no company is fully complying with IFRS in Turkey as the level of compliance ranged from 64% to 92% with an average of 79%.

Abdullahi and Adam (2017), assess compliance with international financial reporting standard 4 by listed insurance companies in Nigeria. These authors analysed their data using compliance index and grading criteria. They conclude that listed insurance companies in Nigeria complied 85.24% of the requirements of IFRS on average, but this is considered inadequate as compliance with standards ought to be in full (100%).

The empirical studies showed that limited number of studies were conducted in this area, such as Kantudu (2003) studied the efficiency of the regulation of financial reports by CAMA, BOFIA, SEC Act, and the SAS using only primary data. Dogarawa (2012) looked at one accounting year and considered only one provision of BOFIA. Ormin et al. (2013) considered only six provisions of BOFIA and six sampled DMBs. None has covered all the listed deposit money banks in Nigeria between the period of (2008-2016) and also none of these assess the level of compliance with twenty seven provisions of the BOFIA. This study contributes to the literature on compliance with BOFIA by filling the gap left by prior studies in Nigeria.

Bank and Other Financial Institutions Act (BOFIA) Cap. B3 LFN 2004

The Financial reporting practices of companies are normally regulated by some regulatory frameworks, which are regarded as the rules and regulations as well as the principles that guide the preparation and presentation of companies' financial reports. However, statutory regulations on financial reporting are geared towards better safeguard of creditors, shareholders and investors, who are the main beneficiaries of the statutes regulating financial reporting practice (Asada, 2010). It should be noted that legal statutes are not just laws that must be complied with in financial reporting by banks, rather there are certain ideologies which are fostered by their directive (Ormin et al., 2013). Thus, accounting standards are not superior to legal requirements and also they do not possess the coercive control of the law (Rufus, 1945).

Furthermore, if regulations are not provided to guide financial reporting practices, then the practice will be a mere window dressing (Salisu, 2011). This statement clearly shows that, if the management of companies are not guided by set of laws in the process of the preparation of financial statements, then they may report information in the financial statement that may end up concealing the actual about the state of affairs of their firms. Consequently, there will be a serious problem in relying on these reports

for any decision. There the BOFIA was first enacted in 1991 in order to monitor and also control the financial system in Nigeria. It therefore repeals the Banking Act of 1969. This act specifies certain information and statements to be disclosed by banks and other financial institutions operating in Nigeria in their published reports. Though, BOFIA issues sixty five sections, which contain provisions expected to be complied with by banks, most of the provisions are addressing the CBN only a few address the DMBs in Nigeria.

This study selected only the relevant provisions and therefore, fifteen sections were selected: sections 4- Investment and release of prescribed minimum paid up share capital, section 6- opening and closing of branches, section 7- Restructuring, Re¬organisation, Merger and Disposal, etc. of Bank, section 9- Minimum Paid-up Share Capital of Banks and Compliance with Minimum Paid-up Share Capital Requirement, section 15- Minimum Holding of Cash Reserves, Specified Liquid Asset, special deposits and stabilization securities, section 18- Disclosure of interests by directors, managers and officers, section 19- prohibition of employment of certain persons and interlocking directorship etc, section 20- restrictions on certain banking activities, section 21- acquisition of shares in small and medium scale industries, agricultural enterprises and venture capital companies, section 24- proper books of account, section 25- return by banks, section 27- publication of annual accounts of banks, section 28- contents and forms of accounts, section 29- appointment, power and report of approved auditor, section 60- failure to comply with conditions of licence. The study came up with 27 relevant provisions drawn from the aforementioned sections (Table 2 in Appendix A).

3.1 Methodology

Expost- facto research design is used in the study as the data for the study are already available in the annual reports and accounts of the listed DMBs in Nigeria. The population of the study consists of all the fifteen (15) listed DMBs that are quoted on the Nigerian Stock Exchange (NSE) (Table 1 in Appendix A). The population is not too large, as such it can be covered effectively by the study in order to produce an accurate result. However, a filter is employed by the researcher: First, a bank must have been listed on the Nigerian stock exchange without being delisted between the period of January 2008 and December 2016. Secondly, a bank must have the financial reports available for all the relevant years of the study (2008 – 2016). The non availability of the annual reports of Eco Bank (2015 and 2016) and Skye Bank (2016) makes the researcher filter out these two banks from the population. The study employs census sampling technique, which allows all the items in the population to be considered for the study as such all the thirteen DMBs serve as the sample size of the study.

Compliance index (CI) is used so as to determine the level of compliance with the twenty seven provisions of the BOFIA. It is a score that shows the extent to which each DMB comply with the provisions of BOFIA. A checklist is constructed (Table 2 Appendix A) with a total number of twenty seven (27) provisions of BOFIA denoted by r_1 to $r_{27.}$These provisions are drawn from sections 4,6, 7,9,15,18,19,20,21,24,25,27,28,29 and 60. The information contained in the annual reports and accounts of the selected DMBs are compared with the provisions of BOFIA CAP B3 LFN 2004. Therefore, in order to determine the degree of compliance with the provisions of the BOFIA, the study grades and scores the provisions (the points range from 0-1). As such, where a bank scores (1) point, it shows full or total compliance with a particular provision, otherwise zero (0), shows noncompliance or non application of a particular provision of the BOFIA.

This study is adopting the un-weighted approach for the scoring; which is based on the disclosure index proposed by Buzby (1975 cited by Cooke, 1989) and further develop by Cooke (1989, 1998), where it was argued that this approach provides a neutral assessment of items. The approach is commonly referred to as the Cooke index, for his being the first to propose the un-weighted model.

Therefore, the Overall Compliance index (OCI) is computed by dividing total number of provisions actually complied with by the maximum number of provisions required, on a scale of 100. Thus, the following formula developed by Cooke (1989 and 1998), as adopted by Ormin et al. (2013) and Abdullahi and Adam (2017) is also adopted by this study with slight modifications.
The formula for assessing degree of compliance (OCI) is given by:

$$\textit{Degree of Compliance} = \frac{\textit{No of provisions of BOFIA complied with by listed banks}}{\textit{Maximum provisions of BOFIA expected to be complied with}} \times \frac{100}{1}$$

Results and Discussions

CI is used so as to determine the extent or level of compliance with the provisions of BOFIA by listed DMBs in Nigeria. The computed CI for each bank each year, the total for each bank, the average for each bank over the 9 year period, the average for all the banks each year and the overall average are presented on Table 1, this is generated from the checklist on Table 2 Appendix A. The DMBs are ranked according to their compliance index, where bank with the highest compliance index is ranked 1st meaning that it has complied with provisions of BOFIA more than all the other DMBs.

Table 1: Compliance Index of Listed DMBs in Nigeria

YEAR	ACCESS BANKS	DIAMOND BANK	FIDELITY BANK	FIRST BANK	FCMB	GTB	STANBIC IBTC	STERLING BANK	UNION BANK	UNITY BANK	WEMA BANK	ZENITH BANK	AVERAGE
2008	0.96	1	1	1	0.96	0.93	1	0.85	0.96	0.96	1	1	0.97
2009	1	1	0.96	1	1	1	0.96	0.96	1	0.96	1	1	0.99
2010	1	1	1	1	0.96	1	0.96	1	1	1	1	1	0.99
2011	1	1	1	0.93	1	1	1	1	0.96	1	0.96	1	0.99
2012	1	1	0.96	1	1	1	1	1	0.96	1	0.96	1	0.99
2013	1	1	1	1	1	1	1	0.96	1	1	0.93	1	0.99
2014	1	1	1	1	0.96	1	1	1	0.96	1	0.96	1	0.99
2015	1	1	1	1	1	1	1	1	1	1	1	1	1.00
2016	1	1	1	1	1	1	1	1	0.96	1	1	1	1.00
Total	8.96	9	8.93	8.93	8.89	8.93	8.93	8.78	8.81	8.93	8.81	9	
Average CI	1	1	0.99	0.99	0.99	0.99	0.99	0.98	0.98	0.99	0.98	1	0.99
Ranking	1st	1st	2nd	2nd	2nd	2nd	2nd	3rd	3rd	2nd	3rd	1st	

The result on Table 1 shows the computed compliance index for each bank, which is arrived at after dividing the actual number of requirements complied with each year by each bank with the total number of provisions required. Access Bank, Diamond Bank, UBA and Zenith Bank have the highest average compliance index and therefore, ranked first having scored 100% out of the total required score of 100%. This shows that these banks have complied fully with all the relevant provisions of BOFIA. On the other hand, six banks (FCMB, Fidelity, First Bank, GTB, Stanbic IBTC and Unity) were ranked second with a score of 99% and finally the remaining three banks (Sterling, UBN and Wema) ranked third with a score of 98% having the least average compliance index over the period of study (2008-2016). The high level of compliance with relevant provisions of BOFIA by listed DMBs in Nigeria could be attributed to the fact that it is mandatory to comply with an Act. Also, CBN is taking measures to ensure compliance with the Act which is in addition to the penalties stated in the Act for non compliance.

However, the total overall compliance of the sampled DMBs in Nigeria is 99% which indicates strong compliance with the relevant provisions of the BOFIA. This means that the sampled DMBs in Nigeria have complied with up to 99% of the twenty seven provisions of BOFIA from 2008 to 2016. The finding of this study has practical implications on regulatory bodies, such as the CBN, because it makes them aware that not all the relevant provisions of BOFIA are being complied with and should, therefore, seek measures to ensure full compliance level is attained by all the DMBs. In addition, on the part of investors, the findings of this research guide them in making economic decisions on either to invest or not, having known the level of compliance of the DMBs with the law (BOFIA).

Conclusion and Recommendations

The average compliance level of all the sampled DMBs is 99% (Refer to Table 1). This shows that there is strong compliance with the provisions of BOFIA by all the listed DMBs in Nigeria. It should be noted that, total compliance (100%) with the provisions of statutes such as the BOFIA, is very important in the sense that it will allow the users of financial accounting information to acquire highly qualitative information for their diverse decision making. There are no harsh penalties of contravention of any of the provision of the BOFIA, as the penalties for contravention involve the payment of certain amount of money as fine and the amount is not large enough to induce compliance on the part of the listed DMBs in Nigeria.

The study recommends that CBN should use database for online compliance monitoring. In other words, even though generally, there is strong compliance with the provisions of BOFIA by DMBs in Nigeria there is the need for CBN to strengthen the ways of monitoring compliance regularly at least once in every month in order to maintain the status quo or if possible attain a level of full compliance (100%). The attainment of full compliance level will ensure provision of highly qualitative information to users. Managers of the DMBs should organise their activities in such a way that any contravention of the provision of the BOFIA by the bank is quickly communicated or reported to the management by the chief compliance officer of the bank. This will allow the bank to take remedial action at the right time and also ensure that highly qualitative information is produced to meet the needs of users. The CBN should provide more harsh penalties for the contravention of any provision so as to ensure total compliance with all the provisions of BOFIA by the listed DMBs in Nigeria.

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Appendix A

Table 1: Population of the Study

S/No.	Name of Bank	Year of Listing
01	Access Bank, Plc	1998
02	Diamond Bank, Plc	2005
03	Ecobank Nigeria, Plc	2006
04	Fidelity Bank, Plc	2005
05	First Bank of Nigeria, PLC	1971
06	First City Monument Bank, Plc	2004
07	Guarantee Trust Bank, Plc	1996
08	Skye Bank, Plc	2005
09	Stanbic IBTC	2005
10	Sterling Bank, Plc	1993
11	Union Bank, Plc	1971
12	United Bank for Africa, Plc	1970
13	Unity Bank, Plc	2005
14	Wema Bank, Plc	1990
15	Zenith Bank, Plc	2004

Source: NSE Fact Book, 2015 and banks annual report, 2016.

Table 2: BOFIA Requirements Check List

S/N	Relevant Sections	Variables	Requirements
1	4	r_1	Investment and release of prescribed minimum paid up share capital: The bank should invest the amount deposited with it in treasury bills or other securities.
	6	r_2	Opening and closing of branches: No bank may open or close any branch office anywhere within or outside Nigeria except without the prior consent in writing of the Bank.
	7	r3	Restructuring, reorganisation, merger and disposal, etc. of bank: Except with the prior consent of the Governor, no bank shall enter into an agreement or arrangement (a) which results in a change in the control of the bank;

			(b) for the sale, disposal or transfer howsoever, of the whole or any part of the business of the bank; (c) for the amalgamation or merger of the bank with any other person; (d) for the reconstruction of the bank; (e) to employ a management agent or to transfer its business to any such agent.
	9	r4	Minimum paidup share capital of banks and compliance with minimum paidup share capital requirement: (1) The minimum paidup share capital requirement determined by the Bank from time to time shall be complied with by banks.
	15	r_5	Minimum holding of cash reserves, specified liquid asset, special deposits and stabilisation securities (4) Every bank shall (a) furnish within a reasonable time any information required by the Bank to satisfy the Bank that the bank is observing the requirements of subsection (1) of this section; (b) not allow its holding of cash reserves, specified liquid assets, special deposits and stabilisation securities to be less than the amount which may, from time to time, be prescribed by the Bank; (c) not during the period of any deficiency, grant or permit increases in advances, loans or credit facilities to any person without the prior approval in writing of the bank.
	18	r_6	Disclosure of interests by directors, managers and officers: (1) No manager or any other officer of a bank shall: (a) have personal interest in any advance, loan or credit facility directly or indirectly; and if he has any such personal interest, he shall declare the nature of his interest to the bank; (b) grant any advance, loan or credit facility to any person, unless it is authorised in accordance with the rules and regulations of the bank.

		r_7	(c) benefit as a result of any advance, loan or credit facility granted by the bank. (3) It shall be the duty of a director of a bank who is in any way, whether directly or indirectly, interested in the grant of an advance, loan or credit facility with the bank to declare the nature of his interest at a meeting of the board of directors of the bank.
	19	r_8 r_9 r_{10}	Prohibition of employment of certain persons and interlocking directorship, etc. (1) No bank shall (a) employ or continue the employment of any person who is or at any time have been adjudged bankrupt or has suspended payment to or has compounded with his creditors or who is or has been convicted by a court for an offence involving fraud or dishonesty, or professional misconduct; (b) be managed by a management agent except as may be approved by the Bank. (2) Except with the approval of the Bank, no bank shall have as a director any person who is a director of (a) any other bank; (b) companies which among themselves are entitled to exercise voting rights in excess of ten per cent of the total voting right of all the shareholders of the bank. (3) No bank shall be managed by a person who is (a) a director of any other company not being a subsidiary of the bank; or (b) engaged in any other business or vocation.
	20	r_{11}	Restrictions on certain banking activities. (1) A bank shall not, without the prior approval in writing of the Bank, grant (a) to any person any advance, loan or credit facility or give any financial guarantee or incur any other liability on behalf of any person so that the total value of the advance, loan, credit

		r_{12}	facility, financial guarantee or any other liability in respect of the person is at any time more than twenty per cent of the shareholders fund unimpaired by losses or in the case of a merchant bank not more than fifty per cent of its shareholders fund unimpaired by loses; and for the purpose of this paragraph all advances, loans or credit facilities extended to any person shall be aggregated and shall include all advances, loans or credit facilities extended to any subsidiaries or associates of a body corporate; Provided that the provisions of this paragraph shall not apply to transactions between banks or between branches of a bank or to the purchase of clean or documentary bills of exchange, telegraphic transfers or documents of title to goods the holder of which is entitled to payment for exports from Nigeria or to advance made against such bills, transfers or documents; (b) any advances, loans or credit facilities against the security of its own shares or any unsecured advances, loans or credit facilities unless authorised in accordance with the bank's rules and regulations and where any such rules and regulations require adequate security, such security shall be provided or, as the case may require, deposited with the bank. (2) A bank shall not, without the prior approval in writing of the Bank (a) permit to be outstanding, unsecured advances, loans or unsecured credit facilities, of an aggregate amount in excess ofx50,000. (i) to its directors or any of them, whether such advances, loans or credit facilities are obtained by its directors jointly or severally; (ii) to any firm, partnership or private company in which it or any one or more of its directors is interested as directors, partner, manager or agent or any individual firm, partnership or private company of which any of its directors is a guarantor;

			(iii) to any public company or private company in which it or any one or more of its directors jointly or severally maintains shareholding of not less than five per cent either directly or indirectly; (b) permit to be outstanding to its officers and employees, unsecured advances, loans or unsecured credit facilities, which in the aggregate for any one officer or employee, is an amount which exceeds one year's emolument to such officer or employee; (c) engage, whether on its own account or on a commission basis, in wholesale or retail trade, including the import or export trade, except in so far as may exceptionally be necessary in the course of the banking operations and services of that bank or in the course of the satisfaction of debts due to it; so however that nothing in this paragraph shall be construed as precluding a bank from undertaking equipment leasing business or debt factoring provided that the foregoing provisions of this paragraph shall not apply to a bank in the circumstances permitted under section 21 of this Act; (d) without prejudice to the provisions of section 21 of this Act, acquire or hold any part of the share capital of any financial or commercial or other undertaking, except (i) any shareholding approved by the Bank in any company set up for the purpose of promoting the development of the money market or capital market in Nigeria or of improving the financial machinery for financing economic development; (ii) any shareholding approved by the Bank pursuant to subparagraph (i) of this paragraph, he aggregate value of which does not at any time exceed twenty five per cent of the sum of paidup share capital and

			statutory reserves of that bank; (iii) all shareholding acquired by a merchant bank while managing an equity issue Provided that the aggregate value of such acquisition does not at any time exceed the sum of the paidup share capital of that merchant bank or ten per cent of its total assets, excluding contract items, whichever is higher and that this paragraph shall not apply to any nominee company of a bank which deals in stock and shares for or on behalf of the bank's customers or clients or majority interest acquired by a merchant bank in a company while managing an equity issue. (e) remit, either in whole or inpart, the debts owed to it by any of its directors or past directors; (f) purchase, sell, dispose, acquire or lease any real estate for whatever purpose.
	21	r_{13}	Acquisition of shares in small and medium scale industries, agricultural enterprises and venture capital companies: (1) A bank may acquire or hold part of the share capital of any agricultural, industrial or venture capital company subject to the following conditions, that is (a) the venture capital company is set up for the purpose of promoting the development of indigenous technology or a new venture in Nigeria; (b) the shareholding by the bank is in small or medium scale industries and agricultural enterprises as defined by the Bank; (c) the shareholding by the bank in any medium scale industry, agricultural enterprise or venture capital company or any other business approved by the Bank shall not be more than ten per cent of the bank's shareholders fund unimpaired by losses and shall not exceed forty per cent of the paid up share capital of the company, the shares of which are acquired or held; (d) the aggregate value of the equity participation of

			the bank in all enterprises pursuant to this section does not, at any time, exceed in the case of a commercial bank, twenty per cent of its shareholders fund unimpaired by losses or in the case of a merchant bank, not more that fifty per cent of its shareholders fund unimpaired by losses; Provided that a bank may hold shares acquired in the course of the satisfaction of any debt owed to it.
		r_4	(2) Without prejudice to the provisions of subsection (1) of this section, a bank may hold or acquire share capital of any other business, subject to the approval of the Bank.
	24	r_{15}	Proper books of account
			(1) Every bank shall cause to be kept proper books of account with respect to all the transactions of the bank.
		r_{16}	(2) For the purpose of subsection (1) of this section, proper books of account shall be deemed to be kept with respect to all transactions if such books as are necessary to explain such transactions and give a true and fair view of the state of affairs of a bank are kept by the bank and are in compliance with the accounting standard as may be prescribed for banks.
		r_{17}	(4) Where the books of account, kept by a bank with respect to all its transactions, are prepared and kept in such a manner that, in the opinion of the Bank, have not been properly prepared and kept, or where a bank renders returns in accordance with the provisions of section 25 of this Act, which in the opinion of the Bank are inaccurate, the Bank may appoint a firm of qualified accountants to prepare proper books of account or render accurate returns, as the case may be, for the bank and the cost of

			preparing the accounts and rendering the returns shall be borne by the bank.
	25	r_{18}	Returns by banks. (1) Every bank shall submit to the Bank not later than 28 days after the last day of each month or such other interval as the Bank may specify, a statement showing (a) the assets and liabilities of the bank; and (b) an analysis of advances and other assets, at its head office and branches in and outside Nigeria in such form as the Bank may specify, from time to time.
		r19	(2) Every bank shall submit such other information, documents, statistics or returns as the Bank may deem necessary for the proper understanding of the statements supplied under subsection (1) of this section
	27	r_{20}	Publication of annual accounts of banks: (1) Subject to the prior approval in writing of the Bank, a bank shall not later than 4 months after the end of its financial year (a) cause to be published in a daily newspaper printed in and circulating in Nigeria and approved by the Bank; (b) exhibit in a conspicuous position in each of its offices and branches in Nigeria; and (c) forward to the Bank; copies of the bank's balance sheet and profit and loss account duly signed and containing the full and correct names of the directors of the bank.
		r_{21}	(2) Every published account of a bank, under subsection (1) of this section, shall disclose in detail penalties paid as a result of contravention of the provisions of this Act

			and provisions of any policy guidelines in force during the financial year in question and the auditor's report shall reflect such contravention.
		r22	(3) The balance sheet and profit and loss account of a bank shall bear on their face the report of an approved auditor and shall contain statements on such matters as maybe specified by the Bank, from time to time.
	28	r_{23}	Contents and form of accounts (1)Every balance sheet and every profit and loss account of a bank shall give a true and fair view of the state of affairs of the bank as at the end of the reporting period.
	29	r_{24}	Appointment, power and report of approved auditor: (1)Every bank shall appoint annually a person approved by the Bank, in this section referred to as "the approved auditor"whose duties shall be to make to the shareholders a report upon the annual balance sheet and profit and loss account of the bank and every such report shall contain statements to the matters and such other information as may be prescribed from time to time, by the Bank.
		r_{25}	(2) For the purpose of this section, the approved auditor shall be an auditor who is (a) a member of one of the professional bodies recognised in Nigeria; (b) approved by the Bank; (c) resident in Nigeria; and (d) carrying on in Nigeria professional practice as accountant and auditor.
		r_{26}	(3) Any person (a) having any interest in a bank otherwise than as a depositor; or (b) who is a director, officer or agent of a bank; or

			(c) which is a firm in which a director of a bank has any interest as part or director; or (d) who is indebted to a bank, shall not be eligible for appointment as the approved auditor for the bank; (e) and a person appointed as such auditor who subsequently: (i) acquires such interest; or (ii) becomes a director, officer or agent of the bank; or (iii) becomes indebted to a partner in a firm in which a director of a bank is interested as partner or director, shall cease to be such auditor.
	60	r_{27}	Failure to comply with conditions of licence, etc (1)Any person who fails to comply with any of the conditions of its licence is guilty of an offence and liable on conviction to a fine not exceeding x5,000 for each day during which the condition is not complied with.

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